

Serve. Adapt. Grow.



OSHAWA POWER & UTILITIES CORPORATION

2017 ANNUAL REPORT



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from the Chair
and President
& CEO



**130 YEARS
OF SERVING,
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OSHAWA POWER & UTILITIES CORPORATION (OSHAWA POWER)...

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

ASSETS AT A GLANCE

TOTAL NUMBER
OF CUSTOMERS
58,349

OVERHEAD PRIMARY
CIRCUIT LENGTH
520.1 km

SERVICE AREA
149 km²

UNDERGROUND
PRIMARY CABLE
CIRCUIT LENGTH
460.3 km

ENERGY SUPPLIED
1,066,267,506 kWh

DISTRIBUTION
TRANSFORMERS
6,678

TOTAL PEAK
DEMAND SERVED
208.6 MW

FIBRE OPTIC
NETWORK LENGTH
106.5 km

MUNICIPAL
SUBSTATIONS
8

OUTPUT OF
COMBINED HEAT AND
POWER (CHP) PLANT
2.4 MW

TOTAL MAXIMUM
RATED CAPACITY
OF ALL MUNICIPAL
SUBSTATIONS
615.6 MVA

GENERATION ASSETS
(NOT INCLUDING CHP)
547 kW

NUMBER OF POLES
10,453

2017 BOARD OF DIRECTORS

Ron Stewart, Chair
Grant Buchanan
Terry Caputo
Denise Carpenter

Jeff Coles
Donna Kingelin
Lou Meehan
Marc Rosen



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

**THE
OSHAWA
POWER
FAMILY OF
COMPANIES**



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.

Building on a 130-year legacy of leadership

Since its founding as a provider of electric arc lighting in 1887, Oshawa Power has remained committed to putting its customers first in everything it does. Throughout its history, the utility embraced challenges as business opportunities – where it could adapt to bring new value to its dynamic community. Oshawa Power confidently looks forward to growing through ventures in renewable energy and unregulated services, while remaining in step with Oshawa’s energy needs.



1887

September 12, Oshawa Electric Light Co. flipped the switch to light up 15 arc light posts and the local businesses in the area of the posts.



1892

The company operated in conjunction with a flour mill located on St. Lawrence Street, just south of Mill Street. After the mill was destroyed by fire in 1892, it was rebuilt, then sold to Stark Electric Co. of Toronto.



1895

June 13, the entire town of Oshawa turned out to watch Oshawa Railway Company's Car # 12 proudly trundle down Simcoe Street on its maiden trip – using power produced by the Oshawa Electric Light Co.



1904

Public water supply was established under the newly elected Water Commission.



Trouble Crew – 1909.

1911

Seymour Power Co. purchased the Oshawa Electric Light Co.

For the first time, residential customers could receive power on a 24-hour basis.

1916

Oshawa Electric Light Co. was sold to the Hydro Electric Power Commission of Ontario.



Crew moving a station transformer – 1919.



1924

The power and lighting demand was 4,300 kW (or 5,700 h.p.) which served 4,000 customers and operated 700 street lights.



Work crew – 1925.

1929

The City purchased the electrical distribution system for \$310,000 and the gas distribution system for \$210,000. The Electric and Water Departments became the joint responsibility of the new Commission.



Construction truck equipped with chains for muddy roads.



1930

January 6, the first Public Utilities Commission was elected.



1931

December 2, Oshawa Public Utilities' operations moved into a newly constructed building at 100 Simcoe Street South.

1933

Hydro Rental Water Heater Program was initiated and operated until 1945. The program was provided again from 1959 to 1966.

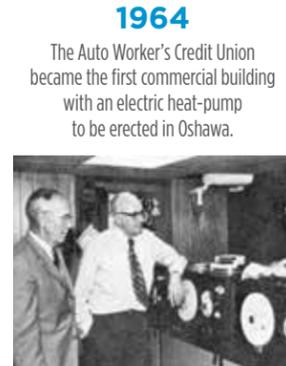


1957

The Oshawa Public Utilities Commission created a sales department to obtain a substantial share of the heating market. The first residential electric heating installation in the city was a model home at 824 Glanclairn Street.

1959

City Council assigned the responsibility for running Oshawa's local passenger buses to The Public Utilities Commission. The City purchased the bus system, which included 21 buses, for \$20,000.



1964

The Auto Worker's Credit Union became the first commercial building with an electric heat-pump to be erected in Oshawa.

1968

Through an agreement with the IBM Data Centre in Toronto, the Commission became one of the first utilities involved with computerized data processing of billings and collections.



1970

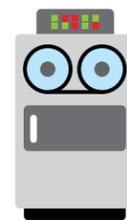
To generate revenue outside of the utility's operations, the Commission began offering billing, collections, election polling and data processing services to outside utilities and municipalities.

1973

The Commission produced 27,000 bills per month – 14,000 for Oshawa Power customers and 13,000 for other utilities.

1974

Water supply in Oshawa and other municipalities became the responsibility of the Regional Municipality of Durham.



1980

A public open house that featured pole climbing and safety demonstrations was held to celebrate the Commission's 50th anniversary.



1985

Oshawa Power completed a 20-year project that converted its electric system from 4,160 to 13,800 volts.



1996

After 36 years of managing the Transit Department, responsibility for the services was transferred to the newly created Oshawa Transit Commission.

1998

After 30 years of using the Ontario Hydro symbol, Oshawa PUC held a public contest for a new logo design. The winning logo was created by David D'Andrade of Oshawa.



2000

In response to the *Energy Competition Act, 1998* which deregulated Ontario's electricity industry, on November 7, Oshawa Power and Utilities Corporation was created along with its subsidiaries which include Oshawa PUC Networks Inc.

2002

May 1, Ontario moved to a competitive electricity market where electricity could be supplied and produced by any number of companies and sold by licensed retailers.



2005

Oshawa Power purchased and installed a network of dark fibre optics communications throughout Durham Region.



2008

Oshawa Power installed a 2.4 MW combined heat and power (CHP) plant on the UOIT/Durham College campus which it continues to own and operate today.



