

**DRC-1**

**Reference: Exhibit 1, Tab 1, Schedule 4, pages 4-5.**

**Preamble: Alectra notes that the current level of underground cable renewable investment is insufficient to maintain the reliability of its distribution system. Further, Alectra notes the increasing pace at which cable failures have intensified in existing or new emerging neighbourhoods and in so-called localized “hotspots”.**

**Alectra indicates that system reliability has worsened as a result of several factors, including deteriorated distribution equipment and the increased impact of adverse weather events and storms. In addition, Alectra indicates that delaying investments may “result in greater risk of extended outages for affected customers, alongside increasingly reactive, significantly less cost-effective capital expenditures.”**

- a) With respect to the “several factors” that have contributed to the deterioration in system reliability referenced in the Application, please provide details as to whether any factors, other than adverse weather events and storms, have contributed in a significant way to the deterioration in system reliability.**
- b) Please provide further details as to the frequency and severity of the adverse weather events and storms referenced in the Application, as well as any analysis Alectra has performed or commissioned concerning future climate trends as relevant to the viability or cost advantages to the investments contemplated in the Incremental Capital Module (ICM), to alternative options that Alectra considered, or to options including distributed energy resources (DERs).**
- c) Please discuss how changing and anticipated demands in terms of the new forms of distribution and DERs across the grid from the anticipated increases in electrification will affect the necessity and reliability of the investments in underground cables contemplated in the ICM.**
- d) Please indicate and discuss how the Application’s proposed investments will address expected increased demand arising from increased electrification, including as a result of increasing adoption of DERs and electric vehicles (EVs) in Alectra’s service territory.**

- e) **With respect to the “significantly less cost-effective capital expenditures” noted in the Application, please clarify whether Alectra quantified cost estimates for capital expenditures other than cable rehabilitation or replacement. If so, please provide details and cost estimates. If not, please explain why not.**
- f) **Please confirm whether Alectra considered how the availability of EVs as storage centres may influence the need or lack thereof for existing distribution approaches and future impacts on system reliability, including the need for the proposed investments as part of the Application. If yes, please provide details and discuss. If not, please explain why not.**

**Response:**

- 1 a) As provided in Exhibit 3, Tab 1, Schedule 2, pp.2-3, from 2019 to 2021, defective equipment  
2 has contributed to 43% of all customer hours of interruption, three times the amount of the  
3 next most significant cause of customer hours of interruption – foreign interference. Figure 2  
4 on p.3 of this Exhibit, provides the various drivers of the increasing trend in worsening  
5 reliability.  
6
- 7 b) Details on adverse weather were provided in Exhibit 4, Tab 1, Schedule 1, pp.114-116 of  
8 Alectra Utilities’ DSP filed in its 2020 rate application (EB-2019-0018). On May 21, 2022, a  
9 windstorm impacted the majority of Alectra Utilities service territory. During this time 95 poles  
10 suffered catastrophic failure. This is also why Alectra Utilities has avoided making further  
11 reductions in overhead renewal. Additionally, in response to VECC-3, Alectra Utilities  
12 identified that storms and adverse weather cause increased spending in reactive renewal,  
13 which reduces funding for planned work such as cable remediation.  
14
- 15 c) In the medium and long term, the penetration of DERs will increase. In order to connect these  
16 DERs to the distribution system, overhead wires and cables are needed. Without reliable grid  
17 assets, additional DERs will not provide increased reliability, flexibility, and capacity support.  
18 Alectra Utilities’ investment in cables will contribute to a reliable distribution system to connect  
19 DERs. The primary driver for the ICM investment is to address the significant risk of failure  
20 associated with these assets. If these cables are not addressed, any load increase which will

1 happen due to electrification will further deteriorate these cables and will lead to even higher  
2 failure rates.

3

4 d) Alectra Utilities' proposed investment will rehabilitate the cables so that the cables are in  
5 optimal condition and sized appropriately for the load growth through electrification in the  
6 medium and long term.

7

8 e) The cables are at the end of life and need to be injected or replaced. Alectra Utilities has not  
9 quantified cost estimates for any other capital expenditures as that investment will not solve  
10 the underlying issues associated with the end of life cable. Alectra Utilities is pursuing cable  
11 injection wherever possible as cost-effective measure to rehabilitate the cables.

12

13 f) V2G stands for "vehicle to grid" and is a technology that enables stored energy in the battery  
14 of the electric vehicle to be pushed back to the power the grid. V2G is an emerging technology  
15 with limited proliferation at the current time. However, it is anticipated that these technologies  
16 will proliferate in the medium and long term. The ability to use EV as resource depends on  
17 appropriate supporting infrastructure, willing participants, as well as the presence of  
18 bidirectional chargers. Alectra Utilities' investment in cable renewal will ensure the distribution  
19 grid is ready and can accommodate dynamic two-way power flow.

**DRC-2**

**Reference: Exhibit 2, Tab 1, Schedule 1, page 10**

**Preamble: Alectra notes that it considered various options to address the growing reliability issues due to underground cable failures resulting from ground moisture and corrosion.**

- a) Please provide details as to any other options that Alectra considered and why Alectra ultimately concluded they should not be pursued.**
  
- b) Please describe any assumptions concerning a changing climate or increases in adverse weather events that were discussed in the development of Alectra's conclusions to not pursue other options and please describe how these various options would have a negative or positive effect on the transition to EVs and DERs, as well as anticipated demands on the grid arising from increased electrification.**
  
- c) Please describe any options that were available that would have been advantageous from the perspective of supporting the transition to EVs and DERs, as well as anticipated demands on the grid arising from increased electrification. If any such options existed, please provide details as to why Alectra ultimately concluded they should not be pursued.**

**Response:**

- 1 a) The three options considered were: cable replacement, cable injection, and combination of  
2 replacement and injection. Alectra Utilities decides which method of remediation to use based  
3 on several factors, namely, cable age, cable condition, cable connectivity, historical cable  
4 failures, and projection of future cable failures. For cable replacement projects, although some  
5 cable segments within the project scope have not failed yet, considering the cables are the  
6 same vintage, it is estimated that the failures are imminent and therefore should be replaced  
7 at the same time to prevent future failures.

1 For cable injection projects, although some of the cable segments within the project scope  
2 have not failed yet, considering the purpose of cable injection is to rejuvenate the insulation  
3 to avoid future cable failures, cable injection should be carried out when cables are still  
4 suitable for the injection process. If a cable segment has 4 or more splices, that segment will  
5 be set aside for replacement.

6  
7 b) As provided in response to 3-ED-1 c), Alectra Utilities utilizes System Planning philosophy  
8 and Standards based on loading for a residential and industrial/commercial subdivision.  
9 These guidelines take into consideration the adoption of DERs and EVs. However, the  
10 purpose of cable remediation projects is to address the failure of cable and cable accessories.  
11 As cables are underground there is an indirect impact of adverse weather or climate events  
12 on underground distribution system reliability. Without these investments to remediate cables,  
13 the likelihood of greater DER or EV use would put further strain on the assets. Therefore,  
14 there is a positive benefit for DERs and EVs resulting from these projects. Please also see  
15 Alectra Utilities' response to 1-VECC-3.

16  
17 c) Please see Alectra Utilities' response to 3-ED-4.

**DRC-3**

**Reference: Exhibit 3, Tab 1, Schedule 1**

**EB-2019-0018, Interrogatory responses to DRC, 1 DRC-2**

**EB-2019-0018, 2020 EDR Application, Exhibit 4, Tab 1, Schedule 1, pp. 327-328**

**EB-2019-0018, 2020 EDR Application, Exhibit 4, Tab 1, Schedule 1, Appendix 13, p. 13**

**Preamble: Alectra notes that investments in Lines Capacity minimize the impact of additional load growth on service levels for existing customers. However, current investments in Lines Capacity are “paced at a bare minimum level to only match the timing of known and committed development, considering available capacity, and expected load growth, net of conservation and demand side management persistence.”**

**In an interrogatory response to DRC in EB-2019-0018 (Exhibit 4, Tab 1, Schedule 1 (DSP), Section 5.3.1, p. 328), Alectra provided EV adoption and load forecasts in its service territory that informed Alectra’s load forecast as part of the 2020 DSP.**

- a) Please indicate whether Alectra’s expected load growth considers the impact and integration of DERs, EVs, and EV charging infrastructure and the future transition to increased electrification. If it does, please discuss the expected impacts and how the proposed investments address these impacts. If not, please explain why not.**
  
- b) Please indicate whether Alectra’s EV adoption and actual and forecasted load demand for the period 2020-2024 has changed since the 2019 distribution rates application (EB-2019-0018). If it has, please provide, in the chart format below, Alectra’s updated assessment of the impacts on loads and demands of Alectra’s estimate of EVs in each year:**

	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<b>EVs (#)</b>					
<b>EV (kW – on peak)</b>					

**c) Please describe how Alectra’s current forecasts of trends in EV use aligns with the current and future necessity of the investments contemplated in the ICM.**

**d) Please describe to what extent DERs as non-wires alternatives were considered as a potential means to defer or avoid costs associated with the traditional infrastructure investments contemplated in the ICM.**

**Response:**

1 a) Alectra Utilities’ distribution system planning process considers the impact of EVs and  
2 integration of DERs during peak periods. The proposed ICM investment will rehabilitate the  
3 end-of-life cables through cable injection or cable replacement. The cable that is proposed to  
4 be replaced, conforms to the latest Alectra Utilities standard and allows for loading according  
5 to the type of the service that is connected. Cable injection serves to maximize the life span  
6 of the cable while ensuring the cable insulation is restored, which will allow for the increased  
7 loading from electrification.

8  
9 b) Alectra Utilities’ EV forecast has changed based on the increased adoption of EVs as provided  
10 in Table 1, below.

**Table 1 – EV Forecast 2020-2024**

		<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
EB-2019-0018	EVs (#)	5,600	9,328	13,242	17,351	21,666
	EV (kW - on peak)	7,800	13,100	18,500	24,300	30,300
EB-2022-0013	EVs (#)	11,071	14,123	17,613	23,388	31,349
	EV (kW - on peak)	14,614	18,642	23,249	30,872	41,381

13  
14 c) Please see response to part a).

15  
16 d) The investment contemplated in this ICM are for the end-of-life cables. Traditional DERs can  
17 augment capacity and provide reliability support to the grid. DER resources need to connect  
18 to the distribution system to provide services, however the grid needs to be in optimal  
19 condition. Alectra Utilities’ investment in the cables will ensure that the grid is in optimal  
20 condition for load customers as well as for the connection of DERs.

