

2023 ESG Report

Sustainability in our business

Algonquin



How to use this report

Disclosures in this report

GRI and SASB disclosures are tagged to indicate where report content fulfills the corresponding standards.

Pop-ups

Click for additional information

Water management

State Line hydrolysis project

Our State Line power generation plant in Joplin, Missouri has been continuously pushing the bounds of applying innovative solutions. On the heels of the reverse osmosis reject water application spotlighted in our 2022 ESG Report, the team at State Line went even further with the application of hydrolysis in their circulating water system, which has yielded cost and water usage savings, as well as reduced chemical requirements.

The project leverages a technology that reduces the build-up of limescale, bacteria, algae, and biofouling in water treatment infrastructure. Traditionally, minerals in water pipes undergoing temperature and pressure changes can cause ions to scale and biofilm to build up, causing pipes to foul (narrow) and leading to a host of inefficiencies.

State Line is minimizing biofouling by using a solution that sends an electric current throughout the piping system causing minerals in the pipe to crystallize. These crystallized minerals do not adhere to the pipe as they pass through. Additionally, the electric signal flushes out accumulated biofilm through agitation.

The application of this technology at our State Line power generation plant has resulted in many sizable benefits. Notably, our initial testing period of the hydrolysis technology, which ran from August through September of 2022, revealed savings of approximately 22 million liters of water. Savings are also realized through the decreased need for pipe cleaning and associated chemical usage. Since implementation in the summer of 2022, we have seen the benefits of this technology.

Approaching a half million water customer connections in 2022

2021: 359,100
2022: 497,500

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2023 ESG Report

Social

Featured articles

- Infrastructure investment, resiliency, and service reliability
- Customer experience
- Talent attraction and retention
- Employee health and safety
- Diversity, equity, and inclusion
- Community support and economic development

Performance highlights

SAFI (Customer Average Interruption Frequency Index) - minutes

Total hours volunteered by employees through Liberty Days

Recordable injury rate in Canada and the U.S.

Showing consistent improvement in customer satisfaction (U.S. Power CSAI scores)

2023 ESG targets

- Exceed 30% women in leadership roles
- Achieve top-quartile customer service
- Achieve top-quartile employee engagement

Alignment to UN SDGs

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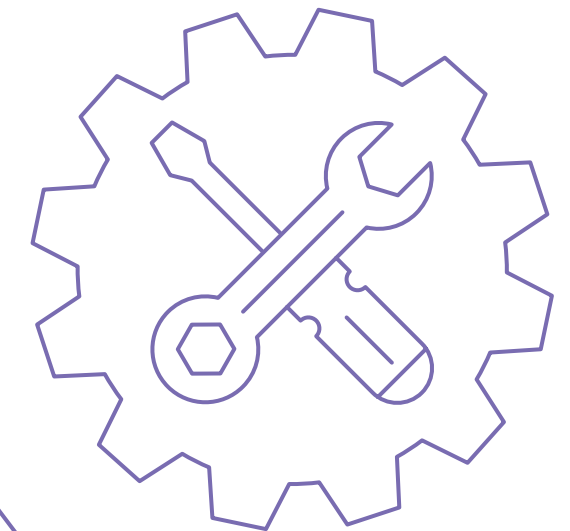
Exceed 30% women in leadership roles

31.49%

This target is based on the number of women relative to the total number of employees at the level of Senior Manager or above. We continued to exceed this target, with 31.49% of leadership roles held by women. Although we are proud of our progress so far, we intend to continue to create opportunities for women to excel in leadership capacities and view this goal as an ongoing effort to exceed our 30% target by the end of 2023.

Section dashboards

- Featured articles
- Performance highlights
- 2023 ESG targets
- Alignment to United Nations Sustainable Development Goals



Additional information

To view additional information, click on the following:

- Additional information within the report
- Additional information on the internet

Navigating the report

AQN Environmental Social **Governance** Appendices

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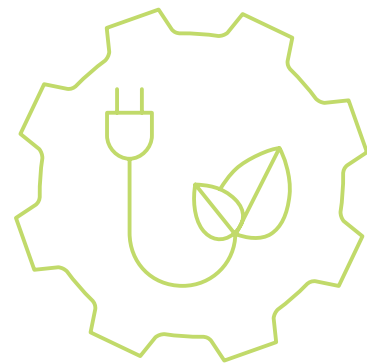
Sustainability in our business

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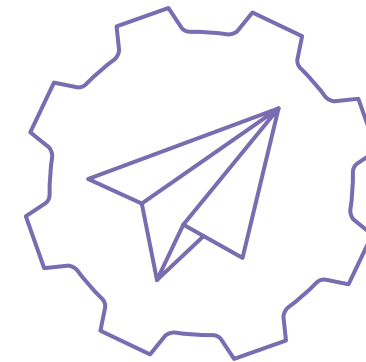
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Forward-looking statements and forward-looking information

This report contains forward-looking information which is based on certain factors and assumptions and subject to certain risks. All forward-looking information in this report is given pursuant to the "safe harbour" provisions of applicable securities legislation. Please refer to "Forward-looking statements and forward-looking information" in the Appendix starting on pg. 58 of this report.

* Unless otherwise indicated herein, the information in this report is provided as at December 31, 2022.

* All dollar references in this report are to U.S. dollars unless otherwise indicated.

Letter from the Chief Executive Officer¹



Chris Huskilon
Interim Chief Executive Officer

The energy transition to a lower carbon and more sustainable future is a significant undertaking and, for the energy and water industries, represents an evolution that is expected to impact all aspects of those businesses, from the beginning of the value chain to the end customer and beyond. Algonquin remains committed to doing our part to promote the transition and balance customer, employee, and other stakeholder considerations as we advance our journey.

While this report is focused on 2022, 2023 has been a pivotal year for Algonquin. After considering numerous factors during a strategic review process, we announced in August 2023 our intention to pursue the sale of our renewable energy business. We view this as an opportunity to optimize our regulated portfolio to maximize value in the future. We remain committed to achieving net-zero by 2050, as well as strengthening our corporate sustainability practices. As our business evolves through the transition to a fully regulated utility, we intend to develop our next generation of interim targets to align with our desired low-carbon goal, and to guide our broader sustainability efforts related to governance and social issues. While our business will evolve, our focus on *sustaining energy and water for life* remains central to who we are and what we do.

In 2019, Algonquin published nine interim sustainability targets which included reducing carbon emissions, supporting diversity in our workforce, improving our relationship with our customers, and enhancing our governance practices. In 2022, we made progress against all these goals, and through this report we are pleased to share our stories and data that showcase this progress across the sustainability spectrum. I would like to highlight a few areas of note. We continued to develop and deploy renewable energy projects in both our regulated and non-regulated portfolios, along with EV charging infrastructure, energy storage, and renewable natural gas (RNG) projects that have helped both Algonquin and our customers decarbonize. We have made progress on stewarding our land and water resources and are pleased to have our Kodiak Prairie restoration project formally recognized with a Wildlife Habitat Council Conservation Certification. Our risk management practices have also improved with respect to climate change and cyber security threats by better integrating these actions into our business operations.

Core to this progress are the nearly 4,000 employees of Algonquin who make our organization what it is. Whether supporting storm restoration efforts, engaging with customers, working diligently to bring everyone home safely at the end of the day, building new infrastructure to improve vital energy and water services, or volunteering more than 10,000 hours in the communities we serve, it is our people who ultimately help us meet our goals.

I invite you to read this report to learn more about our sustainability achievements in 2022.

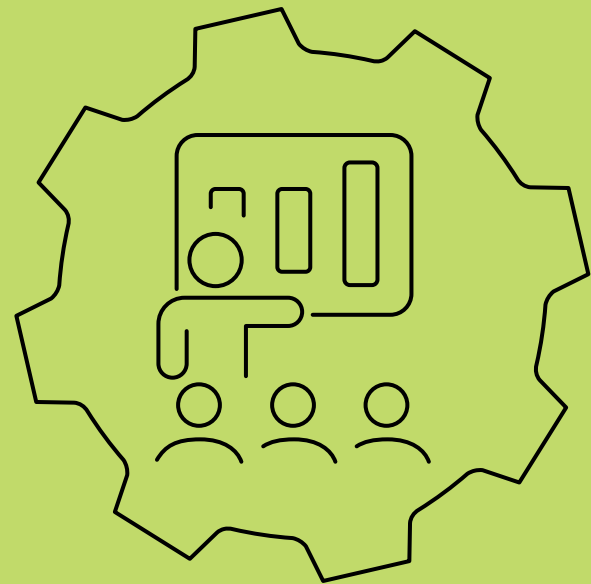
Sincerely,

Chris Huskilon
Interim Chief Executive Officer

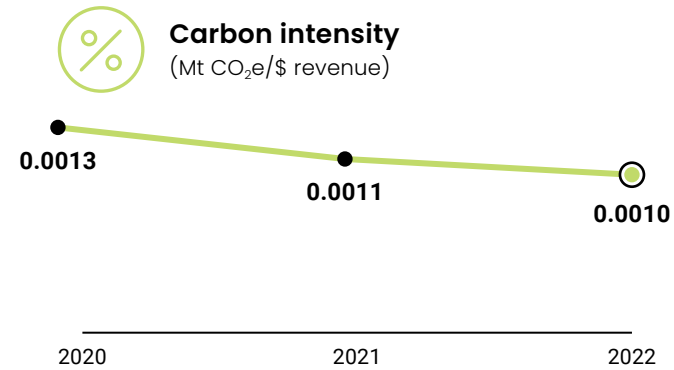


1. Includes Scope 1 and 2 emissions only.

Executive summary



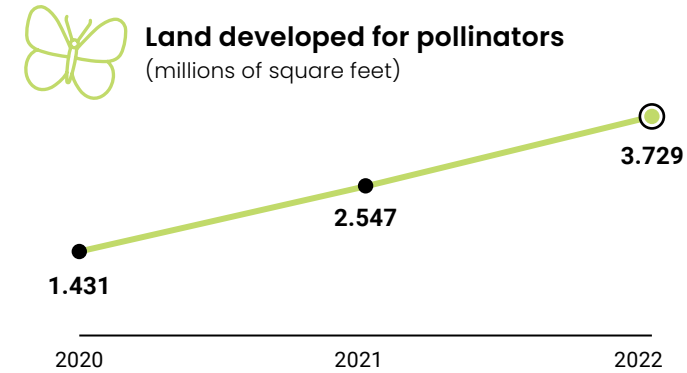
Environmental (Click on underlined text for more details.)



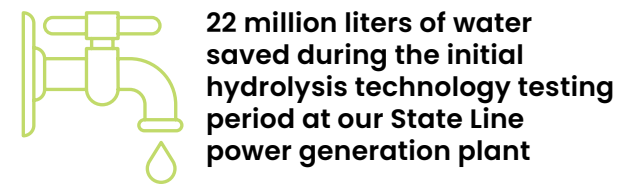
As we work toward **transitioning to a low-carbon economy**, we have continued to collect data on our emissions and to measure our progress toward our net-zero goals while advancing low-carbon technologies such as wind, solar, energy storage, electric vehicle (EV) charging, and renewable natural gas (RNG).



In 2022, we made strides in our approach to **climate resiliency and energy efficiency** through our residential smart charge pilot program, Countryside solar and storage project, and a wide variety of efforts to support more reliable energy and water infrastructure.



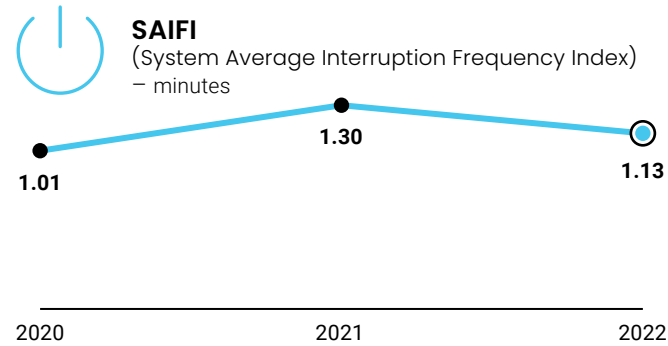
Responsible **land use and biodiversity** preservation are key components of our approach to environmental protection. We are proud to be recognized with Wildlife Habitat Council Conservation Certification, demonstrating our commitment in this area.



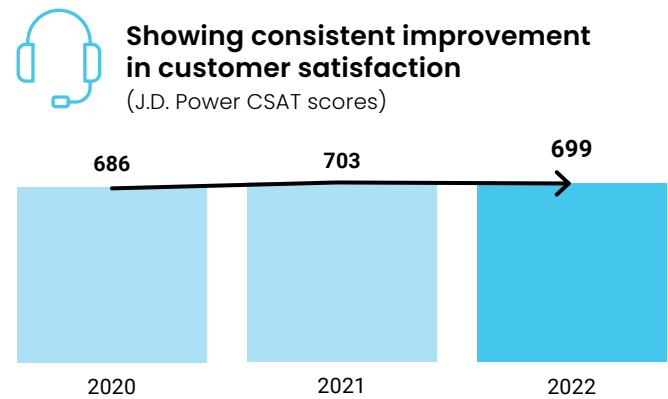
Water management is critical to our work across our geographic footprint, from New York to the Southwest to Chile. We are proud of the variety of projects our local utilities have pursued to promote responsible water use and the conservation of vital water resources.



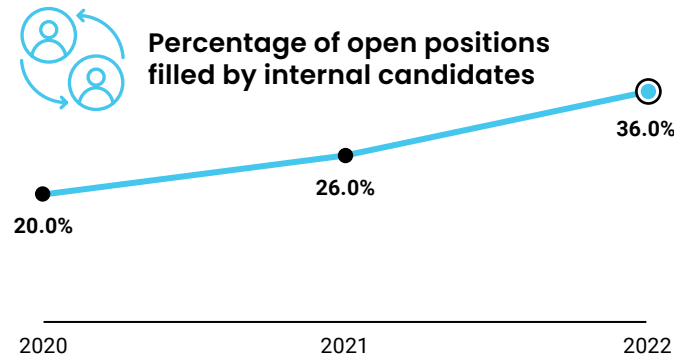
Social (Click on underlined text for more details.)