2010

Oshawa Power took the lead when it installed solar panels at its Simcoe Street headquarters as part of the Province's Feed-In Tariff program. Shortly following this, the utility began installing solar panel systems on other City-owned properties.

2015

Oshawa Power and Utilities initiated a residential solar energy management study with private-sector partners and the Japanese government.

2016

Oshawa Power became the first Durham Region utility to participate in a district energy project beyond its service territories when it took on management of Regent Park Energy Inc.

Oshawa Power implemented its Outage Management System – technology that predicts, manages and communicates outages in a single platform in real time.

2017

Oshawa Power coordinated all of the key components required that make up a microgrid study on the University of Ontario Institute of Technology's campus. The battery storage, inverter system, solar photovoltaic generation and microgrid controller/optimizer components were installed and integrated with Oshawa Power's CHP plant on the campus grounds.



1880s/1890s

1900s/1910s

1920s

1930s/1950s

1960s/1970s

1980s/1990s

2000s

2010s

Joint letter from
the Chair and
President & CEO

Simply put,
our 130th year
in business
was another
tremendous
year.

Oshawa Power
successes were
largely due to the
ongoing dedication
and hard work of
our entire team.



The first
Public Utilities Commission
was elected from a population
in Oshawa of almost 25,000 people -
January 6, 1930.

From the field crews and customer service associates that the public sees as the face of our company, to the engineers, system operators and countless other staff whose work goes largely unrecognized beyond our doors - we express a heartfelt "thank you". It was with their efforts that we were able to: attain near-record levels for reliability; achieve ratings for customer service that place us among the leaders in our sector; and maintain residential and commercial rates that are consistently the lowest in Durham Region.

Throughout 2017, we remained steadfast in our commitment to an ongoing strategy that includes: expansion and enhancement of our network assets; investment in service optimization; and business growth through unregulated ventures that complement our traditional revenue streams.

Even with strong headwinds, our 2017 financial results were solid. A mild winter, cool summer and legislative changes that limited our ability to collect on overdue accounts combined to reduce our year-over-year revenue collected from ratepayers by \$330,000. However, this shortfall was in large part buffered by revenue gained from our unregulated activities. We are pleased to declare our 2017 dividend paid to our shareholder, the City of Oshawa, remained unchanged from 2016 at \$2,300,000, based on net income of \$5,651,000 for 2017, down slightly from \$5,720,000 in 2016.

Our successful execution of Oshawa Power's provincially approved Distribution System Plan saw continued capital investments, that are adding capacity and improving the reliability of our network, reach \$16,080,000 in 2017, up from \$13,224,000 in 2016. This increase was largely the result of the construction of Municipal Station 9, which will be commissioned in August 2018, and our participation in the development of the Enfield Transformer Station, which will go into service in 2019. Our engineering team must be commended for being on time and under budget in completing their 2017 campaign of network revitalization and expansion projects.

Operating in a business environment where reliability and good rates are now table stakes requires top-performing utilities to consistently stay well ahead of customer expectations. In 2017, automation of many of the functions required for service connection requests resulted in our response time improving from 5 to 3.1 days. Implementation of our cloud-based interactive voice recognition phone system in late 2016, helped our Ontario Energy Board Grade of Service rating vault from 74% in 2016 to 91% at the end of 2017. With 2017 being the first full year of operation for our Outage Management System, our System Average Interruption Duration Index (SAIDI) rating cracked the sub 45-minute barrier.

Conservation and demand management (CDM) initiatives that Oshawa Power deliver on behalf of the province remain an important frontline channel for furthering relationships with customers. Year-end 2017 found that, at the mid-term milestone of the Independent Electricity System Operator's 2015-2020 Conservation First Framework, we had achieved 62% of our overall target. The contributions of several marquee projects put us solidly ahead of schedule. These included the 2017 completion of the City of Oshawa's upgrade of 12,700 streetlight fixtures to LED technology - the largest energy conservation project in our community's history.

It was a foundational year for our unregulated businesses, where we sought to grow this portfolio by pursuing involvement in 15 distributed generation projects. In a resounding vote of

confidence for our management of Regent Park Energy Inc., which runs an expansive district energy project at Canada's largest community-housing project, Oshawa Power was awarded a second contract to commission and operate a similar district energy system that will service a massive three-tower community-housing complex in Toronto.

2017 saw us take a fresh look at our dark fibre business. Following a preliminary audit of assets, we revised the unit's business model to be more responsive. This included: absorbing operational functions that were previously outsourced; putting in place an internal management team; initiating a program for training technicians to service the network; and promoting the service to prospective telecom providers and business users.

By collaborating on projects with companies that compete on the global stage, Oshawa Power has earned a reputation as a smaller utility company that punches well above its weight class. In 2017, our joint ventures included: working with French electrical services giant Schneider Electric on a first-in-North-America network automation project; tapping Sapient, a worldwide leader in data analytics, to help us become one of only five Ontario utilities selected to run a provincially Regulated Price Plan pilot project; testing and commissioning of our microgrid pilot project with Panasonic Eco Solutions Canada and UOIT; and our ongoing residential solar energy management system (SEMS) study with NEDO, a Japanese organization that promotes research in renewables. In addition, we proved that Oshawa Power can go toe-to-toe with the big boys when a Chinese cryptocurrency company shortlisted us as one of three utilities with the energy resources, data capabilities and creativity necessary to help them set up a North American operation.

The most important partnerships are the ones we foster in our own house. In 2017, we signed a seven-year collective agreement with Local 636 of the International Brotherhood of Electrical Workers. The remarkable length of the contract is a testament to the dedication of both parties to building a stable and healthy relationship.

Instilling the culture of safety that permeates every job function at Oshawa Power has required the unwavering commitment of our entire organization. Our many years of resolve were rewarded in 2017 when we achieved the Infrastructure Health & Safety Association's Certificate of Recognition for the third year in a row and passed our Electrical Distribution Safety Regulation 22/04 Audit -

without comment for the fifth consecutive year. By year-end, we had reached another major workplace safety milestone - 250,000 hours worked without a lost-time injury.

