

A Publication of the **Ontario Electrical League**

DIALOGUE

SPECIAL ANNIVERSARY EDITION

CELEBRATING

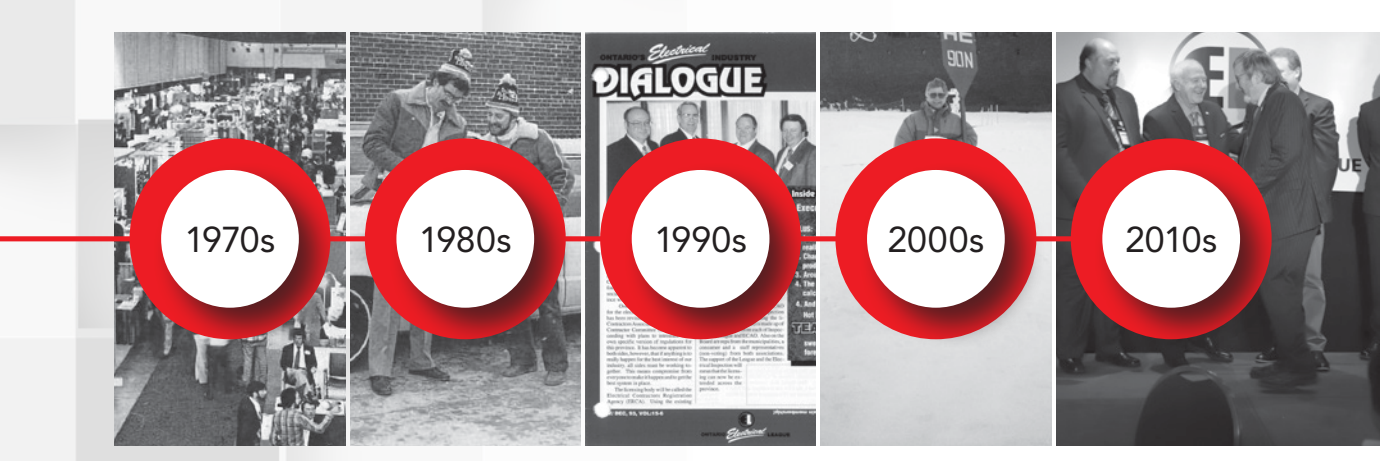
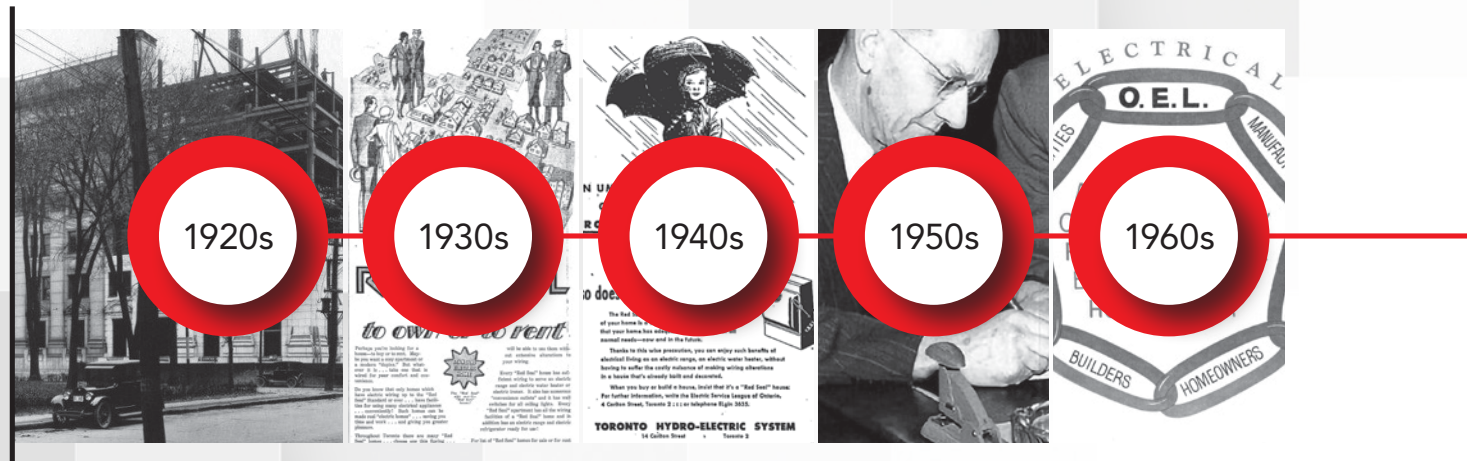
100

**YEARS OF
RELIABILITY**



ONTARIO ELECTRICAL LEAGUE

THE OEL TIMELINE



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ONTARIO ELECTRICAL LEAGUE

The Ontario Electrical League is a non-profit, provincial organization dedicated to over 20 chapters and more than 12,000 individual members from the electrical industry. Members include electrical contractors, electricians, apprentices, utility companies, generator companies, inspectors, distributors, manufacturers, manufacturers' representatives, consulting engineers, educators, service companies, Hydro One Networks Inc. and the Electrical Safety Authority. The OEL's role is to represent, communicate, educate and promote Ontario's electrical industry through chapter meetings, *Weekly Dialogue*, the Electrical Industry Conference, educational seminars, trade shows, training programs, and government relations initiatives.

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The opinions expressed in this publication are not necessarily those of the Ontario Electrical League, its Board of Directors or its members.

@OntarioElectricalLeague
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President's Message

Welcome to 100 years of the fully-wired electric home and the Ontario Electrical League (OEL). This special edition of *Dialogue* magazine has been developed to share the history of the organization and the industry. In the pages that follow, you'll see how the OEL has evolved from the early days in the 1920s to the high-flying times of the current century. We explore the beginnings of fully-wired electric homes and the Red Seal standard of wiring, which has become a global standard for the industry. Read on to meet trailblazers like George W. Austen, who pioneered the idea of setting requirements or standards for electrical wiring in homes.

As we enter this monumental year, I also want to acknowledge the following:

- Our members – without you there would be no organization – who have leaned on us in uncertain days through COVID-19 and for trusting

us with your membership for the 2020/2021 season;

- Our OEL staff for playing a critical role in keeping our membership informed, growing and engaged
- Our committees who have been instrumental in moving forward our advocacy initiatives provincially and supporting our industry partners



Stephen Sell
President, Ontario Electrical League

In this issue of *Dialogue*, we show the evolution of the electric home and how electricity usage has changed over the decades. We walk you through the OEL's rich history, from its early days in the 1920s to the organization it has become today. We pay tribute to members and staff of the past who have helped shape the last ten decades of representing the electrical industry. As you read through the story, maybe you or someone you know is part of the great history of this organization.

I would like to thank all of the volunteers and staff who have contributed not only to this special edition of *Dialogue*, but also to the organization as whole during the last 100 years. We look forward to another 100 years and to where the industry can go.

Stephen Sell,

President,
Ontario Electrical League

About the Author

RoseMary MacVicar-Elliott is the Program Coordinator of the Ontario Electrical League. Since 2018, RoseMary has overseen major projects such as the Employer Engagement Program, the Skills Development Fund Project and now the publication of this special 100th anniversary edition of *Dialogue* magazine.

Originally from London, RoseMary began her career working for small-town newspapers in the Ottawa Valley following her graduation from Carleton University, where she earned her degree in journalism. Her experience working in print as an editor and reporter led her to relocate to Toronto in 1988. In 1990, she joined the Canadian Standards Association (CSA Group) as a communications coordinator managing various newsletters tailored to audiences such as regulators, executives



RoseMary MacVicar-Elliott
Program Coordinator, Ontario Electrical League

and environmental stakeholders. RoseMary then continued her journey as a self-employed freelancer in the early 2000s, and afterwards as a communications officer for both Base Consulting and Management Inc. and COACH Canada's

Health Informatics Association, specializing in digital communications.

RoseMary's experience in communications, writing and editing set the groundwork for her efforts in conducting extensive research for this magazine. Over the last couple of years, her dedication to reviewing written records, acquiring archived media and exploring genealogy has transformed this project from a compilation of historical fragments to a curated, storied account of the OEL's past, present and future.

RoseMary currently lives in Etobicoke with her husband, Peter, and her son, Alex, and enjoys discovering new books and films, travelling and spending time with her family.

100 Years

Then, now and beyond, where do we go from here? The possibilities are endless. I introduce you to the Ontario Electrical League's special edition of *Dialogue* magazine, and by extension, our centennial celebration. As the chairman of the board of directors, I am honoured and grateful to be amongst some of the brightest minds this membership has today. We are not just colleagues, but also friends. We are individuals with a greater purpose for advocacy and change for the betterment of the electrical industry. And of course, we have fun doing it.

As I reflect on the challenges and upsets that 2020 has brought upon us, I cannot help to think how a global pandemic has changed our lives, professionally, emotionally and financially. The unknown of what is to come has haunted many of us. Despite the negativity and events brought upon us, I choose to surround myself with people of positivity, resilience, perseverance and determination, and those very people make up our organization.

Don't let boundaries, obstacles or a pandemic shape the way you live your life or define who you are. We are on an incredible journey, and to succeed, you must first embrace life's challenges to pave the road ahead. This is the entrepreneurial spirit which guides us all.

Fate and irony play a huge part in my life. Looking back to when I first joined this organization in 2006, I found myself immersed with a group of people, who, like myself, had a passion for the electrical trade with one common purpose: To drive change for the betterment of this industry for those who follow. I have met a few great men and women in my life, however one person particularly comes to mind – the late Richard Cullis, who passionately reinvigorated this organization and inspired many of us to reach our full potential and to pass this tradition and knowledge onto others.

The OEL and our member affiliates such as ESA, along with our distributors, manufacturers and contractors alike, were all instrumental in bringing change within our industry to bring about better business practices, technological advancements and tools for succession for all to prosper. With widespread representation from across the province, we owe a great debt to OEL committees such as the Contractor Committee and Contractor Government Relations Committee – coupled with our external committees such as Electrical Contractor Registration Agency, Contractor Advisory Council and Master Examining Committee. These committed individuals within these committees willingly give their time, effort and wisdom, not only for OEL's benefit, but for our industry as a whole.



Louie Violo
Chairman of the Board of Directors,
Ontario Electrical League

As the OEL heads into its second century, it continues to be the voice of the electrical industry in Ontario, blazing the trail on vital issues like ending card-based union certification and advancing apprenticeship system modernization. Fostering connections among all industry segments – contractors, electricians, apprentices, utilities, generator companies, inspectors, distributors, manufacturers, manufacturers' representatives, consulting engineers, educators and service companies – remains one of its greatest strengths.

Driven by its mission, "To Promote, Strengthen and Represent the Electrical Industry in Ontario", the OEL welcomes the challenges and opportunities of the next hundred years.

To our staff: President, Stephen Sell; Director, Operations, Wendy Dobinson; Director, Member Services, Laurie Richardson; Manager, Member Services, Shelley Whetren; Member Services Representative, Barrett Rutherford; Marketing and Communications Manager, Bao Xiong; Program Coordinator, RoseMary MacVicar-Elliott, and Accountant, Tyler Warcop. All of you have played a huge part in my life for the last several years settling into this role. Many thanks to RoseMary for the endless number of hours and dedication to provide us with a special anniversary edition of *Dialogue* celebrating our past 100 years.

As chair, it has truly been an honor and privilege to serve this organization and stand before you alongside other dedicated individuals at the forefront of this association. Although I am not going away, I am ecstatic to have Doug McGinley of JPR Electrical Services vice chair alongside me for the following year ahead, who will eventually take the reins to follow in the footsteps of others before me to help guide this organization to the next level.

Thank you all for your support and stay well.

Louie Violo,

Chairman of the Board of Directors,
Ontario Electrical League

100 Years of Reliability

The Ontario Electrical League has been promoting, strengthening and representing the electrical industry across the province for 100 years.

The Ontario Electrical League (OEL) is a non-profit, provincial organization dedicated to over 20 chapters and more than 12,000 individual members from the electrical industry. Members include electrical contractors, electricians, apprentices, utility companies, generator companies, inspectors, distributors, manufacturers, manufacturers' representatives, consulting engineers, educators and service companies.

Originally focused on the use of electricity in the home, the Electric Home League (the original name for the OEL) was the birthplace of the Red Seal in 1923, a pioneering symbol of reliability in residential wiring. Pre-dating the *Canadian Electrical Code*, the Red Seal was used to certify houses that met minimum standards for domestic electrical wiring.

original inspection-authorizing body for residential electrical inspectors. The term "Red Seal" has since been adopted for the program that sets common standards to assess the skills of Canadian tradespeople – still a symbol of reliability!

Over the last century, the League has worked tirelessly to bring industry sectors together during the myriad of changes in the electrical field. In 1966, the organization (renamed the Electric Service League of Ontario at the time) and the Electric Heating Association of Ontario amalgamated to become The Ontario Electrical League. Incorporating the broader interests of the electrical industry was a key objective for the new organization. At the local level, the OEL chapters that started in the 1960s became essential to meeting members' needs where they lived.

In more recent years, the OEL has blazed the trail for change on industry issues, having played a critical role in progress that was years in the making, such as the move to a single province-wide licensing system for electrical contractors and the modernization of the one-to-one journeyman to apprentice ratio. Today, advocacy still remains a top priority.

The OEL's service to the electrical industry has spanned phenomenal change over the last century. While the use of home appliances was in its infancy when the organization was established in 1922, self-driven electric cars are now a reality 100 years later in 2022. The OEL remains committed to the industry and welcomes the changes ahead in the amazing world of electricity.



Red Seal House Ad
The Globe (1844-1936); July 30, 1926; ProQuest
Historical Newspapers: The Globe and Mail



Red Seal House Ad
The Globe (1844-1936); July 16, 1926; ProQuest
Historical Newspapers: The Globe and Mail

OUR HISTORY



The League's Red Seal Plan, credited with contributing to the wider use of electricity, was adopted across North America and in parts of Australia. Through this work, the League was the

The OEL is Born: January 11, 1922

Toasters, coffee percolators and plug-in radios were a few of the modern electric conveniences that many Ontarians dreamed about having in their homes when the Electric Home League (League), the original name for the Ontario Electrical League (OEL), was established a century ago on January 11, 1922.

Conditions were ripe for expanding the use of electricity in the home at that time, and the League rose to the challenge. By 1920, every major Canadian city from Halifax to Vancouver had electrical utility companies supplying power to urban residents, and they, along with electrical manufacturers, began to aggressively promote electricity to Canadians.¹ Ontario Hydro had become the largest utility in the world with the completion of the first hydro plant at Niagara Falls. The importance of electricity was also widely recognized in public settings like the Canadian National Exhibition (CNE). CNE visitors were treated to displays of the latest of electric gadgetry – radios, domestic appliances, and even Telerox, the electrical robot “man” who could answer the phone and turn lights on.²

The impetus for the League started in 1921 when the Toronto Hydro-Electric System (Toronto Hydro) wrote to the Society for Electrical Development (SED) in New York suggesting they have their Canadian representative cooperate with electrical interests in Canada to promote the electric home idea. The result was two successful electric home exhibits in Toronto – one on Regal Road and the other on Gerrard Street East (Kelvin Park) – in 1922.

The League sponsored the electric homes to promote the use of electricity in the home and spotlight the need for proper wiring. A crowd of 20,000 people toured the eight-room Regal Road home over 13 days. The League had

The Electric Home
Will remain open for public inspection every week day
 To Saturday, April 22—1 p.m. to 10 p.m.
 If you own a home—if you think of building or buying—pay this Electric Home a visit.
 You will not be asked to buy anything—although the house is for sale as furnished and equipped.

The Electric Home is equipped solely for exhibition purposes. It is scientifically lighted, with fixtures which add charm to its furnishings and decorations. The Electric Home League, under whose auspices the Electric Home is shown, has installed complete electrical equipment, including:

The T. Eaton Company, Limited, has completely furnished and decorated it. It is not a spectacular exhibit, just a well-planned, well-built, well-furnished home of the better class, exhibited to demonstrate the advantages which proper wiring, with adequate, well-located convenience outlets, contributes to lessen work and make home life more pleasant.

Kelvin Park, Beach Annex
 Two Blocks East of
Gerrard St. & Coxwell Ave.
 Electric Home League
An Organization Representing Every Group of the Electrical Industry.

This Electric Home was built by Superior Homes Limited

Open Today—10 a.m. to 10 p.m.

Electric Home Exhibit Ad
 Toronto Star, March 28, 1922

wired the house for comfort and safety and the completely furnished, modern home was used to demonstrate electrical equipment that lightened housework, safeguarded health and added to the overall comfort of the entire household. A League representative commented: “Our idea is to create a public opinion which will compel architects, builders, and owners to plan for and install proper wiring in their houses.”³



Modern-Day Kelvin Park Electric Home
 1657 Gerard Street East, Toronto, Ontario
 Photo Credit: Re/Max Hallmark Realty Ltd.

1920s

When the... Are...

YES, when the house is plastered and painted... it is hard to tell how GOOD the plaster and paint is. Plaster and paint cover up so much...

BUT this is sure—even though the electric wires are covered up... hidden away behind doors and behind walls you need not be ignorant of its sufficiency to give you the comforts and convenience you want from electricity.

Ask the builder, and the real estate agent: “Is this a Ten Point Red Seal house... is the wiring adequate?” Or, better still, look for the Red Seal yourself.

