



ANNUAL REPORT **2023**

BLAZING THE ENERGY TRANSFORMATIONAL TRAIL



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Corporate Philosophy

Vision

Essex Power Corporation is a dynamic energy company that provides safe, reliable, and economical energy supply and services to our customers. Our commitment to innovation, performance management, and leading by example has built the foundation at Essex Power and our affiliates to establish a diverse set of energy products and services that are valued by our customers. At Essex Power, Your Power is Our Priority.

Mission

Essex Power Corporation's vision is to be an Energy Provider that utilizes "best in class" people, processes, and technology to lead the marketplace in sustainable energy solutions. Our customers will receive the greatest value by integrating an economic and environmental balance to the products and services we will deliver to them. As an Energy Provider, we will be a community leader in ensuring that environmental stewardship is a vital component of our services to increase customer awareness of proper energy utilization and management.

If you have questions regarding the content of this annual report please contact us at info@essexpower.ca



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Board Chair & CEO Summary



John Avdoulos
President and Chief Executive Officer

Dear Shareholders,

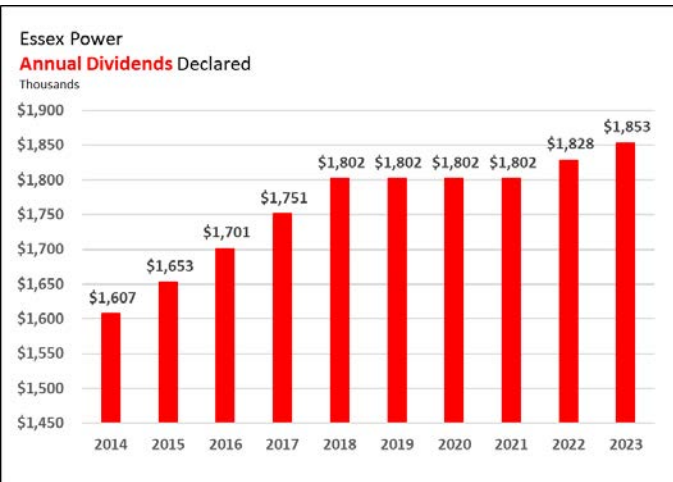
The electric power sector is at a pivotal crossroads that may lead to revolutionary changes. With the drive to decarbonize our energy sources and policy continuing to evolve at a Federal and Provincial level, the deployment of distributed energy resources will grow significantly. Improvements in the cost and performance of distributed energy technologies and potential breakthroughs in energy storage are creating new opportunities for on-site generation and storage. At the same time, changing patterns of electricity use — such as from plug-in electric vehicles — are altering demands and broadening what it means to be an electricity consumer; and new information and communications technologies are enabling the collection of massive amounts of data and unprecedented visibility and control over the power system.

The Essex Power Group has been leading this transition and transformation and continues to drive the industry forward. A new wave of distributed energy systems — comprised of distributed generation, responsive demand, storage, electric vehicles, and communication and control technologies, are part of an integrated energy system. This philosophy of poles and wires becoming the backbone for energy management services enablement has been inherent in the EPC strategy for many years. The group of companies has been moving to new business models for utilities and driving toward required regulation modernization.

The big question is, what new business models and regulations will emerge, and how will they transform the sector?

EPC invested heavily in answering these questions in 2023 and will continue to drive towards answering them in 2024. For the industry, 2023 was extremely dynamic and can be summed up by the “problem is global, but needs to be solved local!”

With this evolution, Essex Power continues on the path to becoming an Energy Management Services Company, and looks to continue leveraging opportunities as they emerge. Those opportunities will come in the form of new sources of electricity supply that must be connected to meet demand. These Distributed Energy Resources (DERs) will prove essential to supporting power requirements with increased electrification,





and work such as Essex Power's PowerShare project are paving the way. PowerShare, Essex Power's Grid Innovation Project, exploring local energy markets and DERs as tools for coping with previously unencountered levels of electrification are being followed province-wide. The IESO, The OEB and many LDCs are looking to PowerShare to understand the potential impacts of electrification and the potential benefits of DERs.