We view succession planning around generational manpower issues facing our sector as prime opportunities to future-ready our utility. During 2017, we continued to nurture career growth by providing support for ongoing education, maintaining a wide range of in-house training programs and allowing our employees to take part in 321 personal development days. As a major part of efforts to attract the best talent possible,

we encourage Oshawa Power employees to participate as industry experts that offer a boots-on-the-ground perspective for various post-secondary institutions and industry think tanks. These include Ryerson University, Durham College, UOIT and the Mars Discovery District. Judging from the 12 to 15 fresh-faced apprentices, interns and co-op placements that could be found working across our operation at any given time during 2017, it's definitely working.

It was with great appreciation for his years of invaluable guidance that we bid farewell to our retiring Board Chair, Ron Stewart. In January 2018, Denise Carpenter was welcomed to the position. As an Oshawa Power board member for four years, Denise brings a wealth of knowledge that was gained in a range of industries to the role. This includes

experience in the utility sector and corporate governance that will help us mold strategies for continued success in developing our business.

Looking to the future, we are excited about the endless possibilities that lay ahead. We are honoured to have been a cornerstone in our exceptional community for 130 years. We realize that whatever role we play, wherever our business as a community-based infrastructure company takes us, we must continue to strive to be exceptional. We must always bring real value, in as many forms as possible, to our stakeholders - our customers, our employees and our shareholder, the City of Oshawa.



Denise Carpenter, Chair with
Ivano Labricciosa, President & CEO.


Denise Carpenter
Chair

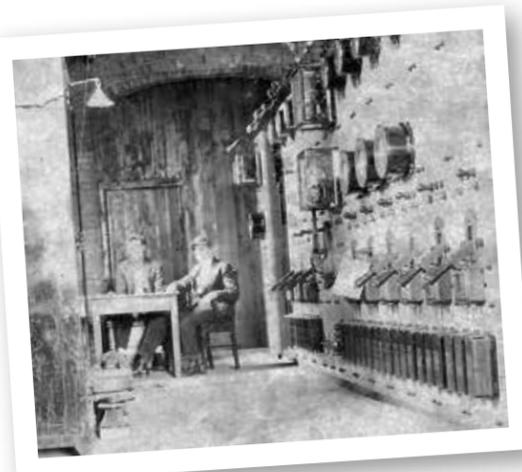

Ivano Labricciosa
President & CEO

EXPANDING INFRASTRUCTURE

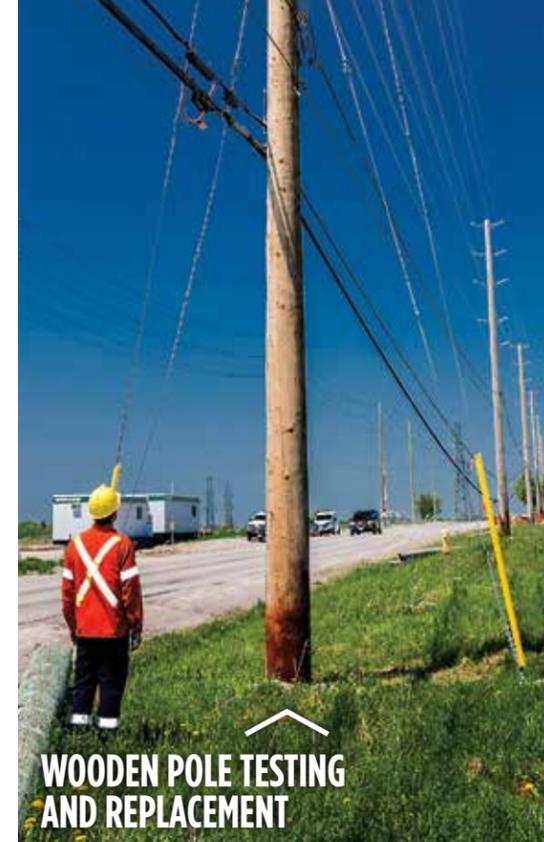
While maintaining its ongoing program of upgrading its existing network of poles, wires and transformers, Oshawa Power is investing in the infrastructure necessary to meet the growing demand for electricity resulting from the continued unprecedented expansion of its residential and commercial customer base.

NEW SUBSTATION IS A TECHNOLOGICAL LEAP FORWARD

The corner of Conlin Road East and Wilson Road North was a hive of activity in 2017 as construction of Oshawa Power's Municipal Station 9 (MS9) hit full stride. When commissioned in the summer of 2018, the 44kV/13.8kV substation will provide power to the new residential development in north Oshawa, and a planned extensive RioCan commercial and retail development. MS9's plug-and-play design will allow the station to accommodate connection within its premises to practically any technology, including distributed generation and battery storage. The substation will also house the utility's back-up operations centre, server room and disaster recovery workspace.



Oshawa Power's first transformer station - 1911.



WOODEN POLE TESTING AND REPLACEMENT

Following the start of an ongoing predictive analysis program that uses non-destructive testing to determine the precise condition of Oshawa Power's 10,453 wooden poles, the utility removed 239 poles and installed 253 new poles in 2017.

OSHAWA POWER WELCOMES CEMENT PLANT

As part of McInnis Cement's efforts to set up a regional distribution hub in Oshawa, the company retrofitted two domes at the Oshawa Port (shown below) to allow for storage of 14,000 tonnes of concrete. To provide electricity to the terminal prior to the cement plant starting operations in July 2017 and to accommodate future expansion in the Port, Oshawa Power worked to expedite the design and construction of a new 410 m pole line.



2017 Fast Facts

Over the past five years, Oshawa Power's overall municipal station transformer age dropped from 40 years to **17 years.**



The average **working life** of a wooden electricity pole is **40 years.**

MS9 is designed to be a **NetZero facility** that will produce as much energy as it consumes, giving it a no-carbon footprint.