The Electric Service League and the Ten Point Red Seal

The Electric Service League is a group of electrical manufacturers, electricians and the Toronto Hydro Electric System. This League has written to all builders, architects, real-estate agents and any other persons with full authority can bring greater ease, greater comfort and more beauty into the home when proper wiring is installed.

The Ten Point Red Seal is NOT the trade-mark of any kind of electric wiring.

This Seal Certifies that the Electric Service in this house fulfills Electric Service League requirements and entitles it to rank as a

**STANDARD
ELECTRIC HOME**

Wired for ELECTRIC RANGE and appliances in general. Extra Service capacity for other equipment.

ELECTRIC SERVICE LEAGUE
 (Incorporated)

Toronto
 Ont.

This approach, bringing different industry segments together, has remained central to the League's purpose.

Newspaper reports by "young lady representatives" were credited with spreading the message to the public as follows:

"These articles are pointing out, for example, that while the average householder may not feel disposed to purchase at one time all the electrical equipment shown in this model home, he will nevertheless, doubtless expect to do so as the years go by, adding a washing machine one year, an ironing machine the next, etc... (In this connection,) they point out the absolute necessity of laying the proper foundation for the use of this equipment when the house is built, by having the home properly wired, at a comparatively small additional expense. These articles emphasize, also, the necessity of having this work done by reliable contractors, using the most approved methods..."⁴

The purpose of the electric home exhibits was outlined in *The Electrical News* of the day. "The cities of Hamilton and Toronto are in the midst of an educational campaign to create in the home lovers of those cities the attitude of mind that says, 'I need electricity in my home.'" The article continues, "These campaigns are not interested in selling appliances or wiring – directly. They have only one object – to 'create a desire.' That desire is – to do things in the most modern, convenient, expeditious, sanitary labor-saving way the world knows about today."⁵



About George W. Austen

- Born in Brantford, Ontario
- Worked as a journalist prior to joining the League

1923: Joined the League as the first Manager

1927: Recognized by the U.S. Society for Electrical Development for introducing the Red Seal standard, bringing public attention to the need for adequate wiring

1948: Retired on December 31

In the midst of this activity, the League was incorporated under The Ontario Companies Act by Letters Patent on January 11, 1922. Toronto Hydro had organized the League, made up of

electrical manufacturers, jobbers and Toronto dealers.⁶

A year later, due to the success of the electric home campaign, it was decided to continue promoting better wiring. The League's name was changed to the Electric Service League on September 19, 1923, to reflect the organization's broader activities. The provincial government issued supplementary letters patent approving the change. Toronto Hydro continued to provide generous support financially and in personnel.

Operating at 24 Adelaide Street West in Toronto, the League also hired its first manager, George W. Austen, a newspaper journalist. Austen had a major impact on the League's legacy in the skilled trades and electrical safety.

Public demand grew to have homes wired like the electric homes on display. The League was called on for advice and suggestions.

A difference of opinion developed about the desirable size of service and the number of receptacles and other outlets for a house. In response, Austen came up with the Red Seal Plan. The plan called for establishing a definite minimum standard of wiring, determined by the League Board of Directors and based on carefully-considered recommendations from the electrical industry, including provincial and all local hydro companies, manufacturers, distributors and contractors.

At a time when equipping a home with electricity to power stoves, washing machines and lighting was still something

of a novelty, Austen envisioned the Red Seal as a symbol of confidence in residential electrical wiring.

"At the beginning, there was considerable difference of opinion as to how much wiring should be put in a house and it was to overcome this difficulty that Austen originated the Red Seal plan," reads a League document, believed to have been published in the early 1950s. "Minor changes have been made in the specifications from time to time, but the standard set for Red Seal certification has always been referred to as the minimum requirement, and efforts are made to show builders the desirability of getting added convenience and comfort by going beyond the required minimum. The Red Seal plan, however, assures the house purchaser of a reasonably adequate wiring layout."⁷

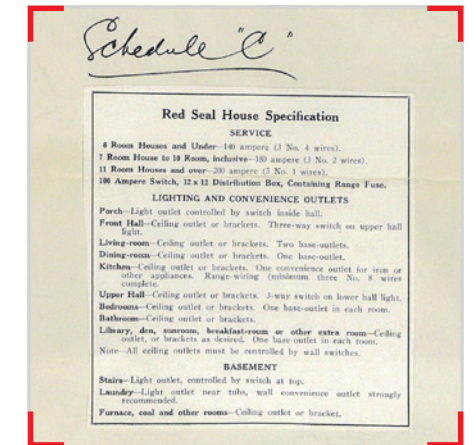
Any house in which the wiring was up to the standard was classed as a Red Seal house and was certified as such by having a decalcomania Red Seal placed on the switch box. The Red Seal was a bright red

circle with a border of 10 sharp points, looking like a miniature sun. About 46 centimetres in diameter with a space for the electrical contractor's name and address, the decal could be seen at a distance.

The Red Seal became official when its industrial design was registered in 1923, followed by trademark and copyright registration in 1924. The Red Seal was used for the first time in September 1923, four years before the first edition of the *Canadian Electrical Code*, today's industry standard, was published.⁸

The benefits of the Red Seal Plan were discussed in a 1923 article in *The Electrical News*. "While it is too early to say to what extent this campaign will assist in improving the standard of electric wiring, a number of building contractors have expressed themselves very enthusiastically about it. It is evident on the surface that if the standard of a considerable percentage of our homes can be raised to that outlined in the minimum specifications, not only will the amount of business available for the

electrical contractor be greatly increased, but the way will be opened for the sale of many more electrical appliances. As the public is brought to realize the value of these conveniences, they will little by little come to demand better installations. The builders and architects will thus automatically improve their specifications and the electrical industry will profit in proportion as it is enabled to give more and better service."⁹



Red Seal House Specification
1926

Minimum Red Seal Requirements

Houses: 7 Rooms & Over

Three No. 2 wires. 100 ampere switch. Distribution box to have two extra 30 ampere fuse blocks. Circuit panel to have provision for two spare circuits. Range wiring (three No. 6's) to be completed to point in kitchen.

Houses: 6 Rooms and Under

Three No. 4 wires. 100 ampere switch. Distribution box to have one extra 30 ampere fuse block. Circuit panel to have provision for two spare circuits. Range wiring (three No. 6's) to be completed to point in kitchen.

Lighting

Standard outlets in each room or main hall. Outlet on porch or main veranda, controlled from switch inside. Cellar stairway to have light, controlled from switch at top. Outlet in laundry over tubs. Outlet in front of furnace, unless otherwise lighted. Outlet over main stair turn,

unless suitable illumination is provided by lower and upper hall lights.

Switches

All ceiling lights controlled from switches conveniently placed. Three-way switches on upstairs and downstairs hall lights.

Convenience Outlets

(Preferably Duplex or Twin Style)

- 2 in living room
- 1 in dining room
- 1 in kitchen
- 1 in each bedroom
- 2 in den or upstairs sitting room
- 1 in sun room
- 1 in laundry for washing machine, etc.
- 1 in sewing room, breakfast room, etc. (if any)

Source: "Selling More Electricity to the Builder, the Architect and the Public," *The Electrical News* – October 1, 1923, 14 & 15

What's in a Name?

The organization now known as the **Ontario Electrical League (OEL)** went through several name changes over the century.

1922: Electric Home League **1946:** Electric Service League of Ontario

1923: Electric Service League **1966:** The Ontario Electrical League

The Test of Adequacy

Austen elaborated on the concept of "adequacy" in the Red Seal Plan in a letter to the editor to *The Globe* in 1924, as follows:

"A 'well-wired' house now does not mean merely a house whose wiring is good in workmanship or technical excellence. It means a house in which the wiring is complete or sufficient to serve all the domestic purposes to which electricity is put. Thus 'adequacy' of wiring is the test ... In the electrical industry today, an adequately wired house – which is 'modern' in wiring sufficiency – is regarded as containing a heavy service, plenty of lights, switches, and appliance outlets. Two or three hundred electric outlets per house are not so common. The average in 200 better class Toronto houses is 58."¹⁰

During this period, Austen indicated there was still a long way to go in making Toronto the electrical city it could be. He reported that 50,000 homes in Toronto, half of the residences in the city, were wired only for lighting, plus 2,000 to 3,000 were unwired. Ontario was ahead of the United States in many respects of domestic electrification due to the hydro movement. However, the average amount of current consumed in Toronto homes was relatively small, about 70 kilowatt hours a month – about \$1.35 worth!¹¹

Even so, electricity was changing the way people lived and worked. Electric waffle irons, coffee percolators and toasters were among the many modern conveniences desired by housewives during the 1920s. The decade also saw great interest in the new battery-free radio sets that could be plugged right into the wall. Electric light evolved from being utilitarian into an expressive medium: Decorative shades, strategic positioning of lamps and varying light intensities were incorporated into room design to help colour the mood of the home.¹²

In the late 1920s, Canadians started decorating their Christmas trees with electric lights. By the early 1930s, the availability of waterproof wires and sockets meant Canadians could also decorate the exterior of their homes with lights for the festive season.¹³

The Red Seal's success spread to the U.S. when the American rights were licensed to the SED in 1924; this led to 50 U.S. leagues taking up the program. In 1927, the SED, New York paid tribute to Austen

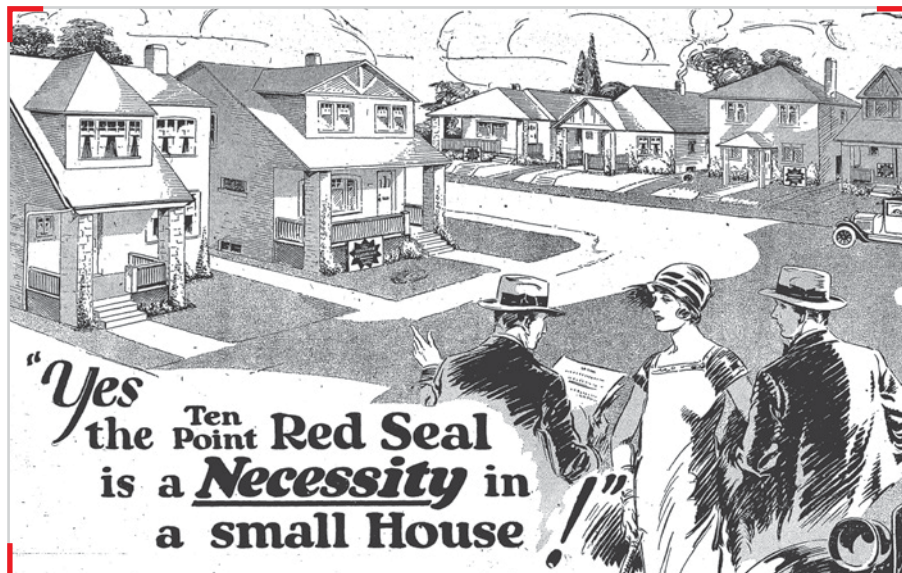
for his role in creating the Red Seal Plan by presenting him with an illuminated address, a scroll or panel celebrating achievement.

Over the next decade and a half, the Red Seal spread to British Columbia, Vancouver and Winnipeg through licensing agreements. The U.S. National Adequate Wiring Bureau also conducted a nationwide home wiring program based on the Red Seal idea and Australia used it in some states.



Sunnyside, Toronto – 1925

Photo Credit: City of Toronto Archives, Fonds 1266, Item 5170



Red Seal Standard of Approval Ad
1926

This Agreement and License made this _____ day of May,
A. D. 1925,

BETWEEN:

ELECTRIC SERVICE LEAGUE, of the City of Toronto,
a body incorporated under the laws of the Province
of Ontario, hereinafter called the Party,

of the First Part,

-and-

ELECTRICAL SERVICE LEAGUE OF BRITISH COLUMBIA,
hereinafter called the Party,

of the Second Part,

WHEREAS the Party of the First Part is the owner of a certain Trade Mark and Industrial Design consisting of a ten point red star seal bearing the words:- "Standard Electric Home", and descriptive matter, also the name and address:- "Electric Service League (Incorporated) Toronto, Ont.", as per the pattern annexed as schedule "A" to this agreement.

AND WHEREAS the said Trade Mark was registered in The Trade Mark Register No. 161, Folio 36097, in accordance with The Trade Mark and Design Act on the 9th day of August, A. D. 1924, by the said Party of the First Part.

AND WHEREAS the said Industrial Design of the said seal was also registered in The Register of Industrial Designs No. 27, Folio 5927 in accordance with The Trade Mark and Design Act on the 25th day of September A. D. 1923 by the said Party of the First Part.

AND WHEREAS the copyright of the wording on the said seal was registered under Serial No. 1488 in the Register of Copyrights No. 1, kept at the Copyright Office, on the 17th day of September 1924 by the said Party of the First Part.

AND WHEREAS the Party of the Second Part is desirous of acquiring the right to use the said seal in promoting housewiring campaigns and for other purposes incident thereto within the Province of British Columbia.

AND WHEREAS the Party of the First Part desires to assist and co-operate in the work of the Party of the Second Part.

NOW THESE PRESENTS WITNESS that the Party of the First Part, in consideration of One Hundred Dollars (\$100.00) to it paid by the Party of the Second Part, the receipt whereof is hereby acknowledged, and of the faithful performance of the covenants and agreements of the Party of the Second Part herein contained, the Party of the First Part hereby grants unto the said Party of the Second Part, the right, license and privilege to use the said RED SEAL Trade Mark and Industrial Design in its housewiring campaigns and for other purposes incident thereto within the territorial limits of the Province of British Columbia.

And the Party of the Second Part covenants and agrees:-

- (1) That within four months from the date of this agreement it will obtain incorporation as a corporate body under the laws of the Province of British Columbia.
- (2) That it shall have the substantial support of the central station interests.
- (3) That in making use of the Red Seal Plan it will use the same wiring specifications as are in use by the Party of the First Part at the date of this agreement (a copy of which specifications is annexed as schedule "B" hereto), and that it will make no change in same without first obtaining

B.C. Licensing Agreement
1925

Electric Range Week and More

At this time, “backward cities and towns” were encouraged to brighten main streets with electric lighting and tidy live and other wires. Pedestrians and curious children were sometimes electrocuted by live wires.¹⁴

By 1930, roughly 1 million Red Seal homes had been built in Toronto, Winnipeg and Vancouver combined, compared with only 28,000 in the U.S. Wiring standards proved to be a boon for electric utility companies, which relied on the program as a vehicle to promote domestic electricity. *Canadian Electrical News* reported that Red Seal homes were electrified at a rate three times higher than others. The average Red Seal house had \$650 worth of electrical appliances, compared with \$260 for the average non-Red Seal. In Ontario, groupings of Red Seal homes were advertised as Red Seal Communities.¹⁵

In other endeavours, the League became involved in activities like Electric Range Week during the 1930s. Toronto distributors and dealers teamed up with the League and both the Ontario and Toronto Hydro Commissions to highlight the efficiency of electric ranges in the home. The public was invited to see the newest models gleaming in showrooms. The appliances were billed as “cool, economical in operation and in food-saving, clean, convenient and long-lived ... Tests have shown that 17 per cent is saved in meat purchases because of less shrinkage in electrical cooking, while less expensive cuts can be used because of the superior cooking operation.”¹⁶

Consumers were encouraged to benefit from the science behind electric ranges.

The electrical industry continued to advance with developments like the introduction of the first SLU solderless connectors, the forerunner of modern connectors, by ILSCO.

Compared to the near-overnight electrification of cities, the electrical transformation of Canada’s countryside moved at a glacial pace. Rural electrification was a challenge for utility companies, which faced hefty construction costs to build the necessary framework that would bring electricity to farms.¹⁷

As the Great Depression weighed heavily on Ontarians in the 1930s, electricity supported much-needed entertainment in the form of illuminated night-time sporting events. Torontonians, for example, were thrilled to watch night baseball at Maple Leaf Stadium on Bathurst Quay and softball at Sunnyside Stadium on long, hot summer evenings.¹⁸

Amusement areas such as Hanlan’s Point (now occupied by the island airport) at Toronto Island, Sunnyside and the CNE

offered evening entertainment in the big city. Midway rides such as the Ferris wheel or merry-go-round were more exciting in the dark and few could resist the neon signs which beckoned one to try new and exciting fair games.¹⁹

As the decade came to a close, the Red Seal Plan’s impact was discussed in a 1939 *Globe and Mail* report. “The Plan has been a public boon to bringing home wiring in the Toronto area up to the best standard – considering the vast mass of homes covered – anywhere in the world,” reads the article. “The Plan has meant much wider use of electricity in Toronto homes, saving a great deal of unnecessary labor to wives and mothers, increasing the standard of family life, improving lighting for the conservation of eyesight, and in general making home life happier and more agreeable in many ways.”²⁰



Illuminated Merry-go-round, Hanlan’s Point – July 31, 1929
City of Toronto Archives/TTC Fonds 16, Series 71, Item 7077

1930s



Too few
"outlets"



1940s & 1950s

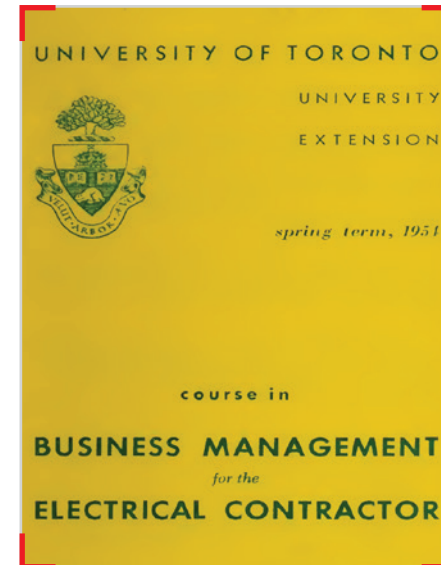
Expansion and A New Name

The League further grew in 1946 when the Ontario Municipal Electric Association (OMEA) asked the Hydro-Electric Power Commission of Ontario (HEPC) to expand League activities to cover the entire province. The public utility share of League contributions, previously supplied by Toronto Hydro, started to be made by HEPC on behalf of the local utilities. The name was changed to the Electric Service League of Ontario in August 1946 to reflect the organization's wider scope.