**DRC-4**

**Reference: Exhibit 3, Tab 1, Schedule 2**

**Alectra 2021 Sustainability Report, page 30**

**Preamble: Alectra suggests that cable injection is “environmentally friendly” as a result of the avoided greenhouse gas (GHG) emissions compared to the manufacture, transport and installation of new cable. Alectra indicates that it has avoided 5,012 tCO<sub>2</sub> by renewing underground cables using cable injection instead of replacing cables.**

- a) Please place Alectra’s 2021 Sustainability Report on the record in this proceeding.**
  
- b) Has Alectra quantified the expected avoided GHG emissions from prioritizing cable injection as part of the Application? If yes, please provide any and all working papers, reports, and analysis conducted to support Alectra’s estimated avoided GHG emissions. If no, please provide an estimate of avoided GHG emissions as a result of the proposed cable injection.**
  
- c) Please provide any details as to how the proposed measures relating to the underground cable network align with either or both of the priorities of astute grid modernization or system hardening, which are set out in Alectra’s 2021 Sustainability Report.**

**Response:**

- 1 a) Alectra Utilities’ Sustainability Report is provided as Attachment 1.
- 2
- 3 b) Alectra Utilities plans to inject a total of 227 km of cables through the 2023 and 2024 ICM
- 4 projects, which is projected to avoid 2,951 tons of CO<sub>2</sub> emissions from the environment.
- 5
- 6 Alectra Utilities based its projection from the environmental case study assessment conducted
- 7 by SJF Ventures which determined that 13 tons of CO<sub>2</sub> emissions is avoided per meter of
- 8 injected cable. The study determined that for each meter of cable injection, the application of

1 16 grams of silicon fluid used avoids the manufacture, transport, extracting and trenching of  
2 195 grams of aluminum, 484 grams of copper, 963 grams of plastic and burning of 1.09  
3 gallons of diesel fuel.<sup>1</sup>

4  
5 c) Reliable underground cables are a foundational infrastructure portion of the electricity  
6 distribution system. Renewing and maintaining properly working and dependable  
7 underground cables provide the capacity for and connectivity of emerging technologies which  
8 form the modernization of the grid. The majority of Alectra Utilities' customers are serviced  
9 through underground cables. As provided in response to DRC-1 c) and ED-4 b), the  
10 remediation of cables ensures that these cables, and therefore the grid, operate in a  
11 dependable condition to support customer demand for EVs and DERs.

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<sup>1</sup> <https://sjfventures.com/case-study/unexpected-reuse-and-resource-reduction-beyond-where-the-eye-can-see/>

## **DRC-4**

# **Attachment 1 2021 Alectra Annual Sustainability Report**



# Discovering the possibilities

2021 Annual Sustainability Report

## About Alectra

**Alectra Inc.** (Alectra) is an investment holding company with a head office in Mississauga, Ontario. Alectra owns 100 per cent of the common shares of each of: Alectra Utilities Corporation (Alectra Utilities) and Alectra Energy Solutions, which in turn has two wholly-owned subsidiaries: Alectra Energy Services Inc. and Alectra Power Services Inc. Alectra Energy Services has two wholly-owned subsidiaries – Util-Assist Inc. and Holland Power Services.

By integrating our people, processes, and systems, Alectra has emerged as one of Canada's leading energy companies, driving energy innovation while maintaining a strong balance sheet and endeavouring to deliver maximum value for our employees, customers, shareholders, and communities.

## Who We Are

**Alectra Utilities Corporation** (Alectra Utilities) is the second-largest municipally-owned local distribution company (LDC) in North America, providing electricity distribution services to more than one million customers across a 1,924 square kilometre service territory in 17 Ontario communities, including Alliston, Aurora, Barrie, Beeton, Bradford West Gwillimbury, Brampton, Guelph, Hamilton, Markham, Mississauga, Penetanguishene, Richmond Hill, Rockwood, St. Catharines, Thornton, Tottenham, and Vaughan. Alectra Utilities also operates a commercial rooftop solar photovoltaic generation business.

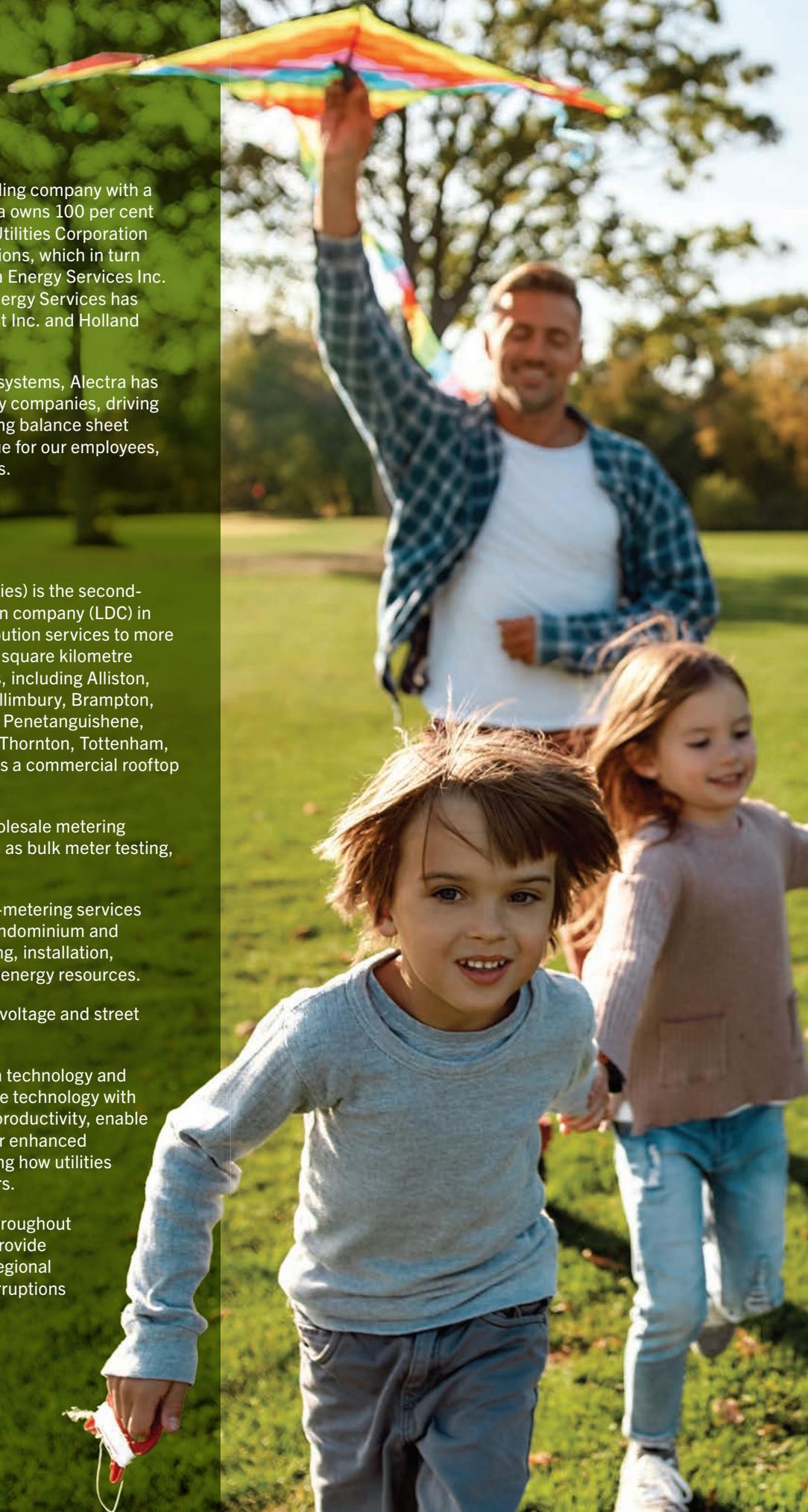
**Alectra Energy Solutions Inc.** provides wholesale metering services for commercial properties, as well as bulk meter testing, verification and installation.

**Alectra Energy Services Inc.** provides sub-metering services (electricity, water, gas, and thermal) for condominium and commercial properties, as well as consulting, installation, operation, and maintenance of distributed energy resources.

**Alectra Power Services Inc.** provides high voltage and street lighting services.

**Util-Assist Inc.** is a recognized innovator in technology and data-driven solutions for utilities that merge technology with a strategy to streamline processes, boost productivity, enable data-driven business decisions, and deliver enhanced customer experiences, thereby transforming how utilities operate and deliver value to their customers.

**Holland Power Services (HPS)** operates throughout eastern Canada and the United States to provide emergency power restoration services to regional utilities coping with electricity service interruptions caused by severe weather events.





## Our sustainability commitment

As a sustainable company, Alectra is committed to meeting the needs of current and future generations by empowering our customers, communities, and employees, protecting the environment, and embracing innovation.

**Our vision** is to be Canada's leading distribution and integrated energy solutions provider, creating a future where people, businesses, and communities will benefit from energy's full potential.

**Our mission** is to provide customers with smart and simple energy choices, while creating sustainable value for our shareholders, customers, communities, and employees.

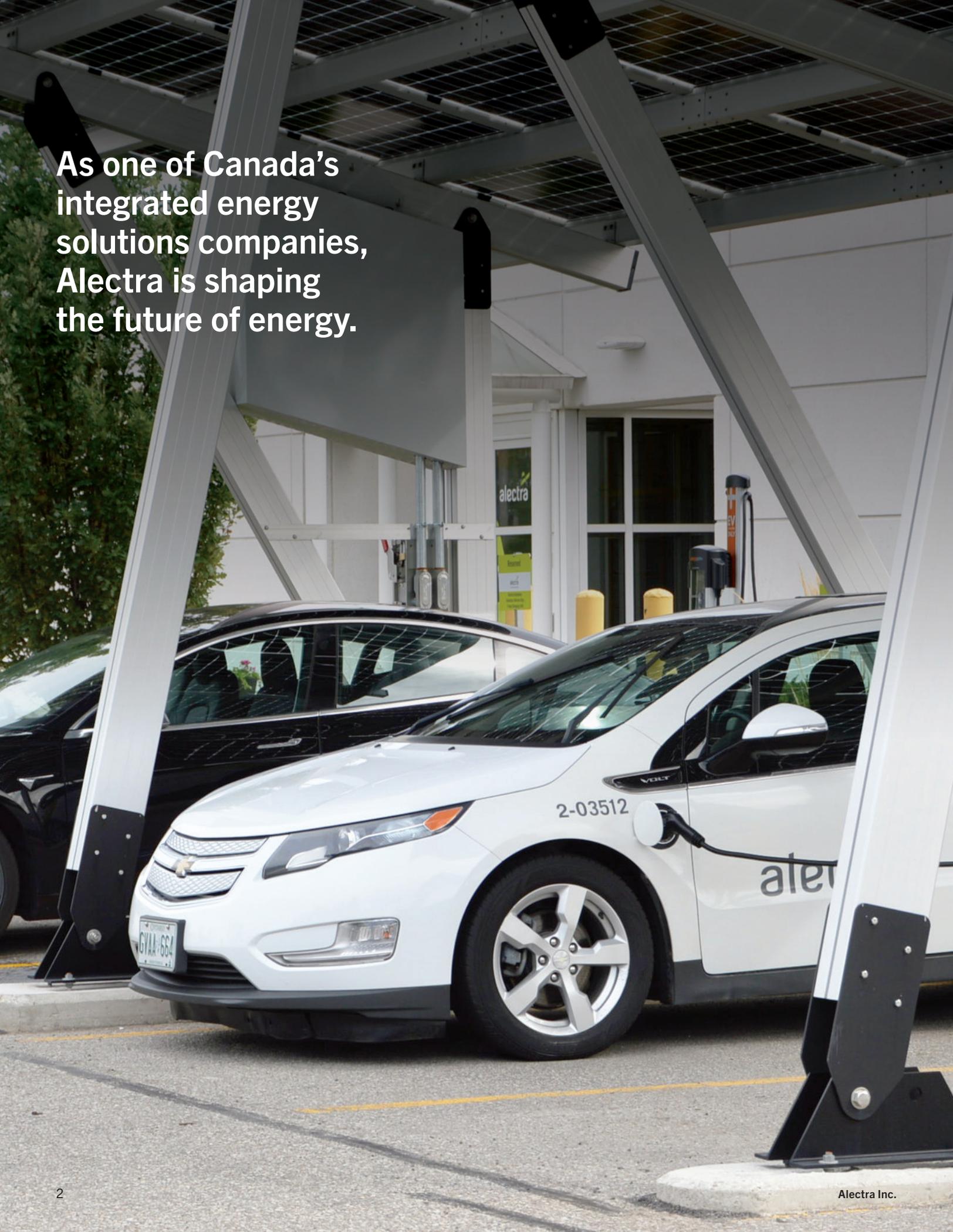
**Our values** are safety, respect, customer focus, excellence, and innovation.