Further, while undertaking this project, Essex Powerlines has submitted its Cost of Service Application for rebasing that furthers efforts to balance electrification, digitalization and increased reliability with price. Rates set through this Application will have an effective date of January 1, 2025 and will necessarily consider inflation and other factors all with an eye on impacts to customers.

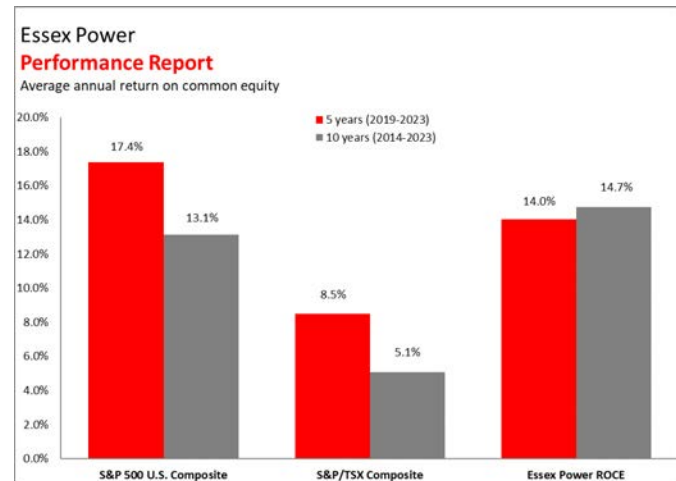
Thanks to Essex Power's financial performance in 2023, Essex Power was able to simultaneously reinvest in the infrastructure and products that serve customers and provide a fair and equitable return to our valued Shareholders through dividends. Essex Power's Return on Common Equity (ROCE) continues to near or exceed S&P markets on a 5- and 10-year average analysis. Again, Essex Power has declared a larger than previous dividend. For 2023 that dividend of \$1,853,709, permitted our Shareholder the means to continue invest in local initiatives and communities.

The energy sector is central and focal to economic growth, decarbonization efforts, expanded electrification needs, and food and energy security, but still faces many challenges. The EPC group of companies has understood these challenges and has been implementing strategies to solve these inherent problems. At the same time, all levels of Government have been active in implementing change to meet the needs of the evolving energy sector. In 2023, the Federal agencies introduced policy and regulations that directly affect how the Government of Ontario manages and prioritizes electricity system investments and how the IESO and OEB operate and regulate the industry.

All levels of government and agencies agree that we must strive to achieve decarbonization targets, that more electricity supply is needed, and that weather and climate events are increasing in frequency and magnitude. The Essex Power group of companies, is aligned and working with our municipal shareholders and First Nations partners in **blazing the energy transformation trail!**



Gary McNamara
Chairman of the Board





2023 Highlights

The increase in electrification, customer growth, and supply challenges seeing in the Ontario utility landscape are key factors that continue to challenge Essex Powerlines (“EPLC”) to revolutionize and seek opportunities to blaze the transformational trail. In recognition of the ongoing transformation, EPLC has continued to focus on customers, reliability, and powering growth in 2023 and plans to continue its focus on these pillars and strategic priorities for the years to come.

2023 was a year of success for EPLC achieving its goals with investment, efforts, and achievements in transforming customer engagement, advancing its PowerShare DSO project, and making prudent investments to achieve cost efficiencies and grid modernization.

Customer engagement was top of mind with the implementation of Green Button data standard, enabling homeowners and property managers access to their electricity data, promoting an enhanced consumer experience. In addition, EPLC’s 24/7 chat support that was launched in Q4 2022 started reaping benefits in early 2023 with significant use and upside of the support tool. The results of the customer satisfaction survey confirm, with an 87% satisfaction rating, that EPLC is focused on the customer experience and continues to plan appropriately to maintain customer satisfaction.

Work on the PowerShare DSO project continued throughout 2023. The market rules were established and approved, unlocking the next phase of the project. The NODES platform was successfully integrated with SmartMAP, and as a result, opened in late 2023, allowing for trading to occur through 2024 and 2025. Learnings from this project will inform us about many aspects of how we view distribution and delivery of electricity going forward.