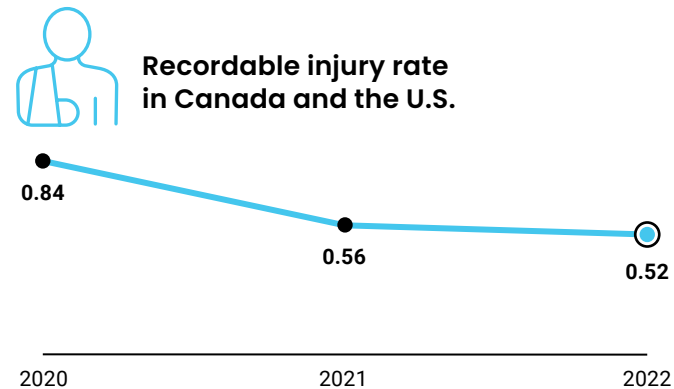
Our efforts to promote **infrastructure investment, resiliency, and service reliability** demonstrate our commitment to not only strengthen our assets to withstand climate change, but to also effectively respond to extreme weather events with an eye toward serving our customers.



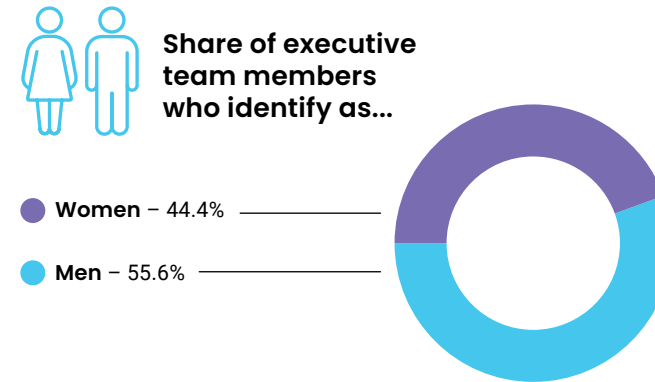
Pursuing improved **customer experience** is foundational to our success. This year, we have made strides in promoting service affordability and in more accurately measuring customer sentiment.



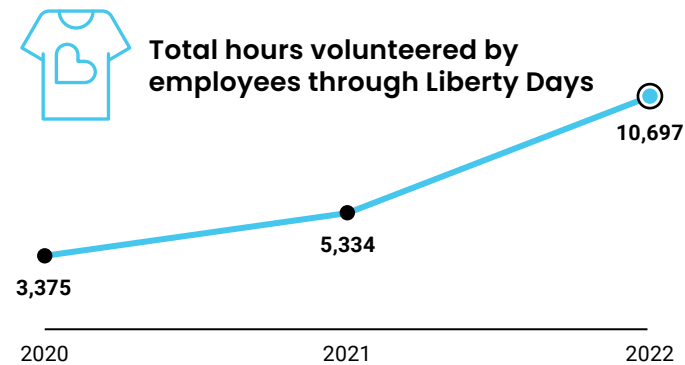
Talent attraction and retention are critical to building a top-notch workforce. As such, we have worked hard in 2022 to improve the experience of employees and to forge new career pathways for early-career talent.



Our culture is built on promoting **employee health and safety**. As such, we have built a robust set of health and safety programs to foster a safe work environment and have even been recognized as leaders in health and safety among our peers.



Prioritizing **diversity, equity, and inclusion** (DEI) makes our business stronger. In 2022, employee volunteers with our DEI Council and Employee Resource Groups (ERG) worked hard to build a more equitable workplace as we also sought to promote DEI in the communities we serve.

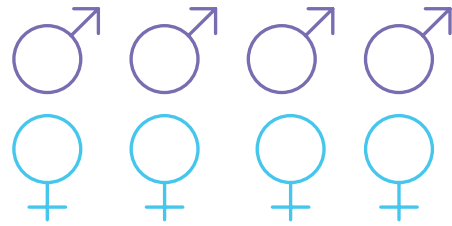


We believe that **community support and economic development** efforts help us forge stronger relationships with the communities where we work and live. Our employees have worked hard to demonstrate this belief through volunteering and giving back to their communities.

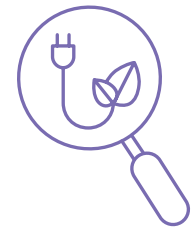


Governance (Click on underlined text for more details.)

50% of independent directors are women



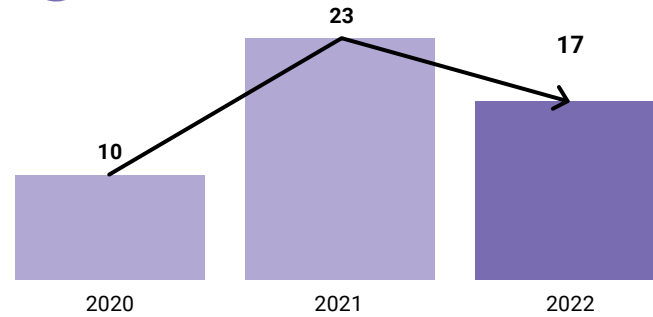
Sustainability governance starts at the top with our Board of Directors, who help oversee our sustainability efforts across the organization and support our work toward our ESG goals.



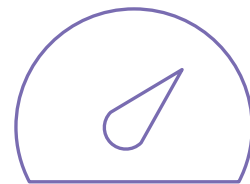
We believe **ESG oversight** is critical to creating a responsible, comprehensive sustainability program.



Times Ethics Reporting Line was used



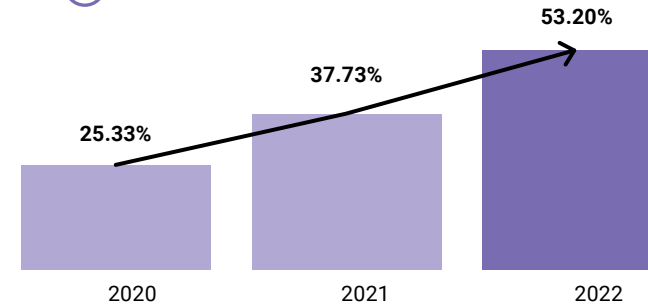
We seek to foster a culture of **ethics and integrity** by providing our employees with key resources to promote accountability and clear expectations of ethical behaviour.



Risk management touches many parts of our business, from the way we manage our workplace to how we plan for a changing climate to how we build a secure cyber environment.



Share of Liberty's California-based water operations total procurement spend going to diverse enterprises



Sustainable procurement practices are key to a strong supply chain. At Algonquin, we see the importance of creating a value chain that is strengthened by inclusion and diversity.

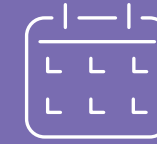


Effective **government affairs and public policy** help us advocate for a regulatory and policy environment that recognizes sustainability and helps facilitate a green energy transition.



About this report¹

Transparent and open dialogue with our stakeholders and the public is a reflection of our core values. With this report, we are excited to share our progress in prioritizing sustainability and the strides we've made in our ESG performance.



Reporting period

This report describes sustainability initiatives, programs, and projects taking place between January 1, 2022 and December 31, 2022, unless otherwise stated. Historical data from 2021 and earlier may be included to provide context or comparisons. However, to provide important up-to-date information on performance measures and targets, limited sections include data outside of the 2022 reporting period and these are clearly marked, such as our [ESG Performance Index](#) and [2023 ESG targets](#).



Currency

Dollar figures herein are presented in U.S. dollars unless otherwise stated.



Reporting standards

We rely on several widely accepted ESG reporting methodologies to inform our approach to sharing Algonquin's sustainability progress and key performance indicators. This helps us ensure the framework we use is aligned with industry standards, allowing us to inform our stakeholders of our ESG efforts in a streamlined and consistent manner.

Specifically, we seek to report our ESG goals, progress, and performance in accordance with the Global Reporting Initiative (GRI) standards, Sustainability Accounting Standards Board (SASB) framework, and the United Nations Sustainable Development Goals (UN SDGs).

1. "Materiality", as used in this report, and sometimes referenced as "ESG materiality", and our materiality review process, are different than the definitions and/or meanings ascribed to these and similar terms in the context of applicable Canadian and U.S. securities laws and our filings with securities regulatory authorities in Canada and the U.S. Items deemed material for purposes of this report and for purposes of determining our ESG disclosure, evaluations, strategies, and initiatives may not be considered material for reporting purposes under applicable Canadian and U.S. securities laws.



Our commitment to the UN SDGs

In 2015, the United Nations (UN) set out 17 global Sustainable Development Goals (SDGs) to streamline and coordinate international action toward critical environmental, social, economic, and political challenges guiding progress toward a more sustainable future. At Algonquin, we aim to play our part in contributing towards these UN SDGs. To concentrate our attention and resources on areas where we can make the deepest impact, we have aligned our ESG strategy to 10 SDGs that are most relevant to our purpose, capabilities, and values.



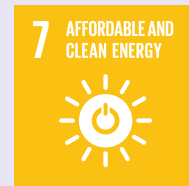
Algonquin's selected SDGs



Achieve gender equality and empower all women and girls



Ensure availability and sustainable management of water and sanitation for all



Ensure access to affordable, reliable, sustainable and modern energy for all



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



Reduce inequality within and among countries



Make cities and human settlements inclusive, safe, resilient and sustainable



Ensure sustainable consumption and production patterns



Take urgent action to combat climate change and its impacts

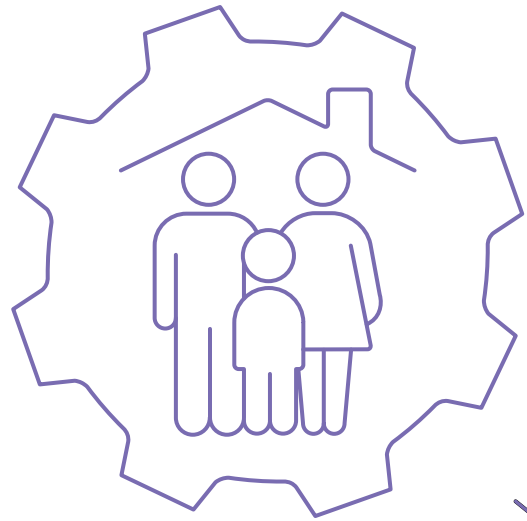


Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



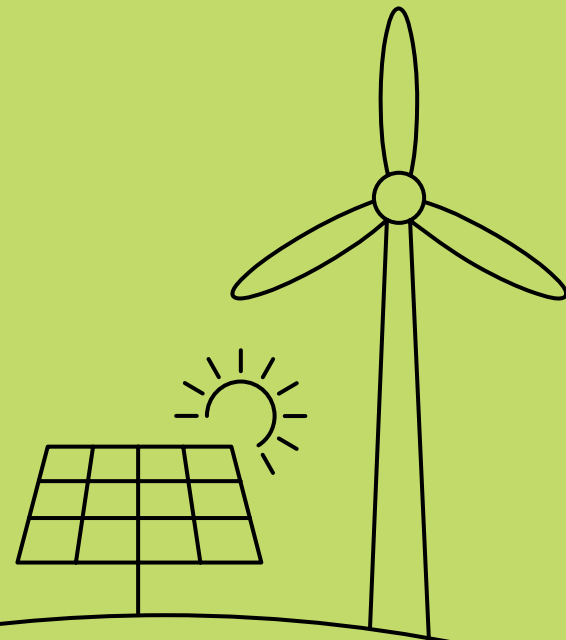
About us

At Algonquin, parent company of Liberty¹, we work to provide our customers with reliable, accessible, safe, and sustainable energy and water services. We recognize that access to energy and water services is foundational to our customers' health and happiness and are guided by our purpose of *sustaining energy and water for life*.



Renewable energy business

Our renewable energy business operates, and directly owns interests in, a diversified portfolio of wind, solar, hydroelectric, RNG, and thermal energy facilities across the United States and Canada. In addition to the assets that the renewable energy business operates, it also has investments in certain other generating assets.



Regulated Services Group

Our Regulated Services Group provides customers in the United States, Canada, Chile, and Bermuda with rate-regulated electric, water, and gas utility services.

We take our role in meeting the daily needs of the communities we serve seriously and strive to maintain a high standard of service that reflects the value we place on environmental protection, sustainability, and customer experience.