Jack F. Mowat was hired as Assistant Manager around this time and became the second League Manager when George W. Austen retired in 1948. Mowat was a descendant of Sir Oliver Mowat, a Father

of Confederation and an Ontario Premier. The commitment to training could be seen in this period when the League operated 14 wiring schools in principal population areas of the province so utility and contractor delegates would not have to travel more than 32 to 48 kilometres to attend.

HEPC also cooperated with the League in promoting the adequate wiring program. Adequate wiring schools in Northern Ontario were well-attended by representatives of hydro municipal systems, contractors and dealers. Newspaper advertising and publicity materials were arranged to advance Red Seal activities, the symbol of adequate wiring.²¹



Electrical Contractor Course
University Of Toronto, 1954

Training

OEL education has taken many forms since the wiring schools in the 1940s. Topics have ranged from the *Canadian Electrical Code* to the *Workplace Hazardous Materials Information System (WHMIS)*, from lighting to time management. In the ever-changing world of electricity, training provides members with the information and skills they need to carry out their jobs safely and effectively.

Here are a few highlights from training over the decades:

1954: Co-sponsored the second Business Management for Electrical Contractors course at the University of Toronto.

1960s: The Leadership Training Conference (later called the Chapter Leadership Conference) started for chapter executive members. They reviewed OEL and chapter activities, developed new methods to strengthen the electrical industry network at the community level and, perhaps most importantly, built

friendships with counterparts from across the province.

1985: The Breakfast of Champions series was launched to give members brief, informative seminars and motivate them. Members from Sault Ste. Marie, Chatham, Aylmer, Guelph and Haliburton travelled to attend a session in Toronto.

1988: The *Heat Loss Manual* was the most popular training document produced by the OEL to this point, with 1,000 people having used it.

1990: The first OEL *WHMIS* course was staged in Belleville and the OEL had two trained instructors to travel the province presenting the course to chapters.

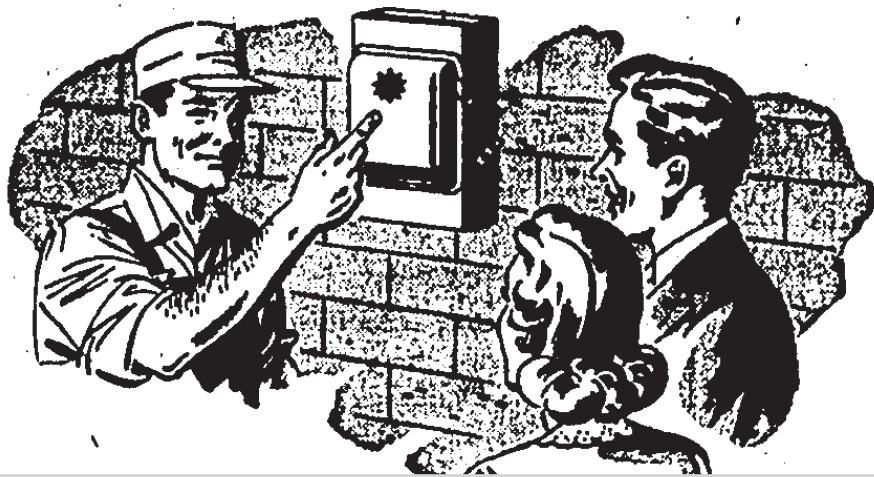
2016: 800 members participated in 30 *Ontario Electrical Safety Code* training sessions.

2021: The Tools for Success program went live, complete with electrical safety, general safety, business and digital training courses.





The RED SEAL is a Standard of approval



Red Seal Standard of Approval Ads
Globe and Mail, 1949-1950

Adequate wiring and the Red Seal remained priority activities for the League into the 1950s. In the late 1940s, the League took over the services of Toronto Hydro's Alex McTavish as field superintendent for a couple of years. In addition, two Toronto Hydro field representatives worked from the League office, and there were 120 Red Seal representatives with other hydro organizations across the

province. The League's challenge was ensuring that local hydros allowed these representatives sufficient time to do Red Seal work where there was any volume of building in post-war Ontario. In one or two suburban municipalities, League staff did direct field work because it was physically impossible for the relatively limited suburban hydro staffs to do justice to Red Seal work when confronted with a large volume of new housing on

their lines and the necessary changes in the distribution system.

The Red Seal work led to the League becoming the original inspection-authorizing body for residential electrical inspectors. By the end of 1950, more than 40,000 homes had been Red Seal-certified in Ontario and there were 1,945 jobs on track to be certified.

League activities encompassed making contacts through industry and public meetings, participating in home shows, presenting adequate wiring displays at fall fairs and more, as well as inspecting and certifying wiring inspections.

The League used a direct mail package, including a copy of the Red Seal standard and a prepaid return postcard, offering wiring layout, contractors' names and space for suggesting an inspection date to reach homeowners. Customers were also invited to send in a house plan, so the local Red Seal representative or League office often had the opportunity to review and suggest improvements in the wiring plan.

Advertising in trade publications such as the *Daily Commercial News* was another important vehicle for reaching builders and owners. League activities were also promoted in the *Red Seal News*, distributed to 6,000 architects, builders, contractors, dealers, distributors, manufacturers and hydro personnel. Toronto Hydro published a series of advertisements emphasizing the importance of good wiring and many of their trucks carried cards inviting Red Seal inquiries. The benefits were explained

this way in an April 1950 Toronto Hydro ad in *The Globe and Mail*:

"The Red Seal gives the householder the important information that his home has enough outlets for the convenient use of the normal number of electrical appliances, now and in the future. It also tells him that the wiring is heavy enough for an electric range and an electric water heater. If you wish to be spared the trouble and expense of making wiring alterations at some future date, be sure that any house you buy or build is wired to Red Seal standards."

Plus, many contractor members displayed the Red Seal decalomania transfer on their trucks.

In one interesting development, HEPC required the Red Seal standard of adequate wiring be followed in its specifications for new homes that were built for personnel working on its extensive program of generating station expansion in Ontario.

Meanwhile, industry advances included putting the first Canadian thermoelectric (coal-burning) power station, with an installed capacity of 1 million kWh, into service in Toronto in 1951.²²

In 1952, the rights to the Red Seal trademarks were licensed to the Canadian Adequate Wiring Bureau for all areas of Canada, except for Ontario.

The term "Red Seal" has since been adopted for the program that sets common standards to assess the skills of Canadian tradespeople. When the Red Seal appears on a provincial or territorial trade certificate, it means the tradesperson has demonstrated the knowledge required for the national standard in that trade – still a sign of reliability!

68 Per Cent of New Homes Short on Wiring

Inadequate residential wiring remained a concern as new electrical appliances and equipment came on the scene. In 1957, League field supervisor H.G. Swain estimated that 68 per cent of new homes in Canada did not have enough wiring for their electrical needs. In a newspaper article, he cited shrinking TV pictures, slow-to-heat appliances and frequent blackouts due to blown fuses, as signs of an overloaded electrical system and a potential fire hazard. He pointed out that wiring may have been in compliance

What did a Red Seal Representative at a local hydro do?

This description is based on the League history written in the early 1950s.

1. Wrote the names of the owner, builder and electrical contractor and address of the new home on a record card.
2. Placed a display seal on the front of the house under construction and sometimes added the electrical contractor's name.
3. Checked the number of outlets and switches for compliance with the plans and/or the Red Seal standard after the wiring was roughed in. By noting these details

on the record card, errors or omissions could be pointed out to the contractor, builder and owner.

4. When the main service was installed and the wiring was completed, checked the wiring with the outlets shown on the record card, adding any additional outlets.
5. When the job complied with the minimum requirements of the Red Seal standard, certified to that effect by signing and dating the record card, and affixing the decalomania transfer to the new home's main service.
6. Made a final report to the League office.



Signing of the Red Seal Agreement with OEL Manager J. F. (Jack) Mowat, far left – 1952
Photo Credit: Ontario Hydro

for a house when it was built – including the many constructed before the Second World War – but needed to be improved to meet new needs. Swean also stressed the importance of having a qualified electrician provide these services: “Electrical work is not a field for amateurs or do-it-yourself practitioners.”²³

This issue of inadequate residential wiring reared its head again in 1957 when a Toronto builder refused Red Seal wiring, accusing the League of being an agency of electrical manufacturers

and distributors. League Manager Harry J. Foy countered that Ontario Hydro and the various utilities commissions provided 77 per cent of funds needed to support the League and the balance came from industry.

Foy said the League’s sole purpose was to assist Ontarians to enjoy maximum benefits from using electricity in their homes. “The office of the fire marshal is a strong supporter of our efforts,” he stated, “as they realize that the installation of adequate wiring in the

home is the best way to prevent the ‘do-it-yourself’ type of wiring which is likely to create unnecessary hazards in the home electrical system.”²⁴

Meanwhile, the growing role of electricity in the home led to forecasts of developments like “electronic ovens using microwaves to cook food in a matter of seconds” and “flat television screens that hang on the wall” at an industry convention.²⁵

THIS AGREEMENT made in duplicate this day of
MAY, 1952,

B E T W E E N :

ELECTRIC SERVICE LEAGUE OF ONTARIO
a corporation of the Province of
Ontario having its Head Office at
the City of Toronto in the Province
of Ontario, hereinafter called the
LEAGUE

-and-

CANADIAN ADEQUATE WIRING BUREAU
a corporation of the Dominion of
Canada having its Head Office at
the City of Toronto in the Province
of Ontario, hereinafter called the
BUREAU

WHEREAS the LEAGUE is the owner of the following registered
standardization trade marks:-

No. N.S. 35,443/138 dated March 31st, 1949 for "the representation of a seal having the configuration of a ten-pointed star"

No. N.S. 35,444/138 dated March 31st, 1949 for the words "red seal";

said trade marks being hereafter referred to as "THE RED SEAL MARKS";

AND WHEREAS the LEAGUE has agreed to grant to the BUREAU the right to license the use of the above mentioned registered standardization trade marks for Canada excepting the Province of Ontario.

NOW THEREFORE, in consideration of these presents, other valuable consideration and the sum of One Dollar now paid by the BUREAU to the LEAGUE, the LEAGUE hereby grants to the BUREAU the right throughout Canada, excepting Ontario, to license the use of THE RED SEAL MARKS in connection with building wiring systems which are equal to or exceed the following standard, namely: Three number 6 B. & S. Gauge service wires.

Annual Conference

The birth of the annual conference was another milestone in the 1950s. A key networking, education, recognition and social gathering, the conference has become the event of the year for the League. Members from across the province and industry – manufacturers, distributors, contractors, regulators, utilities and more – still benefit from this opportunity to come together. The conference was named the Electrical Industry Conference (EIC) in the 1980s, in line with the commitment to connecting and supporting all segments of the industry.

This event has grown to encompass extensive education sessions, the annual general meeting, an awards program, a trade show, social events and a companion program. The awards, listed below, pay tribute to outstanding contributions to the League and industry.

Richard Cullis Leadership Award of Distinction:

This award is presented to an OEL member in good standing who is on at least one OEL committee heading up a cause. The recipient must be committed, passionate and have volunteered time and energy for the benefit of contractor members, the OEL and the industry. This tribute is awarded in memory of trailblazer Richard Cullis and his outstanding contributions to the industry, the OEL and its members.

Electrical Inspector Recognition Award:

This award pays tribute to an electrical inspector's outstanding contributions to the industry.

Outgoing Board of Directors' Members Award:

This award salutes outgoing Board of Directors and their outstanding contributions to the Board, the OEL and the industry.

Outgoing Chair of the Board Award:

This is presented to the outgoing Board Chair in recognition of dedication and stewardship.

Hall of Fame Award:

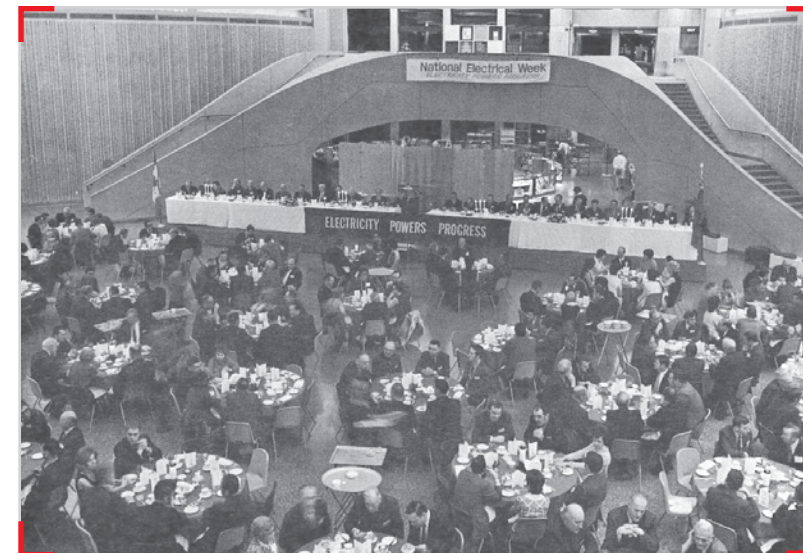
Established in 2014, this lifetime achievement award is presented to OEL members, past or present, who have dedicated themselves to the betterment of the industry.

President's Club Award:

Started in 1984, each new chapter president is introduced at the conference awards night and presented with a President's Club lapel pin.

Camaraderie is also a big part of the conference as members meet up with old friends and make new ones. On the business side, they share experiences and help each other problem-solve. During lighter moments, they relax on tours or sightseeing excursions and at social activities.

The local chapter plays an important role in the conference. The host chapter's responsibilities range from coordinating the pre-conference event and hosting the Welcome Reception, to selecting the conference theme and assisting with speaker selection and onsite requirements such as unloading supplies and helping at the registration desk.



Dinner at the Ontario Science Centre
1971



Trade Show
1972



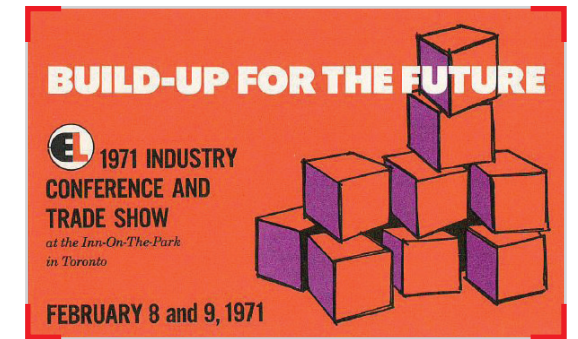
Stan Stewart wears an awarded hat
1981



Dinner with Toronto Maple Leafs' Darryl Sittler
2014



Louie Violo, Dale MacDonald, Dave Ackison
2019



The Hon. Dennis Timbrell, Minister of Energy for Ontario,
with OEL President George Russell
1975



Product Expo
2017



Awards Dinner
2019

Change 1960s Style

The 1960s brought significant change to the industry. Nuclear power, for example, was in the spotlight in 1962 when the Nuclear Power Demonstration (NPD) reactor near Rolphton, supplied the Ontario power grid with the first nuclear-generated electricity in Canada. NPD was the prototype and proving ground for research and development that led to commercial application of the Canada Deuterium Uranium (CANDU) system for generating electric power from a nuclear plant using natural uranium fuel, heavy water moderator and coolant in a pressure tube configuration with on-power refuelling.²⁶

Chapters: The Heartbeat of the League

The League's chapter structure was established in the 1960s to meet members' needs at the local level. Today, the chapters continue to provide members with the opportunity to network, share information, enjoy themselves and drive change on vital industry issues. An undated *Local Chapter Organization* flyer lists the objectives, in part, as creating "a healthy active organization dedicated to the purpose of raising the standard of electrical living in their community, of improving the business and social relationship among its members, of acting co-operatively for the common good, of taking effective action to meet their competition ..."

The number of chapters fluctuated over the years, with the most thought to be 45 in the 1980s. At one time, Ontario Hydro staff were heavily involved with organizing chapter meetings and carrying out secretarial duties. In the mid-70s, when Ontario Hydro left this role, the utilities and private industry stepped in to help with the chapters.

Later, when the utilities backed away from the chapters, they became more focused on contractors.

Speaker nights, often presented over a meal, have been a mainstay for the chapters. Members hear from manufacturers, the local electrical inspection authority and sometimes other speakers like tax specialists. Inspector's Nights are a long-standing tradition, where inspectors discuss regulations and issues with members and members provide feedback.