Cost efficiency was realized through the ongoing use of digital tools and smart network planning and investment decisions. Of note is the work conducted to implement self-healing grid technology, mainly in the form of smart devices like reclosers and a real-time automation controller in the distribution system. This will enable safer operation of the system and improve restoration time for outages, and resource efficiency. In addition, EPLC has set the framework for developing digital job packages, which includes electronic scheduling of disconnects and reconnects for the metering department. The digitization of job packages will continue in 2024 and 2025.

EPLC continues to focus on its path to digital transformation to keep pace with, and be leaders in, the ever-evolving industry. As part of this digital transformation, EPLC has expanded its control room collaborative work with Welland Hydro. This strong partnership will help realize synergies and cost efficiencies in control room collaboration and will showcase how a control room can be leveraged to recognize and optimize available local flexibility and supply. This will be possible through the implementation of SmartMAP coupled with SCADA to leverage improved capabilities in coordination, expedite responses to, and recovery from, unplanned and/or severe weather events, and enhance visibility and detection of EVs and DERs within the distribution system. This is a major step towards becoming an Energy Services Enablement Company, and we are proud to collaborate with like-minded local distribution companies!

“Innovation Creates Opportunities,
Collaboration Delivers Results”





EPLC invested in its Human Resource Capital Plan in 2023, with more realignment opportunities planned for the upcoming years. Notably, Wayne Richard was moved into the General Manager role, bringing over 20 years of experience and insights gained from different roles within the organization. In addition, EPLC's main office on Highway #3 has undergone major renovations to accommodate the growing needs of the organization and to further promote a more inclusive and open working space for each department.

Engineering and Operations have been hard at work in 2023, with major large residential and commercial/institutional developments. The team also worked diligently on upgrading equipment and end-of-life replacements to ensure EPLC's grid stays reliable and safe for the communities it serves. Moreover, EPLC's increasing relationship with Caldwell First Nations has helped with the completion of major large development projects and the Leamington Caldwell Gas & Variety store.

EPLC's Regulatory Department has been diligent in meeting critical timelines and goals above and beyond in 2023. Most notably, the regulatory team submitted EPLC's 2023 IRM application with a major disposition that was approved by the OEB. The determination of the regulatory department has not gone unnoticed and continues through 2024 for the submission of the Cost of Service application!

Lastly, the communications team was hard at work with two separate paperless billing campaigns: one targeting municipalities and their respective municipal accounts, and the other campaign teaming up with local non-profit, Fight Like Mason Foundation. EPLC saw a 6.6% increase in paperless customers for the year!



2023 Highlights

While 2023 was a banner year for Essex Energy Corporation (“EEC”), 2024 will be a transformational period for the company as it expands existing business units while launching new services and technologies.

EEC’s investment portfolio will expand to include Battery Energy Storage Systems (“BESS”) as it aims to attract multiple, market-driven, revenue streams while also proving out BESS technology as a dispatchable, behind-the-meter resource for Essex Powerlines’ ground-breaking pilot, PowerShare.

PowerShare, a Distribution System Operator project, will also afford EEC the opportunity to explore business development in other technologies such as hydrogen-fuel generation, vehicle-to-grid, and, in collaboration with other local utilities, mobile energy storage.

ENERTRACE Services Ltd., a joint venture company with Enwin Energy, launched in 2023 and will help provide greater certainty in the region with respect to underground damage prevention of critical electrical and water utility assets. ENERTRACE will also help to mitigate risk related to Ontario legislation (Bill 93) that has evolved and now includes the potential for financial penalties for utilities with poor performance as it relates to Locating Service Providers (“LSP”). This is a truly a “win-win”.



Essex Energy Corporation



As EEC executes these exciting new plans, it will also remain focused on its core Distributed Energy Resource (“DER”) business. To start, the company will look to solidify another significant PV asset to its investment portfolio, supported by a Power Purchase Agreement(s) with targeted property owner(s).