Electricity generation, distribution, and transmission:

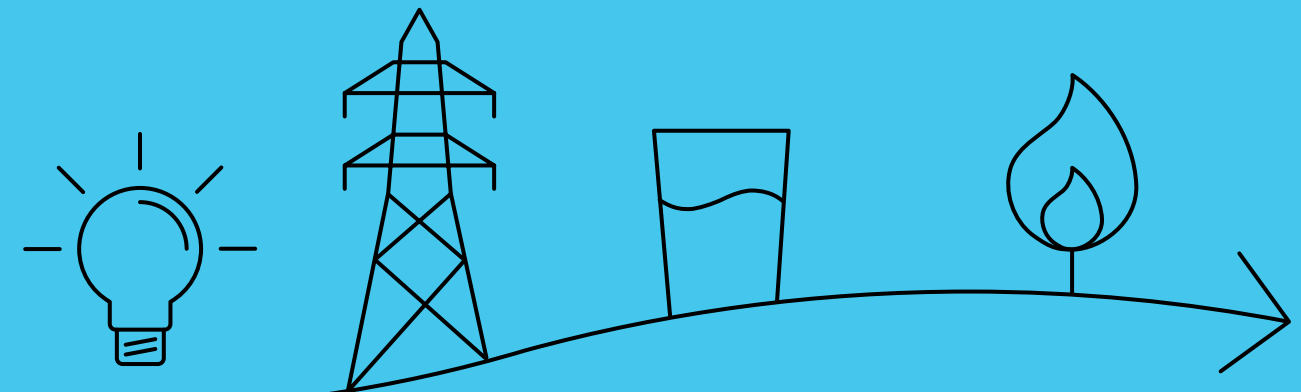
- Electricity distribution operations in six states (Arkansas, California, Kansas, Missouri, New Hampshire, and Oklahoma) and Bermuda
- Approximately 309,000 customer connections

Water distribution and wastewater treatment:

- Water distribution and wastewater operations in seven states (Arizona, Arkansas, California, Illinois, Missouri, New York, and Texas) and Chile
- Approximately 560,000 customer connections

Natural gas distribution:

- Natural gas distribution operations in seven states (Georgia, Illinois, Iowa, Massachusetts, Missouri, New Hampshire, and New York) and one province (New Brunswick)
- Approximately 375,000 customer connections

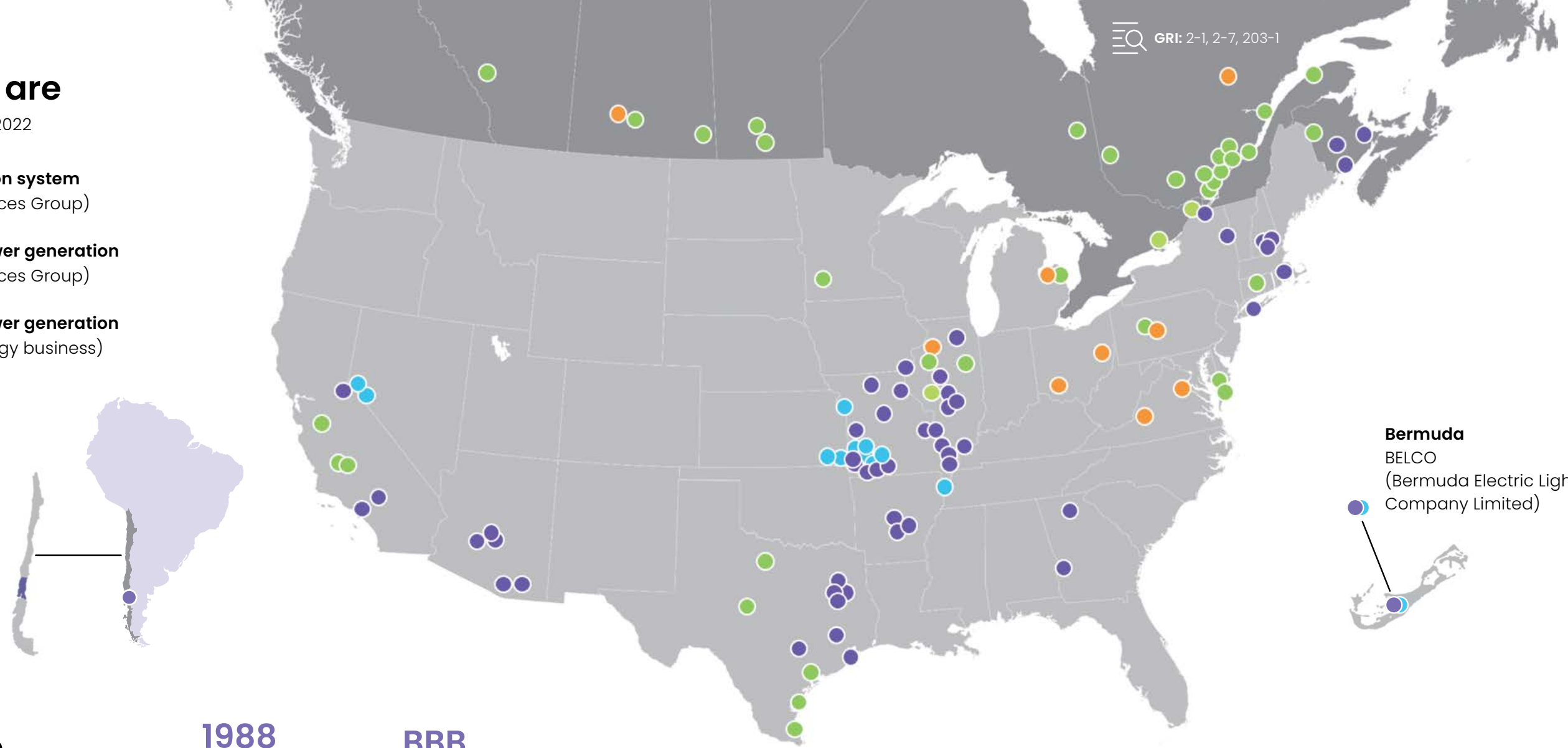


1. Algonquin Power & Utilities Corp., ("Algonquin" or "AQN") is the parent company of Liberty. Our renewable energy business and Regulated Services Group are collectively known as Liberty.

Where we are

As at December 31, 2022

- **Utility distribution system**
(Regulated Services Group)
- **Rate-based power generation**
(Regulated Services Group)
- **Operational power generation**
(renewable energy business)

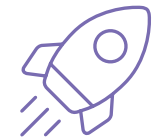


Chile
Suralis,
Formerly ESSAL
(Empresa de
Servicios Sanitarios
de Los Lagos S.A.)

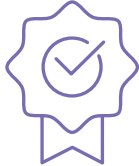
Bermuda
BELCO
(Bermuda Electric Light
Company Limited)

Algonquin by the numbers

1988
Company founded



BBB
Credit rating



3,900+
Employees



3.5 GW
Renewables
in operation
and under
construction¹



4.7 GW
Total
generation
capacity²



0.0010
Carbon intensity
(Mt CO₂e / \$USD Revenue)

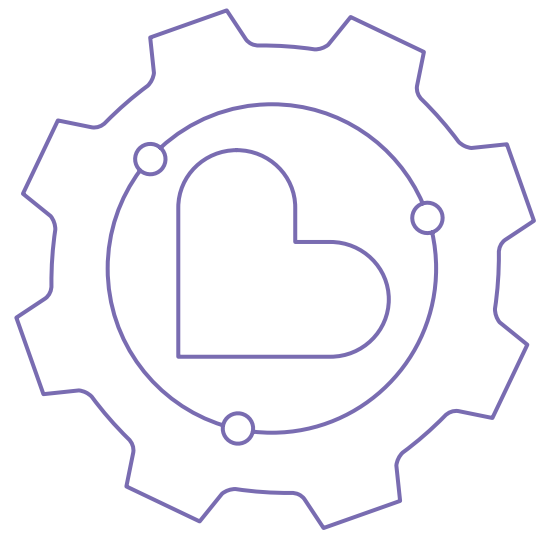


1. Total nameplate capacity of operationally controlled assets in operation and under construction.
2. Total nameplate capacity of operationally controlled assets.

What motivates us

Our values, purpose, and guiding principles

Our purpose of *sustaining energy and water for life* guides our actions. This drives us to bring value to our stakeholders as we work towards being a top utility and continuously improve our financial performance, as well as our performance in the areas of customer service, employee engagement, and environmental and social responsibility.



Our strategic pillars

Growth

We strive for sustainable growth through strategic acquisitions and organic capital investments in our rate bases.

Operational Excellence

Our vision of operational excellence is focused on safety, security, and reliability.

Sustainability

Transitioning to a low-carbon economy through the pursuit of decarbonization initiatives.



Our guiding principles

Customer-centric

Foster a positive internal and external customer experience at every stage of the customer journey to build customer loyalty and satisfaction. Always consider the outcomes our decisions may have on the customer.

Entrepreneurial

Have an optimistic interpretation of adverse events and see problems as potential opportunities; highly resilient, resourceful, and solutions-oriented even within highly uncertain, resource-constrained environments.

Teamwork, Trust, Inclusion and Respect

Value diverse teams of people. Encourage and help each other through collaboration. Inspire the exchange of ideas to come up with creative ways of doing things. Extend trust and create a feeling of belonging, listen for understanding to different perspectives by being respectful and professional.

Integrity

We strive to do the right thing and adhere to moral and ethical principles for self and team.

Owner Mindset

Demonstrate ownership, taking calculated risks, while remaining aligned to organizational pillars. Encourage individuals to take responsibility to hold themselves and others accountable.

Outcome Focused

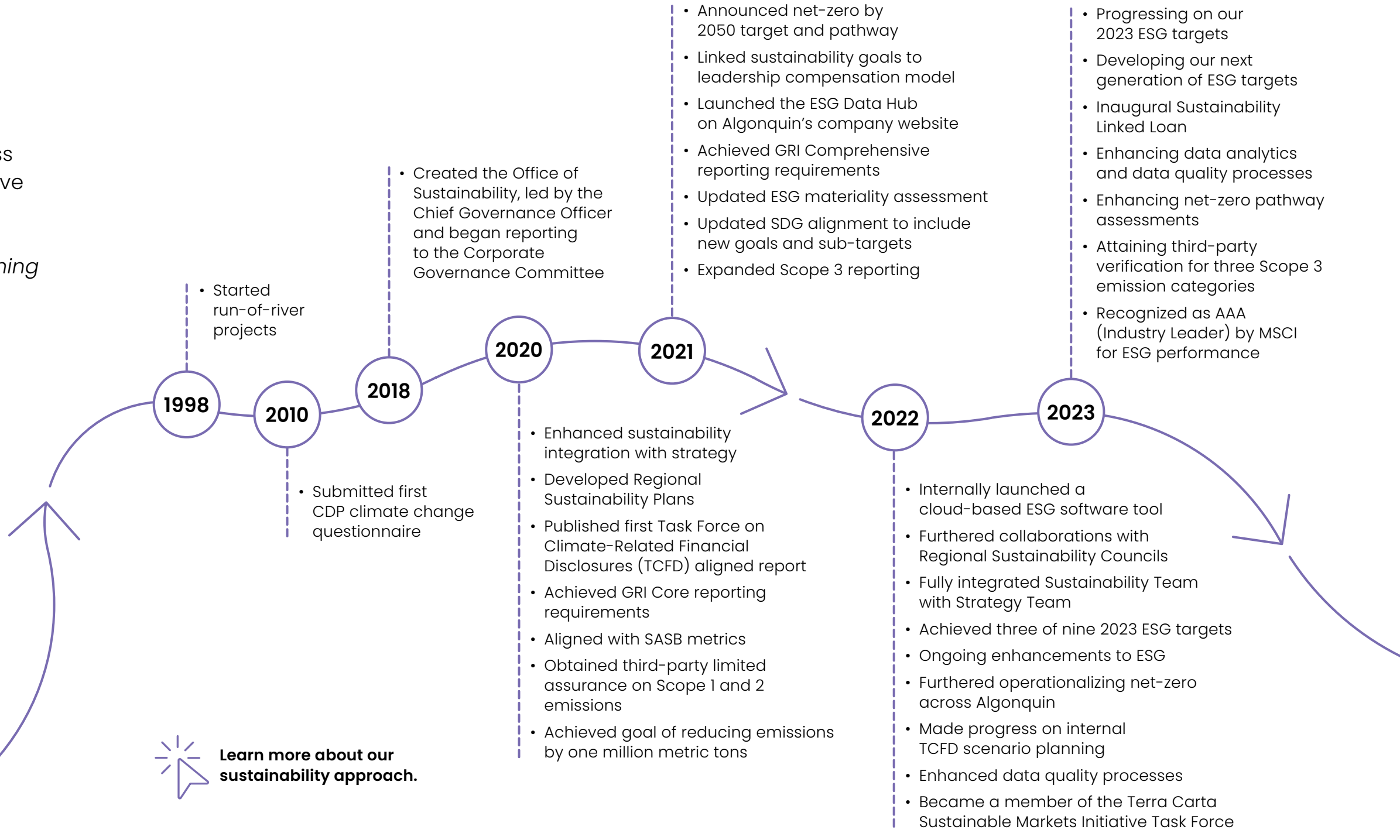
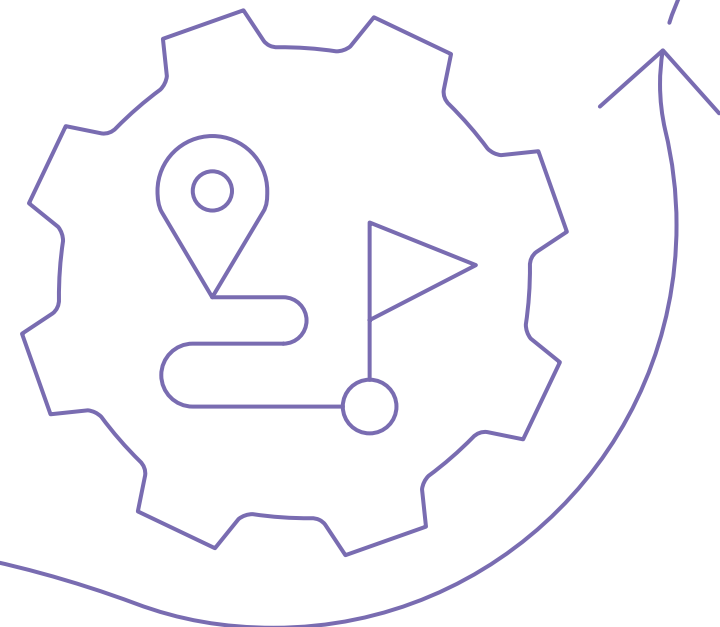
Set ambitious goals and safely deliver high quality business results. Strive to delegate for outcomes rather than by task.

Continuous Learning

Inquisitive and open-minded, actively seeks new and varied experiences and ideas. Is passionate about continual learning for self and team.