IN 2017, OSHAWA POWER INVESTED \$3.5 MILLION IN REPLACEMENT PROJECTS

- Overhead infrastructure replacement
- Underground cable replacement
- New infrastructure

OSHAWA

Municipal Station 9 (2018)

ENFIELD TRANSFORMER STATION (T.S.) MOVED CLOSER TO BECOMING A REALITY

During 2017, Oshawa Power wrapped up negotiations that will see Hydro One build the 230kV/44kV Enfield T.S. to meet Oshawa Power's capacity requirements. As a third point of access to Hydro One's distribution grid, the station will provide control room operators with greater flexibility in shifting load and allow for additional capacity as demand on the network increases in the future. Construction of the station at Townline Road North and Winchester Road East in Clarington is currently in progress, with the station expected to go into service in the spring of 2019.

INNOVATING SENSIBLY

Oshawa Power is fully leveraging its existing platforms and resources to create economical solutions that are using detailed and accurate real-time data to drive marked operational improvements.

IMPROVING RELIABILITY IN OSHAWA'S DOWNTOWN CORE WITH A FIRST-IN-NORTH-AMERICA SOLUTION

Oshawa Power worked with the global energy management technology leader Schneider Electric to develop and implement a network automation solution that will improve reliability in Oshawa's downtown core. When a fault occurs in the future, the network will automatically reconfigure itself so that the outage will affect the fewest number of customers possible. Factory acceptance testing at the Schneider Electric plant in Montreal in October 2017 recorded the worst-case outage reconfiguration time at less than one minute. Live field testing is scheduled for July 2018.



Downtown Oshawa - 1946.

SELF-HEALING AND SMART TECHNOLOGY INVESTMENTS CONTINUED TO HAVE A MAJOR IMPACT IN 2017

- Two sets of new smart fault indicators were put into service – strategically placed in vulnerable sections of overhead infrastructure to help more precisely locate faults
- Completed installation of neutral grounding reactors at the utility's existing transformer stations – resolves power quality issues and allows for distributed generation connections to Oshawa Power's grid
- Installed self-healing technology on an additional eight feeders – allows for automatic switching for overhead infrastructure
- Concluded a multi-year upgrade to low-maintenance SF₆ breakers for all transformer stations



OSISOFT PI SYSTEM WILL DELIVER FUTURE SERVICE IMPROVEMENTS

During 2017, Oshawa Power combined all of its business databases into a single data warehouse. This was the groundwork for the implementation of a planned business intelligence system that the utility is developing with its operational software vendor, OSISOFT. The system will use sophisticated data analytics to facilitate next-level network and customer service performance.



“We pride ourselves on our ability to ‘innovate sensibly’ and that means we insist on proven technology that delivers the promised results. True innovation is doing something better with existing, low-cost technology.”

Ivano Labricciosa,
President & CEO, Oshawa Power

2017 Fast Facts

42,000 customers

were called by the utility's Outage Management System to inform them of power disruptions in their areas.



Oshawa Power sent out **more than 250 tweets** with power outage details.

Oshawa Power is the only Canadian utility with an

OMS that dispatches crews automatically.



OUTAGE MANAGEMENT SYSTEM RECEIVES HEXAGON SI'S INNOVATION AWARD

Oshawa Power was recognized for its success in cost-effectively creating its Outage Management System (OMS). Hexagon SI, a global leader in providing information technology, partnered with Oshawa Power to integrate the utility's existing smart meter, SCADA and customer information resources into a single platform that predicts and communicates outages in real-time to field crews, customer service reps, system operators and customers.





DRIVING

PERFORMANCE

Gone are the days when customers were content to receive bills every two months and customer service could only be reached by phone during business hours. Now, with social media, cell phone connectivity and automated customer service platforms, Oshawa Power is reaching out to its customers on their terms – how, where, and when they want.

RESTRUCTURING FOR BETTER SERVICE

Following a 2017 process review, the Customer Service Department's structure was streamlined. This included realigning job functions, establishing key performance indicators for each customer service role and setting up a rewards program that recognizes individual and team achievements.

NEW CUSTOMER SATISFACTION SERVICE SURVEY REDUCES BIAS

Starting in May 2017, the utility's automated phone system has provided customers calling into the Customer Service Department with an opportunity to provide immediate feedback through a prerecorded two-question survey at the end of their phone call.



Reviewing a customer account – 1957.



2017 EBILLING CAMPAIGN PUSHES THE ADOPTION RATE TO 27.4%

2017 applicants were entered into a draw to win tickets to an Oshawa Generals hockey game or free entrance to the Parkwood National Historic Site.



COMMUNITY OUTREACH EFFORTS ARE BOOSTING PUBLIC AWARENESS

With the goal of increasing its presence in the community, the utility held its first Customer Connect Open House at the Oshawa Civic Centre on the evening of November 28. Representatives from all areas of the company were on hand to meet face-to-face with the public to discuss a range of items that included: how to read their bill; electrical safety; conservation and demand management; and the utility's Outage Management System. Based on positive feedback from guests, the utility plans to continue the program with events scheduled for May and November of 2018.



RESPONSE TO SERVICE CONNECTION REQUEST TIMES DROP FROM 5 DAYS TO 3.1 DAYS

During 2017, Oshawa Power automated tasks around managing customer requests for connection services and created a database of all relevant connection information that developers, electrical contractors and the utility's staff can access to review the status of connection requests. Also, connection-related requests can now be made through a convenient online form that automatically populates the database. Improving communications has slashed response times, helped smooth the connections process and reduced time-wasting errors.

THE UTILITY'S NEW PHONE SYSTEM DELIVERS MASSIVE IMPROVEMENTS IN ITS FIRST YEAR OF OPERATION



Ontario Energy Board Grade of Service Metric (Phone calls answered within 30 seconds)

2017 Fast Facts

1 call in 5 of the 57,117 calls received by the utility's customer service department was answered by the new 24-hour automated phone system.

Billing accuracy was a near perfect 99.94%.



New billing connections - 99.47% on time



92% 2017 UtilityPulse Customer Satisfaction Survey result versus the provincial average of 76%.