Also, while the sales pipeline for rooftop and ground mounted solar PV remains healthy, EEC will seek to leverage its renewed status as an OECM-approved (Ontario Education Collaborative Marketplace) vendor to expand it further.

Another continuing theme for EEC in 2023/24 has been leveraging electrification. More specifically, this means executing flawlessly on the company’s role as a Delivery Organization for the Zero Emissions Vehicle Infrastructure Program (“ZEVIP”) and seeking new program opportunities such as the Ministry of Transportation’s recent “ChargeON” Program. It also means navigating a potential new IESO framework for Conservation and Demand Management (“CDM”) that promises to hand responsibilities back to Local Distribution Companies (“LDC”) – and rightfully so. Finally, electrification also means gearing up for more diverse and detailed engineering consulting services for EEC’s growing LDC client base.

Key enablers for 2023’s tremendous success, and for executing all its exciting plans, are all the talented and motivated staff that the company has trained and retained over the past decade. The company is blessed with highly skilled and dedicated staff, and will continue to engage in professional development, succession planning, and reinforcing in moving forward.

EEC has always been viewed as a strong performer in the energy sector, a solid intercompany technical service provider, and an advocate/enabler for economic development in our region more broadly. Efforts to expand the company’s services, technologies, and pipelines in 2024 will continue to strengthen its brand in this regard. Bring on 2024!



Utilismart 2023 Highlights



utilismart[™]
CORPORATION

“Accelerating Change” is not just the theme of Utilismart’s business planning process, it’s also a very common theme across the sector.

Economic growth, electrification, and the evolving needs of electricity users are forcing utilities to accelerate their plans to digitally transform. As such, in 2023 Utilismart planned and executed diversification of its offerings based on the needs of the North American market, investing more than ever in our products and services.

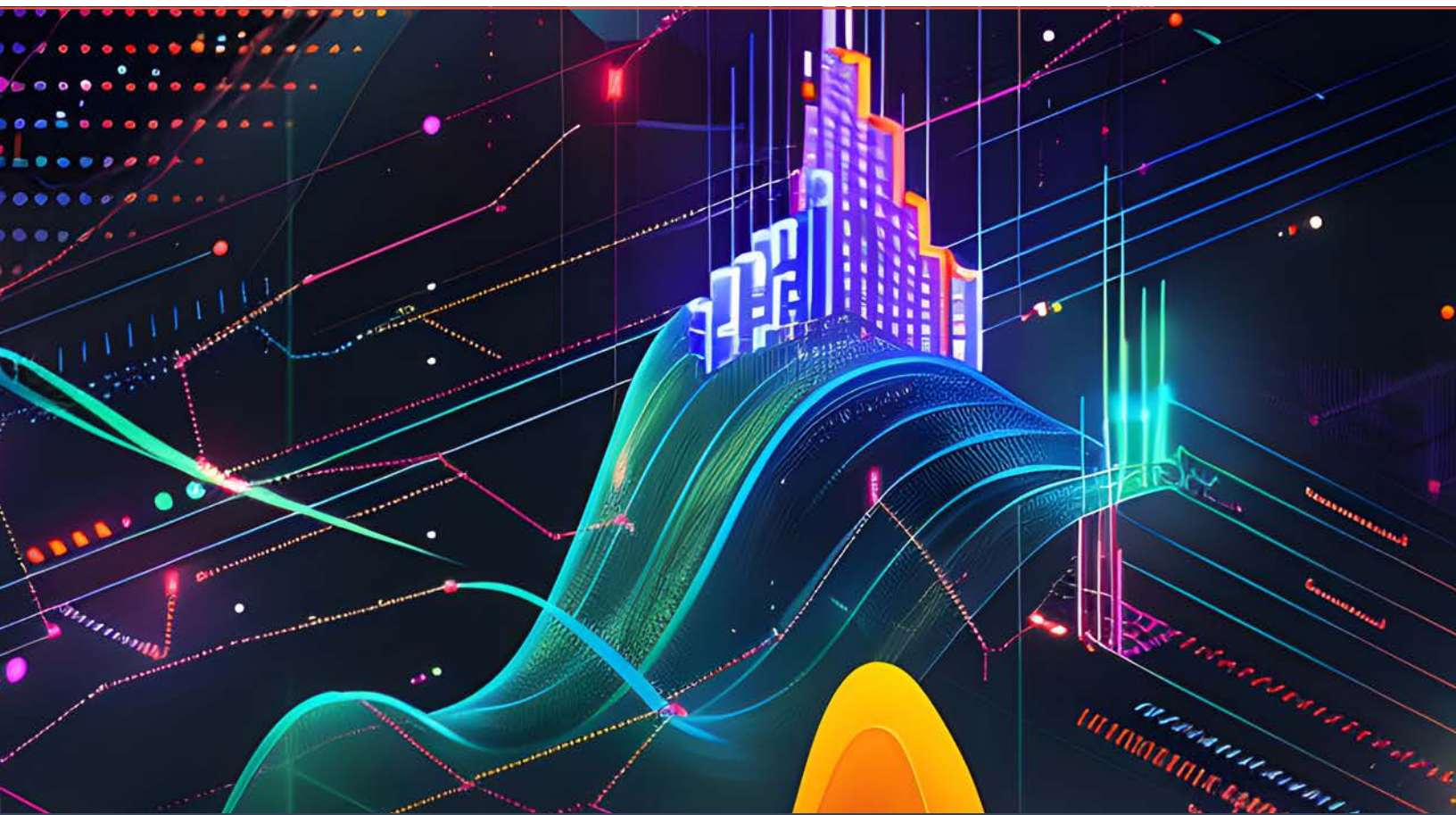
Regarding investments in products...