Social events have been another big part of the chapter experience. Whether it was the Waterloo Chapter's pig roast picnic for 600, the Essex Chapter's trip across the U.S. border to watch football on the

American Thanksgiving Day weekend, golf tournaments or the traditional Ladies' Nights, fun and fellowship were the focus. Friendly competition, like the dual-of-the-decade baseball game in 1987, has also gone into the mix. The Northeast team, led by Ron Eamer of the Seaway Valley Chapter beat the Southwest team, led by Gerry Knorr of the Waterloo Region Chapter, after each team had won four games, each over the previous eight years. The contractor vehicle contest, also known as the Truck Beauty Contest, provided more fun.

Chapter trade shows have also flourished. The Essex Chapter's Trade Exposition, Southwestern Ontario's largest electrical products exhibition, is one longtime success story.



Chapters Conference
1979



Essex Chapter Trade Show
2019



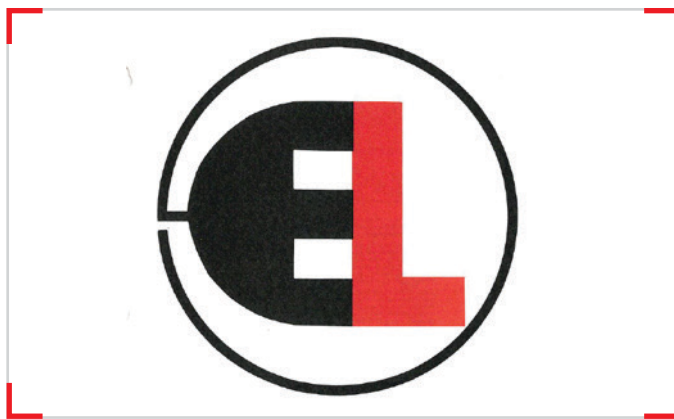
North Bay Ladies' Night
1970

1960s





OEL Industry Segments Graphic
1968



Circle Logo
1969

The Chapter Leadership Conference, often held at Ontario Hydro's Conference Centre in Orangeville up until 2017, was a combination of work and play, designed to help chapter leaders run effective chapters. The annual gathering was an opportunity for chapter executives and Board of Directors members to come together. They explored ways to improve the OEL and chapter activities, reviewed OEL services and developed new methods to strengthen the electrical industry network at the community level. The Malcolm Bradt Award, launched in 1981, was presented annually at the conference to recognize an unsung hero from a chapter. It was established in memory of Malcolm, best known as the man with the guitar.

The chapters cannot be mentioned without acknowledging their tremendous community service. Fundraising for healthcare, scholarships, shelters for women and children and other causes, installing holiday light displays and contributing labour to Habitat for Humanity are a few of the many ways chapters have made a difference.

Electric Heating: A Rich Potential

Electric heating was also on the rise in the sixties. Electricity was seen as a source of clean, economical heat at the time. Its versatility was also a bonus, as

it could be produced from the primary energy sources of waterpower, coal and uranium. The League pointed out that electricity wasn't vulnerable to the cost and supply uncertainties of one particular energy source, and offered long-term dependability. As an OEL ad from the period said:

*Think of the Future.
Use Electric Heating.*

Ross Whalls, a retired contractor and League member since 1963, recalled becoming a Qualified Electric Heating Contractor on Dec. 20, 1962. His company installed baseboard heaters, electric furnaces and boilers and cable heating for ceilings and driveways. Whalls recalled his water heater business: "When Ontario Hydro hired salespeople to sell electric water heaters installed, we signed on to pay the salespeople for contracts we purchased. We purchased a single-axle trailer-load of water heaters and a three-quarter-ton flatbed truck with racks and all the equipment needed, plus supplies to install them."

Electric heating was central to a turning point for the League at this time. This is when the League and The Electric Heating Association of Ontario (EHAO)

amalgamated as one Corporation under the name "The Ontario Electrical League" by Letters Patent dated June 20, 1966. EHAO had been formed in 1959 to ensure all electrical heating installations conformed to certain minimum standards. It was also concerned with developing new methods and techniques in the field.

The objectives of the new organization, OEL for short, included incorporating broader interests of the electrical industry:

- Developing standards for the application of electrical energy, assuring customer satisfaction;
- Coordinating activities of interested industry groups in implementing



Ross Whalls

standards, e.g., through establishment of certification procedures (enforcement), education within the industry, and creating general public awareness of the standards and by providing a means for revising and improving standards.

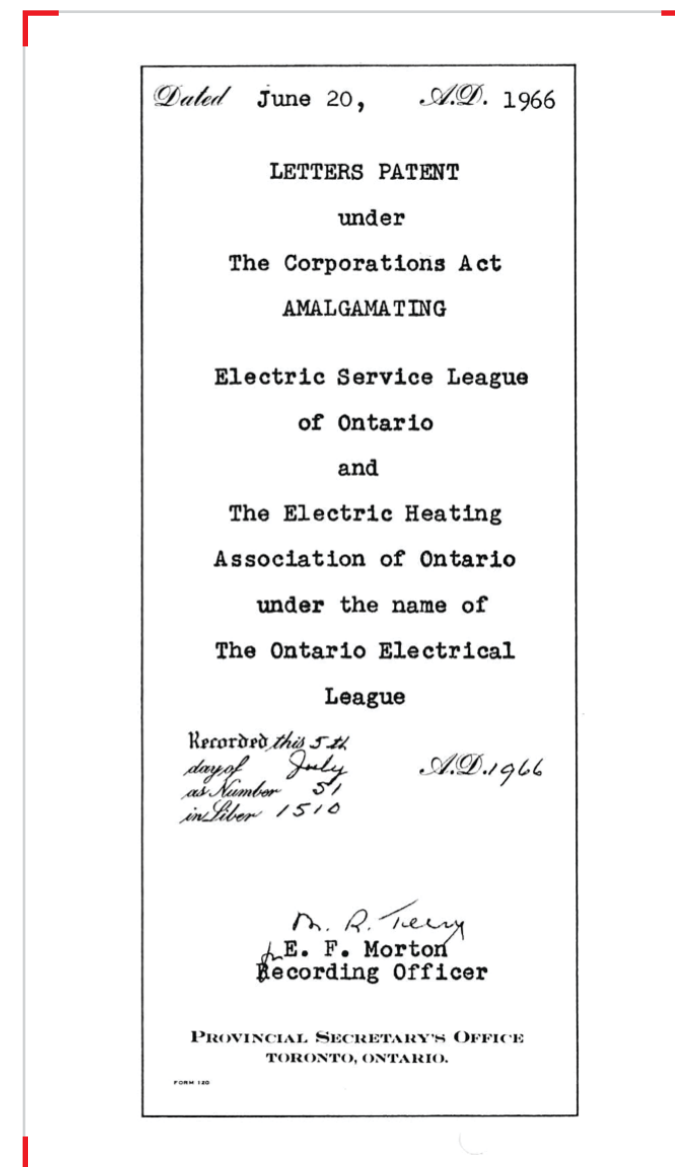
In the amalgamation report, the coming together of the two organizations was described as "a basis for the incorporation of broader interests of the electrical industry, with the long-term view of furthering the integration of the many and varied associations that presently exist."²⁷

Around the same time, a call went out for unity in the industry. Dr. J.M. Hambley, General Manager, HEPC, called for unity to contribute to the achievement of Canada's economic goals. Speaking at National Electric Day in 1966, he said, "Inefficiency and duplication of effort must inevitably attend the multiplicity of electrical industry associations functioning at both the federal and provincial levels." Dr. Hambley suggested bringing some of these groups closer to onefold, while retaining the autonomy and flexibility of each group.²⁸

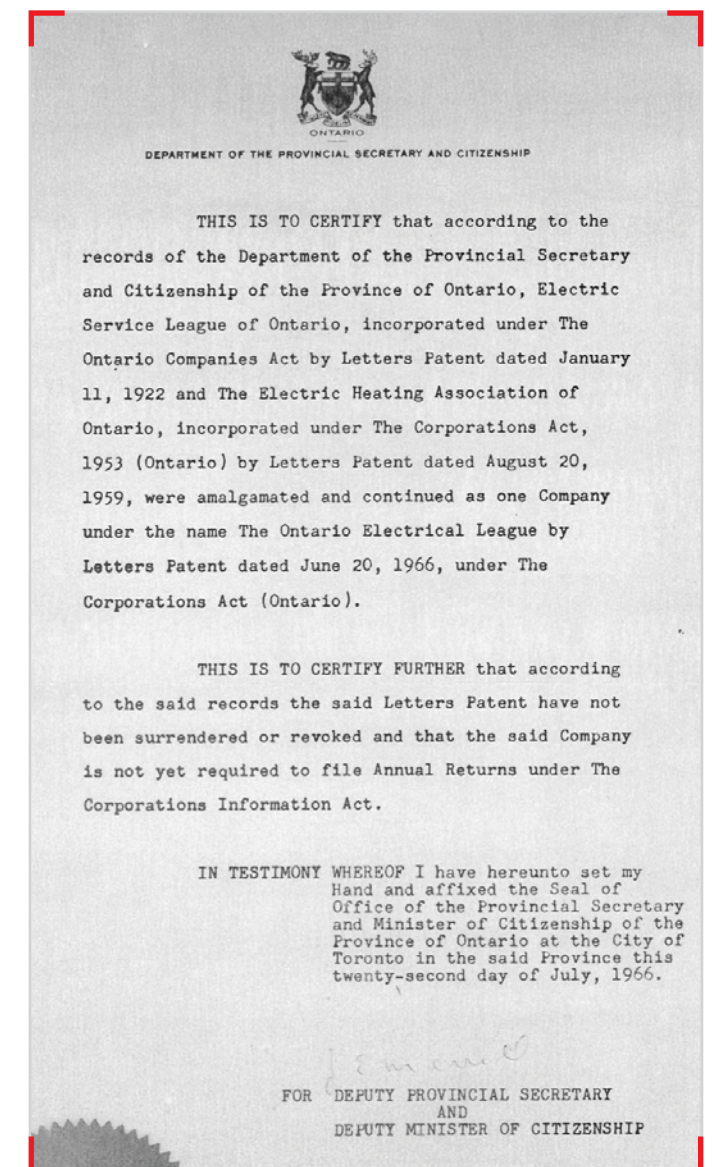
By 1968, installations of electric space-

heating in new houses and conversion to electric heating from other forms of heating brought the total of electrically-heated single dwellings in Ontario to some 50,000 at the end of the year. Multiple dwelling construction had incorporated electric heating in an additional 20,000 dwelling units.²⁹ The construction of entire subdivisions with electric heating was a related trend.

At the end of this decade, in 1969, the OEL circle logo was created as the corporate symbol. The current OEL logo is an updated version of the original.



Amalgamation Letters Patent
1966

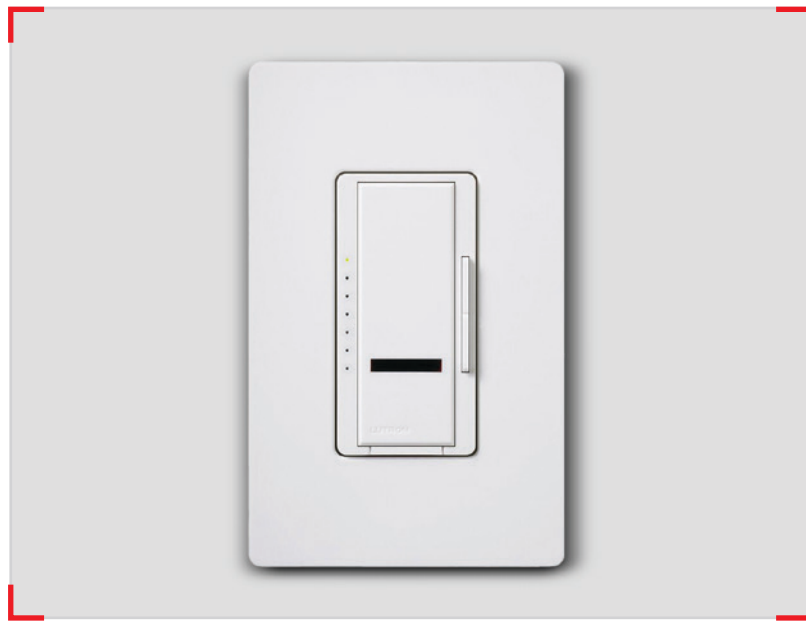




Surge Suppressor



GFCI Outlet



Electrical Dimmer



Teck Cable



Electrical Circuit Breaker

Technology: Breakthroughs for Change

Advances in technology have made electricity safer to use and expanded its functionality. Here are a few examples, starting in the 1950s.

1950s – Surge Suppressors

One of the first was developed by General Electric and a similar device was being developed in Japan around the same time. Initial surge suppressors utilized selenium rectifiers (components used to convert direct current to alternating current) and later, carbon piles (disk-shaped components used to carry current). Most surge suppressors commonly used today utilize spark-gap technology — a system whereby the suppressor breaks down or shorts out, currents as the voltage applied to an electronic device exceeds the maximum tolerance or rating of the device.³⁰

1959 – Dimmers

Joel Spira, a physicist, created the first lighting dimmer for domestic use in his Manhattan apartment. The device spurred the creation of his company, Lutron Electronics, a leader in the lighting-control business. Devices to control the intensity and brightness of a light source existed before Spira's innovation, but they were restricted to commercial uses like regulating stage lights in theatres. Spira's idea was to replace a rheostat, which controlled the current flow in an industrial dimmer, by absorbing electrical energy on its way to a light source with a thyristor, a type of transistor that interrupted the flow of power to the light. The change made the dimmers cooler and small enough to fit in a home wall box. They also used less electricity. A prime selling point for dimmers and other lighting-control products is that they save energy. Lutron maintains that its products reduce America's total lighting bill by as much as \$1 billion a year.³¹

1959 – Aluminum Mechanical Connectors

ILSCO pioneered aluminum mechanical connectors that were less expensive and lighter than those made with other materials.

1961 – Ground Fault Circuit Interrupters (GFCI)

Charles Dalziel, a pioneer in understanding electric shock in humans, invented the GFCI. GFCIs, commonly found in home bathrooms and kitchens, quickly break an electrical circuit to prevent serious harm from an ongoing electric shock. In the early 1970s, most North American GFCI

devices were of the circuit breaker type. GFCIs built into the outlet receptacle became commonplace beginning in the 1980s. The circuit breaker type, installed into a distribution panel, suffered from accidental trips mainly caused by poor or inconsistent insulation on the wiring. False trips were frequent when insulation problems were compounded by long circuit lengths. So much current leaked along the length of the conductors' insulation that the breaker might trip with the slightest increase of current imbalance. The migration to outlet receptacle-based protection in North American installations reduced the accidental trips and provided obvious verification that wet areas were under electrical code-required protection.³²

1990s – Arc Fault Circuit Interrupters (AFCI)

An AFCI is a circuit breaker that breaks the circuit when it detects the electric arcs that are a signature of loose connections in home wiring. Loose connections, which can develop over time, can sometimes become hot enough to ignite house fires. An AFCI selectively distinguishes between a harmless arc (incidental to normal operation of switches, plugs and brushed motors), and a potentially dangerous arc (that can occur, for example, in a lamp cord that has a broken conductor). The *Canadian Electrical Code* has required AFCIs to protect most residential outlets since 2015.³³

1980s / 1990s – Teck Cable

This very versatile power cable is resistant to water, petrochemicals and sunlight. It may be used for direct-earth burial and, if properly sealed at the connection point, in explosive atmospheres such as gasoline dispensing stations. Teck cable is named for Teck Township, now Kirkland Lake, where it was first developed and used. Mining operations required a durable cable to power equipment and withstand demanding conditions and teck cable was the engineered result. The cable may be used to power hot tubs, garages or other outbuildings and sub-panels in the residential setting.³⁴

Electric Heating Going Strong

This was a time of growth for the OEL, both in membership and revenue. Ontario Hydro made up the OEL backbone in terms of people and monetary support until the middle of the decade. The OEL offices were located in the Hydro building at 700 University Avenue in Toronto for some years, ending in 1981.

The name "Ontario Hydro" became official in 1974 when the organization, previously known as the Hydro-Electric Power Commission of Ontario (HEPC), was renamed. Its form of administration also changed from a six-person commission to a board of directors.

Early in the decade, members were paying the bargain basement fee of \$1 for General Membership, while other fees were charged for manufacturers, distributors and electrical power suppliers. New contractor members committed to the OEL Code of Ethics, reading in part, "To improve my knowledge of the equipment, devices, and materials which I use in order that I may render better service to my customers."

Another development was the industry's firm foothold in the growing mobile home market. Total-electric mobile home living, with electric heating, dishwasher, washer, dryer and air conditioning, was growing rapidly across North America.

On the downside, lower quality design started in this timeframe and continued for years, resulting in a high percentage of change orders, 20 per cent more cost and pages of addendums prior to tender as the design was redone in response to contractors' questions. Contractors then often spent more time deciding whether to bid, rather than on the actual estimating.

Ontario Electrical League

Code of Ethics

I shall strive to conduct myself in my daily business in a manner which will reflect credit on the industry I serve.

To achieve public approval and acceptance of my appearance, speech and actions.

To improve my knowledge of the equipment, devices and materials which I use in order that I may render better service to my customers.

To seek success in my business endeavour through honesty, integrity and fair dealing with my customers, business associates and my competitors.