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As one of Canada's  
integrated energy  
solutions companies,  
Alectra is shaping  
the future of energy.



# Sustainability at Alectra

## Our sustainability framework – AlectraCARES

AlectraCARES is the umbrella framework that embeds sustainability principles into our core business strategy and operations helping to create enduring value and connecting us to the three pillars of sustainability – people, planet, and performance.

## About our 2021 Sustainability Report

As we release Alectra Inc.'s fifth Annual Sustainability Report, we believe there is much to celebrate: our delivery of an essential service to our customers, our performance for shareholders, and our contribution to the communities we serve and to our planet.

The Sustainability Report is the story of what Alectra Inc. did in 2021, a year in which we all continued to cope with the profound impacts of a persistent pandemic. Both as a corporation and as individual employees, we're committed to supporting our customers and neighbours through these challenging times. You can read about Alectra's social, environmental, and economic impact as we cover issues that are of significant interest to our stakeholders, as validated through a third-party assessment.

Similar to previous years, we have much to tell: Health and Safety/Public Health; Infrastructure Modernization; Community Engagement; Climate Change; Customer Services; Energy Affordability; Waste and Materials Management; Equity, Diversity and Inclusion; Employee Well-Being, Engagement and Development; Energy Efficiency; and Financial Performance.

Throughout the 2021 Sustainability Report we focus on three pillars – **people**, **planet**, and **performance** and we're proud to share our story, a story in which we invite you to **discover the possibilities**.

“

I see us as a facilitator of sustainability. We'll be at the forefront of providing services for clients who will be taking advantage of new technologies such as electric vehicles.”

**Norm Loberg**  
Chair, Alectra Board of Directors

#alectraCARES

# Discovering the Possibilities

PEOPLE



**Top Employer**

2022 Top Employer in GTA

A commitment to people is at the heart of our values. It extends beyond our employees into the communities we serve.

PLANET



**Canada's Clean50**

Caroline Karvonen, Manager, Sustainability  
Neetika Sathe, VP GRE&T Centre  
Sara Ganowski, Specialist, Smart Cities

We are committed to reducing our environmental footprint.

PERFORMANCE



**Barrie Chamber of Commerce  
Employee of the Year award**

Dave Yeoman (March 2021)

At Alectra, performance means delivering value to the one million customers we serve, while generating dividends to our community shareholders.

## How We Serve – Delivering Power, Supporting our Communities

The pandemic challenged all of us in ways we could have never anticipated. Our core mission, to deliver reliable electricity to more than one million homes and businesses, was never more important. Doing it in the midst of a public health emergency stretched us to discover our possibilities – to find new ways of working to protect the health and safety of our employees, to raise customer service to new heights to support customers facing economic challenges and to elevate our contribution to the communities we serve, all while continuing to build and adapt to a rapidly changing energy landscape.

93%

CUSTOMER SATISFACTION

89%

OF EMPLOYEES PROUD TO WORK AT ALECTRA

\$915,000

INVESTED IN OUR COMMUNITIES THROUGH #ALECTRACARES

Corporate Knights Best 50

CORPORATE CITIZENS IN CANADA CORPORATE KNIGHTS RECOGNITION

IABC Canada Silver Leaf Awards – Award of Excellence

2020 PAPERLESS EBILLING CAMPAIGN

YWCA HAMILTON 'WALK A MILE IN HER SHOES' Top Fundraising Team

IABC CANADA SILVER LEAF AWARDS – AWARD

UNITED WAY (HALTON & HAMILTON) 'Inspiring Local Love' Award

Committed

TO ACHIEVING NET ZERO CARBON EMISSIONS BY 2050

20% reduction

IN CARBON EMISSIONS FROM 2016 BASELINE

4 million

BILLS DELIVERED ELECTRONICALLY THROUGH EBILLING

HydraGEN™

PILOT PROGRAM – REDUCING CARBON EMISSIONS FROM DIESEL VEHICLES

Canada's Clean50

AWARDS FOR SUSTAINABILITY LEADERSHIP

E-SOURCE UTILITY AD AWARD (2ND PLACE) – for Self-service (bill pay, start or stop service)

CLIMATEWISE – Achieving Greenhouse gas reduction target

AESP – ASSOCIATION OF ENERGY SERVICES PROFESSIONALS AWARD in 'Beyond Energy Efficiency' category

\$306 million

CONSTRUCTION OF CAPITAL PROJECTS ON INFRASTRUCTURE TO SUPPORT DISTRIBUTION AND EXPANSION

\$628 million

IN DISTRIBUTION REVENUE

\$5.5 billion

TOTAL ASSETS

Energy Efficiency

AWARD FROM ASSOCIATION OF ENERGY SERVICES PROFESSIONALS

\$6 million

DISTRIBUTED TO CUSTOMERS FROM ONTARIO'S COVID-19 ENERGY ASSISTANCE PROGRAM (CEAP)

ELECTRICITY DISTRIBUTORS ASSOCIATION AWARDS 'Communication Excellence'

'HERMES CREATIVE AWARD' – Alectra Utilities website

OEA – 'INNOVATION AWARD' – GRE&T Centre

## ALECTRA IN THE COMMUNITY

### Cory's Ride to Conquer Cancer

Cory Holmes, Specialist, Health and Safety department, participated in his fourth Ride to Conquer Cancer as part of Team Alectra. Except, this year was very different. Only a few weeks before the ride, Cory was himself diagnosed with cancer. It would have been OK if he had chosen not to participate, but instead, he showed extraordinary courage and generosity by pushing ahead and using his own diagnosis to raise awareness and funds for cancer research. Given that Cory was about to begin treatment, he and Doug Fairchild (captain of Team Alectra) did their ride a week early. Cory's wife Karen surprised him by having about 75 of his friends, neighbours, family members and coworkers by his side to cheer him on as he completed the ride. Cory Holmes was an inspiration to us all and thanks to his efforts, Team Alectra surpassed its initial goal of \$20,000 and raised almost \$88,000, **double 2020's total!** Cory's fundraising efforts alone raised more than \$15,000!



Cory Holmes' Ride to Conquer Cancer



Team Alectra surpassed its initial goal of \$20,000 and raised almost \$88,000, double 2020's total! Cory's fundraising efforts alone raised more than \$15,000!"



Chris Hudson (SVP Network Operations) supporting Gergo's dream

### Making Gergo's Wish Come True

Gergo Kokenyesi has been through a lot in his young life. In 2017 at age 10, he was diagnosed with a rare form of cancer, a germinoma brain tumor. As he was undergoing rounds of chemo and radiation therapy, his parents Thomas and Melinda realized he was eligible for a wish through Make-A-Wish. Gergo's dream was for a tropical paradise, which was brought to life with the creation of a backyard oasis, complete with a hot tub. Thanks to Make-A-Wish, Beachcomber Hot Tubs and All Electrical, Gergo's wish was closer to reality in the summer of 2021, but there was one final hitch. The Kokenyesis' electrical service was insufficient to accommodate the hot tub. That's when Alectra stepped in to cover the cost of the upgraded electrical service required to power Gergo's hot tub. On behalf of Alectra, Chris Hudson, Senior Vice President of Network Operations, visited the family to tell them that Alectra would provide the needed power upgrades as Alectra's contribution allowing Gergo to see his dream realized. He even delivered oasis themed gifts that included a tropical shirt, hat, décor items and giant inflatable palm trees.

### Alectra the Cat – Another #HappyTail

Many Alectra employees are pet lovers, so we couldn't resist the story of the Guelph Humane Society's 'Alectra the cat', a blind, two-year old rescue known to be a clever, confident and cuddly cat that loves snuggling on laps. We spotted her picture and story on the social media channels of the Guelph Humane Society – and with a name like Alectra – naturally we stepped in to offer a donation to cover the cost of her care while she awaited adoption. Happily Alectra (the cat, not the utility) found her forever home and the team at the Guelph Humane Society tells us that her new family previously had a blind cat and are very excited to give Alectra a new home.

## BUILDING A BETTER WORKPLACE – EQUITY, DIVERSITY AND INCLUSION

At Alectra, we believe that everyone deserves to work in an environment where they feel safe, welcomed and valued, a place where they feel they belong, a place where their colleagues reflect the communities in which they live.

At Alectra, 2021 was a pivotal year in our commitment to Equity, Diversity and Inclusion (ED&I).

We rolled out a series of meaningful initiatives that focused on awareness, developing employee capabilities and enhancing our ED&I resources:

- Unconscious bias training for all employees and board members
- Embedding ED&I into our onboarding program for new employees
- Developing and conducting an ED&I Survey to better understand our employee demographics and sentiments on inclusion and belonging
- Educating our employees through highlighting cultural observances such as Black History Month, International Women’s Day, Pride Month and National Indigenous History Month – to name a few

### ED&I in the Boardroom

Alectra is making a meaningful contribution to improving ED&I in corporate boardrooms by funding a new scholarship at the DeGroote School of Business at McMaster University. The ‘Alectra Equity, Diversity and Inclusion (ED&I) Scholarship’ will offer racialized individuals the opportunity to attain governance education and certification, by completing The Directors College Chartered Director (C.Dir.) Program, a DeGroote Executive Program. A full scholarship will be awarded to one Ontario-based individual each calendar year between 2021 and 2025.

### Community Investments

To help our communities combat Anti-Black Racism (and discrimination), we worked through local organizations to support grassroots initiatives:

- Donated \$35,000 to nine organizations that are committed to Anti-Racism and advancing BIPOC (Black, Indigenous and People of Colour) initiatives in the communities we serve
- Five scholarships for youth entering post-secondary learning or training
- Virtual youth tutoring programs
- ED&I awareness presentations
- An Afro-centric children’s book
- An educational campaign on Black heritage

### Gender Diversity

#### Board

29% female / 71% male



Total  
14

#### Senior Leadership

35% female / 65% male



Total  
69

#### All Employees

31% female / 69% male



Total  
1,534



31 per cent of our 1,534 employees are women, a ratio closely reflected in the composition of our senior leadership (35 per cent). Women made up 29 per cent of our board in 2021”

# Creating a cleaner, brighter future.

Norm Loberg, Chair of Alectra Inc.'s Board of Directors, and Brian Bentz, President and Chief Executive Officer of Alectra Inc., speak about how the company has risen to the unprecedented challenges of the past two years while continuing to build towards a clean, sustainable and inclusive future.