New load forecasting functionality within SmartMAP has positioned it as a major enabler of the emerging Distribution System Operator (“DSO”) concept. Expansion in EnerConnect (consumer engagement application) functionality has enabled more choice in customer billing. More refined settlement reporting and accommodation of the IESO’s Market Renewal Program will reduce regulatory risk for Utilismart’s Ontario market customers. The launch of Rate Analysis Manager (“RAM”) in the US market has empowered utilities to run complex rate scenarios in minutes (as opposed to days), with the simple click of a mouse, to enable rate design. Finally, Utility Device Manager, Utilismart’s core MDM product, has added reporting and flexibility built into the product based on feedback from Utilismart’s valued customers. A diverse product line up means more value propositions, covering all departments in any utility looking to accelerate change in their own organization!

With respect to human resources more broadly, Utilismart welcomes a new Vice President of Operations, Steve Robinson, who was hired in Q4 of 2023, replacing Jayna Sweeney who is vacating the role as part of succession planning in other parts of the Essex Power Group. Congrats to both! Special thanks to Jayna for her many years of leadership at Utilismart!

Finally, and perhaps most importantly, ISO 27001 certification, underpinned by Utilismart’s Information Security Management System (“ISMS”), was renewed in 2023 and will continue to be a significant focus for years to come. As technologies advance, cybersecurity is an ever-changing landscape, and Utilismart plans to continually invest to maintain a “maximum security posture” on an ongoing basis.





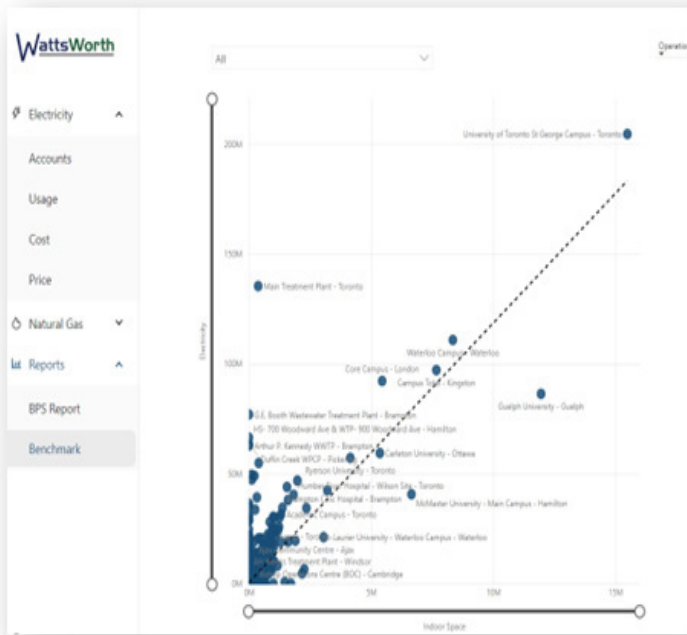
Artificial Intelligence (“AI”) became a focus for the company in 2023, and more formal planning and execution on this front will occur in 2024/25. AI promises to revolutionize Utilismart’s products, services, and software development cycles.