To give freely of my time and my abilities to furthering the usefulness of this Chapter to the community and to the industry.



Code of Ethics
1970, Courtesy of Koolen Electric

1970s

As Canada was hit by energy crises, the OEL's activities expanded in the electric heating field through initiatives like the Heat Loss Consultant Program. After receiving the program training, the consultant would pay \$35 for the stamp and use it on heat loss calculations. The heat loss qualification was an asset at this time when some municipalities required the assessment before a heating system could be installed.

The OEL offered training to meet the need for more knowledgeable and skilled service people resulting from the steady growth of electric heating installations and more variety of equipment. In 1972, 300+ contractors, apprentices, students, utility personnel and Ontario Hydro representatives attended the Electric Heat Servicing Course.

Other Initiatives During the 1970s:

- Creating a new Director position to represent the chapters on the Board of Directors – Ron Bergeron was the first member elected to this position
- Joining forces with six other electrical leagues and the Electric Bureau of Canada to present Canada's largest electrical trade show, called Electrical Showcase, starting in 1973
- Launching *Dialogue* as a one-page, double-sided news update
- Starting the Electrical Student Information Conference

Hill said. "Please note that I have used the word process, because the O.E.L. (sic) is only one of the sources that may contribute improvements, but by the very nature of their organization, they are perhaps the most aggressive and interested in improving the use of electricity."

Contributing to standards has been an important aspect of this work for the OEL. The organization was the prime energizer to develop standards for wiring systems until the inception of a marketing organization in the Hydro family. In the 1970s, the OEL Standards Committee contributed to wide-ranging projects, including initiating insulation requirements for electrically heated homes that were included in the Canadian Standards Association (CSA) Standard C273.1-1975. Nearly all the recommendations advanced by the committee were incorporated in the *Ontario Building Code*. The OEL "Think of the Future" ad captured standards activities as part of the organization's mandate with the statement, "In assisting the advancement of performance standards, quality control and wise use of electricity, the OEL is dedicated to providing maximum customer satisfaction."

Standards work has remained a key activity; OEL representatives currently

contribute to CSA standards committees and the Electrical Safety Authority (ESA) *Electrical Code* committee.

One industry happening was the 1976 merger of the Canadian Electrical Manufacturers Association (CEMA), with 172 member companies, and the Electronic Industries Association of Canada (EIAC), with 72 member companies, to create the Electrical and Electronic Manufacturers Association (EEMAC).

Near the end of the decade, in 1978, the OEL returned to its roots to have the trademark registration for the Red Seal renewed for another 15 years.



Medallion Seal
1970



Electrical Showcase '79
Toronto, 1979



Electrical Showcase
1973



Bob Genitti, John Camilleri and D.J. Gordon,
Honourary OEL President
Student Seminar, 1975

Independence, Energy Conservation and More

This decade saw the start of major change brought about by advances like computers, cell phones and scissor lifts, as well as low-tech progress such as new wire that decreased cost and installation time in the industry. Working with rigid conduit, for example, became a lost art with the advent of teck cable. (See *Technology: Breakthroughs for Change*.) Thirty-plus years down the road, these kinds of changes would cut construction times in half.³⁵

The commission decided against abandoning nuclear power in favour of solar power and warned that Ontario Hydro's business would not be enough to sustain the CANDU nuclear reactor business. In calling for increased public participation in decision making, the commission proposed revamping the Ontario Energy Board.

Within the OEL, the staff became totally in the employ of the organization in

If it comes from the league it is not a command but a decision that has been accepted industry-wide already. The second area that the League could prove more beneficial is in promotion to the consumer. The League can encourage electrical contractors to promote programs that to the customer, may once again appear as a command from Ontario Hydro rather than an avenue that may be better for the customer."

The times were also changing in membership as the OEL looked at adding corporate member categories for the service industry and manufacturers' agents in 1987. At the chapter level, chapter jackets and other items, displaying the OEL logo and name and the chapter name, helped to build the brand.

The OEL found new ways to have a voice, including as a member of the Joint Industry Task Force, made up of the major electrical industry groups, starting in 1989. The task force's position on electrical matters was of importance to the Ontario government.

Electric heating remained front and centre. The OEL advertising promoted conversion to electricity for heating so homeowners could benefit from cost competitiveness, versatility, cleanliness, safety, low installation cost and even temperature. With the move from oil to electric heating in homes, the OEL had a new *Heat Loss Manual* on the drawing board and the heat loss calculation course went full speed ahead. By July 1988, with more than 1,000 Ontarians using the manual, it was the most popular training document that OEL had ever produced. At that time, 639 people had graduated from the three-day training course and another 132 had taken the home study course.



Electric Car Rally champs Neil Young and Glenn Broomhead, Ontario Hydro Toronto, 1981

Electric vehicles were making headlines, as part of the move to energy conservation. A new zinc-chloride battery, with four to five times the energy of a normal lead acid battery per pound, was good news for this mode of transportation. Used in an electric vehicle, the new battery could achieve a distance of over 322 kilometres (km) at 80 kmph on one charge and had a life expectancy of over 370,400 km. In 1980, there was a proposal to eliminate the sales tax on all vehicles fuelled by electricity.

The Royal Commission on Electric Power Planning also affected the industry.

1981 to complete the OEL's status as an independent electrical association. Plans were also made to add a second chapter representative to the Board of Directors in this period.

The OEL's relationship with Ontario Hydro changed as it became independent. The OEL's ability to accomplish objectives more effectively than Hydro as an independent entity, particularly in two aspects, was discussed in a document from the period. "The one area is in standardization and acceptance within the industry," reads the document. "If a ruling or statement comes from Ontario Hydro it may appear as a command.

1980s



OEL played an active role in the intensive, all-industry promotional campaign to convert homeowners to electric heat before the off-oil grant was terminated. Figures released by Ontario Hydro for 1981 supported the financial argument for this change. Hydro reported average annual increases over the previous five years for home heating of 22 per cent for oil, 16 per cent for natural gas, but only 10 per cent for electricity.

Utilities promoted the benefits of electricity over oil and gas through slogans like, "Gas and oil in the car, Electricity in the home!"

The OEL addressed the provincial energy conservation initiative in a statement supporting the use of efficient and effective electrical products. This included support for electrically powered products that improved the use of all energy forms, such as setback thermostats and programmable controllers. "We believe that the future lies in the hands of those who can harness electrical power and use it efficiently," reads the June 1987 statement. "Those that do, will prove to be the leaders in

manufacturing, in technology, and in the creation of jobs in the 1990s and into the 21st century."³⁶

Perhaps the OEL slogan of the time said it best: "Be Efficient Go Electric."

Conservation was also part of the National Association of Home Builders Research Foundation's Smart House Project. Billed as "one of the most exciting projects to hit the electrical industry since the days of Edison," it was designed to improve home wiring methods, electrical appliances, electrical safety, cable TV, etc. while conserving energy.³⁷

The 1989 EIC Conference, entitled "Energy Leadership – Taking Charge," reflected the times, as did its debate topic: "Is Heavy Reliance on Energy Conservation a Dangerous Option?"

In other industry news, Inco announced a \$25-million project to develop the first completely electrically operated mine in North America at its Crean Hill operation, west of Sudbury. Plus, Industrial Electrician became a registered

trade and a two-year grandfather clause allowed electricians who met the requirements to obtain the certificate.

On the OEL trade show front, business was booming. Rick McCarten, OEL General Manager from 1982 - 1995, recalled the organization presenting six trade shows annually during the late 1980s. "They would be a 24-hour operation," he said. "The suppliers would go in at midnight to get the hall ready, putting up draperies and rolling out rugs. The crew from the local chapter would help us, the OEL staff, set up and tear down. The show itself usually ran from 2 to 8pm. We got so we could be in and out in no time."

Electrex, the Canadian electrical industry trade show presented by the OEL with several co-sponsors, was another success story. In 1988 it drew 3,600 attendees with 161 exhibitors and 255 booths. The Northern Electrex, a regional trade show spinoff of Electrex, was a hit in Sudbury. The event opened in the Science North Cavern auditorium which was carved out of granite and reminiscent of a mine.

The Birth of the Contractor Committee

The formation of the Contractor Committee (CC) was another significant development. As utilities became less involved with the OEL due to industry focus on energy efficiency and conservation, the organization became more focused on contractors. The CC met for the first time at the 1986 EIC Conference with the purpose of providing relevant information to contractors and as a place for these members to voice their opinions. The first CC members were:

Tom Acheson, Sudbury	Peter Koolen, Aylmer
Doug Clark, Coburg	Keith Legault, Cornwall
Hal Cooper, Hamilton	Larry Leonard, Owen Sound
Don Gosen, Waterloo	Reg MacDonald, Chatham
Clifford Jones, Cornwall	Gerry Sternberg, Downsview

The CC's first decisions were appointing Gerry Sternberg, Sternberg Electric, to the Provincial Electrical Code Committee and Reg MacDonald, Honey Electric, to the Provincial Advisory Council for the electrical apprenticeship program.

Early on, the CC tackled the ratio of a journeyman electrician to an apprentice. This ratio is an integral component of the apprenticeship system, one of the oldest, most respected forms of education and training. In 1990, the Provincial Advisory Council rejected the OEL proposal for modernizing ratios, but progress was made during a meeting with the Director of Apprenticeship. The Director agreed to form an ad hoc committee to address the issue. The CC and OEL and its members would work long and hard to reform the complicated and confusing ratio rules over another quarter of a century before real change happened in 2018. (See 2010s: *Growing Again.*)

On another apprentice matter, in 1988, the Ministry of Skills Development introduced new grants, ranging from \$100 to \$700, for new apprentices to cover a portion of tool costs.

The CC also took on "universal" licensing, involving having a universal exam throughout Ontario to qualify an

OEL Dialogue
1984

individual for an electrical contractor's license. This was designed to protect electrical contractors and protect the public from poor or unsafe work. This endeavour would continue for some time. (See 1990s: *Moving Ahead.*)

Deregulation impacted the industry during this period. In 1987, for example, EIC Conference speaker Jack Jackson attracted attention with his message, "Deregulation is on its way, be prepared because you will soon get a lesson in marketing."

Concerns about electricity shortages surfaced later in the decade. In 1989, Ontario Hydro asked its customers to turn holiday lights off during peak periods and to shut off dishwashers and laundry devices before 7 pm. There was concern that this might be the first sign of a growing shortage of available power. The OEL focused on its serious concern about available electricity in the province in its "Running On Empty" video. The video was distributed to all 44 chapters and received a "fantastic" response from them.



ELECTREX

Trade Show Proves Successful

Electrex Ontario was well received by both visitors and exhibitors this year. With more time spent on the floor by visitors and more new products on display there was a great deal of enthusiasm for the event.

What people tend to forget about shows is that there is a great many things that we all can learn. A perfect example of this was the abundance of new computer programs for our industry. Each program

Other Seminars included; Tom Bowling from Bell Northern Research on Intelligent Buildings, Gord King of Westburne on Energy Auditing for Lighting, Roman Kurchirka of Fumas on Troubleshooting Motor Controls and Peter Rowles on Determining the Customers Needs.

Learning does not just take place in a seminar room, however, the majority of



Moving Ahead

The OEL moved ahead over the next 10 years, overcoming declining membership and revenue, carrying over from the previous decade, and despite challenges resulting from a recession and Free Trade.

The new decade started against the backdrop of Ontario Hydro's 25-year demand/supply plan, called "Providing the Balance of Power." In this document, Hydro acknowledged that it was quickly

running out of electricity with the strong growth in demand.

Another significant development was the elimination of training-related fees for apprentices starting new programs or taking examinations in 1990.

The organization carried its banner across the province through the successful Making Contact regional trade show program. Designed to foster business

How Many New Electrician Apprentices in Ontario?

1992: 1,059³⁸ | 2021: 2,400

opportunities, the shows attracted more than 2,000 visitors and provided sales opportunities to close to 1,000 people in the industry in 1989-1990. The shows helped build local industry networks in places like Hamilton, Sudbury and Sault Ste. Marie.

Initiatives such as the launch of Electrical Week in 1994, supported public education. Calling on chapters, utilities and companies to participate, Electrical Week was designed to boost public awareness about the value of electricity. The OEL also gained exclusive marketing rights for the Power of Electricity program for Grade 6 students, developed by London Hydro and OEL and introduced the program to corporate utility members across the province.

The OEL bolstered its communications with the launch of its first website in 1990, followed by the current site, www.oel.org, nine years later.

Supporting the electricians of tomorrow was the focus when the OEL started the Electrical Apprenticeship Scholarship Program in memory of Bob Dyer, a longtime Board member, 1995 Chair and former Metro West Chapter member. (The program was later transitioned to the Support Ontario Youth apprentice scholarships.)

In keeping with the OEL commitment to bringing the industry together, the Board of Directors rewrote the constitution



1990s



Pictured on the Dialogue cover: Reg MacDonald, Ted Dyke, George McCue (ECRA and ECAO), Brian Wilson and Don Gosen 1993



Carl Anderson, Municipal Electrical Association; Peter Mansbridge, CBC; Eric Owen, Canadian Manufacturers Association; Stan Wild, Canadian Electrical Distributors Association
Annual Conference, 1990

to ensure all industry segments were represented on the Board. Corporate contractor and apprentice/student memberships were also introduced to better meet needs in these sectors.

In 1993, the OEL took a major step forward on a crucial issue for Ontario contractors – creating a single system of contractor licensing. This is when designated contractors from OEL chapters, on the advice of the CC, approved joining forces with the Electrical Contractors Association of Ontario (ECAO) to produce a single province-wide licensing system.

The licensing body was to be called the Electrical Contractors Registration Agency (ECRA). At that time, the ECRA Board was made up of OEL, ECAO, the Ontario Hydro Electrical Inspection Department and municipal representatives, a non-voting staff

representative from OEL and ECAO and a consumer.

Both the OEL and ECAO had been working on developing an alternative to the broken, inconsistent licensing system in Ontario. Many of the more than 400 municipalities in the province required contractors to take out business licenses. Some required contractor licenses, some required master electrician licenses and some didn't issue licenses at all. "The system is a hodgepodge of many different schemes and plans – some regulated and some not," commented Richard Cullis, CC Chair, as progress was made towards a new system. "Without a strong provincial body, we are in danger of seeing our skilled trade relegated to the realms of the painting trade, which virtually no longer exists as a skilled trade ... We believe that our industry and the general public are better served by one provincial body overseeing a single

standard for the safe installation, repair, and maintenance of electrical equipment by professional electrical contractors."³⁹

The benefits of a single licensing system were cited as setting a standard of contractor quality, increasing consumer safety and confidence, improving quality of workmanship and possibly financial rewards. Ted Dyke, Chair, OEL Subcommittee, Contractor Licensing, elaborated on the safety benefits in 1992. "You might ask why we even need contractor licensing," he wrote in *Dialogue*. "A major concern is safety. At present, essentially anyone can do electrical work. Many customers, particularly in this economy, make their decision on price. How many of the public are aware of Ontario Hydro's Inspection Department? How many people out there understand the potential dangers of working with electricity? We believe that one of the best outcomes of provincial

licensing will be increased safety."⁴⁰

It would be another 15 years, in 2007, before contractors could apply for a provincial license. In the interim, licensing through ECRA was voluntary and it operated alongside municipal licensing. (See *2000s: A New Millennium*.) Meanwhile, in 1995, the CC came up with a proposal for the autonomous Electrical Contractor Licensing Board of Ontario, citing significant differences in its views of a workable licensing system from the reciprocal program in place at the time. The OEL Board of Directors endorsed the proposal unanimously in December 1995. The CC pointed to issues like the potential safety threat from unqualified moonlighters working without applying to the Ontario Hydro inspection department, the importance of qualified electrician's training and Certificate of Qualification (CofQ) and enforcement problems at the municipal level.

Industry Committees: MTCU and More

Over the years, the OEL has worked diligently to improve many aspects of the electrician trade. Contributing to Human Resources Development Canada (HRDC) and Ontario Ministry of Training, Colleges, and Universities (MTCU) committees have been a big part of this work. (The Ministry of Labour, Training and Skills Development (MLTSD) now fills the MTCU's former role in the industry.) OEL members have served on MTCU committees such as the Industrial Electrician, Provincial Advisory and CofQ Exam groups. Through these efforts, members have made a real difference on significant initiatives, from enforcement matters and electrician/apprentice ratio reform to the CofQ exam and the electrician's scope of practice, on behalf of the OEL.

Dale MacDonald, who represented the OEL on MTCU committees for 25 years, witnessed the effort that went

into this work. Sometimes working with these large groups of people and the detailed procedures could be frustrating. He recalled the challenge of updating questions for the CofQ, the exam that an apprentice needs to pass to become a licensed electrician. "You'd think it would be easy," he said. "But the exam questions had to be written so they contained key words, allowing the apprentice to find the relevant section in the *Electrical Code*. When it came to removing questions about outdated procedures, it could be difficult because someone would often bring up a rare exception like, 'Oh, but that's still done up north in the mines.' Amid these linguistic gymnastics, I focused on the goal of designing questions to test the apprentices' knowledge of the Code and work practices, with a view to ensuring they would be competent, professional licensed electricians." His more recent work included sitting on the Ontario College of Trades (OCOT) Trade Board.