PROMOTING

CONSERVATION

Oshawa Power's conservation programs and incentives help homeowners save on their bills, reduce operating costs for businesses, and assist Oshawa in creating a cleaner and greener community. This is an effective way for the utility to bring value to its stakeholders.

\$5.5 MILLION RECEIVED FROM THE PROVINCE TO CONDUCT AN INNOVATIVE ENERGY PRICING STUDY

Oshawa Power's successful proposal made it one of only five Ontario utilities to be selected to participate in a new Ontario Energy Board pilot program that is part of the Province's review of its Regulated Price Plan. Two thousand Oshawa Power customers will test new Time-of-Use electricity prices that favour customers who move their electricity use to off-peak times. In addition, participants will receive leading-edge online tools and mobile apps to help them better understand and manage their electricity costs. Oshawa Power worked with Sapient, a global leader in sophisticated data analytics, in preparing their successful bid for the pilot.



Oshawa Power started in business supplying electric street lighting. 130 years later, the utility is helping provide the city with new energy-efficient LED street lighting technology.



AHEAD OF TARGET WITH CONSERVATION AND DEMAND MANAGEMENT PROGRAMS

By December 2017, Oshawa Power had achieved 62% of its targets for energy conservation under the Independent Electricity System Operator's 2015-2020 Conservation First Framework. 2017 saw the Province of Ontario focusing on greenhouse gas reductions and demand response through several new initiatives that included the Green Ontario Fund and the Industrial Conservation Initiative. As new programs flooded the Ontario market, the utility's Conservation and Demand Management Team shifted its efforts to ensuring that Oshawa Power's customers will be pointed in the right direction, regardless of where program funds are coming from and who is administering the programs.

OSHAWA POWER'S BUSINESS CLIENTS' CONSERVATION EFFORTS RECOGNIZED AT POWERING UP DURHAM SYMPOSIUM

Midtown Mall - Best Heating and Cooling Project in Durham

- Two 10-ton cooling units were upgraded at the 200 John Street facility
- Project will save 7.4 MWh/year

Lakeridge Health - Best Overall Energy Savings in Durham

- 1.6 MW combined heat and power plant installed at Oshawa facility
- Yields approximately 11 GWh of overall electricity savings

2017 Fast Facts

Programs that the utility has delivered since 2015

reduced electricity consumption in Oshawa by a total of 43 GWh - enough electricity to take 4,796 homes off-grid for one year*.



Since 2016, Ontario's Industrial Conservation Initiative has reduced the province's peak demand load by approximately 1,300 MW.

In terms of greenhouse gas reductions, this is similar to growing 25,000 tree seedlings for ten years*.

Programs that Oshawa Power delivered since 2015 resulted in approximately \$6 million in conservation spending being invested in Oshawa.



*Equivalency information may vary between jurisdictions.



GROWING STRATEGICALLY

Oshawa Power's plan for expanding the utilization of its dark fibre communications network and marketing its distributed generation expertise beyond Durham Region is proving to be an effective means of diversifying its business.

TORONTO SOCIAL HOUSING PROJECTS REACH OUT TO OSHAWA POWER TO MANAGE THEIR DISTRICT ENERGY SYSTEMS

During the year, Oshawa Power continued to manage Regent Park Energy Inc., a district energy plant operating in Canada's largest social housing project. This included procuring three 1.4 MW combined heat and power (CHP) engines (shown left) which will produce electricity, provide heating, and allow for sustainable occupancy of the complex during grid power outages. In a vote of confidence, Oshawa Power was awarded a second contract to design, build, commission and operate a district energy system for a massive three-tower social housing complex in Toronto.



Street car - 1924.
Oshawa Power has a long history of involvement in unregulated ventures including public transit.

2017 REBOOT OF DARK FIBRE NETWORK DRIVES UP LEASED NETWORK CAPACITY

Initial findings from a system audit that started in 2017 indicated the potential existed for expansion of network utilization. Taking action on the audit, many of the previously outsourced business functions were brought in house and a training program was initiated to bring technicians up to speed with operating and maintaining the utility's dark fibre assets. The utility also began actively building relationships with telecom partners looking to do business in Oshawa and reaching out locally to drive demand for the service. During 2017, Oshawa Power took on a partner who has leased 49% of its dark fibre network capacity. The utility continues to study the feasibility of expanding its dark fibre assets to give the network city-wide coverage.



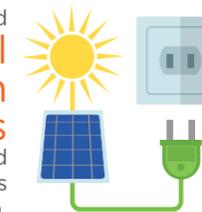
MICROGRID GOES LIVE AT UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY

As the microgrid study on the university's campus moved towards its eventual commissioning in August of 2017, Oshawa Power's involvement as a partner continued. Earlier in the summer, the utility's 2.4 MW CHP plant on the university's campus was tested to determine its black-start capacity to operate when the microgrid is in "island mode", i.e., isolated from the grid.



2017 Fast Facts

The utility connected **51 residential solar generation projects** to its grid under the Province's Feed-in-Tariff program.



During 2017, Oshawa Power actively pursued involvement in **15 additional district energy projects.**

Oshawa Power operates a **106.5 km long dark fibre high-speed communications network.**



EXCELLENCE AWARD RECOGNIZES OSHAWA POWER'S RESIDENTIAL SOLAR ENERGY STUDY

The Electrical Distributors Association's 2017 Environmental Excellence Award paid tribute to the utility for its role in a study that saw 30 Oshawa homes equipped with solar energy management systems - free of charge to the homeowners. Each system includes photovoltaic panels and an energy management system that directs electricity produced by the system either to the grid or to batteries within the home, where it can be used by the homeowner or stored as a backup supply for use during outages. Findings from the study will be included in a report that is due to be released in 2018.



WORKFORCE RETOOLING IS A DEMOGRAPHIC NECESSITY

As the second half of the baby boom generation approaches retirement age, Oshawa Power is actively addressing the issue of succession planning. From entry-level positions to senior management, the utility's human resources staff continue to work hard at restocking the workplace through new hires, apprenticeships and promotion of internal talent. In 2017, the utility provided 21 opportunities to students and new graduates to gain valuable work experience related to their fields of study. This contributes to skills development in the community and helps Oshawa Power find the next generation of industry leaders.