WattsWorth 2023 Highlights

In 2023, WattsWorth Analysis Inc. (“WW”) invested considerable time and effort in leveraging its status as an approved Ontario Education Collaborative Marketplace (“OECM”) supplier for energy consulting services.

OECM is a not-for-profit procurement firm that services the public sector in Ontario – primarily the School Boards – with respect to pre-RFP’ed purchasing services that are aimed to satisfy procurement policies and enable direct sales. This has spearheaded the company’s efforts to expand deeper into the education sector and will continue to do so in coming years.



WattsWorth



After launching its impressive WattsWorth Energy Portal (“WWEP”) in 2022, the company spent much of 2023 focusing on marketing and selling the WWEP (leveraging our 2022 reference customers) as well as adding automation and functionality that was highlighted as a need by users – namely 507/18 regulatory reporting support. Reg 507/18 mandates that municipal entities must report annually on Greenhouse Gas (“GHG”) emissions on a ‘per square foot’ basis for all corporate facilities. 507/18 reporting is challenged by resource constraints for many municipalities, and as such this will remain a marketing theme for the product in 2024. This product will continue to evolve as a one-stop-shop for public sector entities to manage utility costs and benchmark their performance vs. others. In 2024 new sales will be comprised of growth in existing market segments as well as expansion of services that are newer to WW (i.e. WWEP). This presents an exciting opportunity for WW to grow as well as continue to support the sales efforts of its affiliates.

Global Reporting Initiative



About GRI

EPC's report focuses on its operations, which leads to the process of defining the report content and topic boundaries. The organization used past reports and meetings between employees to define the report content. Material topics were decided on by a team who consulted previous reports, current company documents and operations, and future trends.

The Global Reporting Initiative (GRI) is an internationally recognized standardized framework for disclosing an organization's environmental, social, and economic performance. The GRI is a commonly used tool that many organizations in Ontario, Canada, as well as around the world use. For Essex Power's Report, please visit www.essexpower.ca

Essex Power Corporation has reported in accordance with the Core option, and therefore reported on the required disclosures from GRI 102.

Report Scope and Boundaries

Our regulated electricity distribution company, Essex Powerlines, is accountable for providing a safe, reliable, and cost-effective supply of electricity to the municipalities of all our stakeholders and communities. The scope of this report and GRI submission includes all of the Essex Power Group of Companies.

To measure our success and progress in sustainability, we have defined key areas that we see are of great importance to achieving success. Essex Power has made sustainability a core foundation for all decision-making and has initiated best practices for managing operational and environmental risk. The GRI report analyzes and measures Essex Power's performance within the three pillars of sustainability.

Environmental stewardship is evaluated by our success in energy conservation, renewable energy investment, and environmental risk mitigation of our operations.

Social responsibility is evaluated by how we ensure the safety and wellness of people including our employees, our contractors, and our communities. We are committed to providing a safe and respectful workplace where employees are high valued, treated fairly, provided with challenging and meaningful work, and benefit from opportunities for knowledge growth and career development.

How it Works



2023 Social Performance

Community engagement and philanthropic support remains a top priority for Essex Power Corporation. At Essex Power, we believe that corporations have a responsibility to invest in the economic, social, and environmental wellbeing of their neighbours. In 2023, Essex Power continued its support to our communities through various charitable donations and employee involvement, donating over \$70,000 to the communities they serve!.