Dan Racicot was another longtime OEL representative, serving on committees with MTCU, OCOT and other organizations for at least 25 years. Obtaining continued recognition of the 309D Electronics Control certificate was one accomplishment during his OCOT service. While the elements of this training are now part of the other electrician trade school courses, at one time, circa 2011, there were 2,800 309D

electricians in Ontario. As a member of OCOT's Compliance and Enforcement Committee, Racicot travelled across the province for roundtables related to writing policy.

What did he get out of this volunteer service? "I felt satisfied about doing something for the betterment of the trade," he said. "The OEL's contribution to MTCU and other groups is so important to maintaining high standards and quality workmanship in the trade."

The Board of Directors closed out the 1990s by introducing a new fee schedule and membership policy. This initiative included reducing fees for retired members who still wanted to participate and creating a Code of Conduct to support the corporate contractor program. The Board also looked to the future by completing the interim Strategic Planning document with the focus of: To Grow and Prosper.

The passing of the Energy Competition Act in 1999 brought more change impacting the OEL and the industry. As a result, Ontario Hydro was re-organized into five companies; Ontario Power Generation (OPG), the Ontario Hydro Services Company (Hydro One), the Independent Electricity Market Operator, ESA and the Ontario Electricity Financial Corporation.⁴¹



Making Contact Trade Show
1991

A New Millennium

Advocacy took centre stage in this period as the OEL became more involved in lobbying government and hired its first official government relations representative. OEL representatives met Members of Provincial Parliament (MPPs) in all three parties dozens of times to advocate about vitally important issues of concern to members and secure support for initiatives. The issues ranged from workplace safety and journey person/apprentice ratios to union card-based certification and ESA.

At the same time, OEL continued to move ahead as a more contractor-focused organization. A working group of Cullis, Ron Bergeron and Dave Ackison prepared a blueprint of the future of the CC. Whereas the CC had consisted of contractors and several members of industry such as manufacturers and distributors, it shifted to be made up of only designated contractors from all the chapters. Cullis subsequently became Chair of the restructured CC.



Al Merlo
2003

Al Merlo commented on the shift in his final message as Board Chair in 2003. "The introduction of deregulation over a year ago saw our utility membership plummet," he said. "Where at one time utilities were everywhere, now the number across the province falls in the low double digits and will likely fall further. We must turn toward the individual contractor as our main source of membership and income. ... There are thousands of independent electrical contractors in Ontario ... Each needs to join the league to make worthwhile changes to the way he/she does business in

Ontario. Individually, we are unheard. Together, we are a formidable force for change."⁴²

A few years later, in 2010, constitution revisions recommended by the Constitution Review Committee, a subcommittee of the CC, were approved at the Annual General Meeting, and provided greater representation of contractors, with 51 per cent of the Board of Directors' membership

In 2001, the incoming ESA CEO, responding to OEL concerns about the permit system and fees, established the Fee Restructuring Committee. This consisted of five OEL and five ECAO contractors.

Provincial licensing gained momentum again in 2001 when OEL, ECAO and ESA established a new industry working

group to renew efforts around the issue. Three years later, on November 20, 2004, Bill 70 received royal assent, enabling the establishment of a uniform system of province-wide contractor licensing. This was a huge achievement in the industry of roughly 4,500 contractors, 2,500 master electricians and 20,000 electricians in Ontario. The effort was described in *Dialogue*.

"This represents the culmination of four years of work on the part of all three organizations (OEL, ECAO and ESA) to create a common vision of licensing, gain support from six government ministries, consult with municipalities, obtain consumer and labour support, develop proposals, draft legislation and seek approval through two successive provincial governments," wrote Peter Marucci, Vice President, Regulatory Affairs & Chief Engineer, ESA. "Without a doubt, it was the establishment of a



Janet Small, Interim President in 2001 and 2010-2011, Jim Wilson and Jenni Spencer, Board Chair, 2001-2002, and the only female in this position

2000s

truly effective partnership that was the single most important factor in our ability to get this legislation through the 'political process.'"⁴³

The article paid tribute to "visionary electrical contractors" **Reg MacDonald, Jim Wilson, Ted Dyke, Don Gosen, Brian Wilson, Blythe McCleary, George McCue, Garry Fitzpatrick, John Waugh and Glen Carr**, to name a few.

The transition to the new system, summarized in a 13-point implementation plan, took place over the next three years. Under the new system, municipalities did not have the authority to impose or establish licensing requirements for contractors. ECRA was maintained, but transferred from ECAO to ESA. The role of ECRA covered issuing electrical contractor, provisional electrical contractor and master electrician licenses. One new requirement meant a person needed to be or employ a master electrician to obtain a contractor license.

After waiting over 40 years for a single uniform contractor licensing system, contractors were finally able to apply for their first provincial license in 2007.

In 2003, the establishment of ESA's Contractor Advisory Council (CoAC), in response to the OEL's request for a forum to raise contractor concerns and issues, represented more progress. CoAC, made up of OEL and ECAO contractors, was created for the sole purpose of furthering relationships between ESA and its largest group of consumers – the electrical contractors of Ontario. CoAC started meeting throughout the year to discuss issues facing both contractors and the ESA and its inspectors. Bergeron was elected as the first CoAC Chair. The ACP pole vertical issue was one of the first on the table.

In 2005, OEL formed the Contractor Government Relations Committee (CGR) to support its advocacy role. The committee was mandated to build stronger ties with politicians and support political parties on par with OEL's legislative reform objectives. A political fund was also started, funded by OEL member donations to help build strong and enduring government relations.

One of the CGR's first tasks was, along with the CC, challenging the undemocratic Bill 144, *The Labour Relations Act*. The legislation allowed and continues to allow for a contracting company to be unionized when 55 per cent of employees working on a specific day sign union cards. This "card-based certification" can happen in an underhanded manner on a day, such as a holiday or weekend, with few workers present and means that as few as two employees can unionize a company

of any size. (See 2010s: *Growing Again for Eric Glahs' story*) Employees who are not working on the day of the card signing have no vote on the unionization. This practice, used only in the construction sector in Ontario, is an alternative process to holding a scheduled vote of employees. The OEL objects to the legislation as an abuse of construction laws as well as the related situations of:

- The Ontario Labour Relations Board (OLRB) accepting unproven allegations from unions, resulting in contractors being treated as guilty until proving him / herself innocent; and
- Permitting union harassment of contractors.

The OEL also moved ahead on trying to change journeyman/apprentice ratios. Employers could not exceed the numbers in the following table. Plus, for every three journeymen employed after the eighth journeyman, one additional apprentice could be employed.

The regulations were restrictive and confusing. In 2004, the OEL sent a Political Action Alert Letter, signed by over 200

Current Regulation
The current regulation states that the number of apprentices who may be employed by an employer in the certified trade shall not exceed the following, and for every three journeymen employed after the eighth journeyman, one additional apprentice may be employed.

# Journeymen	# Apprentices Allowed
1	1
2	2
3	2
4	2
5	3
6	3
7	3
8	4

Proposed Change
We are asking that the regulation change to the following, and for every two journeymen employed by the employer after the fourth journeyman, one additional apprentice may be employed.

# Journeymen	# Apprentices Allowed
1	1
2	2
3	2
4	2

Proposed Regulation Change 2004



Richard Cullis, CC Chair; Jim Watson, Minister of Consumer & Business Services; Garry Enright, OEL President 2004

contractor members to MTCU, asking to increase the number of electrical apprentices that a contractor could have on staff.

This boost was seen as crucial to meeting existing and future labour force needs in the electrical industry, already dealing with an aging workforce and a decline in newcomers to the trade. This was captured in Statistics Canada 2001 Census – The Changing Profile of Canada's Labour Force: "While the average age of electricians is only slightly above that of the overall labour force, the occupation has aged more rapidly over the last ten years, and the share of older electricians has increased from 7.7% to 11.8%. At the same time, the number of younger workers in this occupation has fallen off dramatically. As a result, the ratio of younger to older electricians plunged from 6.3 in 1991 to 2.8 in 2001."⁴⁴

The exit of aging Baby Boomers from the workforce was also forecast to hurt the trade.

In 2007, the shortage of qualified labour for small and medium-sized businesses and the need for qualified workers to replace those retiring or close to retiring came under the microscope in a Canadian Federation of Independent Business report.

In 2006, the CGR started a major lobby campaign to change journeyman/apprenticeship ratios to 1:1.

Three years later, the CGR was instrumental in the OEL going to Queen's Park to challenge the plan to establish the Ontario College of Trades (OCOT) as the regulatory body governing the skilled trades in the province, and Bill 183, *Ontario College of Trades and Apprenticeship Act*, 2009. President Mary Ingram-High made the OEL's case. "Her presentation ... clearly stated that there is little, if any support whatsoever among the electrical tradespeople of this province for the proposed College of Trades," read a *Dialogue* report by Walter Pamic, CGR Chair. "Perhaps even more frightening is the lack of awareness amongst Ontario's tradespeople about this incoming bureaucracy."⁴⁵

OEL maintained that Ontario trades were already well regulated and described the OCOT plan as "undemocratic" since OCOT's Board members would be appointed by the McGinty Government of the time, without elected representation from the tradespeople that OCOT would regulate.

OEL made several recommendations for amending the legislation if it was to be passed, including:

- Having tradespeople vote to determine if they were in agreement with the proposal;
- Electing OCOT Board members from Ontario tradespeople; and
- Requiring a majority vote of OCOT members for any fees levied by OCOT.

The OEL continued to oppose the plan for OCOT, but OCOT eventually opened its doors in 2013. (See 2010s: *Growing Again for more on OCOT*.)

Other lobbying activities over the decade included OEL contractors writing to the Minister of Labour, challenging the move to allow air conditioning mechanics to perform work normally done by certified and trained electricians.

Industry partnerships remained a cornerstone of the OEL; the Council of Ontario Construction Associations (COCA) was one organization that the OEL joined during this period.

On the training front, the OEL training facility was a definite plus. The first training session was held there in 2009 through a collaboration of the OEL, the Pre-Apprenticeship Training Institute (PAT Institute) and the Youth Apprenticeship Standards Council (YASC). The OEL training facility was one of three such facilities approved by YASC, a non-profit established to allow employers to set their standards for training and link employers with skilled workers at any level. The OEL-YASC employer link was also launched. This allowed OEL companies to register laid-off workers with YASC at slow times. Then, for a certain period, the laid-off journeyman or apprentice was available to other OEL employers. After this time, the employee returned to their original OEL employer.

Industry-wise, this decade saw renewable energy projects take off with the introduction of the Green Energy Act and Feed in Tariff (FIT) program.

Growing Again



George De Francesca, Rob De Ciantis, MPP Arthur Potts, Louie Violo and Corey DeBruyn
Lobby Day, 2017

2010s

This period was a time of growth as the OEL expanded the staff team, added the Ontario Mechanical League (OML) brand and developed new programs. Advocacy efforts, including the launch of the annual Queen's Park Lobby Day, continued and saw concrete results like changing the journey person to apprentice ratio to one-to-one and moving to open tendering for Ontario government contracts.

Spreading the word about career opportunities in the skilled trades was another important focus. In 2011, this took the form of the OEL sponsoring a summer outreach program for youth put on through a partnership between the PAT Institute and the City of Toronto, providing young people with exposure to apprenticeships, trades and safety training.

In the same year, public awareness of the ratio issue skyrocketed during the provincial election campaign and it was tabled by the Ontario Progressive Conservative (PC) Party at the leadership debate. The OEL's participation in its first targeted riding campaign, culminating in the election of candidates supporting the OEL's views in three of the six targeted ridings, helped the cause. For the first time, OEL members knocked on doors,

put up signs, attended and hosted fundraisers and participated in debates. The OEL public relations campaign also educated Ontarians about the need for the 1:1 ratio. In a campaign article, Pamic, CGR Chair, said the existing 3:1 ratio meant apprentices were often relegated to fetching tools and materials, without obtaining much hands-on experience. "If you had a 1:1 ratio across the board, you would have an apprentice dedicated to an electrician, they would work together, it would be one student, one mentor working together hand in hand," he commented. "This is much safer, you (are) always under the constant care and control of that one individual."⁴⁶

In 2013, OEL members made their voices heard loud and clear at the OCOT review panel on ratios – OEL members produced 285 submissions, representing 98.4 per cent of all submissions, in favour of 1:1 ratios. Despite this, the panel did not support the change. The OEL continued lobbying and working with members to make the 1:1 ratio a reality. In 2018, an OEL survey of more than 100 electrical employers showed that an astonishing 73 per cent would hire more apprentices, representing 307 available jobs for apprentices, if the ratio rules were modernized to 1:1.

Finally, in 2018, the 1:1 ratio was introduced through the PC government's Bill 47, *Making Ontario Open for Business Act*. OEL President Stephen Sell commented on this groundbreaking change: "Regarding the trades landscape in Ontario, the OEL has viewed ratio restrictions as one of our utmost priorities when lobbying the government for a fair and conducive electrical industry. We recognize that Bill 47 is the key to the future of hundreds of potential jobs. The OEL has been waiting and working to help change these regulations, and we look forward to seeing the numbers rise in apprenticeship placements."⁴⁷

The OEL continued to voice concerns about OCOT and joined a coalition of 31 organizations, now known as the Ontario Skilled Trades Alliance (OSTA), to act as a watchdog for the college. In 2012, the OEL condemned a potential \$16-million annual licence tax grab proposed by OCOT, maintaining that the proposal would duplicate existing licensing for electrical contractors and master electricians.⁴⁸ In 2013, the CGR invested in support of by-election candidates favouring the abolishment of OCOT. OEL's efforts included fully participating in the review of OCOT, led by former head civil servant Tony Dean in 2015 - 2016.

In 2019, Doug Ford's PC government introduced a framework to replace OCOT as part of a plan to modernize the apprenticeship system and promote careers in the skilled trades. With this opportunity, the OEL worked to ensure the voice of independent electrical contractors was heard by the Ontario government's Skilled Trades Panel during hearings to phase out OCOT. This included addressing the issue of keeping the electrical trade safe through appropriate enforcement and ensuring that the training system improved to address the skills gap.

The government's framework referenced a proposed new model that would potentially allow uncertified individuals to do the work of trades deemed compulsory. So, OEL, ECAO and the International Brotherhood of Electrical Workers (IBEW) joined forces to educate the government on why reducing the scope of practice for a 309A Electrician - Construction and Maintenance would risk public safety and deter others from entering the trade. The three organizations united for the first time in a decade to develop a research paper about the impact for the electrician trade.

Industry-Wide Benefits

The OEL's success has often translated into positive change for the entire electrical industry. This was the case when OEL lobbying resulted in a win around the Worker Safety and Insurance Board (WSIB) rate framework proposal in

2015-2016. The OEL was able to have new rate categories created for electrical contractors that would keep their rates at the same level or even lower, based on their safety history. The WSIB proposal had called for all construction specialty trades, including electrical, to be grouped together to determine WSIB rates. The OEL maintained that a separate rate category was needed for electrical contractors and that rate categories should reflect the industry's safety performance. The OEL organized a postcard campaign to involve members and the electrical industry in this campaign.



Dave Ackison
Board Chair, 2014 - 2017

Chair Dave Ackison spoke to the big picture impact of this success, as well as an OEL-influenced victory with ESA not increasing wiring permit fees at the time. "This is a big win for the electrical industry and goes to show how much change we can evoke when we come together as one voice," he said. "When you ask what the OEL can do for you, these results are just a small example of the bigger picture."⁴⁹

Lobby Day was introduced under the CGR umbrella in 2017 to build relationships with the MPPs and the Premier's Office. This has been an opportunity for contractors to go to Queen's Park, meet MPPs face-to-face and tell it like it is for them. Contractors from across the province are encouraged to attend to maximize geographical representation and they are matched to meet with their local MPPs when possible. The contractors discuss hurdles they face and educate the MPP about issues the OEL is lobbying for through the CGR. The OEL's government relations representative and president also participate.

"Lobby Day is a great opportunity to visit the Premier's Office at Queen's Park and meet with various MPPs," said Dale MacDonald, past OEL Chair after the 2020 Lobby Day. "Although it's time away from work for many of us, it's a meaningful endeavor, especially because the government is listening to what we're saying."⁵⁰

In addition, member contractors are encouraged to approach their MPPs as individuals to speak up about their concerns. This has been part of the approach to protest card-based union certification and the related legislation, along with CGR meetings with politicians. Contractors are terrified of the process and its devastating impact on their businesses, livelihood and families.

OEL continues to lobby against this practice because of cases like Eric Glahs'. Eric is a former OEL Board Chair

and CC member. Eric's company, Lorne's Electric in Arnprior, closed eight months after being unionized. The union sent notice that it was seeking card-based, union certification for the company on Dec. 30, 2013. The notice was issued by way of a 70-page fax when no one was in the office or expected to be working. Only people working for a company on the day an application is filed are counted. Lorne's Electric was unionized based on two of the three employees working on the morning of December 30 signing union cards. Eric was running a 40-person shop at the time. He was totally shocked when his business became a union shop following a meeting at the OLRB. "Stunned," said Eric, "I just sat there stunned, not believing what was happening."⁵¹ This is just one example of what has happened to many OEL member companies because of card-based certification.

In 2022, the OEL's efforts to champion fair labour practices included members meeting with Ontario Premier Doug Ford and MLTSD Minister Monte McNaughton.