Line crew - 1945. Oshawa Power's full-time employee headcount stood at 85 in 2017.

ENGAGING

WORKPLACE

Oshawa Power is using the generational challenges that face the electricity sector as an opportunity to build a modern utility - one employee at a time. More and more, new faces can be seen working side by side with Oshawa Power's existing talent to create a modern customer-focused workplace with a fully engaged workforce.



ENGAGING WITH OUR COMMUNITY THROUGH GOOD DEEDS

The acts of kindness Oshawa Power and its employees demonstrated in supporting worthy causes such as the 2017 Touch-A-Truck Event (above) go a long way towards making the utility a great place to work. Causes supported in 2017 include:

- Big Brothers Big Sisters
- Community Children's Safety Program with Durham Fire
- CURE Foundation for Breast Cancer
- Durham Community Health Care
- Durham Regional Police Appreciation
- Durham Regional Police Service Toy and Food Drive
- Dragon Boat Races in support of Port Perry Hospital
- Flood Relief in Peru
- Heart & Stroke Foundation
- Hurricane Relief for Texas and Puerto Rico
- Oshawa Christmas Tree Lighting
- Oshawa Celebrates
- Parkwood National Historic Site
- The Refuge Youth Outreach Centre
- Touch-A-Truck Event



"PINBALL" GIVES KEYNOTE ADDRESS AT 2017 SAFETY CELEBRATION

Everybody's favourite Toronto Argonaut, Michael "Pinball" Clemons (shown here on the right with Oshawa Power President & CEO, Ivano Labricciosa), was on hand as the guest speaker at the 2017 Annual Safety Celebration Luncheon on June 21. The always-enthusiastic ex-pro football player gave an inspirational speech with a theme close to his heart - teamwork.

WEEKLY BARBEQUES WERE A "BUZZ" WITH EXCITEMENT

2017 was the inaugural year of The Buzz, the utility's employee engagement steering committee, which rolled out programs based on feedback from the 2016 Employee Engagement Survey. Perhaps the most prominent initiative was a series of barbeques intended to raise funds for Buzz events. The barbeques became a friendly interdepartmental competition around menus and themes.



OSHAWA POWER SIGNED A 7-YEAR AGREEMENT WITH IBEW LOCAL 636

The utility's leadership team was pleased with the outcome of the fair settlement and believes that this achievement is evidence of the evolving and positive labour-management relationship that will allow the parties to build on their success and continue to develop the business for the future.

EMPLOYEE RECOGNIZED AS LEADER AMONG DURHAM REGION HR PROFESSIONALS

The utility took pride in announcing that its Human Resources Manager, Nancy Brandon, was recipient of the 2017 Outstanding Certified Human Resources Leader Award for the Durham Chapter of the Human Resources Professionals Association.



2017 Fast Facts

The utility received the Infrastructure Health & Safety Association's Certificate of Recognition for the 3rd consecutive year.



During the year, Oshawa Power provided its employees with 321 development days.

The utility earned the Infrastructure Health & Safety Association™ President's Award for achieving 250,000 hours without a lost-time injury.



FINANCIAL HIGHLIGHTS

FOR THE YEAR ENDED DECEMBER 31, 2017

(Dollars expressed in thousands unless labelled otherwise)

OVERVIEW

Oshawa Power and Utilities Corporation, and its subsidiaries (collectively “Oshawa Power” or the “Company”) 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 management services. Oshawa Power is wholly owned by the Corporation of The City of Oshawa.

The Company provides regulated electricity distribution services to businesses and residences in the service area of Oshawa, Ontario through its principal subsidiary Oshawa PUC Networks Inc. (Networks).

Oshawa Power distributed electricity to an average of approximately 71,000 customer connections (including street lights) in 2017. There were 58,349 customer connections invoiced in December 2017; an increase of 891 or 1.6% over December 2016.

BASIS OF PRESENTATION

The consolidated financial statements include the accounts of Oshawa Power and Utilities Corporation and its subsidiaries; Oshawa PUC Networks Inc., Oshawa PUC Services Inc., Oshawa PUC Energy Services Inc., and 2252112 Ontario Inc.

The Company’s consolidated financial statements have been prepared by management in accordance with *International Financial Reporting Standards* (IFRS) as adopted by the International Accounting Standards Board (IASB) and interpretations as issued by the International Financial Reporting Interpretations Committee of the IASB, including accounting principles prescribed by the Ontario Energy Board (OEB) in the *Accounting Procedures Handbook for Electric Distribution Utilities*.

Oshawa Power follows regulated accounting rules as prescribed by the OEB for rate-regulated enterprises. *IFRS 14, Regulatory Deferral Accounts*, allows the Company to utilize *pre-IFRS Canadian Generally Accepted Accounting Principles* with respect to the recognition of Regulatory Assets and Liabilities that address the deferral of specific non-income related cash inflows and outflows.

Regulatory assets primarily represent costs that have been deferred because it is probable that they will be recovered in future rates. Similarly, regulatory liabilities can arise from differences in amounts billed to customers for electricity services and the costs that Oshawa Power incurs to purchase and deliver these services. Certain costs and variance account balances are deemed to be regulatory assets or regulatory liabilities and are reflected in the Company’s balance sheets until the manner and timing of disposition is determined by the OEB.

RESULTS OF OPERATIONS

REVENUE

Revenue is earned from regulated activities through Oshawa Power’s principal subsidiary, Networks, and unregulated operations carried out in the Company’s remaining subsidiaries.

The following table represents regulated revenue, excluding flow-through charges for the sale of electrical energy paid to the Independent Electricity System Operator (IESO), and aggregate revenue earned from unregulated operations for 2017 and 2016, comparatively:

Category	2017	2016
Regulated	\$24,942	\$25,213
Unregulated	7,026	3,809
Total Revenue	\$31,968	\$29,022

Regulated revenue decreased by approximately 1% in 2017, primarily due to moderate winter weather during the first quarter. However, Oshawa Power increased unregulated revenue by more than 80% year-over-year from its energy management services.