Our ESG journey


At Algonquin, we work to embed sustainability across our business and strive to continuously improve our impact on the environment and society in accordance with our corporate purpose of *sustaining energy and water for life*.



 **Learn more about our sustainability approach.**

Stakeholder engagement

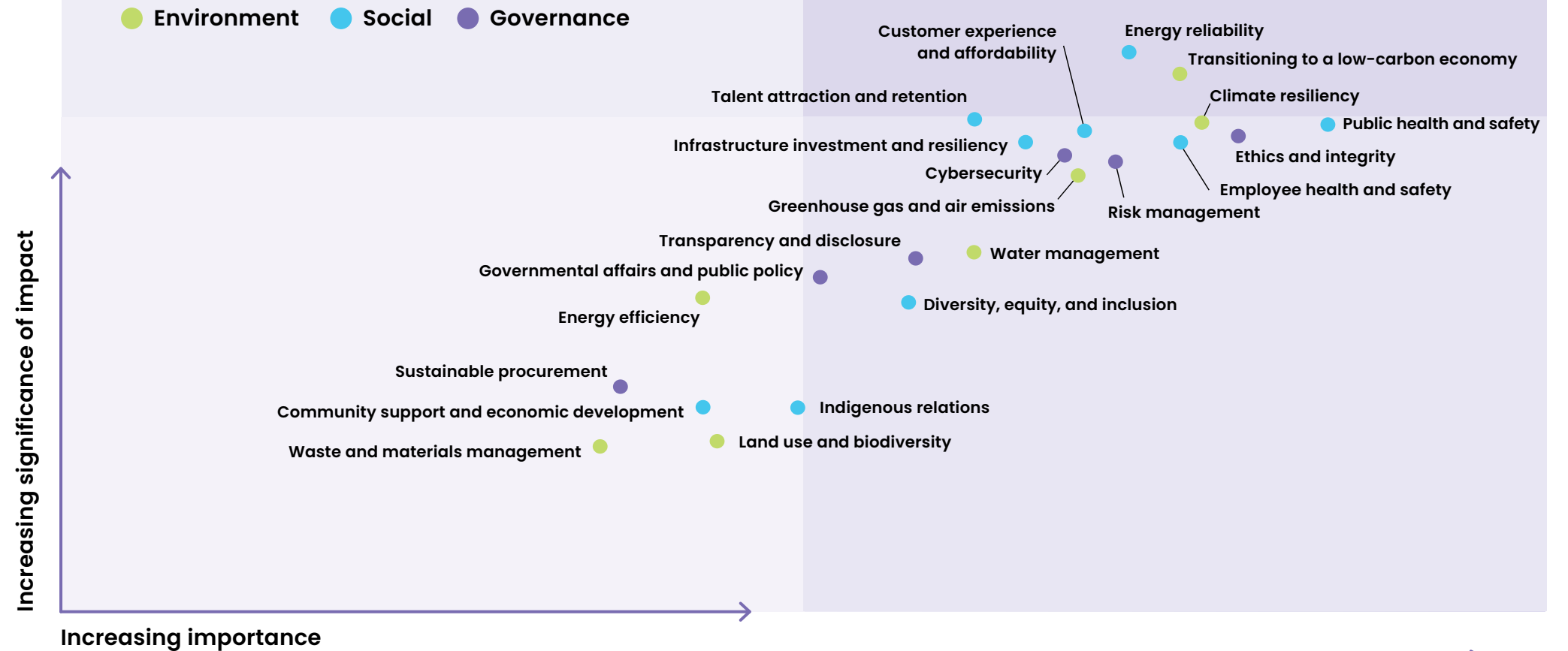
The priorities of our customers, employees, investors, communities, and regulators help guide both the work we do every day and our long-term goals. We believe active communication and engagement with our stakeholder groups is critical to good corporate citizenship and a key to unlocking our strategic pillars.

 For more details on the process of our ESG materiality assessment, [click here \(pg. 29\)](#).

Our stakeholders' priority ESG topics

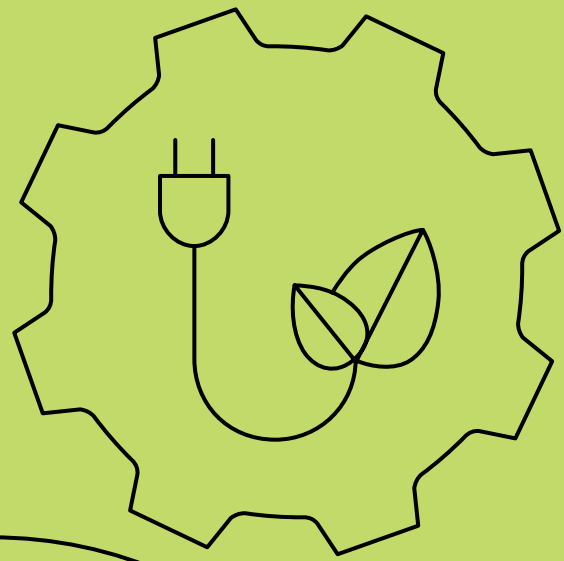
Within the ever-evolving ESG field, it is important to remain attuned to the needs of various stakeholder groups to effectively prioritize issues relevant to our customers, colleagues, investors, regulators, and communities. We regularly work with stakeholders to identify the ESG issues they find most important. Our most recent ESG materiality assessment was carried out in 2021.

The ESG materiality matrix shown below reflects the priority issues and ESG topics identified in surveys of our various stakeholders. We continue to review these priority issues and look for opportunities to enhance our ESG programs in harmony with our strategic pillars of Growth, Operational Excellence, and Sustainability.



Progress toward our 2023 ESG targets

(as at June 30, 2023)



Environmental



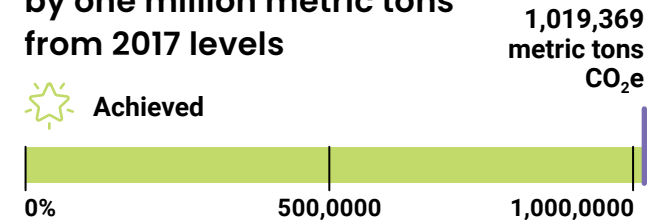
Target of 75% renewable generation by the end of 2023



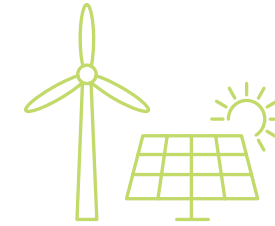
This target is focused on the total nameplate capacity (MW) of operationally controlled assets added to our renewable portfolio. These assets include wind, solar, and hydroelectric sites in both our regulated and non-regulated businesses. We are operating at 65.9% renewable generation capacity.



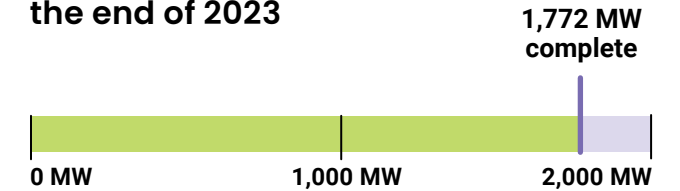
Reduce GHG emissions by one million metric tons from 2017 levels



Our reduction target reflects an absolute reduction expressed as a fixed amount of GHGs. This target was achieved with the early retirement of the Asbury coal-fired generation facility in March of 2020. Since closing the plant, we have eliminated more than one million metric tons of CO₂e from our operations which represents the average annual emissions of the Asbury coal-fired facility in 2017 and 2018.

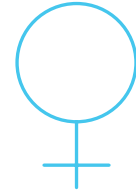


Add 2,000 MW of renewables between 2019 and the end of 2023

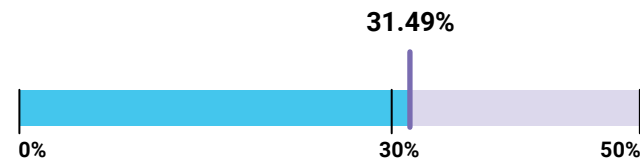


This goal targets the addition of 2,000 MW of renewable nameplate capacity to our existing portfolio. This is based on the completion of projects in our renewables pipeline as well as newly sourced projects. We have added 1,772 MW against our goal.

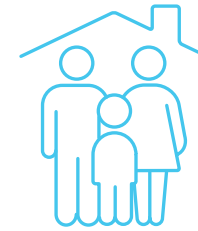
Social



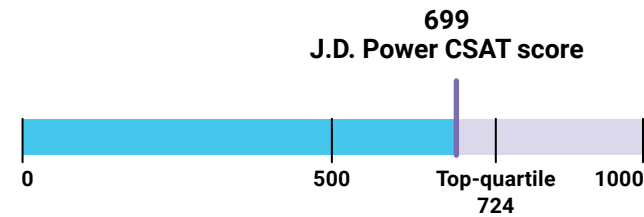
Exceed 30% women in leadership roles



This target is based on the number of women relative to the total number of employees at the level of Senior Manager or above. We continued to exceed this target, with 31.49% of leadership roles held by women. Although we are proud of our progress so far, we intend to continue to create opportunities for women to excel in leadership capacities and view this goal as an ongoing effort to exceed our 30% target by the end of 2023.



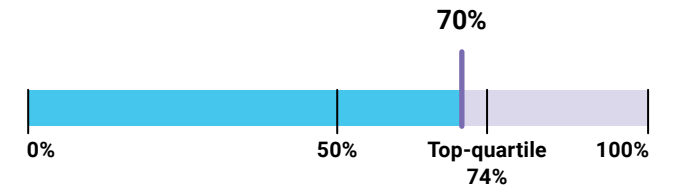
Achieve top-quartile customer service



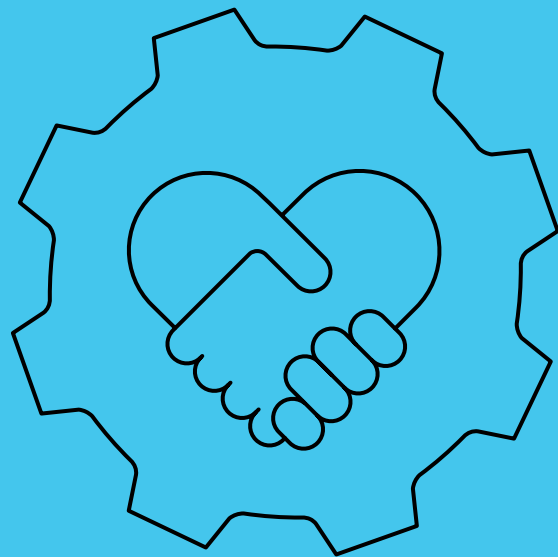
This target aims to achieve a J.D. Power CSAT score of 724. Our score at the end of 2022 was 699. We are proud of the customer experience improvements made amidst challenges, such as elevated inflation and energy price volatility, that increase utility costs. While many utilities saw significant declines in CSAT scores, we are pleased to have held our position year-over-year. We continue to engage with our customers through transactional and relationship surveys, customer councils, town halls, and focus groups. We are also incorporating other metrics such as Net Promoter Score to further understand our customers' experience. Since 2018, we have continued to improve our score with a focus on making improvements to drive a positive customer experience.



Achieve top-quartile employee engagement



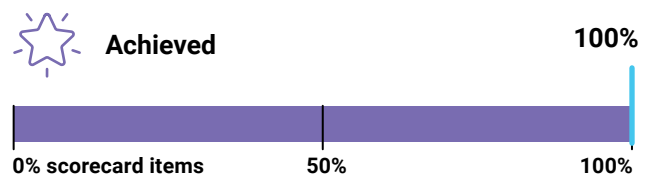
As our workforce evolves, our employees remain integral to our success. Building on previous years' practice of conducting an annual employee engagement survey, we are shifting to more frequent listening touchpoints so that employee feedback can inform action. Our most recent survey yielded an engagement score of 70%, and feedback from these surveys has been incorporated by leaders across the organization into collaborative action. We intend to continue to offer opportunities for our teams to provide input on what is working well and what needs to be addressed.



Governance



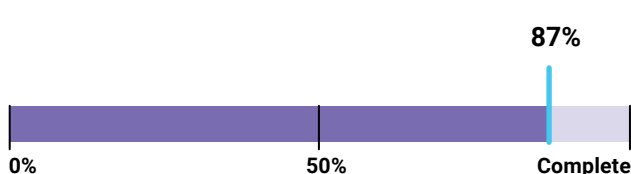
Embedding sustainability into our compensation model



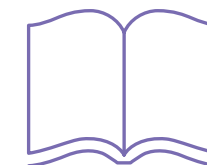
Our compensation model includes an annual corporate scorecard which is used to broadly measure success against our overall business goals. The results of the scorecard underpin the annual Short-term Incentive Plan provided to eligible employees. We successfully embedded ESG metrics in our 2020 Corporate Scorecard and achieved our goal ahead of our 2023 target. The 2021, 2022, and 2023 Corporate Scorecards also include objectives in ESG categories and our Long-Term Incentive Plan achievement factors include ESG metrics. We intend to continue reviewing the inclusion of sustainability metrics as a component of both short-term and long-term compensation.



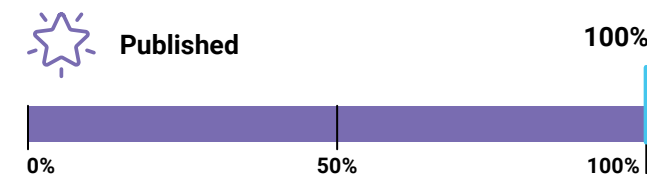
Build a robust compliance framework



In 2019, we appointed key individuals to our Compliance and Risk Office, which are responsible for advancing our compliance framework. To date, we have completed 87% of the plan, representing a 17% progression from our 2022 reporting period. Our 2023 goal is centered around 100% completion of the framework, which includes a review supported by external advisors.