The OEL has seen rewards in other areas such as the 2019 passage of Bill 66, *Restoring Ontario's Competitiveness Act*, which opened bidding on publicly-funded construction contracts to all qualified companies. In the past, many contractors had been shut out of publicly-funded work in their local communities. The OEL lobbied against closed tendering as being fundamentally anti-competitive and unfair to taxpayers.

"The OEL is pleased to see that the Ontario government has taken the next step in ending a long-standing monopoly in the construction sector," OEL President Stephen Sell said. "Our organization's belief has always been that open tendering should be an absolute requirement for all publicly-funded construction projects. It's about time that our members are given equal and fair



Eric Glahs
Board Chair, 2008 - 2011

opportunities to bid on projects in their own local communities. We believe our members are every bit as qualified as any others to deliver on the successful completion of such projects."⁵²

Bill 66 was also expected to reduce construction costs because research shows that restrictive tendering results in fewer bidders, which translates into higher costs.

More Growth

The OEL branched out on a number of other fronts during this period, including adding new Marketing Communications and Chapter Support, Member Services Representative and Program Coordinator positions to the team.

Starting in 2012, the organization's commitment to the electrical industry literally hit the road in the form of a Chevrolet Volt. What could illustrate the rich potential of electricity better than the latest in a hybrid electric car? Both the original Volt and its successor have carried the OEL message to conferences, meetings and trade shows since then.

The car's exterior is covered with decals promoting the OEL, contractors and the industry.

With the digital revolution in full swing at this time, technology like tablets and cell phones became standard fare on jobsites and in members' daily work lives. The OEL launched Facebook, Twitter and LinkedIn accounts to build online connections with key audiences. These platforms also helped foster two-way dialogue on important issues. In keeping with this reality, *Dialogue*, OEL's well-known flagship publication, was transformed to a digital format and then reinvented as an e-newsletter, delivering a blast of information and insight to readers every week.

As an outgrowth of its commitment to apprentice training, OEL supported the development of Support Ontario Youth (SOY), a separate organization, in 2016. SOY was incorporated and, in 2017, received registered charitable status. SOY was established as a group sponsor to support apprentices and employers while working to modernize the apprenticeship pathway.



Stewart Kiff (government relations representative), Brian Westermann, Dale MacDonald, Barry Moss, Premier Doug Ford, Kyle Robertson (seated), Gordon Kemp, Ron Bergeron, Stephen Sell, Sean Craig and MPP Jim McDonell
Lobby Day, 2020

The launch of the OML in 2017 to serve open-shop mechanical contractors working in plumbing, heating, sheet metal, ventilation, refrigeration and insulation was another milestone. The move saw the OEL go back to its roots in the mechanical field, stemming from 1966 when its mechanical brethren at EHAO merged with the Electric Service League of Ontario to form the OEL. The similarities between the electrical and mechanical trades made this a good fit. "Both trades are passionate about their skills and abilities, and neither wish to see the erosion of their qualities," reads a *Dialogue* report.⁵³



OEL Chevrolet Volt Electric Car
2012

Recognition of the hurdles employers often face when hiring and training apprentices was the inspiration behind a unique OEL initiative in 2018 - 2019. This was the Consortia Pilot Project – Employer Engagement Program, funded in part by the Government of Canada. It was designed to address the need for more employers to train apprentices and bridge the current and future skills gap in the trades. This innovative project used peer mentors, a bilingual education portal, administrative support and a web-based hiring tool to support employers. A total of 58 participating employers, including 22 who had not been training apprentices, were educated about funding and other supports for them. Twenty-one apprentices were hired. Besides enhancing employers' training capacity and creating apprenticeship opportunities, the project identified lessons to build on going forward. This included a need for employer education around basic business practices, effective teaching methods and communicating with a generation that relies heavily on technology.

The follow-up project, Increasing Employer Engagement in Apprenticeship Training, was launched, funded in part by the Ontario Government, in 2021. Building on the model developed through the pilot, this project was

again designed to create badly needed apprenticeships by supporting employers with apprentice training. The ultimate goal was to boost employer capacity to train and help counter labour force skills shortages in the skilled trades. This initiative expanded to the plumbing sector while growing participation in the electrical field.

A wage subsidy, introduced to help employers pay apprentices who worked with them for a minimum of six weeks, was one new element. University of Toronto researchers were also commissioned to examine the project's efficacy and recommend future supports for the involved stakeholders.

During this period, the OEL lobbied extensively to modernize the apprenticeship system and saw results in initiatives such as:

- Creation of the Achievement Incentive Grant, encouraging small-to-medium-sized employers to train apprentices towards program completion and trade certification;
- Investment in the Apprentice Development Benefit to supplement

employment insurance benefits for eligible apprentices attending full-time in-class training;

- Creation of the Group Sponsorship program announced in December 2020;
- Support for a digital portal (evident in the provincial government's 2021 budget);
- Launch of the non-repayable Ontario Tools Grant, providing apprentices with between \$400 and \$1,000, to assist with the costs of purchasing trade-specific tools and equipment.

Other OEL government relations efforts during this period included:

- Continuing to work with the Ontario government to ensure that it supported the important gains made by SOY in supporting contractors who sponsor apprentices, as well as supporting apprentices in completing the training journey;
- Contractors meeting with Premier Ford and several MPPs to discuss Fairness in Labour Relations;
- Contractors contributing to the Auditor General's audit of the ESA;



Employer Engagement News Conference
2018

- Contributing to the *Construction Lien Act* and Bill 112, *Strengthening Consumer Protection and Electricity System Oversight Act* with respect to electrical contractors' needs; and
- Reaching out to the government about the appointment process for ESA's Board of Directors to ensure open-shop electrical contractors were better represented at the table.

The COVID-19 pandemic brought new challenges for the OEL and the industry starting in 2020. The OEL advocated to keep the construction trades working so that contractors would see as little disruption as possible. The OEL provided regular updates on the COVID-19 situation, including health and safety information, to members. To ensure the safety of all concerned, the annual EIC Conference was postponed for 2020 and 2021. Chapter and training activities pivoted to the online world. Members from chapters across the province connected at online meetings hosted by individual chapters.

Board Chair Louie Violo noted that members could turn to the OEL to meet the challenges of COVID-19. "Rather than focus on the negative effect it has played on all of us, let us focus on positive thoughts and the ways Canadians can

return to their new workplace," he said in *Dialogue* in summer 2020. "With restrictions lifted and many of us returning to work during this pandemic, employers are faced with new challenges regarding workplace safety and accommodating their employees. The OEL has many programs and partners in place to help employers guide you through these difficult times."⁵⁴



Louie Violo
Current Board Chair

The Road Ahead

Much has changed since the OEL came to be 100 years ago. Today's "electric home" is light years away from those that the crowds flocked to in 1922. In 2022, a homeowner can enjoy features like motion-powered driveway lighting,

remote access to front door security camera footage and audio reminders from smart devices. One hundred years ago, Ontarians longing to be able to use basic electric appliances in their homes, could not have imagined how much residential electrical systems would evolve. A big part of this evolution started with the OEL's pioneering work to set minimum requirements for adequate home wiring with the Red Seal Plan.

As the OEL heads into its second century, it continues to be the voice of the electrical industry in Ontario, blazing the trail on vital issues like ending card-based union certification and advancing apprenticeship system modernization. Fostering connections among all industry segments – contractors, electricians, apprentices, utilities, generator companies, inspectors, distributors, manufacturers, manufacturers' representatives, consulting engineers, educators and service companies – remains one of its greatest strengths. Driven by its mission, *To Promote, Strengthen and Represent the Electrical Industry in Ontario*, the OEL welcomes the challenges and opportunities of the next 100 years.

THE 1920s ELECTRIC HOME

THESE GRAPHICS ILLUSTRATE SOME MAJOR ADVANCES IN THE USE OF ELECTRICITY IN THE HOME OVER THE LAST CENTURY, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE.



LEGEND:

- 1 **Dream Items** – Toasters, waffle irons, coffee percolators.
- 2 **Dream Items** – Plug-in radios, ironing machines.
- 3 **Ice Box** – Refrigerators were not common until after Second World War.
- 4 **Minimum Red Seal Requirements (from 1923)** – Red Seal placed on switch box when the home met this standard.
- 5 **Outlets** – Standard outlets in each room or main hall. Outlet on porch or main veranda, controlled from switch inside. Cellar stairway to have light, controlled from switch at top.
- 6 **Switches** – All ceiling lights controlled from switches conveniently placed. Three-way switches on upstairs and downstairs hall lights.
- 7 **Residential Street Lighting** – Street lights enclosed by diffusing cylinders of opal glass were placed quite low on the pole to illuminate the sidewalk rather than the street.

THE 1930s ELECTRIC HOME

THESE GRAPHICS ILLUSTRATE SOME MAJOR ADVANCES IN THE USE OF ELECTRICITY IN THE HOME OVER THE LAST CENTURY, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE.



LEGEND:

- 1 **Electric Ranges** – Made popular in the 1930s as replacements for solid-fuel (wood or coal) stoves which required more labour to operate and maintain.
- 2 **Outdoor Holiday Lights** – Novelty lights started to make an appearance to continue spreading the holiday spirit and increase light sales during the Great Depression.
- 3 **Red Seal** – By 1931, the average Red Seal house had \$650 worth of electrical appliances, compared with \$260 for the average non-Red Seal. Groupings of Red Seal homes advertised as Red Seal communities in Ontario.

THE 1940s ELECTRIC HOME

THESE GRAPHICS ILLUSTRATE SOME MAJOR ADVANCES IN THE USE OF ELECTRICITY IN THE HOME OVER THE LAST CENTURY, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE.



LEGEND:

- 1 **Metal Conduit Wiring** – Allowed users to pull many individual conducting wires in the same rigid metal tube enclosure. The conduit itself is considered a viable grounding method, and the system can also allow another separate grounding wire (usually an insulated green wire) to be pulled through the conduit. Conduit has been in use ever since those days and is still the recommended method for wiring in certain applications.
- 2 **Electric Refrigerators** – Did not become standard equipment in Canadian kitchens until after the Second World War. Increasing wages and lower appliance prices made refrigerators more affordable; by 1960, 90 per cent of Canadian homes contained one.
- 3 **Electric Washing Machines** – By 1940, 60 per cent of the 25,000,000 wired homes in the United States had an electric washing machine. Many featured a power wringer, although built-in spin dryers were not uncommon.

THE 1950s ELECTRIC HOME

THESE GRAPHICS ILLUSTRATE SOME MAJOR ADVANCES IN THE USE OF ELECTRICITY IN THE HOME OVER THE LAST CENTURY, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE.



LEGEND:

- 1 **Surge Suppressors** – An appliance or device intended to protect electrical devices from voltage spikes in alternating current (AC) circuits. Initial surge suppressors utilized selenium rectifiers (components used to convert direct current to alternating current) and, later, carbon piles (disk-shaped components used to carry current).
- 2 **Light Dimmers** – Introduced for domestic use. Considered energy-saving.
- 3 **Televisions (Black & White)** – Became common starting in 1951, as the first live coast-to-coast telecast took place in the U.S.
- 4 **Automatic Washing Machines**

THE 1960s ELECTRIC HOME

THESE GRAPHICS ILLUSTRATE SOME MAJOR ADVANCES IN THE USE OF ELECTRICITY IN THE HOME OVER THE LAST CENTURY, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE.



LEGEND:

- 1 **Electric Heating** – By 1968, installations of electric space-heating in new houses, and conversion to electric heating from other forms of heating brought the total of electrically heated single dwellings in Ontario to some 50,000 at the end of the year. Also uptick in the use of electric water heaters and cable heating for ceilings and driveways.
- 2 **Aluminum Wiring** – Found in homes built between the mid-1960s and late 1970s, the Ontario Electrical Safety Code still allows the installation of aluminum wiring. Used for interior wiring systems in residential homes, and structures such as large commercial and industrial feeders.
- 3 **Electric Clothes Dryers** – While their popularity grew in the 1950s, dryers didn't really begin coming into their own until around 1960.
- 4 **Three-Pronged Plugs** – Introduced, along with the corresponding T-receptacle.

THE 1970s ELECTRIC HOME

THESE GRAPHICS ILLUSTRATE SOME MAJOR ADVANCES IN THE USE OF ELECTRICITY IN THE HOME OVER THE LAST CENTURY, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE.



LEGEND:

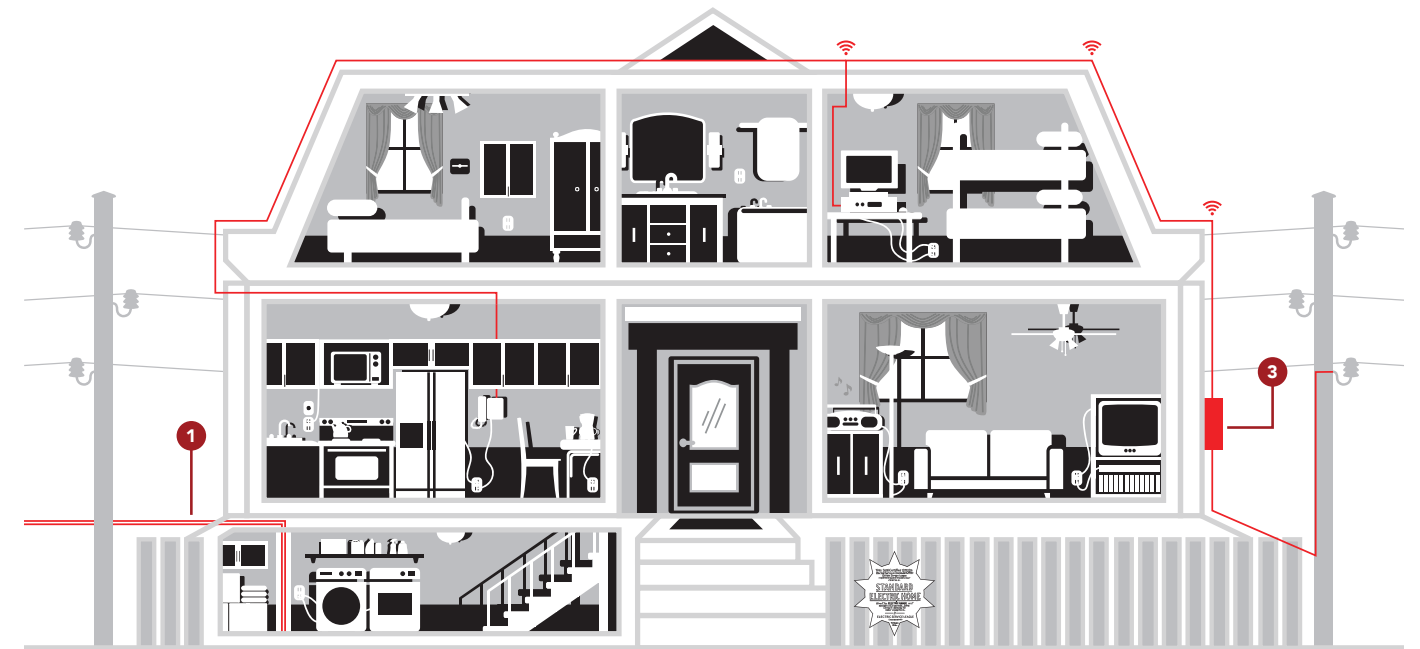
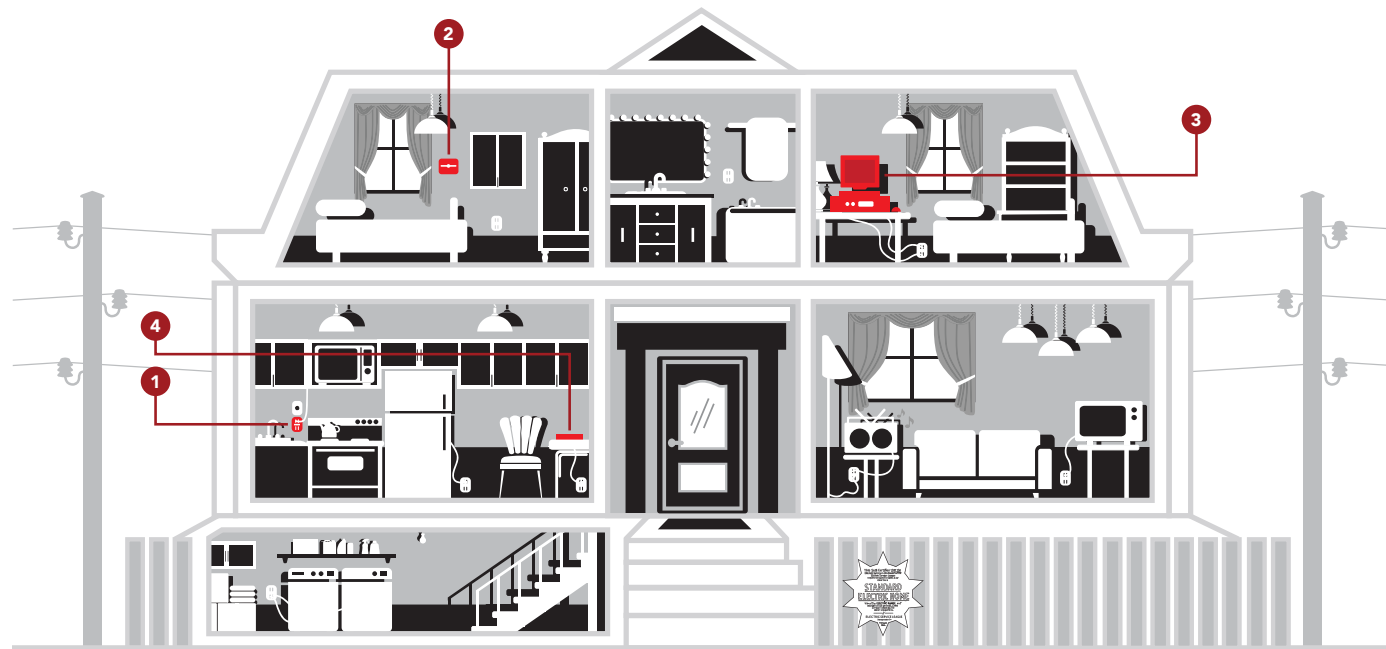
- 1 **Dishwashers** – Common (early versions go back to 1886 and sold more, largely to the rich, post Second World War in the 1950s).
- 2 **Microwaves** – Countertop microwave introduced in 1967. Affordable for residential use in the late 1970s.
- 3 **Televisions (Colour)** – Television broadcasting stations and networks in most parts of the world upgraded from black-and-white to color transmission.
- 4 **Electrified Mobile Homes** – Total-electric mobile home living, with electric heating, dishwasher, washer, dryer and air conditioning, was growing rapidly across North America.
- 5 **Ground Fault Circuit Interrupters (GFCIs)** – Invented in 1960s. In early 1970s, most North American GFCI devices were the circuit breaker type installed into a distribution panel.