EXPENSES

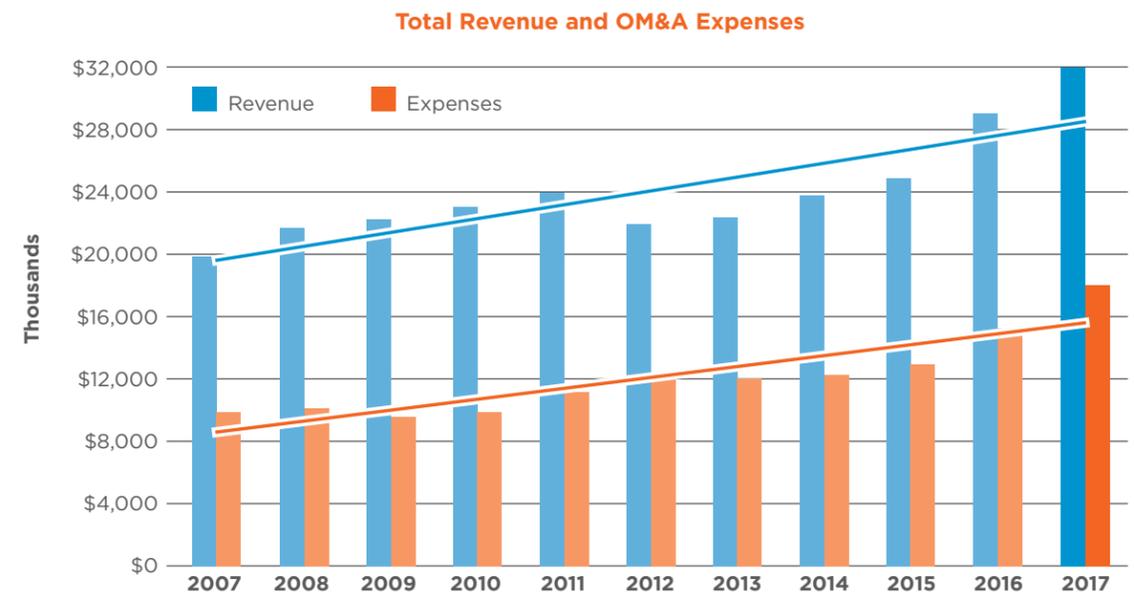
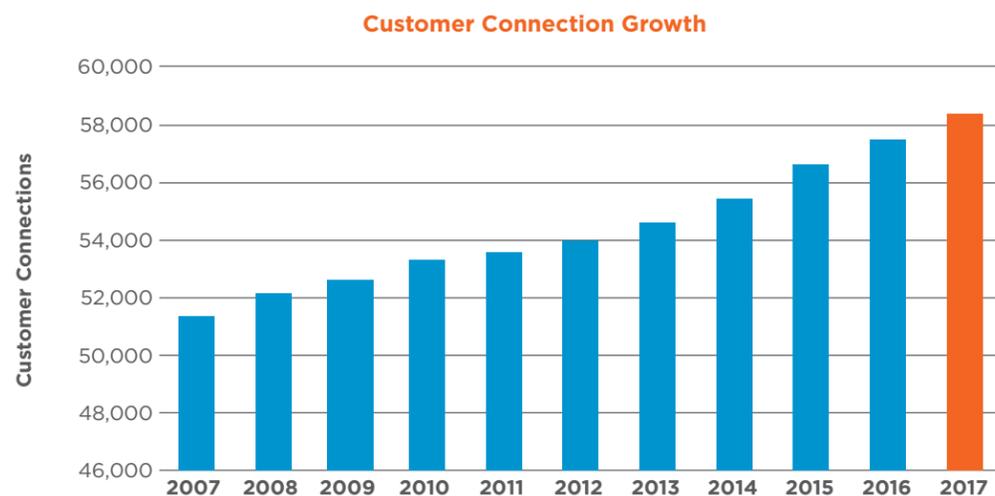
Operations, maintenance and administrative (OM&A) expenses reported in 2017 and 2016 are summarized in the following table:

Category	2017	2016
Regulated	\$13,071	\$12,534
Unregulated	4,913	2,681
Total OM&A	\$17,984	\$15,215

Regulated OM&A expenses increased year-over-year by approximately 4%. However, when measured as OM&A per customer, the percentage increase is in line with inflation between 2% and 3%. Over 1% of the increase in regulated OM&A expense is attributed to customer growth in Oshawa.

Unregulated OM&A costs increased year-over-year from energy management services.

The chart below illustrates the relative growth in revenue and OM&A expenses over the past ten years.



FINANCIAL HIGHLIGHTS FOR THE YEAR ENDED DECEMBER 31, 2017

(DOLLARS EXPRESSED IN THOUSANDS UNLESS LABELLED OTHERWISE)

NET INCOME FROM OPERATIONS

Net income from operations (before other comprehensive income) for 2017 was \$5,651 compared to \$5,720 in 2016.

There was a reduction in net income from the regulated business from \$4,687 in 2016 to \$4,357 in 2017. Net income earned from unregulated operations increased to \$1,294 in 2017 from \$1,033 in 2016; an increase of 25%.

LIQUIDITY AND CAPITAL RESOURCES

SUMMARY

Cash and cash equivalents as at December 31, 2017 was \$7,987 compared to \$12,698 on December 31, 2016.

Debt ratio in 2017 was 44% compared to 46% in 2016. 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 its future operating and strategic plans.

CASH PROVIDED BY OPERATING ACTIVITIES

During 2017, operating activities reported under IFRS generated \$9,887 compared with \$13,077 in 2016; a decrease of \$3,190 primarily from changes in non-cash working capital.