## What do you see as some of Alectra's most significant accomplishments in 2021?

**Norm Loberg** – There's no question that it was addressing the pandemic – **and doing it well**. We continued to provide a high level of service to customers under these challenging conditions. We also introduced Strategy 2.0 to our employees which outlines the path forward for the corporation. It's a credit to our 1,500 employees who rose to the challenge and to our management to maintain business as usual under these trying conditions.

**Brian Bentz** – We continued to focus on the safety and well-being of our employees, showing that we're a caring company, not only to our employees but to the customers we serve, and showing that we have a heart as an organization through a difficult time. From an operational point of view, I'd like to highlight the work that the entire organization did to continually ensure we have a safe, reliable supply of electricity to our more than one million customers.

## How did Alectra address the many challenges of the pandemic?

**Norm Loberg** – Our employees really rallied together to find solutions, and we learned that we can be much more flexible in how we perform our jobs day-to-day; it's allowed us to become more efficient in the virtual working environment. The whole success of the company goes back to the commitment of our

employees. Throughout our communities, we were in tune with needs created by the pandemic – and we adjusted. We were very pleased with how we were able to assist the communities we serve.

**Brian** – There were additional challenges in the call centre this year. Call duration tended to be longer than prior years, but we took the time to do it right. Our people worked exceptionally hard in our call centre to assist customers through difficult times, advising them of programs that were available to them, working on payment arrangements and be there for our customers providing general advice and support during this period.

## How would you characterize the company's performance in 2021?

**Norm** – The performance, operationally, was terrific. When I look at people, planet and performance I think we performed at a high level for all three. We also introduced Strategy 2.0 to our employees which is the future direction for the corporation. It focuses on our customers and their needs in a changing technological environment.

**Brian** – It's been a very successful year for the organization in terms of customer satisfaction and high levels of employee engagement. Our people overwhelmingly say they're proud to work at Alectra. We have made progress on ED&I (Equity, Diversity and Inclusion) by putting formal policies in place, providing training in unconscious bias across the organization and embracing the value of diversity in the workforce.

## Sustainability and ESG (Environmental, Social, Governance) issues are top of mind for many stakeholders. Could you speak about Alectra's performance in those areas?

**Brian** – We achieved several recognitions. Alectra was named a GTA Top Employer, we made the Corporate Knights 'Best 50 Corporate Citizens in Canada' list, and Imagine Canada named us a "Caring Company" for our contributions to the community. We look to how we define the soul of an organization and when it's about caring and giving back, especially in these difficult times, then good things happen. For us, community giving is a reflection of who we are and what we believe.

Our sustainability goals are very ambitious, and we are on schedule in reaching them. In 2021, we reduced our corporate operations greenhouse gas emissions by 20 per cent compared to our 2016 baseline. We have a target at 38 per cent GHG reduction by 2025 and net zero by 2050. We're one of the first utilities in Canada to put that marker in the ground.

**Norm** – Years ago, people would have said it's all about the bottom line. But now a key performance indicator is how do you relate to your community. In our case, we are not only part of the community, but we are also an essential service. We feel that if the community prospers, we prosper. And so, we encourage our employees to get involved in community activities and we also support them on the corporate level. It has a tangible benefit both for our neighbours and the company itself.

### What is ahead for Alectra in 2022 and beyond?

**Norm** – ED&I for sure will continue to be a primary focus. From an operational perspective, we're likely going to end up with a hybrid work environment. We'll of course continue to push ahead to achieve the objectives of Strategy 2.0 as well.

We're looking forward to our five-year anniversary. When we put the four companies together, then added a fifth, we set some targets for ourselves that a lot of people said were unattainable. We said we'd reduce hydro bills or keep them constant, and we told shareholders we'd improve their returns. We've achieved

those targets and even more. I couldn't be happier. It was a five-year plan and now we focus on the next five years. That's where the challenge will be.

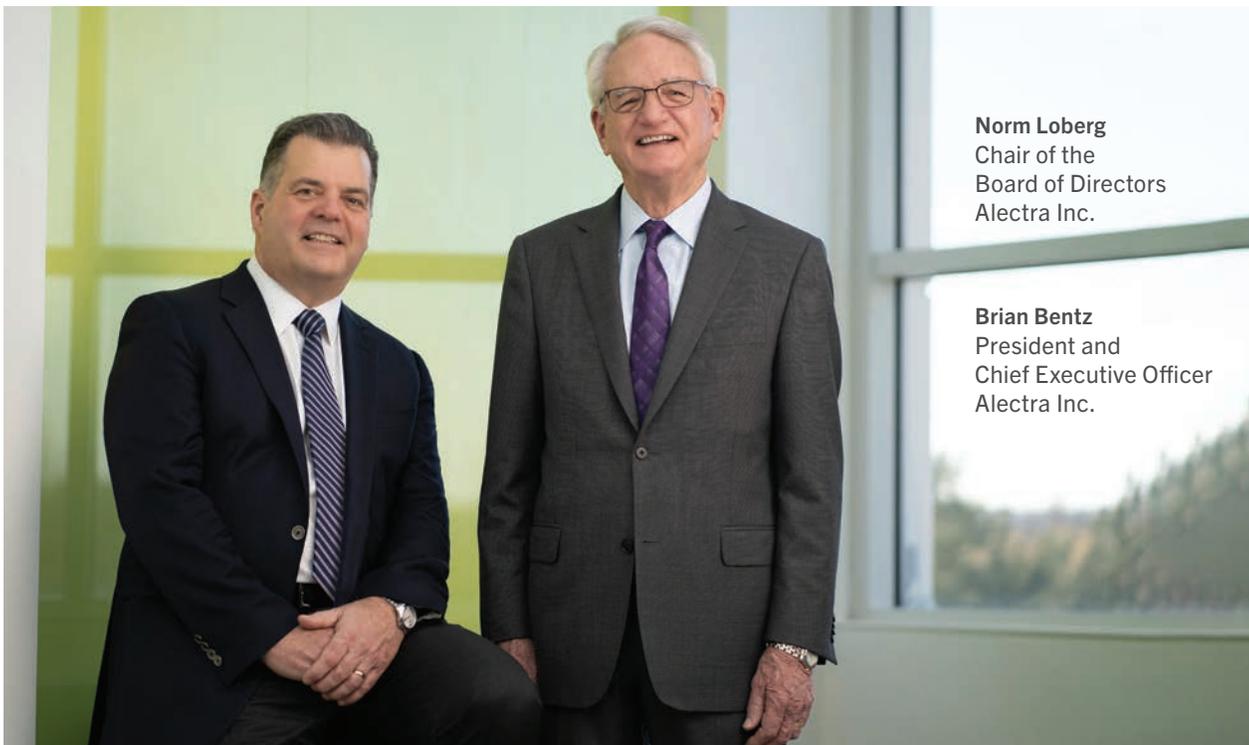
**Brian** – With respect to Strategy 2.0, our goal is to reposition the company in a changing electricity marketplace to grow as the trusted energy ally for our customers, to provide them with core electricity grid reliability services, but also offer them different kinds of energy solutions. Whether it's assisting with e-mobility or sustainability, we want to help them through those decisions and with the way they value and use energy. We want to be a catalyst for that change.



**Norm Loberg**  
Chair of the Board of Directors



**Brian Bentz**  
President and Chief Executive Officer



**Norm Loberg**  
Chair of the  
Board of Directors  
Alectra Inc.

**Brian Bentz**  
President and  
Chief Executive Officer  
Alectra Inc.

# People



Our people are the heart of Alectra. They are dedicated to delivering an essential service to our customers and to giving back to the communities we serve. A central part of our sustainability mission is to support our employees and our neighbours. It has never been more crucial than during the unprecedented challenges of the COVID-19 pandemic.

1,534 Employees  
21,988 hours of safety and project-related training  
\$70,000 to support vaccination clinics

## EMPLOYEES

Alectra believes everyone has the right to a safe, welcoming and inclusive workplace. It is embedded in our cultural values.

### Living with the Pandemic

The second year of COVID-19 meant continual adaptations to maintain health and safety. The Health, Safety and Environmental (HS&E) teams diligently monitored and updated guidance and regulations from the government and Public Health bodies and responded quickly to meet or exceed all guidelines. A mandatory vaccination policy was implemented for all employees as of November 1, 2021. We further required that all clients, suppliers, vendors, contractors and all other visitors provide satisfactory proof of COVID-19 vaccination before entering any Alectra facility.

Following the advice of Public Health officials, the return-to-office plan for non-Operations staff that had been scheduled for September was postponed until spring 2022. It is a hybrid approach that will see many employees in the office three days per week. We supported employees working from home with guidelines and third-party support to help them create ergonomic workspaces. In preparation for the return to office, there is a series of online training sessions for managers and employees to make the process as safe and comfortable as possible. To protect employees, visitors and contractors coming into our facilities, use the Go Evo app to support our active and robust screening and testing programs. Our HS&E team continues to maintain an appropriate stock of Personal Protective Equipment (PPE), sanitizer and rapid testing kits, with supplies to be increased for the return to office.

### Employee Health and Safety

We had six lost time incidents (LTIs) in 2021. All incidents were investigated, and corrective actions were identified and discussed, along with lessons learned. We did not have a critical injury (as defined by the Occupational Health and Safety Act) in 2021.



39,902

Number of customers to receive a monthly on-bill credit through the OESP

\$405,326

Amount of LEAP funding dispersed

**Mental Health and Wellness**

Recognizing the challenges we’re all facing, Alectra provided additional mental health supports for our employees through active participation in programs such as Bell Let’s Talk and the Canadian Mental Health Week campaign, sharing information and tips on themes such as understanding our emotions. In 2020, we offered mental health training to all employees and leaders and in 2021, that was followed up with some refresher training material.

With our work patterns significantly disrupted, we placed a heavy emphasis on wellness, organizing our first Virtual Wellness Week with a series of programs each day focusing on themes such as fitness, nutrition, finance and family care. Throughout the year, we continued to offer a Virtual Yoga Program, in addition to a series of wellness webinars on topical subjects such as *‘Humour and Play to Reduce Stress and Solve Problems’* and *‘The Power of Sleep’*. As employees start to transition back to the office, a series of wellness resources will be made available to them for support. These resources will be made available through the LinkedIn training library and webinars.

**Employee Learning**

Our LinkedIn Learning platform continued to be very popular, with employees completing more than 2,000 hours of online courses on topics such as leadership, technology and relevant business subjects. Our people also completed nearly 22,000 hours of safety and project-related training. Alectra also launched a mentoring pilot program. The Learning and Organizational Development team partnered with Network Services to develop an Engineer in Training (EIT) program to support EITs in their development and certification process.