THE 1980s ELECTRIC HOME

THE 1990s ELECTRIC HOME

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THESE GRAPHICS ILLUSTRATE SOME MAJOR ADVANCES IN THE USE OF ELECTRICITY IN THE HOME OVER THE LAST CENTURY, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE.



LEGEND:

- 1 **Ground Fault Circuit Interrupters (GFCIs) Receptacle-Based** – Became common. Reduced the accidental trips and provided obvious verification that wet areas were under electrical code-required protection.
- 2 **Energy-Efficient Electrical Products** – Included setback thermostats.
- 3 **Home Computers** – Entered the market in 1977 and became common in 1980s.
- 4 **Landline Phone Answering Machines** – First automatic answering machine was created by Willy Mueller. New model almost every year by the 1980s.

LEGEND:

- 1 **Teck Cable** – Came on in 80s/90s. Possible residential uses include metal studs in basement. Is a type of low voltage armored cable named for the location where it was first developed and used, Teck Township, now known as Kirkland Lake, Ontario.
- 2 **Arc Fault Circuit Interrupter (AFCI)** – (Not shown)
- 3 **Internet** – Widespread in households.

THE 2000s - 2010s ELECTRIC HOME

THE 2010s - 2022 ELECTRIC HOME

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THESE GRAPHICS ILLUSTRATE SOME MAJOR ADVANCES IN THE USE OF ELECTRICITY IN THE HOME OVER THE LAST CENTURY, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE.



LEGEND:

- 1 **Flat Screen Televisions** – Bitzer and Slottow's design worked by sealing an inert gas between two glass panels. The inside of the top outer facing panel was coated with phosphor. Passing electricity through the gas could excite the phosphor in a controlled manner to produce a picture.
- 2 **Remote Security Monitoring**
- 3 **Robotic Vacuum Cleaner**
- 4 **Motorized Window Coverings**

LEGEND:

- 1 **Smart Home Devices** – Including voice activation.
- 2 **Bluetooth Speakers** – Part of the digital revolution in entertainment equipment.
- 3 **Electric Vehicles** – Growing interest and use, although they first appeared mid-19th century. Since 2010, 4.8 million electric cars in use at the end of 2019, and cumulative sales of light-duty plug-in electric cars reached 10 million by the end of 2020.

Footnotes

¹ Dortea Gucciardo, "The Powered Generation: Canadians, Electricity, and Everyday Life" (2011) *Electronic Thesis and Dissertation Repository*. 258, 135. <https://ir.lib.uwo.ca/etd/258>

² Gucciardo, "The Powered Generation," 95, 96.

³ "Safe and Sane Use of Wiring," *The Globe*, January 24, 1922, ProQuest Historical Newspapers, 11

⁴ "Toronto Electric Home Arousing Tremendous Interest," *Electrical News*, Vol 32, No. 3 (February 1, 1922): 27, accessed May 13, 2021 <https://archive.org/details/electricalnewsen31donm/page/n53/mode/2up?view=theater>

⁵ "Selling the 'Idea'," *Electrical News*, Vol 32, No. 2, (January 13, 1922), 36, accessed May 13, 2021, <https://archive.org/details/electricalnewsen31donm/page/n39/mode/2up?view=theater>

⁶ "'Electric Home' Sells Equipment," *Marketing*, February 1, 1922, 136, accessed May 13, 2021, <https://archive.org/details/marketingjanjun1922toro/page/136/mode/2up>

⁷ "The Electric Service League of Ontario," undated, but content reflects publication in the early 1950s, 1

⁸ "New Canadian Electrical Code Now Available," CSA Group, last modified January 6, 2018, <https://www.csagroup.org/news/new-canadian-electrical-code-now-available/#:~:text=First%20published%20in%201927%2C%20the,their%20families%20safe%20from%20harm.>

⁹ "Selling More Electricity To the Builder, the Architect and the Public," *The Electrical News*, October 1, 1923, 15.

¹⁰ George W. Austen, "The Wiring of

Houses," *The Globe*, October 28, 1924, ProQuest Historical Newspapers, 4.

¹¹ "Many Toronto Homes Without Electricity," *The Globe*, October 23, 1924, ProQuest Historical Newspapers, 12.

¹² Gucciardo, "The Powered Generation," 139, 140.

¹³ Gucciardo, "The Powered Generation," 140.

¹⁴ Gucciardo, "The Powered Generation," 86.

¹⁵ Gucciardo, "The Powered Generation," 143.

¹⁶ "New Electric Ranges Mean Real Saving, Housekeepers Learn," *The Globe and Mail*, May 19, 1937, ProQuest Historical Newspapers, 12.

¹⁷ Gucciardo, "The Powered Generation," 99, 105.

¹⁸ "Turning on Toronto: A History of Toronto Hydro," City of Toronto, accessed May 13, 2021, <https://www.toronto.ca/explore-enjoy/history-art-culture/online-exhibits/web-exhibits/web-exhibits-local-government/turning-on-toronto-a-history-of-toronto-hydro/turning-on-toronto-leisure-after-sundown/>

¹⁹ City of Toronto, "Turning on Toronto."

²⁰ "Builders Help Red Seal Plan of Electricity," *The Globe and Mail*, April 19, 1939, ProQuest Historical Newspapers, 11.

²¹ "Electric Service League of Ontario," *Annual Report of The Hydro-Electric Power Commission*, October 31, 1948, 94, <https://archive.org/details/annualreport1948onta/page/n127/>

²² "Electric Power," *The Canadian*

Encyclopedia, last modified March 4, 2015, <https://www.thecanadianencyclopedia.ca/en/article/electric-power>

²³ "Electric Wiring Not Sufficient In Majority Homes Lions Are Told," *The Canadian Statesman*, June 20, 1957, 9.

²⁴ James Knack, "League Says Shipp Errs," *The Globe and Mail*, December 7, 1957, ProQuest Historical Newspapers, 31.

²⁵ "Wonders at Hand, Electricity's Growing Role in Home Described by Hydro Vice-Chairman," *The Globe and Mail*, February 26, 1957, 15.

²⁶ Dr. Norman R. Ball, "Nuclear Power Demonstration Reactor," *Canadian Nuclear Society*, accessed May 21, 2021, https://cns-snc.ca/media/history/npd/historical_backgrounder.html#:~:text=On%20June%204%2C%201962%20the,nuclear%2Dgenerated%20electricity%20in%20Canada.&text=It%20was%20also%20a%20training%20centre%20for%20-nuclear%20plant%20operators

²⁷ "Report of Joint Committee on Amalgamation of the Electric Heating Association of Ontario and the Electric Service League of Ontario," March 23, 1966, 6.

²⁸ "Electric goods manufacturers urged to unite," *The Globe and Mail*, February 11, 1966, ProQuest Historical Newspapers, B2.

²⁹ "Marketing and the Commission's Customers," *Hydro-Electric Power Commission of Ontario 1968 Annual Report*, May 5, 1969, 37, accessed May 13, 2021 <https://archive.org/details/annualrepor1968onta/page/36/mode/2up>

³⁰ "Surge Suppressor," *How Products Are Made*, accessed May 13, 2021,

<http://www.madehow.com/Volume-3/Surge-Suppressor.html#:~:text=One%20of%20the%20first%20surge,Japan%20around%20the%20same%20time.>

³¹ Bruce Weber, "Joel Spira, Physicist Who Softened the Lights in Homes Everywhere, Dies at 88," *The New York Times*, April 14, 2015, accessed May 13, 2021 https://www.nytimes.com/2015/04/15/business/joel-spira-physicist-who-softened-the-lights-in-homes-everywhere-dies-at-88.html?_r=0

³² "Charles Dalziel," Wikipedia, last edited January 9, 2021, https://en.wikipedia.org/wiki/Charles_Dalziel, and "Residual-current device," Wikipedia, last edited May 9, 2021, https://en.wikipedia.org/wiki/Residual-current_device.

³³ "Arc-fault circuit interrupter," Wikipedia, last edited February 15, 2021, https://en.wikipedia.org/wiki/Arc-fault_circuit_interrupter

³⁴ "Teck cable," Wikipedia, last edited April 1, 2021, https://en.wikipedia.org/wiki/Teck_cable

³⁵ Ron Bergeron, "Plug in the way-back machine ... and polish up the crystal ball," *www.ebmag.com*, July 2014, 46.

³⁶ Bill Saylor, "Message from the President League and Government Directions," *Dialogue*, Vol. 9, No. 3, June 1987, 3.

³⁷ "The Smart Use of Electricity," *Dialogue*, Vol. 8, No.3, May 1986, 1. 7

³⁸ Sandrine Prasil, *Registered Apprentices: The Class of 1992, a Decade Later* (Ottawa: Statistics Canada, 2021), appendix 2, table 1.1, 53, <https://www150.statcan.gc.ca/n1/en/pub/81-595-m/81-595-m2005035-eng.pdf?st=Q7a4Xaza>

³⁹ Richard Cullis, "Contractors' Corner,

It's Necessary," *Dialogue*, Issue 26-3, Summer 2004, 6.

⁴⁰ Ted Dyke, "A Fair and Just Licensing System For All," *Dialogue*, Vol 14 - 6, September 1992, 5.

⁴¹ "Ontario Government Agency History (BA118) – Ontario Hydro," *Ontario Ministry of Government and Consumer Affairs*, accessed May 13, 2021, http://ao.minisisinc.com/scripts/mwimain.dll/144/ARCH_AUTHORITY/AUTH_DESC_DET_REP/SISN%20

⁴² Al Merlo, "Outgoing Chair's Message, Challenges and Opportunities," *Dialogue*, Issue 25-2, June 2003, 3

⁴³ Peter Marucci, "Licensing Takes a Major Step Forward," *Dialogue*, Issue 22-1, Winter 2005, 4, 5.

⁴⁴ Russ Lock, "The Apprenticeship Beat," *Dialogue*, Issue 26-2, Spring 2004, 8

⁴⁵ Walter Pamic, "OEL Campaigns for Tradespeople to Have a Vote," *Dialogue*, Issue 31-4, Fall 2009. 10.

⁴⁶ Kelly Lapointe, "Ontario Electrical League pushes to change apprenticeship ratios," *Daily Commercial News*, September 27, 2011, accessed May 13, 2021, <https://canada.constructconnect.com/dcn/news/Labour/2011/9/Ontario-Electrical-League-pushes-to-change-apprenticeship-ratios-DCN046871W>

⁴⁷ "The Ontario Electrical League welcomes a new era of increased trade jobs with the introduction of Bill 47," OEL News Release, November 22, 2018.

⁴⁸ Anthony Capkun, "Ontario Electrical League condemns potential \$16-million annual licence tax grab," *Electrical Business*, May 30, 2012, accessed May 13, 2021, <https://www.ebmag.com/>

ontario-electrical-league-condemns-potential-16-million-annual-licence-tax-grab-12403/.

⁴⁹ Dave Ackison, "Chair's Message," *Dialogue*, Issue 38-4, December 2016, 3.

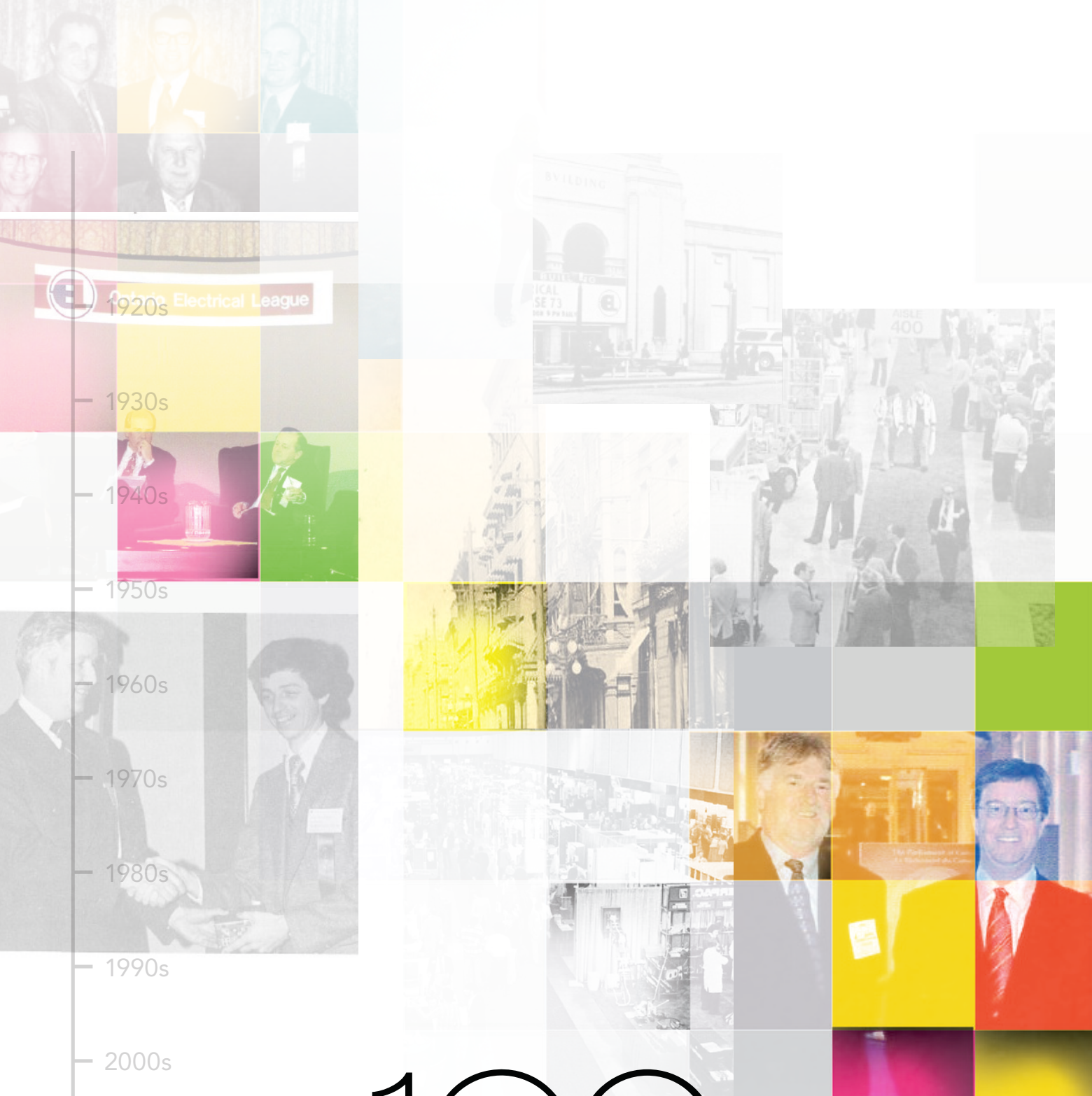
⁵⁰ "2020 OEL Lobby Day: Fairness and Labour Relations," *Dialogue*, Issue 42-1, Spring 2020, 18.

⁵¹ Ron Corbett, "Company closes doors after unionization," *Ottawa Sun*, last modified November 3, 2014 <https://ottawasun.com/2014/11/02/company-closes-doors-after-unionization.>

⁵² "The Ontario Electrical League Welcomes the Passing of Bill 66," OEL News Release, April 2, 2019.

⁵³ "The Ontario Electrical League Looks Back to Move Forward," *Dialogue*, Issue 39-3, September 2017, 4.

⁵⁴ Louie Violo, "Chair's Message Our New Normal – Our New Reality," *Dialogue*, Issue 42-2, Summer 2020, 5.



EL 1920s Electrical League

- 1930s
- 1940s
- 1950s
- 1960s
- 1970s
- 1980s
- 1990s
- 2000s
- 2010s

100 years

ONTARIO ELECTRICAL LEAGUE