Publish a TCFD-aligned disclosure

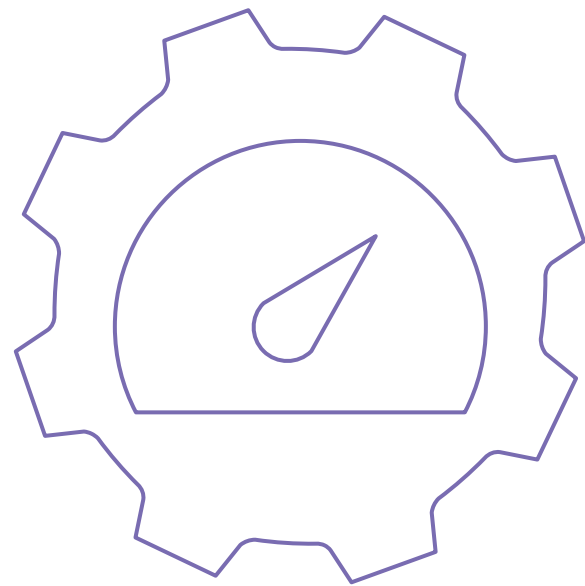


Our commitment to publish a TCFD-aligned disclosure came to fruition ahead of schedule with the publishing of our 2020 Climate Change Assessment report. The report sets the groundwork for analysis of the risks and opportunities presented in our portfolio under various climate scenarios, and we continue to make internal progress on TCFD-related initiatives across the enterprise.

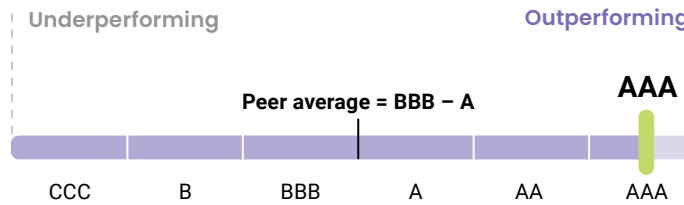
Our ESG performance^{1,2}

We continue to strive to be an ESG leader in our industry, improving the quality of our disclosures and reporting and engaging with key ESG rating agencies for third-party assessments.

(As at June 30, 2023)



MSCI

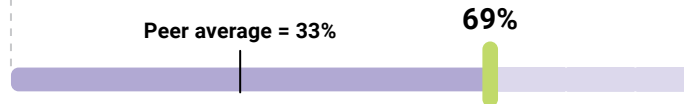


S&P Global

ESG Evaluation

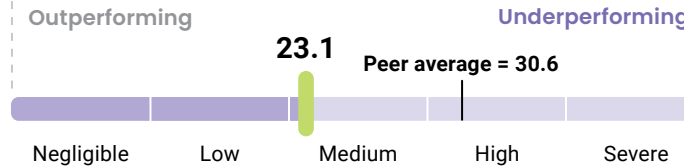


ESG Score (CSA)

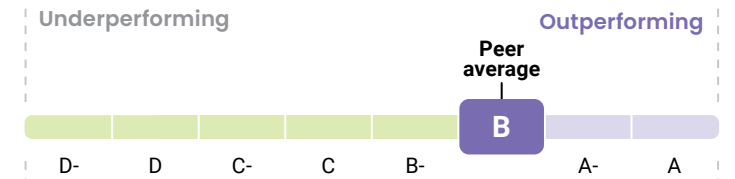


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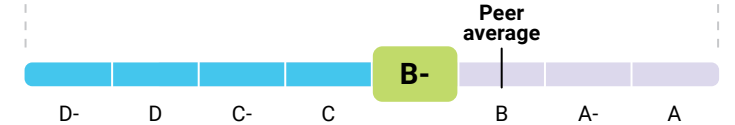
Risk Rating



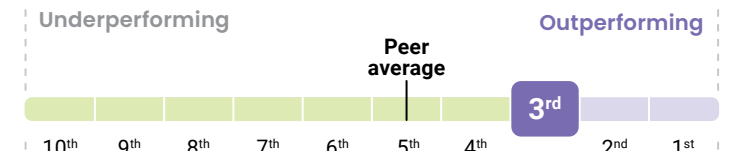
Climate change



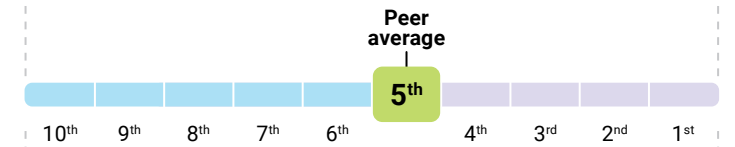
Water Security



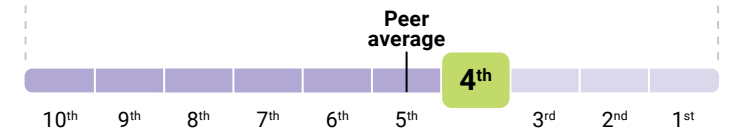
Environmental



Social



Governance

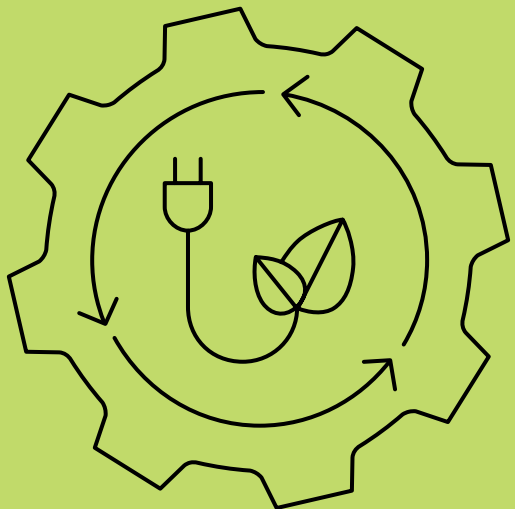


- The following scores depict Algonquin's ESG performance as described by rating agencies that Algonquin actively engages with. For more information, visit the ESG Rating Agency Recognition within [Algonquin's ESG Data Hub](#).
- Peer averages are based on the following peer groups: MSCI – Utilities; Bloomberg GEI – Participating companies; S&P Global ESG Evaluation – Participating companies; S&P Global ESG Score (Corporate Sustainability Assessment) – Multi and Water Utilities; Sustainalytics – Multi-Utilities; CDP – Renewable Power Generation; and ISS – Multi-Utilities.

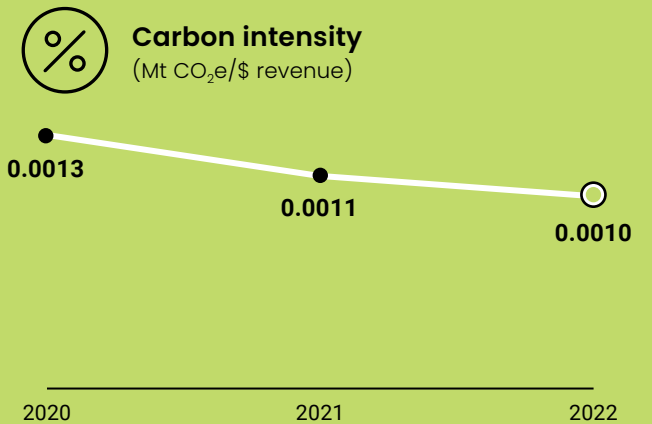
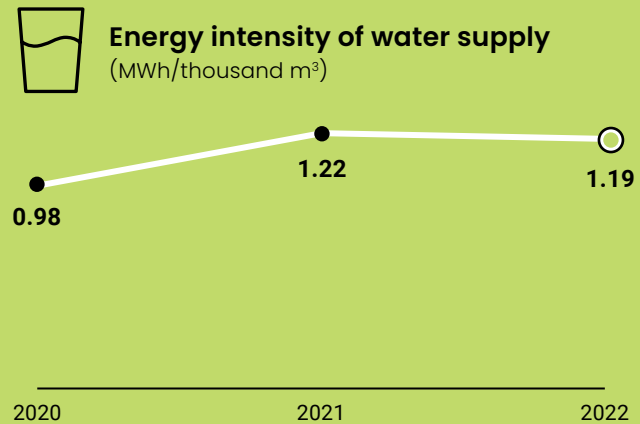
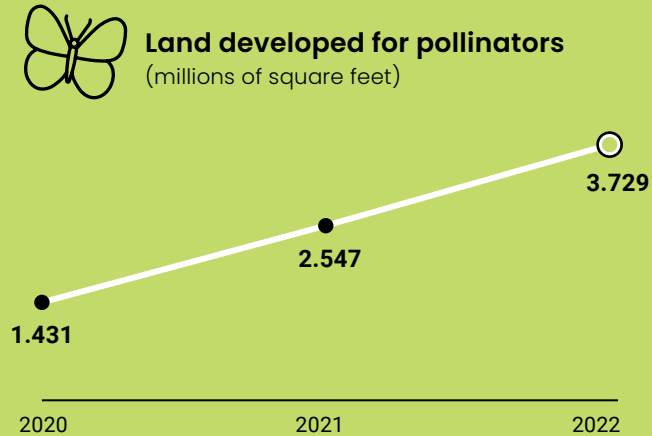
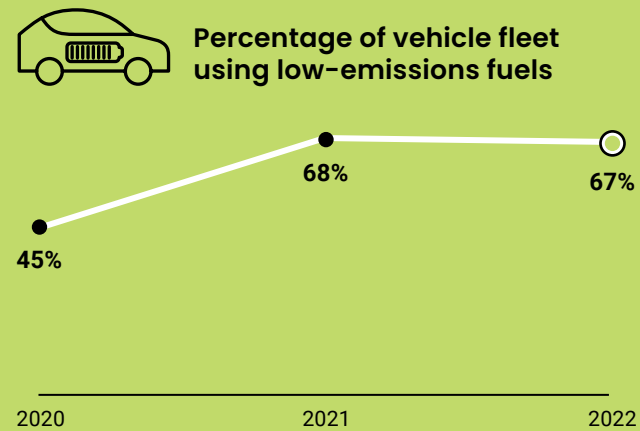
Environmental

Featured articles

-  Transitioning to a low-carbon economy 20
-  Climate resiliency and energy efficiency 22
-  Land use and biodiversity 25
-  Waste and materials management 26
-  Water management 27



Performance highlights

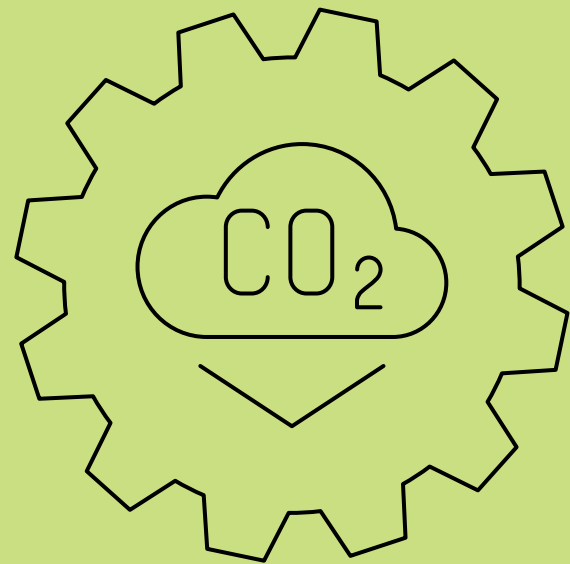


2023 ESG targets



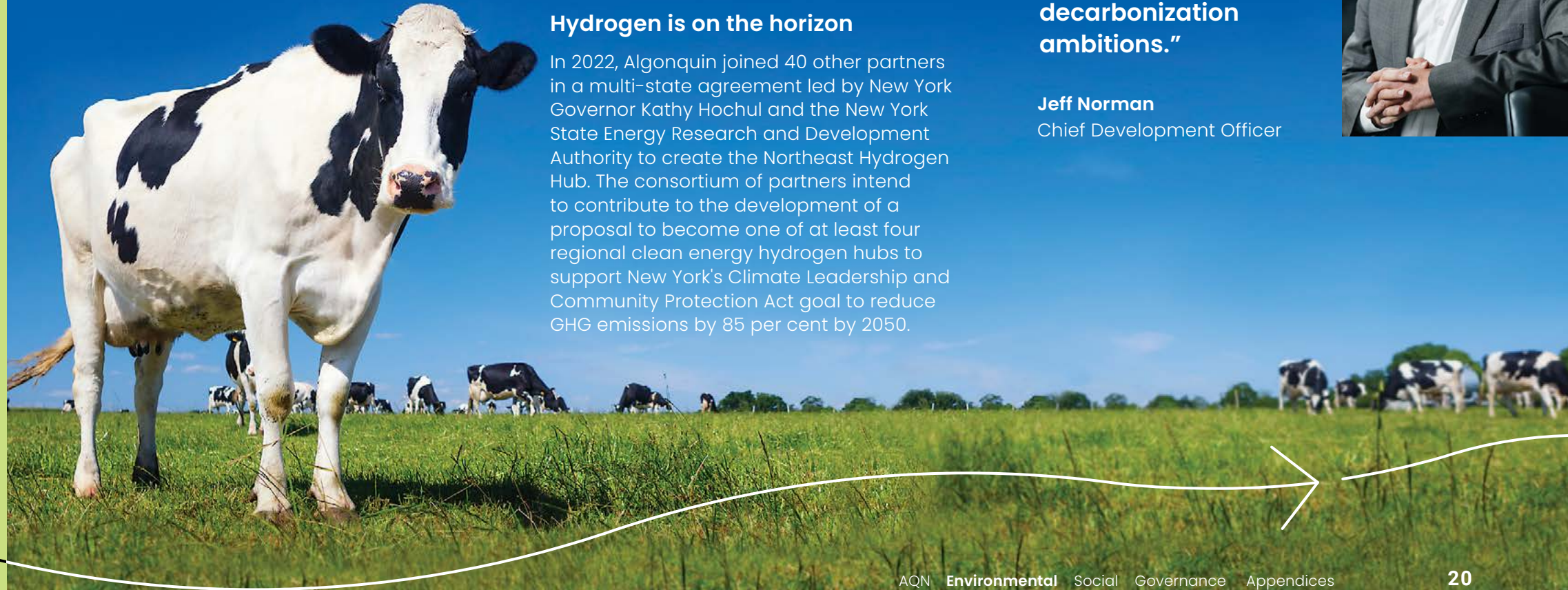
Alignment to UN SDGs

Transitioning to a low-carbon economy



Furthering our net-zero goals with alternative fuels

As we move toward our net-zero goal, we continue to investigate means to further reduce our emissions. Embracing alternative fuels, including RNG, is one of our tactics for reducing emissions. In 2022, we acquired a portfolio of RNG sites consisting of four individual operations that sequester methane from dairy farms. Once fully complete, this project is expected to produce approximately 500 million British thermal units of RNG per day.