**Annual Engagement Survey**

Alectra seeks feedback from employees to gain valuable guidance as we continually seek to improve and grow. Some highlights include:

- 89 per cent say they’re proud to work at Alectra, and would still choose to work here if faced with the same decision again
- 90 per cent state they belong to a real team
- 87 per cent state that differences and diversity are valued at Alectra
- 92 per cent believe Alectra displays real commitment to the community
- 88 per cent say Alectra’s wellness programs give them an opportunity to improve their well-being
- 83 per cent believe Alectra is a good place to pursue their career goals
- 849 employees participated in the survey (56 per cent response rate)



## CUSTOMERS

At Alectra, we never forget what our work means to our customers. Our job is to keep the lights on, keep manufacturing lines moving, and ensure the computers stay powered in home offices. And when the people we serve run into challenging times, we're there to help them find a way through.

### Low-income Energy Assistance Program (LEAP)

Alectra recognizes that its most vulnerable customers could fall behind on their bills through no fault of their own. LEAP is there to help. We have dispersed \$405,326 in funding available for 711 low-income customers who qualified through our local community support agencies.

### Ontario Electricity Support Program (OESP)

OESP offered 39,902 qualifying low-income customers with monthly credits on their electricity bills.

### COVID-19 Energy Assistance Program (CEAP)

This initiative from the Province of Ontario was designed to help families and small businesses who were falling behind in power bills because of the economic disruptions caused by the pandemic. Alectra dispersed approximately \$6 million from CEAP directly to customer accounts during 2021.

### New Connections Contact Centre

The New Connections team, under the Customer Care department, reorganized in 2021, creating a dedicated new connections contact centre for customers and contractors. It had an immediate impact, cutting call wait times from 20+ minutes to under three minutes – while also speeding up the booking process for customers.

### AffordAbility Fund™

The overwhelming success of Ontario's AffordAbility Fund™ exhausted the fixed provincial budget and curtailed participation in 2021. In total, 859 eligible customers received energy-saving devices such as smart power bars, LED light bulbs, ENERGY STAR® appliances, and air source heat pumps for homes with electric heat. These projects resulted in 1.59 megawatt hours of energy savings in 2021.

### Customer Satisfaction Survey

UtilityPULSE conducted the 2021 Customer Satisfaction Survey and found Alectra continued to excel:

- Customer Satisfaction: 93 per cent
- Provides consistent, reliable energy: 92 per cent
- Quickly handles outages and restores power: 89 per cent
- Is a trusted and trustworthy company: 87 per cent

We were proud that Dave Yeoman, Director of Health and Safety, was named “Employee of the Year” by the Barrie Chamber of Commerce at its annual Business Awards ceremony. The award recognizes a person who shines in the workplace, takes initiative, and shows leadership, while displaying an exceptional work ethic that sets them apart from their peers. Congratulations Dave!



Barrie Chamber of Commerce



**KEEPING CONNECTED**

With so many of us out of the office, Brian Bentz prioritized reaching out with a series of videos updating employees on the latest news and featuring co-workers speaking about their latest projects.



**WHERE YOUR ELECTRICITY DOLLAR GOES**

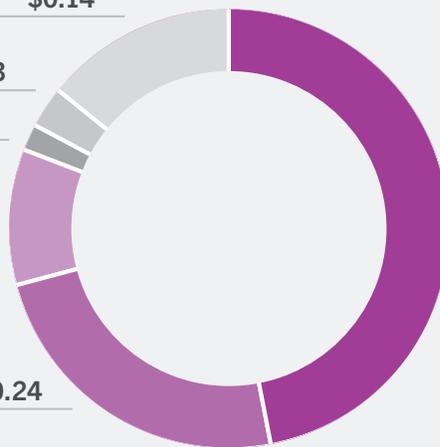
Federal & Provincial Sales Taxes **\$0.14**

Regulatory Charges **\$0.03**

Line Loss Adjustment **\$0.02**

Transmission Charges **\$0.10**

Delivery Charge **\$0.24**



**\$0.47** Generation



Our employees care about their communities. They know their work matters and that they can make a difference in people's lives."

**Brian Bentz**  
President and CEO, Alectra Inc.

## HOW YOUR BILL BREAKS DOWN

Alectra's Delivery Charge is approximately 24 per cent of a bill that covers Alectra's costs.

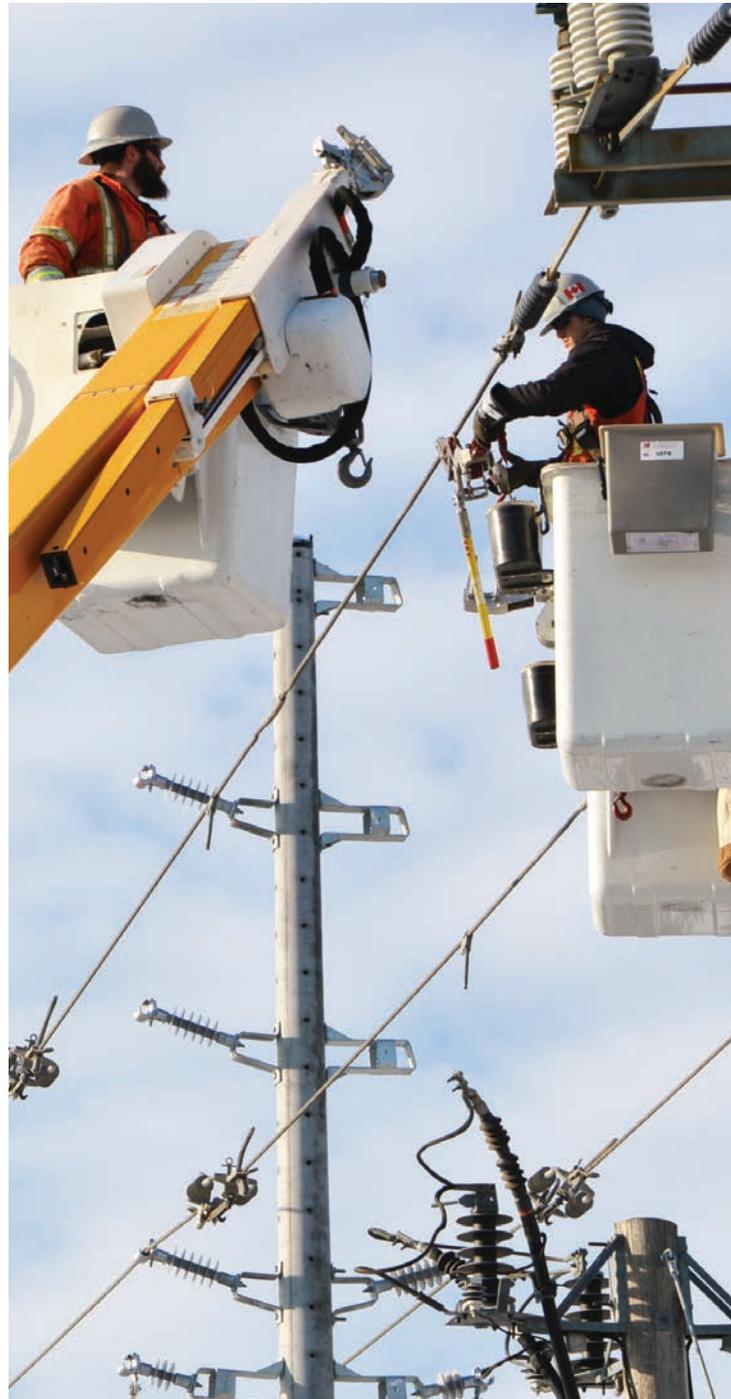
Alectra operations varies per customer costing approximately 24 per cent of the electricity bill however, Alectra is responsible for 100 per cent of the bill including paying the cost of generation, transmission, taxes, etc. to others even when bills are not paid.

**Delivery Charges:** The cost of building and maintaining the distribution system, including overhead and underground power lines, poles and transformer stations, as well as meter reading, billing, customer service and account maintenance, and general utility operations.

**Transmission Charge:** Costs paid to Hydro One to operate and maintain the high-voltage transmission system carrying electricity from generating stations to Alectra's territory.

**Line Loss Adjustment:** It is normal for a small amount of power to be lost as it travels over the utility's power lines to a home or business.

**Taxes and Regulatory:** Charges make up the remainder of the bill that customers receive.





AlectraCARES is very important to us and something we'll continue to commit to and grow."

**Brian Bentz**  
President and CEO, Alectra Inc.

#alectraCARES

**\$915,000+**  
2021 investments & donations

**\$1.5 million**  
2022 commitment



The last two years have demonstrated the resiliency and exceptional work ethic of our employees. Teams throughout the organization are working more closely together to support our business' needs and each other."

**Barb Gray**  
EVP People and Transformation

## COMMUNITIES

### Boosting Vaccinations

As part of its ongoing support of public health measures during the pandemic, Alectra contributed \$35,000 as it joined a coalition of organizations to establish Canada's largest vaccination centre. Located at the CAA Centre in Brampton, it used the "Hockey Hub" model in an NHL-sized rink to vaccinate up to 10,000 people a day, reaching a quarter-million over the course of four weeks. Alectra also contributed \$35,000 and partnered with ArcelorMittal Dofasco to set up a community clinic in Hamilton that administered up to 1,000 vaccinations per day.

### Helping Healthcare Workers Heroes

Alectra's *Go Online for our Frontline* was an innovative campaign designed to both support frontline healthcare workers and to encourage customers to go paperless. We donated the savings from customers who switched to paperless e-billing between April 1 and July 15, 2021 to The Frontline Fund, with a commitment of \$50,000. Recognizing the contribution and stresses of healthcare workers during the pandemic, the Frontline Fund provides essential supports such as PPE and mental health counselling.



### People Are Noticing

The United Way of Halton & Hamilton gave Alectra the *Inspiring Local Love Award*, which recognizes “campaigns that persevered through even the most challenging times to ensure they continued to support their local communities with United Way.”

YMCA Hamilton once again presented Alectra the award for Top Team Fundraiser for the *Walk a Mile in Her Shoes* campaign, which supports women and children escaping domestic violence.



### Support for Students Pursuing Sustainability Leadership in Energy

Alectra continues to show its commitment to sustainability and supporting the sustainability leaders of tomorrow. 2021 marks the third year that Alectra has presented a financial scholarship to a student enrolled in the Master of Science in Sustainability Management (MScSM) at the University of Toronto in Mississauga. This year’s recipient, Matthew Chambers, was recognized for his commitment to incorporating sustainability into his entrepreneurial goals and establishing Eco Chambers and Comfort Cleaners as an e-commerce hub.

“Being granted the Alectra award was a distinguishing accomplishment, it validated my genuine pursuit to tackle Canada’s climate goals. As an MScSM student and Consultant for BOMA Canada, the Alectra award has given me the confidence to find innovative solutions towards sustainable building management.” – Matthew Chambers – Candidate in Master of Science in Sustainability Management, University of Toronto

Alectra also sponsored the Ontario Energy Network’s Sustainable Development Scholarship. This year’s recipient was Mackenzie Moring, a second year Engineering Physics Electrical student at Queen’s University who is interested in developing renewable sources of energy, with a particular interest in hydroelectric power.