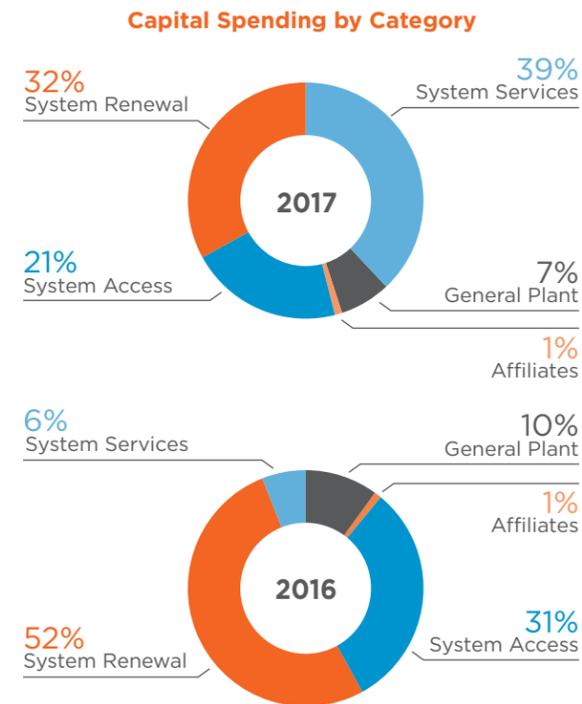
CASH USED IN INVESTING ACTIVITIES

Cash used in investing activities in 2017 and 2016 was \$16,042 and \$13,224 respectively; an increase of \$2,818 for additions to property, plant and equipment.

As planned, Oshawa Power continues to invest in capacity constraints related to growth in the City of Oshawa and system renewal in order to maintain a track record of strong system reliability.

CAPITAL SPENDING BY CATEGORY

The combined percentage of capital investments in System Access and System Services, which addressed capacity and customer growth, increased from 37% in 2016 to 60% in 2017. Total expenditures related to these categories also increased from \$4,870 in 2016 to \$9,529 in 2017.



CASH PROVIDED/(USED) IN FINANCING ACTIVITIES

Cash provided in financing activities was \$1,444 in 2017 compared with cash used of \$130 in 2016. Contributions from developers on capital projects increased by \$1,481 from \$1,940 in 2016 to \$2,421 in 2017.

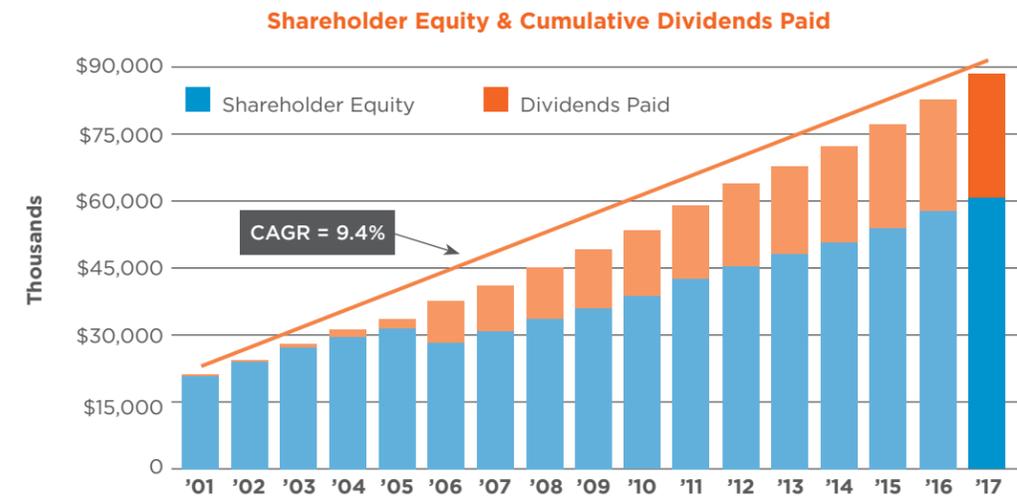
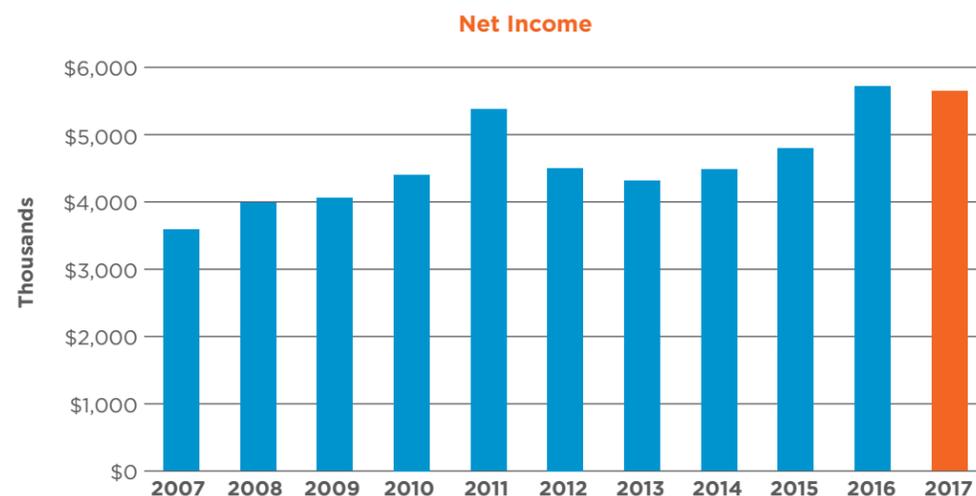
Included in cash used in financing activities were dividend payments made to the Company's shareholder in the amount of \$2,300 in 2017 for dividends declared in 2016 and \$1,900 in 2016 for dividends declared in 2015.

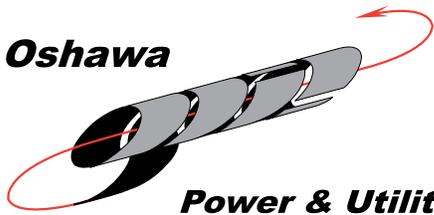
SHAREHOLDER VALUE

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, 2017, has increased to \$88.1 million which represents a compound annual growth rate (CAGR) of approximately 9.4% since 2001.

The chart shown below 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.

Oshawa Power audited financials are available at opuc.on.ca



Oshawa

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