RNG in our New York gas system

In 2022, we worked closely with various state regulators to increase RNG distribution through our gas utilities, thus enabling this low-carbon fuel source. As a result of our diligence, we are engaged with partners in developing RNG projects for our New York gas system. Working with third-party developers, we began construction on two dairy farm interconnection facilities in 2022, which came online in 2023. This biogas would not only provide new, local, low-cost supply for our customers, but also provide an economic benefit to northern New York farmers.

Hydrogen is on the horizon

In 2022, Algonquin joined 40 other partners in a multi-state agreement led by New York Governor Kathy Hochul and the New York State Energy Research and Development Authority to create the Northeast Hydrogen Hub. The consortium of partners intend to contribute to the development of a proposal to become one of at least four regional clean energy hydrogen hubs to support New York's Climate Leadership and Community Protection Act goal to reduce GHG emissions by 85 per cent by 2050.


“More and more, corporate customers are demanding renewable energy sources to fuel their operations. In conjunction with its investments in wind, solar, and hydro, RNG is expected to help the renewable energy business expand its renewables capabilities and customers’ decarbonization ambitions.”

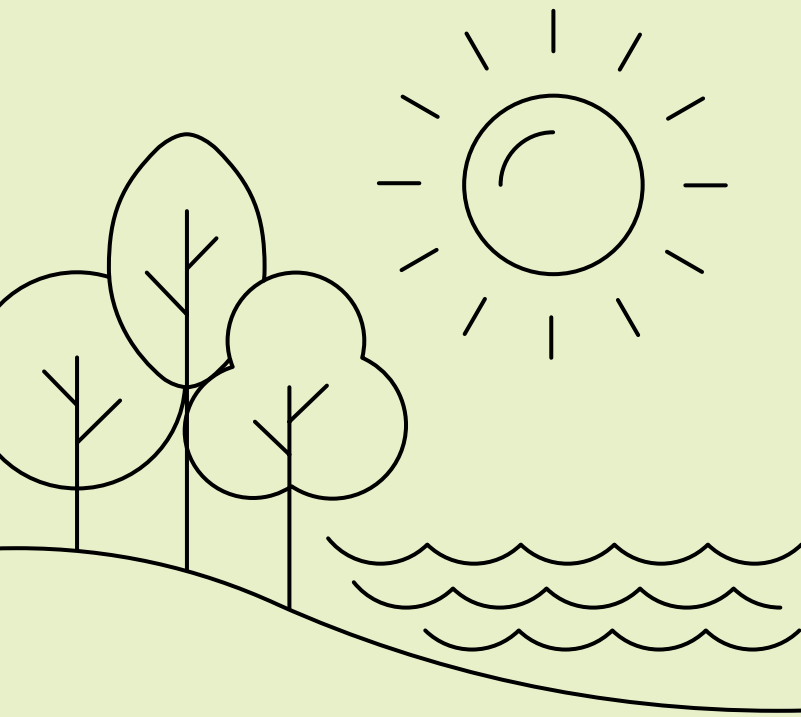


Jeff Norman
Chief Development Officer

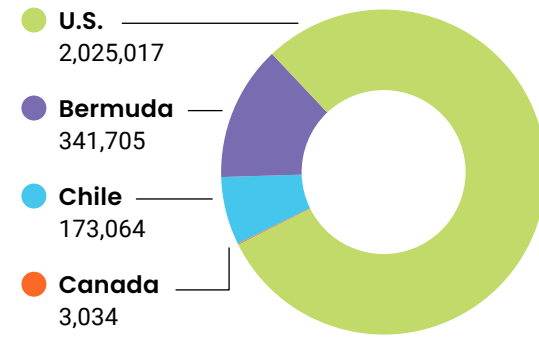
GHG inventory

Algonquin's GHG inventory continued to receive third-party limited assurance for Scope 1 and 2 emissions for the fourth year running. Algonquin also took this a step further in 2022, having three Scope 3 categories receive limited assurance for the first time. These categories include fuel and energy-related activities (not included under Scope 1 and 2), use of sold products, and investments.

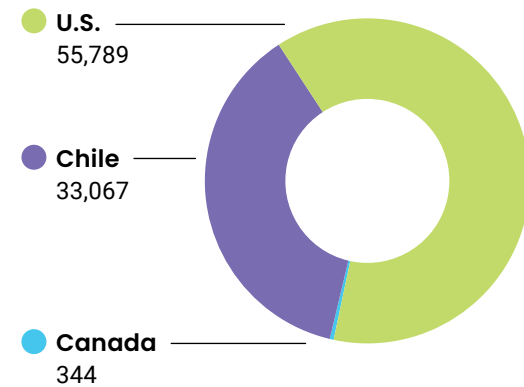
 For more information, see our 2022 GHG Verification Report (pg. 95).



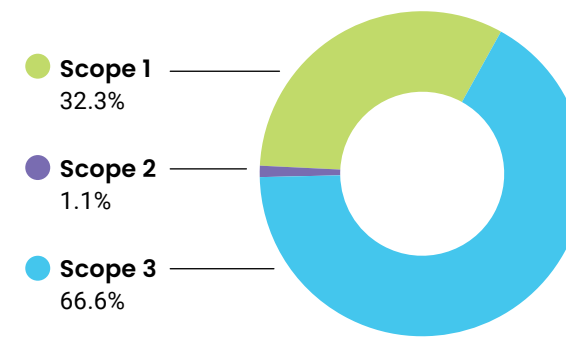
Scope 1 emissions by country (Mt CO₂e)



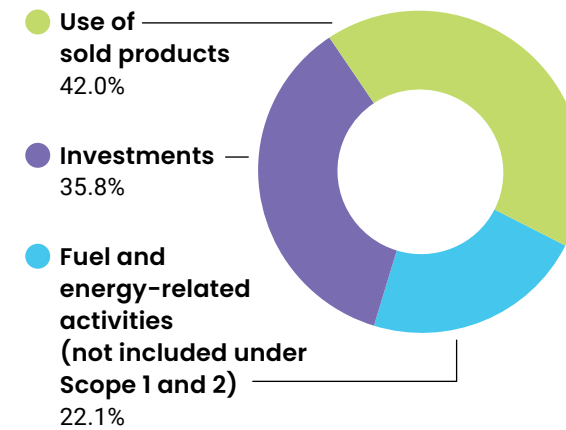
Scope 2 emissions by country (Mt CO₂e)



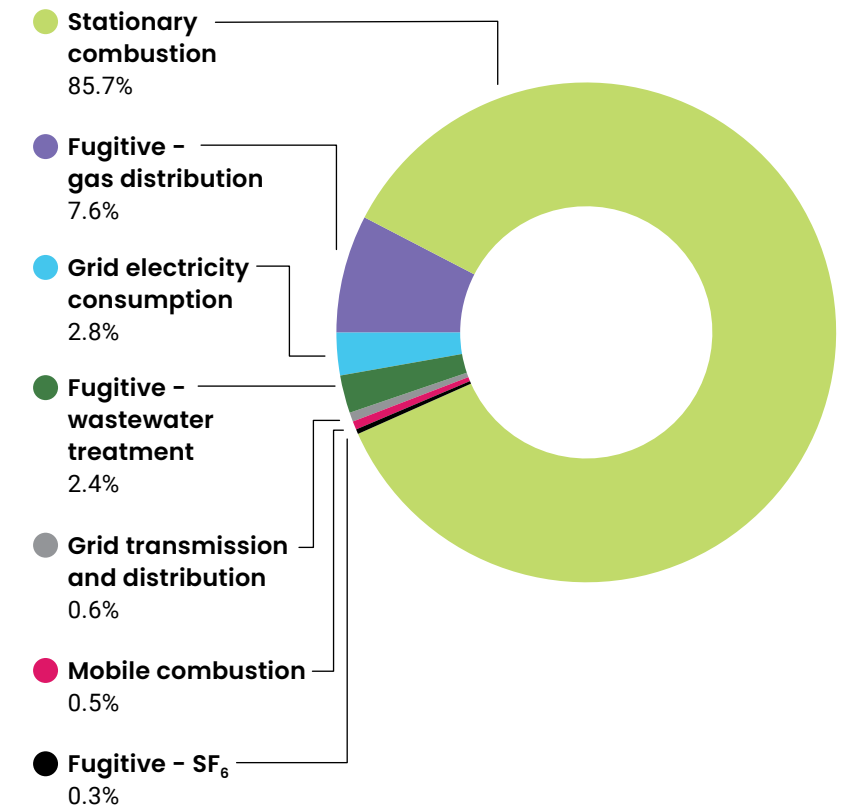
Emissions by Scope (CO₂e)



Scope 3 emissions by category¹ (CO₂e)

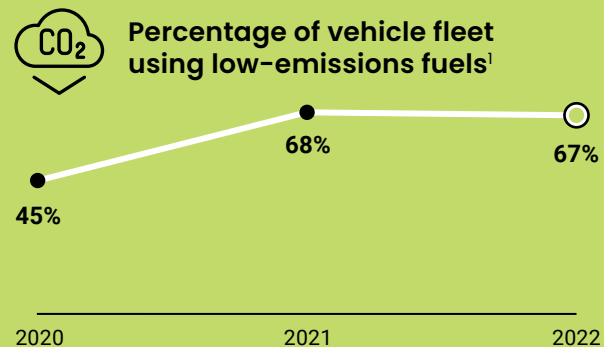


Scope 1 & 2 emissions by source (CO₂e)

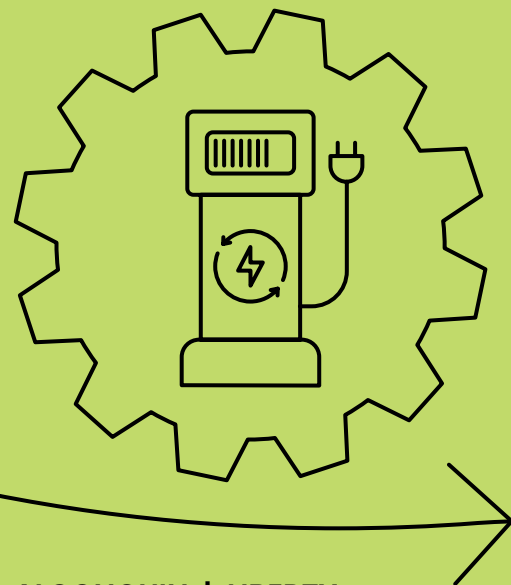


1. See pg. 116 of ESG Performance Index (in the Appendices of this report) footnotes 36, 37, 38, and 39 for more information on these Scope 3 emission categories.

Climate resiliency and energy efficiency



1. Low-emission fuel vehicles include EVs and other zero direct-emission vehicles, hybrid vehicles, biofuel vehicles, and CNG capable vehicles.



Residential smart charge pilot

We believe providing opportunities for our customers to lower their carbon emissions and their utility bills is invaluable. In October of 2022, we launched five transportation electrification programs for our Missouri electric customers to aid in reducing their climate impact and their overall costs. Our programs are designed to assist our residential, school, and C&I customers who desire to electrify their transportation.

This exciting new EV program model provides our residential and commercial customers with utility-owned and operated Level II networked chargers. These chargers also provide usage data which allows our customers to be billed special lower overnight Time-of-Use (TOU) rates for the

energy used to charge their vehicles. The pilot requires participants to pay a monthly fee which covers the cost of installation, ongoing charger maintenance, and network fees. The special overnight EV TOU rate is designed to encourage charging during times when there is less demand on the grid, helping us reduce strain on our infrastructure while saving our customers money.

We also provide a similar program to schools that have deployed electric school buses. In addition, our commercial customers can also participate in the public charging program by applying to host a public charger or by receiving rebates for switching qualifying equipment to electricity.



What is a TOU rate?

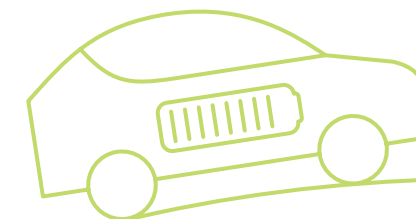
With a TOU plan, our customers may be able to lower their energy bills by shifting energy use to off-peak hours of the day when demand and rates are lower. Shifting energy use to off-peak periods also helps utilities better balance energy demand, use their generation plants and distribution systems more efficiently and effectively, and potentially delay the need for additional generating resources.



TOU rate programs can also help lower the cost of electricity in the wholesale markets, which, in turn, helps to lower customer bills.

What is a Level II charger?

Residential Level II chargers can be hard wired or installed using a higher voltage outlet (240 volts), common to high-energy household appliances like a dryer. These chargers typically charge an EV in four to eight hours or a hybrid vehicle in two hours or less. Level II chargers are the preferred choice in home-charging solutions.



What does the charger installation look like for our residential customers?