\$40K 

\$40,000 EPC Youth in Community Fund: 2023 marked the 10th consecutive year of EPC's Youth in Community Fund, where \$10,000 was given to each of our shareholder municipalities to be used towards youth-oriented programming and initiatives.



\$5K

The Town of Amherstburg
ONTARIO

Provided in-kind services to each of our municipal shareholders



Sponsored local organizations and charities through community events



Other Donations



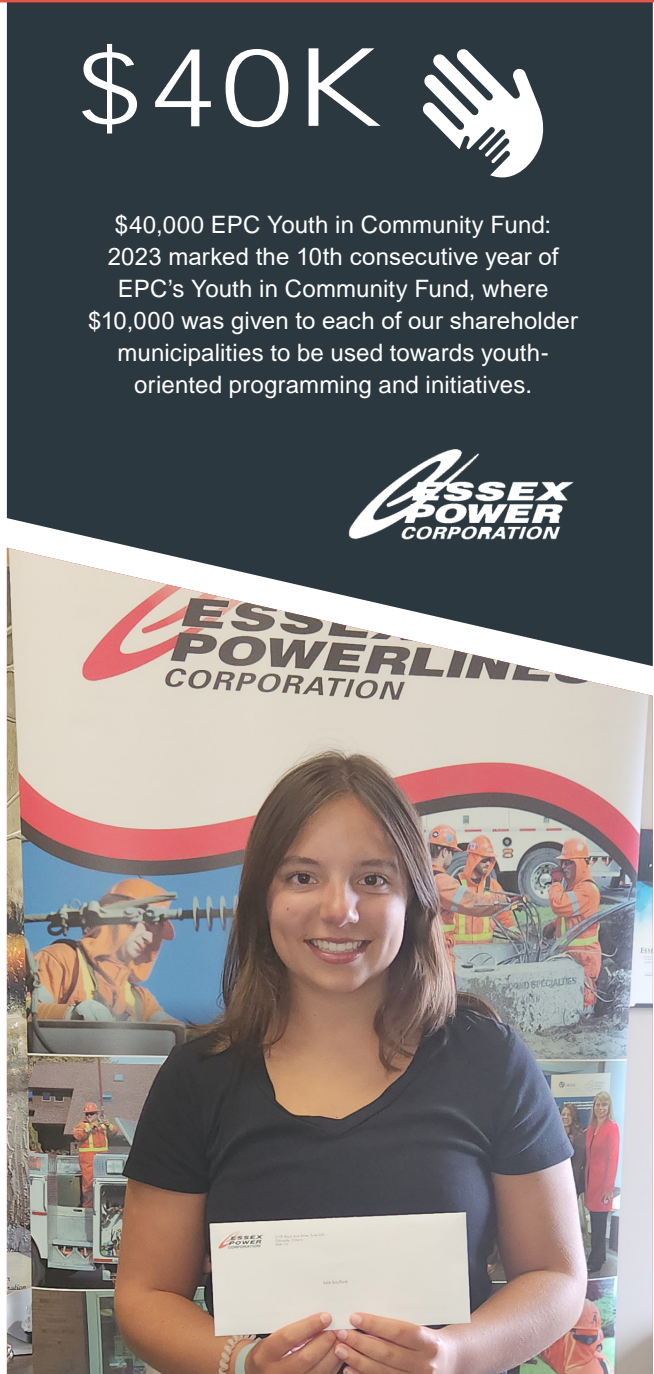
ESTD 1888



\$4K Powering Future Leaders

Powering Future Leaders Bursary: Awarded a \$1,000 bursary to four students within EPLC's service territory that were pursuing post-secondary education in the areas of study that build and support our industry