### AlectraCARES Community Support Program

We conducted a sponsorship survey for employees to help guide our employee-directed funding for the 2021 AlectraCARES Community Support Program. The 183 survey responses were overwhelmingly positive and supportive, with a total of 61 per cent of respondents indicating they were happy with the program.

The results offered valuable feedback for areas where employees felt efforts should be focused. Over 100 preferred organizations were highlighted by employees, with the top themes identified as:

- Mental health
- Poverty
- Food banks
- Children’s health
- Environment
- Cancer support

The feedback helped to ensure future efforts aligned with employees’ values. As a result, Alectra proudly donated \$100 to each of the 84 eligible charities identified by employees for 2021.



Walk a Mile in Her Shoes team captain, Alona Andronikova

# Planet



Net Zero  
by 2050

20%

reduction in greenhouse  
gas emissions  
(from 2016 baseline)

Reliable, clean electricity is at the heart of a profound global transition to cope with the climate crisis. At Alectra, we're determined to do our part by leading through example with our emission reductions, fostering energy innovation, and by facilitating our customers' shift to a low-carbon future.

## LEADING THE WAY – GHG EMISSION REDUCTIONS

Alectra made an industry-leading announcement in 2021 with a promise for our corporate operations to be a net zero emitter of greenhouse gases (GHG) by the year 2050, one of the first utilities in Canada to step forward with such a transformative commitment. In 2021, we reduced our emissions by 20 per cent keeping us on our path for our shorter-term GHG reduction plan to cut emissions by 38 per cent below 2016 baseline levels by 2025.

	2016	2017	2018	2019	2020	2021
Scope 1 – Fleet fuel, natural gas and SF6	8,897	8,511	8,226	6,993	6,513	<b>6,835</b>
Scope 2 – Electricity and district heating and cooling	650	366	852	925	786	<b>791</b>
Total tCO <sub>2</sub> e	9,547	8,878	9,078	7,919	7,300	<b>7,626</b>
% reduction		7%	5%	17%	24%	<b>20%</b>

### Notes:

- GHG emissions were calculated following the principles and requirements of ISO 14064-1, and the Greenhouse Gas Protocol – a Corporate Accounting and Reporting Standard.
- The calculations took into account 10 facilities, comprised of three corporate offices in Mississauga, Vaughan, and Hamilton, and seven service centres in Markham, Brampton, Mississauga, Barrie, St. Catharines, Hamilton, and Guelph. Excluded are substations and transformer stations. The 2016 baseline was adjusted to include correction to natural gas consumption.
- The 2021 release of Canada's National Inventory Report 1990-2019: Greenhouse Gas Sources and Sinks in Canada showed that between 2019-2020 the following adjustments were made:
  - The electricity emissions factor increased from 20g CO<sub>2</sub>e/kWh to 29g CO<sub>2</sub>e/kWh.
  - The national transportation gasoline emission factor increased from 2298.75g CO<sub>2</sub>e/L to 2316.75g CO<sub>2</sub>e/L.
  - The national transportation diesel emission factor increased from 2723.20g CO<sub>2</sub>e/L to 2740.73g CO<sub>2</sub>e/L.
- In 2021, the Hamilton provider of district cooling reported that between 2019 and 2020 the emission factor had increased from 0.008 tCO<sub>2</sub>e/MWh to 0.011 tCO<sub>2</sub>e/MWh. There are no changes to the district heating emission factor.
- Alectra's 2020 operations were influenced by COVID-19 (temporarily reduced GHG emissions).



While reaching net-zero by 2050 is an ambitious goal, we are determined to take every action needed to get there. We look forward to doing our part in building a low carbon world that we can all be proud of.”

**Brian Bentz**  
President and CEO of Alectra Inc.



30

EV charging stations  
at new Brampton facility

## HOW WE’LL GET TO NET ZERO

**Anti-idling Technology.** We’re conducting a pilot program using the GRIP system for reducing idling in our vehicles. It has the potential of cutting GHG emissions in our vehicles by up to 20 per cent, while also saving fuel and maintenance costs in our fleet of approximately 600 vehicles.

**Reducing Emissions from Diesel Fuel.** Fleet services launched a year-long pilot project with dynaCERT Inc., using a unit called HydraGEN™ which, when added to diesel engines, reduces carbon emissions and fuel consumption.

**Vehicle Electrification Long-Term Plan.** Fleet management is developing a long-term vehicle electrification strategy plan. The potential for cost and GHG savings is significant, and fleets that plan proactively for electrification can maximize benefits to all stakeholders.

**Building Carbon Footprint Assessment.** Facilities Management commissioned a report on the carbon footprint of Alectra’s buildings as a step towards developing a long-term plan for reduction of GHG emissions.



### GRE&T Centre

Alectra's Green Energy & Technology Centre (GRE&T Centre), is our incubator for innovation, a place where we explore and nurture great ideas for powering a clean, customer-friendly energy future. 2021 was a busy year.

### Power.House Hybrid Pilot Project

The pilot project reduces emissions from homes by integrating a hybrid set of electrical and thermal equipment into a virtual power plant platform. It's a solution that adjusts heat and electricity consumption to minimize the carbon footprint, while also employing solar power and storage. In 2021, 10 new Power.House Hybrid units were commissioned for our pilot project, bringing our total fleet of Power.House units to 32.

### IESO York Region Non-Wires Alternatives (NWA) Demonstration Project

Non-wires alternatives are an innovative way of reducing the need for large investments in traditional stations and lines and poles to deliver electricity from large, centralized power plants. It involves using Distributed Energy Resources (DER), which are smaller-scale, local generation resources, to contribute to the grid when needed. Alectra is the utility partner and acting Distribution System Operator (DSO) in the IESO's York Region Non-Wires Alternatives Demonstration Project. 2021 marked the completion of the first year of the pilot project and the results were outstanding, notably during a scorching heatwave in June, when DERs were successfully activated to reduce local peak demand. In July 2021 the project received the Association of Energy Services Professionals Award for the NWA project in the 'Beyond Energy Efficiency' category.



### ClimateWise

ClimateWise, a network of organizations leading the way in sustainability, recognized Alectra at the "2021: Celebration of Achievement" event for reaching, and surpassing, its target for GHG emission reduction.



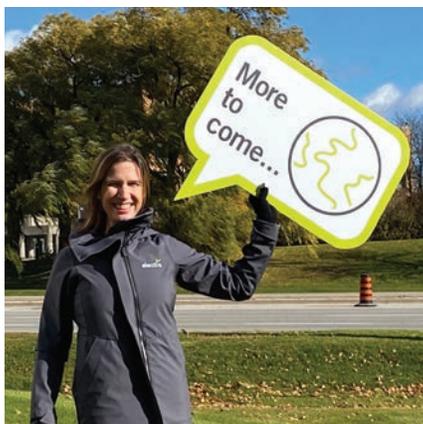
### Our Newest Building Going Green

In August 2021, we broke ground on our new operations centre being built in Brampton, which will be Alectra's fifth Leadership in Energy and Environmental Design (LEED) certified building. It will include dedicated outdoor air systems that will reduce GHG emissions 43 per cent beyond LEED Gold standards, as well as rooftop solar power generation and more than 30 electric vehicle charging stations.

“

We're extremely proud of our clean energy accomplishments to date and we are excited to continue on the path towards becoming net-zero. There's much more to come!”

**Caroline Karvonen**  
Manager, Sustainability



33

electric vehicle chargers installed at Alectra facilities.

#### GridExchange Pilot Project

This project allowed customers who own distributed energy resources (DER) such as solar panels, battery storage, and electric vehicles to participate in an energy marketplace with Alectra. GridExchange is a blockchain-based software platform that enables clean energy transactions and in the process helps to cut emissions. Participants received cash compensation and 'GxRewards' which are redeemable at local merchants. The project included 21 residential customers and four local businesses located across Vaughan, Markham, Richmond Hill, Barrie, and Hamilton, and were cited in two awards presented to Alectra in 2021.

#### Enabling e-Mobility

In 2021, the GRE&T Centre continued its work to enable e-Mobility through various pilots.

- The AlectraDrive @Work pilot project helped businesses and building owners manage the flow of electricity needed to serve a building and electric vehicle (EV) charging stations. It continued testing with three participating sites and 25 participants at the Markham Civic Centre, the Alectra Corporate Office in Mississauga, and the Mississauga Central Library.
- The AlectraDrive @Home pilot project is designed to learn more about how homeowners choose to charge EVs. We want to know if incentives can encourage them to charge their EVs at times that minimize the impact on the electricity grid. The project reached its target of recruiting 200 customers from multi-unit residential buildings as well as single-family homes and completed a year of data collection.





>25 GWh solar energy generated.

Enough to power 2,700 homes for one year

“

We're looking beyond the pandemic towards an exciting new world of technology, data, and sustainable power. Digital innovation will be a key focus going forward.”

**Brian Bentz**  
President and CEO, Alectra Inc.



## ALTERNATIVE ENERGY

### Battery Storage

Energy storage is a crucial part of the move to renewable resources. Alectra Energy Solutions is showing the way by installing an innovative battery storage system at Georgian College in Barrie. This 2MW state-of-the-art battery is expected to notably lower the facility's power costs by using energy storage to reduce electricity consumption when electricity demand is peaking while also decreasing the college's Global Adjustment Charges. The innovative system was placed into service in February 2021 and has already been used successfully.

### Solar

As part of Alectra's renewable energy efforts, Alectra Energy Solutions continues to manage the operations for 95 solar photovoltaic projects disbursed across Ontario. The portfolio generated 25.84 GWh of electricity, enough to power over 2,700 typical homes for a year. Other grid-connected renewable generation by customers in Alectra's service territory totalled 250 GWh.

## CLEAN AND GREEN COMMUNITIES

### Paperless Billing

Alectra continued to promote paperless billing as a way that customers can help to build a more sustainable world. Along with our promotion that included a donation to The Frontline Fund for healthcare workers, we conducted a contest in which 10 prizes were offered for customers who switched to ebilling to win "Free Electricity for a Year". Our efforts are making real progress. In 2021, five per cent more of our customers went paperless and we sent out almost 4 million ebills, a saving of \$4.1 million in paper, printing and postage.

### Tree Planting

As part of our long-term plan to increase the number of trees on our properties, we planted an additional 52 trees at our Cityview Boulevard property (Vaughan) in 2021. We worked with the City of Vaughan to select the trees to ensure the proper type of trees were planted for this region.



# Performance



Alectra’s core responsibility is to keep the lights on for the homes and businesses we serve, while creating value for our stakeholders. More than one million customers count on us for an essential service. We’re constantly investing and innovating to ensure we have an electricity grid that is reliable and flexible to meet the ever-changing needs of an evolving energy system.

“

Completion of the capital program was a great accomplishment. Reliability and resilience are so important, especially with so many people working from home.”