We understand many of our customers face barriers to making the switch to EVs. In response, we have taken great care in developing this program to be efficient and reduce costs for all those involved, while ensuring our customers have both the equipment and knowledge to make their transition to an EV as smooth as possible. Typically, when customers join the program, a utility employee will install a utility-owned Level II charger and walk them through the associated phone application, discuss how to take advantage of TOU rates, and answer any questions. Our customers enjoy peace of mind knowing we are a partner in their transition to an EV.

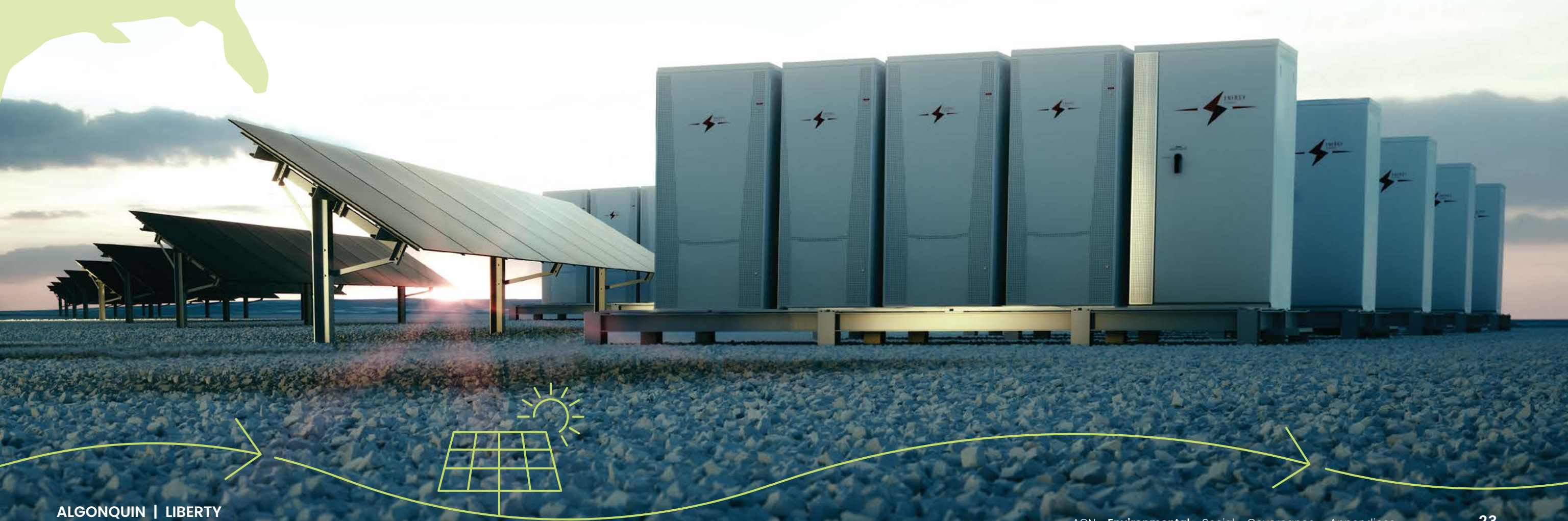


Countryside community solar and storage project

With our Countryside community solar and storage project, located in Cattaraugus County, New York, we are venturing further to deliver reliable and cost-effective renewable energy to our customers. What makes this facility unique is our use of a battery energy storage system (BESS) to bolster the facility's capacity and reliability.

This project, comprised of 3 MW of solar capacity and an accompanying 9 MWh capacity BESS, demonstrates our commitment to customers and clean energy, and leverages local climate policy to usher forward clean energy solutions. With the BESS onsite, we can provide firmer capacity from the solar facility and introduce a more reliable power source to the grid.

More broadly, this project aligns with the state of New York's bold climate plan calling for the deployment of 6 GW of storage capacity by 2030. The project is currently awaiting interconnection with the local utility and stands as our first significant investment in utility-scale battery storage.



Grid hardening

We take climate change seriously. We are working to strengthen our infrastructure against the impacts of the risks that climate change poses, so we can continue to provide our customers with reliable service. The threats to reliability presented by a changing climate are diverse. As such, we are implementing a variety of solutions to maintain the integrity of our infrastructure. Notable examples of our resiliency-focused initiatives include:

Transmission and distribution

Our investments in hardening transmission and distribution assets are key to future-proofing our infrastructure. These investments may include:

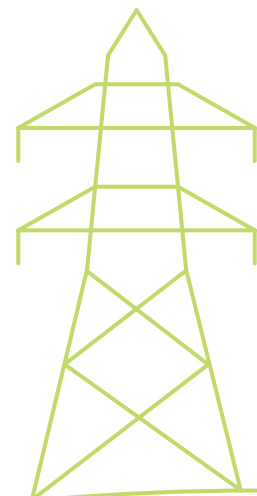
- Installing covered conductors and spacer cables
- Testing and replacing poles to prevent failure
- Replacing conventional fuses and undergrounding lines
- Integrating distribution automation
- Adding system redundancies.

Wildfire risk mitigation

In response to the growing risks associated with wildfires in California, we have taken measures and established programs to limit the impacts of wildfires. These include:

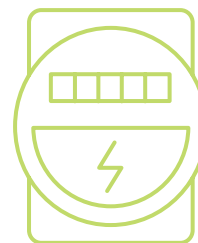
- Developing a comprehensive Wildlife Mitigation Plan and Vegetation Management Program
- Upgrading infrastructure
- Insulating wires
- Implementing substation enhancements and pole and fuse replacements
- Deploying Public Safety Power Shutoffs (PSPS).

For example, with the development of our Sagehen microgrid, we have circumvented the need for grid hardening in the form of distribution line replacement. This project allows for more resilient distributed energy by enabling disconnection of the station during summer wildfire season and reconnection to the broader system during winter, as well as providing energy storage.



Smart meters

We have rolled out advanced metering infrastructure (AMI) at several of our utilities. This system of smart meters, communications networks, and data management systems enables two-way communication with our customers' meters. These systems, among other things, are expected to help our local service teams identify and address outages more efficiently.



Read more about the exceptional work that earned Algonquin the EEI Emergency Response Award (pg. 34).



Recognized for response excellence

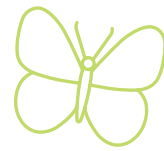
Our resilience and response efforts were recently recognized in our Bermuda service territory by the EEI.

Land use and biodiversity

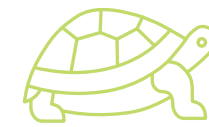
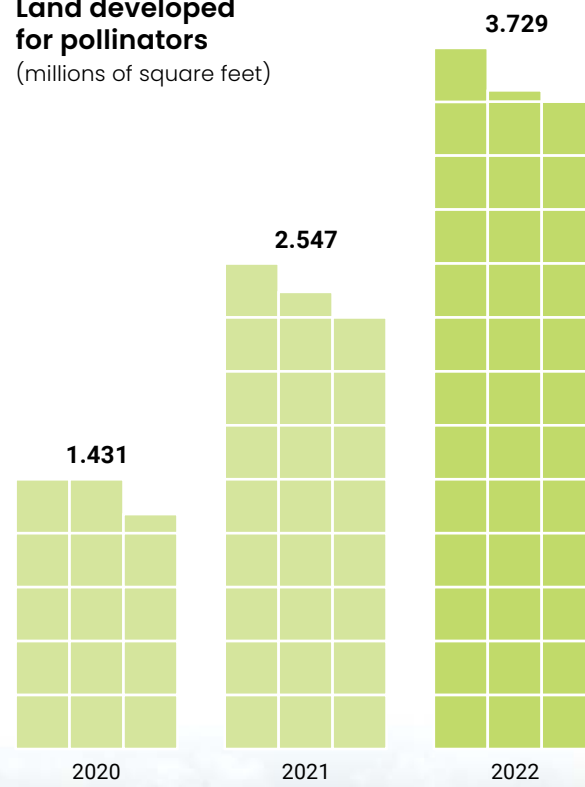
Kodiak Prairie restoration certification

Our Vegetation Management Program is continuously improving the way we manage our land assets. These efforts are employed to reduce our carbon emissions and the overall environmental impact. Our Vegetation Management Program includes intensive plant identification training for our vegetation management crews. This valuable education gives employees and contractors the tools to manage our right-of-ways in ecologically considerate ways. From special seed selection to collaboration with external partners, we are striving to reduce our impact on natural resources.

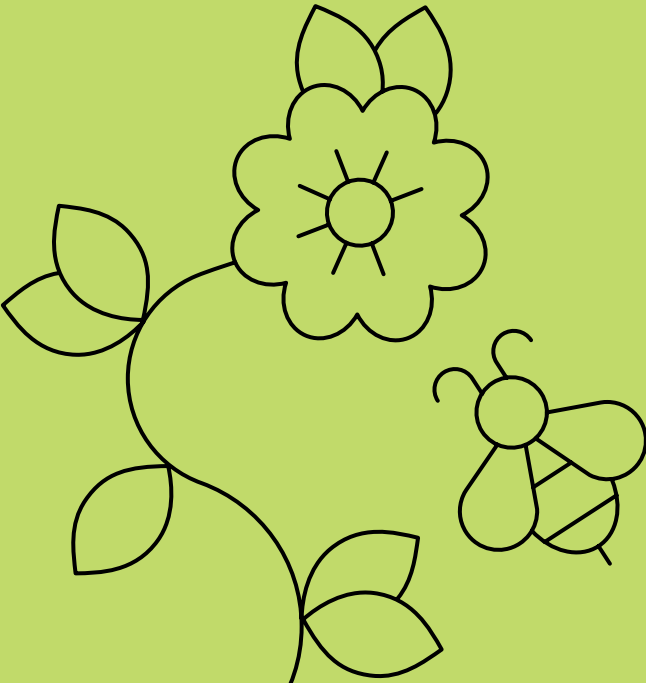
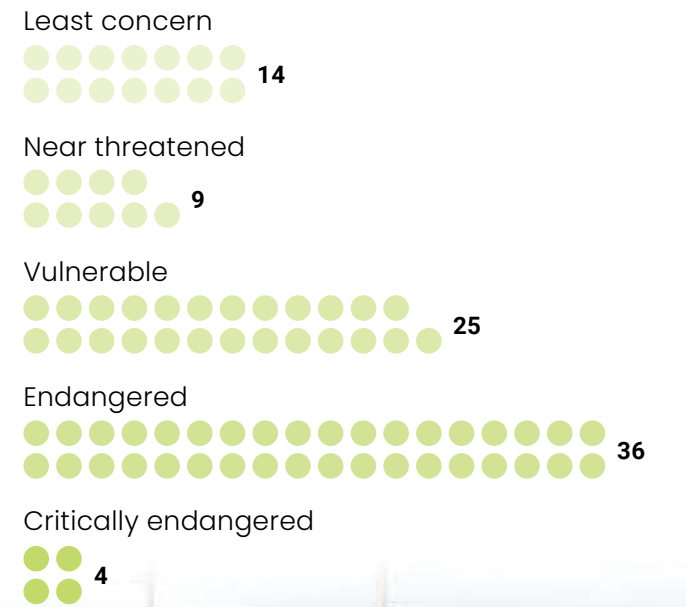
Our habitat restoration project on the Kodiak Prairie in Missouri has been awarded a Wildlife Habitat Council Conservation Certification. This achievement recognizes the specific efforts of our Vegetation Management Program and Algonquin's commitment to conservation.



Land developed for pollinators
(millions of square feet)



International Union for Conservation of Nature's (IUCN) Red List species and national conservation list species with habitats identified in areas affected by our operations



Waste and materials management

Waste management overview

The waste we generate through our operations may have far-reaching impacts on our environment, local ecosystems and communities, and the climate. Our enterprise-wide waste management standard (WM Standard), once deployed, is intended to better enable us to responsibly oversee the wastes we generate so we can more effectively mitigate negative environmental impacts and comply with regulations.

We recognize that effective waste management requires cooperation from individuals throughout our organization. As such, our WM Standard is designed to integrate accountability for our waste footprint into the responsibilities of key stakeholders, ranging from senior leadership to contractors. It is intended that these stakeholders will be supported by waste management training, tailored to their role in overseeing our waste footprint.

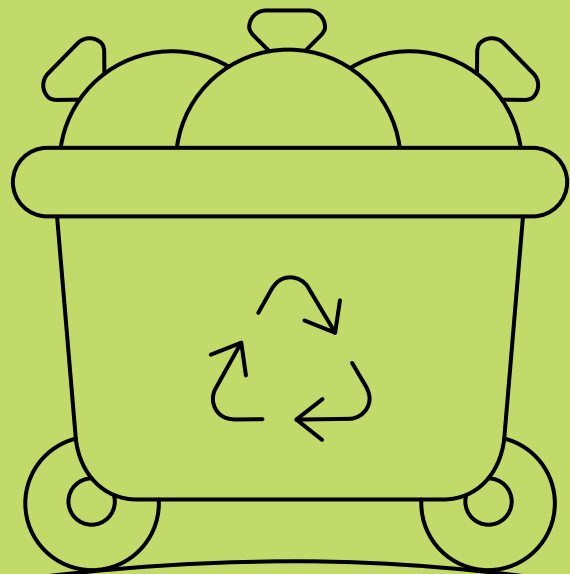
In addition to tailoring training to individual responsibilities, our WM Standard is intended to outline approaches to managing both hazardous and non-hazardous waste streams, while encouraging the implementation of



site-specific processes and procedures to support compliance with regulations and alignment with local environmental considerations.