\$4K to local food banks



2023 FAST FACTS



85%
Public Safety
Awareness
Index Score

34,524

Total Customers

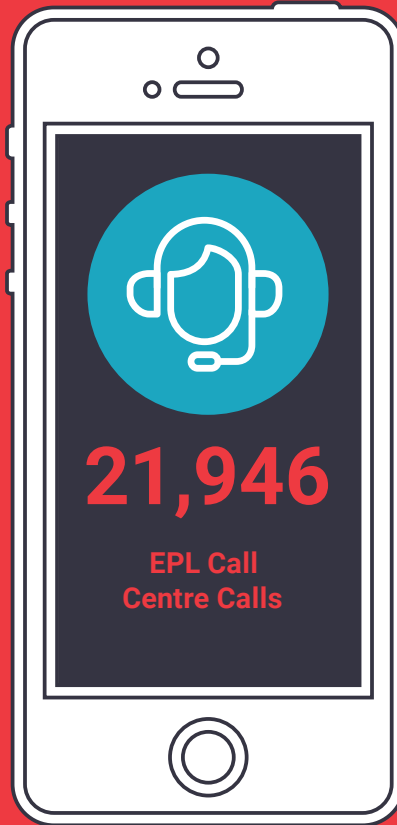


& Connections

87% Overall
Satisfaction

79% Quality of
Service

82% Quality of
Customer
Service



167
New Service
Installed



Total Electricity Consumed
259,063,504.94 kWh Residential
244,971,180.98 kWh Commercial & Industrial



6,251
Poles



1,138
Overhead Transformers

1,953
Underground Transformers



25 Fleet
Vehicles

180.5 km Primary
Overhead Lines

425.1 km Secondary
Overhead Lines

281.3 Primary Underground Cable

751.1km Secondary Underground Cable

Corporate Structure

Committed to strong corporate governance and accountability, the Board of Directors brings a depth of experience to governing Essex Power Corporation in the best interests of customers and the community.





Essex Power Corporation is a dynamic energy company that provides safe, reliable, and economical energy supply and services to our customers. Our commitment to innovation, performance management and leading by example has built the foundation for Essex Power and our affiliates to establish a diverse set of energy products and services that are valued by our customers.



Essex Powerlines Corporation, a regulated company, provides safe, reliable, and economical electrical distribution and service to over 34,000 residents and businesses in Amherstburg, LaSalle, Leamington, and Tecumseh. The foundation to empower our corporate vision is based on a dynamic and progressive workforce that will be industry leaders in providing “best in class” business solutions in the delivery of service to our customers.



Essex Energy Corporation is a dynamic energy company that focuses on implementing a wide range of energy related initiatives, including but not limited to, solar PV projects, site feasibility assessments, and full turnkey solar PV solutions. With almost 20 years of experience in the energy market, EEC has grown its success and has exceeded boundaries in Ontario by developing its in-house expertise and Distributed Energy Resources portfolio of assets and services, as well as its engineering and consulting services. As a leading energy technology company, EEC has been called on to assist both nascent and established solar PV developers in the completion, connection, monitoring, and maintenance of their solar PV projects, and to date, manages over 100MW of distributed generation equipment. EEC provides streetlight maintenance services to our shareholder communities and is registered with the IESO as a Metering Service Provider currently maintaining a total of 23 wholesale metering installations.



Since 2002, Utilismart has been an industry leader in providing settlement, regulatory, operational analytics, and data management services to utilities throughout North America. Our services are built on industry expertise and an in-depth understanding of both utility requirements in a market that is transforming digitally, and the needs of energy consumers more broadly. Our hosted applications offer customers an economical, accurate, and efficient solution with built-in reporting and analysis tools. Utilismart integrates with all mission critical utility software systems to enable customers to turn their large volumes of data into clear real time decisions.



As a Canadian company based in Ontario, **WattsWorth** offers a variety of energy management services to participants in the Ontario market. Our clients include large industrial/commercial companies, electric utilities, electricity generators and municipalities. WattsWorth has over 1-billion kWh consumed annually. In addition to technical expertise and a highly specialized and robust infrastructure, WattsWorth makes a commitment to listen to our clients’ requirements and tailor solutions that respect their objectives. WattsWorth has a business manner that reflects high standards of professionalism, attention to detail, and a logical approach to problem solving.



Essex Power Corporation

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Municipality of
Leamington
live | play | work