**Mike Matthews**  
EVP Asset Strategy and Operations

**2<sup>nd</sup>** consecutive year of meeting reliability target

**\$306M** of construction of capital projects on infrastructure to support distribution and expansion

**\$628M** in electricity distribution revenue

### Operational Performance

In 2021, our overall SAIDI (System Average Interruption Duration Index) was 63 minutes (excluding Major Event Days, typically severe weather events). SAIDI indicates the average amount of time a customer would expect their power to be interrupted in a calendar year. The 2021 SAIDI result represents an increase of four minutes of system interruptions over 2020, mainly due to an increasing trend in the occurrence of underground cable failures. Alectra has established plans to proactively identify cable sections for remediation to mitigate underground cable outage events. Outage events due to foreign interference, such as animal contacts and vehicle collisions with equipment, were the second largest contributor affecting reliability.

### Infrastructure Investments

Alectra has an extensive capital program which is essential to keep the system in good running order. Our teams overcame the ongoing challenges of the pandemic to keep Alectra on track, meeting our targets for essential upgrades and necessary maintenance, all while keeping safety top of mind.

### Supporting Growth in Hamilton

In December, Alectra joined Hydro One to announce upgrades to improve power reliability for residential, commercial and industrial customers in Hamilton, including steel manufacturers. Hydro One is upgrading aging infrastructure from the 1950s at the Gage and Kenilworth Transmission Stations, including transformers and smart equipment to monitor, protect and control electrical equipment. Alectra is supporting the projects by reconfiguring infrastructure at both stations and minimizing service interruptions to their customers during project construction. Construction on these projects is well underway and is anticipated to be completed in 2023.



Major Infrastructure announcement in Hamilton



## OEA “Innovation Award”

In September, the Ontario Energy Association honoured Alectra with the OEA Innovation Award in recognition of the GRE&T Centre’s “breakthrough ideas, new technology and creative adaptation of existing technology.”



Ontario Energy Association

### Grid Modernization

A key element of Alectra’s drive to build a more sustainable grid of the future is installing automated switching systems. In 2021, we doubled the annual number of newly installed automated high voltage switching devices from 45 to 90. Automated switching systems offer an important boost to reliability because they allow system control operators to isolate and bypass problems in a matter of minutes, a fraction of the time it takes to send field crews to perform the same switching operations. It means

customers get power back much faster. In the future, automated switching systems will also offer greater flexibility, making it easier to connect renewable power sources to the electrical grid.

### Vegetation Management Program

Alectra leveraged new technologies and analytics to help with an issue that utilities have had to cope with for as long as we’ve had an electrical grid – trimming trees around power lines. Targeting areas prone to tree related outages, our team used analytics generated by satellite imagery to identify potential problem spots, a much more effective method than the traditional way of having crews drive out to do periodic trimming of tree growth adjacent to our lines. Although the program is only in its infancy, it is already paying off with a 31 per cent decrease in tree related outages in 2021 compared to the average of the last three years.

### Transit Electrification

Hurontario LRT and GO Train Electrification projects are progressing well, and we have developed a very strong reputation as a solid partner in Metrolinx’s rapid transit electrification plans. As of the end of 2021, relocation of overhead assets at multiple railway crossings were completed to enable the GO Train Electrification. Design and construction relocating 2.77 km of pole lines and underground cable adjacent to the Hurontario LRT was completed in 2021, with another 2.39 km currently under construction, a further 3.0 km awaiting construction, and 9.1 km in various stages of design expected to be ready for construction between 2022 and 2025. Alectra is currently working with Metrolinx to support connections and relocations for the Hamilton LRT, Yonge Subway Extension, Eglinton Crosstown West Extension, Dundas BRT, and Lakeshore BRT in 2022. These are critical electrification of transportation and rapid transportation projects that, once completed, will lead to significant GHG reductions.

## Strategy 2.0

The way electricity is generated, distributed and consumed is rapidly changing, with consumers demanding ever-increasing flexibility and independence. All utilities must adapt to this profound transformation. Alectra sees it as an opportunity and **Strategy 2.0** is our plan to rise to the challenges and discover the possibilities. It focuses on three pillars:

- Customer Experience
  - Improving service, building stronger customer relationships, stronger understanding of their needs, and creating a digital relationship
- Grid Modernization
  - Adapting to the needs of the future, while ensuring reliability for today, a digital grid
- Enterprise Growth
  - Seeking new opportunities in distribution and energy solutions

These elements are interdependent and interwoven, and like Alectra in its formation, stronger together. To be successful in these areas, Alectra is continuing to focus on the common element within the pillars – People.

Our people and our culture are keys to our success. Our people through innovative, collaborative and customer-focused actions will define Alectra as a leading organization and an organization that creates value for our customers.

We are creating complementary energy services and integrated energy solutions that will supplement the regulated business with the focus on improving customer value and choice, while at the same time ensuring we modernize our grid assets and systems by building in innovation, intelligence, and flexibility.

For us, Strategy 2.0 centres around a digital grid, a digital customer experience and investing in new growth opportunities. Despite the challenges of 2021 associated with the pandemic, Alectra continued to make meaningful progress in our evolution. We expect to continue to push ahead in 2022 and beyond as we strive to reposition Alectra in a rapidly changing energy landscape.

## Safety, Innovation and Sustainability



- 1 **CUSTOMER EXPERIENCE**  
Improving service, building stronger relationships, stronger understanding of their needs
- 2 **GRID MODERNIZATION**  
Adapting to the needs of the future, while ensuring reliability for today
- 3 **ENTERPRISE GROWTH**  
Seeking new opportunities in distribution and energy solutions



### **Coping with Weather**

As climate change increases the frequency of severe weather events, Alectra is rising to the challenge with astute grid modernization and system hardening investments to improve resiliency and our capability to respond to emergencies.

### **Barrie Tornado**

In July, Alectra responded after an extraordinary and terrifying weather event in Barrie, a tornado that disrupted power to 9,000 homes and businesses. Our teams worked through the night to quickly repair broken poles, power lines and damaged transformers. We collaborated with Barrie Police and Emergency Services to identify homes that were rendered unsafe by the storm, and Alectra's Customer Care team was available via a dedicated 1-800 number to speak with and support affected residents and business owners.

### **Wind Storm**

In December, Alectra powerline and forestry crews were on the job after winds gusting up to 90 kilometres an hour brought down branches and disrupted power to thousands of homes and businesses across our service area. Alectra crews worked around the clock to restore service, and customers were kept up to date on the progress via social media channels and frequent updates through local media sources until all customers were restored.

Our business may have been under unusual pressure throughout 2021, but our performance standards did not waver.

#### Holland Power Services

To help utilities across eastern Canada and the United States manage severe weather events, Alectra Energy Services Inc. acquired Holland Power Services (HPS), a New Brunswick-based firm that provides emergency power restoration services caused by severe weather events. HPS also provides a variety of electrical services to its utility and industrial customers, including specialized equipment testing, installation, maintenance and repairs to power infrastructure.

#### Addressing Risk

Managing risk is an integral part of our business. At Alectra, risk management is the responsibility of all business units. There are strong governance practices in place to ensure consistent consideration of risks in all decision-making.

#### Enterprise Risk Management

Alectra's Enterprise Risk Management (ERM) program focus is to monitor and proactively mitigate and manage risks, both current and emerging, over time. In 2021, the ERM team continued its support of Alectra's pandemic response and provided recommendations in areas such as employee health, safety and wellness following a review of the organization's response plan.

#### Internal Audit

The Internal Audit department successfully completed its 2021 Audit Plan, performing all 13 audits electronically while using innovative methodologies. Rather than utilizing historical in-person confirmation methods, Internal Audit's ability to adapt to current conditions was demonstrated through its increased use of technology and digital verification. The departmental procedures were also updated to current standards and an enhanced Internal Audit Charter was completed.



#### Cyber Security

Security of our customer information is our top priority. Alectra's IT Security & Risk Team launched the first phase of our Security Roadmap program. The program identifies key initiatives and technologies to implement a Cyber Security Maturity and Risk Management practice. The People Management program offered a series of lunch and learn sessions with information modules on our new security training platform to continue with the awareness and conversation around cyber security, corporately and for our employees' personal environments as well.

The team also participated in many industry events, and a successful table-top exercise supporting one of our shareholders in their emergency preparedness exercise, with a focus on cyber security. Working alongside Customer Service to improve the security posture for our Alectra customers accessing the Alectra website, the teams successfully implemented three key technology options for customers to enhance security when accessing the "My Account" portal. These options were Two-factor Authentication, an enhanced password reset process, and a change profile email notification for enhanced fraud prevention.

The enhanced measures addressing cyber security are critical in ensuring Alectra's business continuity and building resilience against constantly evolving cyber threats.

## FINANCIAL PERFORMANCE

### Selected consolidated financial information<sup>1</sup>

Year Ended December 31, 2021 (C\$M)	2021	2020
<b>Operations</b>		
<b>Revenue</b>		
Electricity sales	3,023	3,488
Distribution revenue	628	559
Other		
Regulated	73	48
Non-regulated	110	67
	<b>3,834</b>	<b>4,162</b>
<b>Expenses</b>		
Cost of power	3,092	3,489
Operating expenses	359	328
Depreciation and amortization	182	165
	<b>3,633</b>	<b>3,982</b>
Income before financial expenses and taxes	201	180
Net finance costs	(74)	(74)
Gain on derecognition of property, plant and equipment	11	1
Change in fair value of contingent consideration	3	–
Income tax expense	(36)	(28)
Net income	<b>105</b>	<b>79</b>
<b>Balance Sheet Summary</b>		
Total assets	5,508	5,355
Loans and borrowings (includes short-term debt)	2,332	2,363
Total shareholders' equity	1,769	1,736
Property, plant and equipment, right of use assets and intangible assets <sup>2</sup>	4,066	3,835
<b>Cash Flow Summary</b>		
Cash at beginning of period	26	29
Net cash from operating activities	563	385
Net cash used in investing activities	(367)	(417)
Net cash used in financing activities	(190)	29
Cash at end of period	32	26
<b>Other Financial Statistics</b>		
Net income (before net movements in regulatory balances) <sup>3</sup>	148	123
Adjusted funds from operations	396	183
EBITDA (before net movements in regulatory balances) <sup>4</sup>	407	349

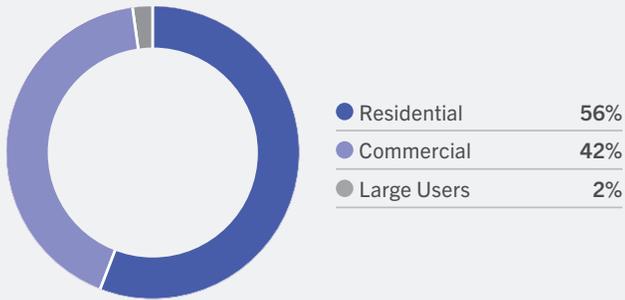
1. The consolidated financial information is derived from the audited consolidated financial statements of Alectra Inc.

2. Excluding Goodwill.

3, 4. These balances are calculated based on Modified IFRS as determined by the OEB, which includes certain other regulatory balances not recognized for financial statement purposes under IFRS.

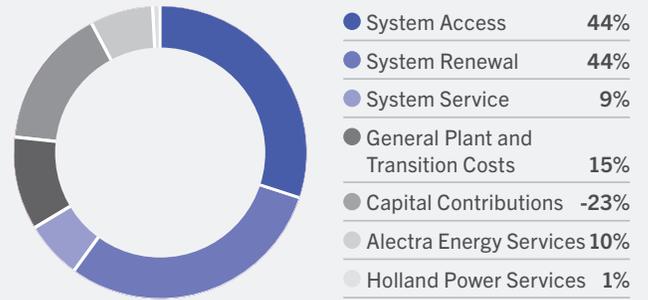
### Distribution revenue by customer class (2021)

\$587M



### Capital expenditure (2021)

\$312M



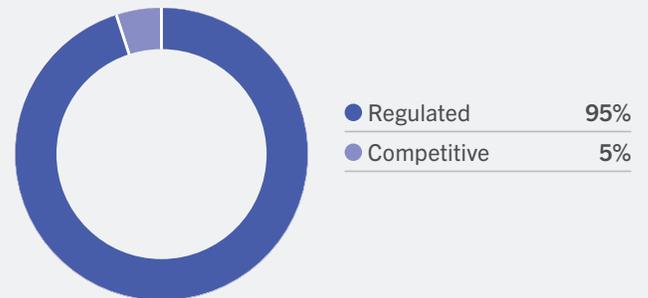
### Customer count (2021)

1.07M



### Property, plant and equipment and intangible assets (2021)

\$4,066M



# Investing in Grid Modernization

Continued capital investments in grid modernization are essential to maintain system reliability as we build the utility of the future.



Barrie

Lake Simcoe

Replace underground cable

**\$15.8M**

Cable and pole remediation, voltage conversion and equipment replacements

Vaughan

Markham

Brampton

Mississauga

Reconstruct 11 pole lines

**\$3.5M**

Cable replacements and overhead rebuilds (254 poles and 1.1 km of cable replaced)

Guelph

Extend feeder line

**\$25.0M**

Pole and cable replacement (22.7 km), new equipment and station upgrades

Replace cables and add automation

**\$16.8M**

Cable remediation, pole and equipment replacements, automation and voltage conversion

Hamilton

Lake Ontario

St. Catharines

**Replace  
underground cable**

**\$4.0M**

Cable replacements  
(34 km of cable)

**Extend  
pole line**

**\$7.6M**

Voltage conversion,  
equipment  
replacements, and  
cable remediation  
(47.3 km of cable  
remediated)

**Construct  
2 new feeders**

**\$12.8M**

Cable remediation,  
pole and switchgear  
replacements (188 km of  
new/remediation cable)

**Extend  
feeder line**

**\$7.0M**

Cable remediation,  
infrastructure  
improvements,  
and automation

**Strong corporate governance** is fundamental to Alectra’s long-term success as a profitable organization dedicated to providing our customers and our communities with safe, reliable and innovative energy solutions.

Through holding companies, Alectra is owned by seven municipal shareholders – the cities of Barrie, Guelph, Hamilton, Markham, Mississauga, St. Catharines and Vaughan as well as the BPC Energy Corporation, which is part of the Ontario Municipal Employees Retirement System (OMERS). The Alectra Board and management team are committed to the highest standards of corporate governance and business ethics. Alectra’s governance practices are designed to ensure that all aspects of our business are conducted with integrity and transparency to improve the company’s performance and enhance shareholder value.

“

Alectra has a strong governance model that is focused on sustainability and promotes diversity and inclusion. Representation from our municipal shareholders, blended with commercially minded independent directors, gives our Board a very broad perspective. This ensures that the needs of our customers and our communities are well represented in decision-making.”

**Norm Loberg**  
Chair, Alectra Inc. Board of Directors

# Governance



**Brian Bentz**  
President and Chief Executive Officer, Alectra Inc.



**John Basilio**  
Executive Vice President and Chief Financial Officer, Alectra Inc.



**Barb Gray**  
Executive Vice President, People & Transformation, Alectra Inc.



**Dennis Nolan**  
Executive Vice President, Legal, Government Relations and Corporate Secretary, Alectra Inc.



**John Matovich**  
Executive Vice President, Energy Solutions and Services, Alectra Inc.



**Mike Matthews**  
Executive Vice President, Asset Strategy and Operations, Alectra Utilities Corporation



**James Douglas**  
Executive Vice President, Customer Experience, Alectra Utilities Corporation

## EXECUTIVE COMMITTEE

Alectra is managed by an experienced and forward-thinking Executive Committee, which is ultimately responsible for Alectra’s strategic development and stewardship and serves as its executive decision-making body for key facets of day-to-day operations.



**Norm Loberg**  
Chair



**Jane Armstrong**



**Gerald Beasley**



**Maurizio Bevilacqua**



**Bonnie Crombie**



**Giuseppina (Pina)  
D'Agostino**



**Sean Donnelly**



**Fred Eisenberger**



**Jennifer Fang\***



**Matt Harris**



**John Knowlton**



**Jeff Lehman**



**Don Lowry**



**Teresa Moore\***



**Frank Scarpitti**

## BOARD OF DIRECTORS

Alectra is governed by a 14-member Board of Directors, which is accountable to the shareholders to establish a system of effective corporate governance and to achieve Alectra's mission, vision and purpose. The Board's mandate is to govern Alectra Inc. by setting its strategic direction and risk tolerances, overseeing the President and Chief Executive Officer, as well as the successful performance, culture and ethical integrity of the

Corporation. The Board discharges its responsibilities either directly or through four committees – the Audit, Finance and Risk Management Committee; Corporate Governance and Nominating Committee; Human Resources and Compensation Committee; and Development Committee. Sustainability topics are embedded as part of the Corporate Governance and Nominating Committee's mandate.

\*Teresa Moore resigned effective September 3, 2021 and was replaced by Jennifer Fang effective February 15, 2022.

Although we're a relatively new company, through our legacy utilities we have over 100 years of history.



**1,069,684**  
Customers

**1,534**  
Full-Time Employees

**1,924**  
Service Territory (sq. km)

**\$5.5B**  
Total Assets

**A**  
Credit Rating

**21,581**  
Circuit (km) Overhead and Underground

**1.14**  
System Average Interruption Frequency Index – SAIFI

**14**  
Transformer Stations

**\$312M**  
Total Capital Expenditures

**42,888**  
Conductor Lines (km)

**127,086**  
Distribution Transformers

**149**  
Municipal Stations

**605**  
Fleet Vehicles

**0.98**  
System Average Interruption Duration Index – SAIDI

**135,523**  
Poles and Pole Structures

**62%**  
of Employees Represented by Unions

**26,400,775**  
Delivery (MWh)



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## 2021 Annual Sustainability Report

Alectra's family of energy companies distributes electricity to more than one million customers in Ontario's Greater Golden Horseshoe area and provides innovative energy solutions to these and thousands more across Ontario.



Please contact us for more information about Alectra and our efforts to create sustainable value in the energy sector.

**Alectra Head Office**  
2185 Derry Road West  
Mississauga, ON L5N 7A6

[alectra.com](http://alectra.com)



**DRC-5**

**Reference: Exhibit 3, Tab 1, Schedule 3**

**Exhibit 4, Tab 1, Schedule 1, Attachment 11**

**Preamble: Alectra engaged Innovative Research Group (Innovative) to undertake a customer engagement process seeking customer input on: (i) customer needs and outcome priorities for future system investments, and (ii) potential near-term investments to renew underground cable in the PowerStream and Enersource rate zones.**

- a) Please indicate whether Alectra and Innovative invited and/or included the participation of EV stakeholders and other DER customers (including EV drivers, owners of DERs, EV associations, and DER industry associations) in customer engagement activities. If yes, please provide any and all customer engagement questions and responses pertaining to: EVs, batteries, EV charging, energy storage, and DERs generally. If no, why not?**

**Response:**

- 1 a) For this engagement, Alectra Utilities aimed to secure the view of a representative sample of  
2 customers, and did not specifically target, EV or DER customers. The online workbook  
3 samples were weighted proportionately based on known variables including rate class, rate  
4 zone and consumption quartiles in order to be representative of the broader Alectra Utilities  
5 service territory. Weighting by all known variables ensures a representative sample of Alectra  
6 Utilities customers. Further details on the sampling of customers are included on p.12 of the  
7 Innovative Customer Engagement Report (Attachment 11).

**DRC-6**

**Reference: Exhibit 3, Tab 1, Schedule 2, pages 1-18**

**Exhibit 3, Tab 1, Schedule 4, page 7**

**Exhibit 4, Tab 1, Schedule 1, Attachment 12, page 11**

**Preamble: Alectra provides an update of the most recent reliability trends emerging from the growing backlog of direct-buried XLPE cable and a detailed breakdown of the most pressing areas of the system where underground cable health has deteriorated, started failing, and is no longer reliable. Further, Alectra anticipates that its replacement of the existing deteriorated and failing cable in 15 neighbourhoods with new cable installed in protective conduit will provide reliable service for the next 55 years.**

**Guidehouse Canada Ltd. (Guidehouse) concludes that Alectra recognizes the potential for renewable energy generation to defer capacity investments and has proposed pilot projects to determine the conditions under which renewable energy generation may be a cost-effective alternative.**

- a) Does the Asset Analytics Platform include an assessment of trends in adverse weather events or other climate considerations as they might relate to the cost or viability of the underground cable network or alternatives to it? If yes, please provide details. If no, please explain why not.**
- b) Please describe any assumptions concerning a changing climate or increases in adverse weather events that were considered in the development of Guidehouse's conclusions.**
- c) Please discuss any Guidehouse assumptions relevant to the conclusions it presents in its report as to how the trends in adverse weather events described in the Application affect the viability of DERs, including EVs, as an alternative or complementary measure to the approach to underground cables contemplated in the ICM.**

**Response:**

1 a) and b)

2 As mentioned in response to 1.0-VECC-3, climate change and adverse weather has an  
3 indirect effect on the reliability of underground cable. Viability of underground infrastructure is  
4 dependent on multiple factors, one of which is reliability benefits (e.g., reduced impact from  
5 adverse weather). Other factors to consider, include, but are not limited to, soil type,  
6 underground space availability, required permits, construction alternatives, and cost.

7

8 Alectra Utilities' engineers consider these factors in assessing the viability of undergrounding  
9 infrastructure, and the Asset Analytics Platform assists in aggregating and combining large  
10 data sets to assist in such assessments. The primary purpose of the proposed ICM  
11 investment is to remediate deteriorated and unreliable cables in the most pressing  
12 neighbourhoods. As provided in response DRC-4 c), cable remediation is a part of 'hardening'  
13 the system. Without these investments, the system would be more susceptible to adverse  
14 weather or climate change events.

15

16 Further, as provided in response to 1-Staff-1 c), the Asset Analytics Platform is used in  
17 identifying reliability hotspots due to tree contacts and assists engineers in aggregating data  
18 to identify assets for intervention. Susceptibility of weather impacts on trees and branches in  
19 close proximity of overhead lines have been incorporated into the Asset Analytics Platform.

20

21 c) Assumptions related to weather events and the applicability of DERs as an alternative are not  
22 relevant as they do not reduce the need to replace deteriorated cable. EVs and other battery  
23 storage require capacity in the distribution system to charge when renewable generation is  
24 not available, which in turn increases demand and the likelihood of cable failure if the cable is  
25 in a deteriorated condition. Please also see Alectra Utilities' response to DRC-1 c).