Responsible management of waste and materials helps us minimize our environmental

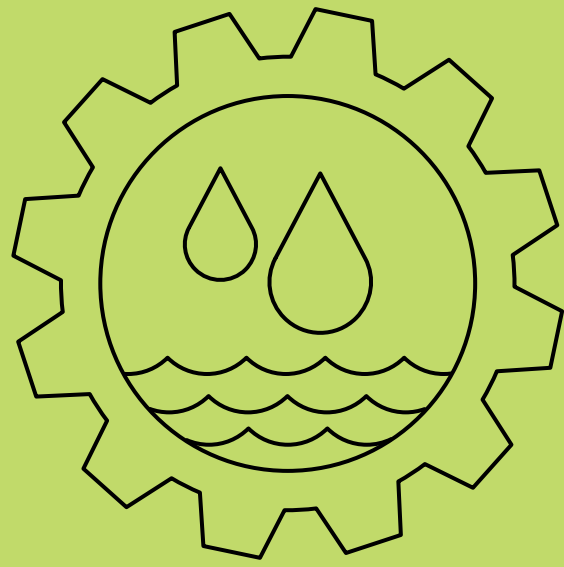
footprint and enables us to be better stewards of natural resources, while supporting robust regulatory risk management. We take this responsibility seriously and continue to strengthen our waste management approach at both the enterprise and local levels.



Water management



Read more about the reverse osmosis project at our State Line power generation plant (pg. 33).



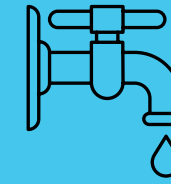
State Line hydrolysis project

Our State Line power generation plant in Joplin, Missouri has been continuously pushing the bounds of applying innovative solutions. On the heels of the reverse osmosis reject water application spotlighted in our 2022 ESG Report, the team at State Line went even further with the application of hydrolysis in their circulating water system, which has yielded cost and water usage savings, as well as reduced chemical requirements.

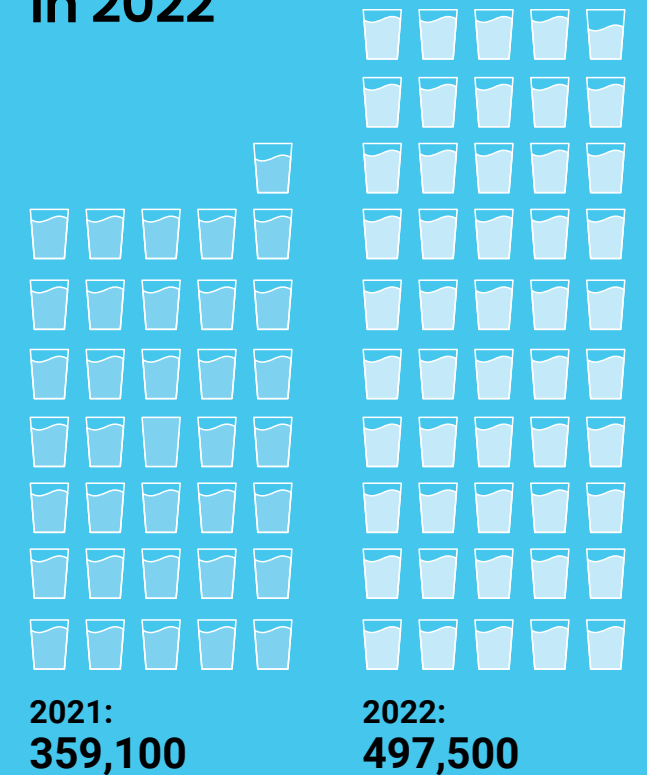
The project leverages a technology that reduces the build-up of limescale, bacteria, algae, and biofouling in water treatment infrastructure. Traditionally, minerals in water pipes undergoing temperature and pressure changes can cause ions to scale and biofilm to build up, causing pipes to foul (narrow) and leading to a host of inefficiencies.

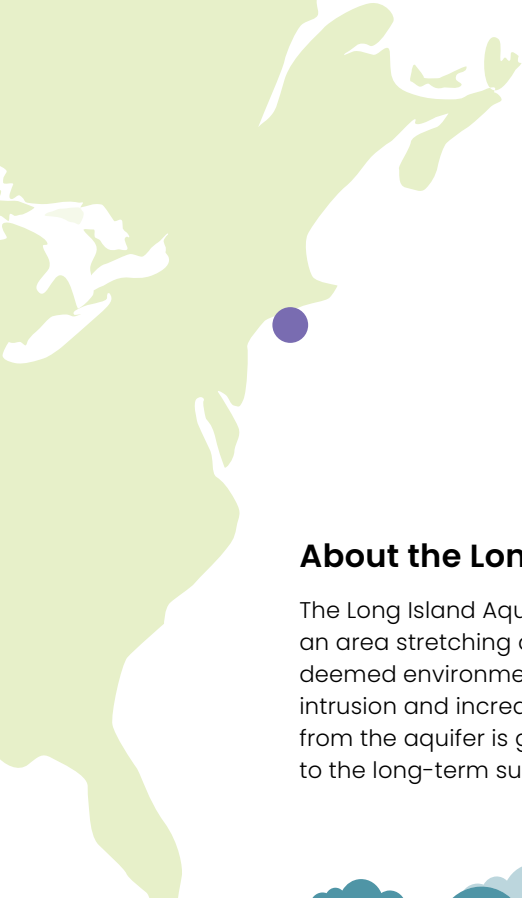
State Line is minimizing biofouling by using a solution that sends an electric current throughout the piping system causing minerals in the pipes to crystallize. These crystallized minerals do not adhere to the pipes as they pass through. Additionally, the electric signal flushes out accumulated biofilm through agitation.

The application of this technology at our State Line power generation plant has resulted in many sizable benefits. Notably, our initial testing period of the hydrolysis technology, which ran from August through September of 2022, revealed savings of approximately 22 million liters of water. Savings are also realized through the decreased need for pipe cleaning and associated chemical usage. Since implementation in the summer of 2022, we have seen the benefits of this technology.



Approaching a half million water customer connections in 2022



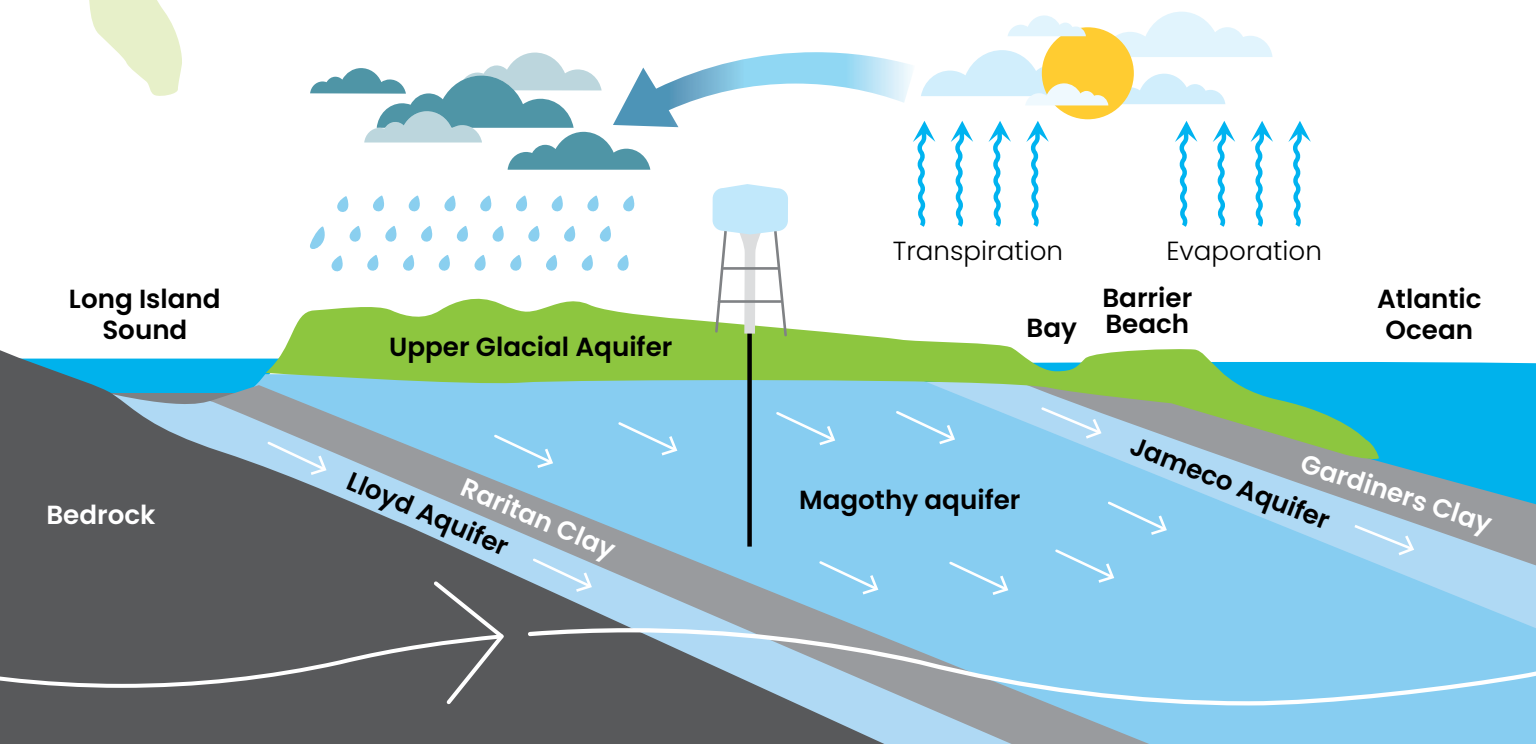


Restoring the health of the Long Island Aquifer

Responsible stewardship of our water resources is critical to the sustainability and viability of our water utilities. With the addition of Liberty New York Water in January 2022, we sought to prioritize water conservation and collaborate with our peers to support the revitalization of the Long Island Aquifer System.

About the Long Island Aquifer System

The Long Island Aquifer system serves the entire population of Long Island and comprises an area stretching across most of the island and into Connecticut. The aquifer has been deemed environmentally challenged, meaning that it faces issues relating to seawater intrusion and increased contamination. In addition, the amount of water being withdrawn from the aquifer is greater than the amount being recharged, representing a challenge to the long-term sustainability of the system.



Our initiatives to support the aquifer's health

We take our role as stewards of this vital natural resource seriously, and we are working hard to support a cleaner, more effectively managed aquifer through several initiatives.

- We have equipped wells with treatment systems so the water our customers rely on for both daily use and irrigation is safe and free from certain impurities, including per- and polyfluoroalkyl substances (PFAS), a group of synthetic chemicals used in everyday items that present adverse health effects.
- To better understand our customers' water use, we have started rolling out AMI to thousands of our customers across New York. The system is cloud-connected so we receive real-time data on our customers usage to support our conservation efforts.
- Alongside the U.S. Army Corps of Engineers, in our capacity as members of the Long Island Water Conference, we are currently supporting a large survey being conducted by the Long Island Commission for Aquifer Protection to



better understand the aquifer's size and how much water is being recharged and pumped through wells.

- We are working with our peers and other key stakeholders to raise awareness of the issues facing the aquifer so we can encourage our customers to conserve water and provide them with the tools and information they need to do so. These tools include:
 - Rachio Smart Irrigation Controller Incentive Program
 - EyeOnWater monitoring systems
 - Conservation social media posts, emails, and newsletters
 - Leak detection kits
 - Indoor retrofit conservation kits
 - Irrigation guidelines.
- We work with our communities to provide education and awareness of the importance of water conservation. These efforts include:
 - Sustainability gardens
 - School outreach
 - Education workshops, expos, and webinars.



Protecting precious water resources

Our Chilean utility, Suralis (formerly ESSAL), is making progress toward preserving valuable water resources within its operational territory. Suralis has been actively developing two major restoration projects intended to help us manage more than 1,000 acres of forest lands in efforts to maintain and protect watershed resources.

Project Corral, aimed at restoring and protecting the water-producing basin of Corral located on Chile’s Pacific coast, and Project Paillico, which plants trees to preserve the local watershed in the town of Paillico in south-central Chile, have seen great results since Suralis began managing the areas.

Both projects work to restore these conservation areas with sustainable management programs including strategic thinning, selective old growth removal, and native species planting. The effective management of vegetation is enhanced by the preservation of local biodiversity, which helps retain water in the ecosystem. As a result, the land has been revitalized to be what it is today, a vibrant and biodiverse forest that, in turn, helps protect a valuable watershed resource for the surrounding communities.

Strategic thinning

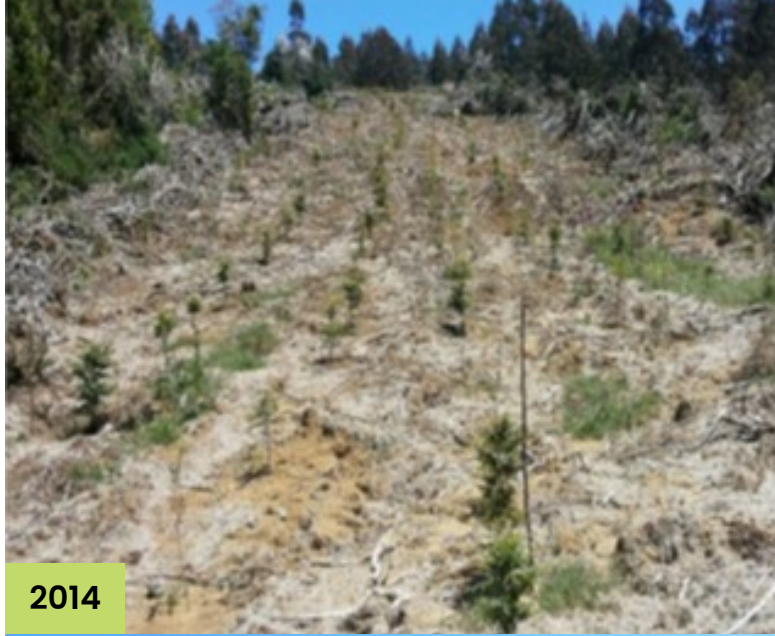
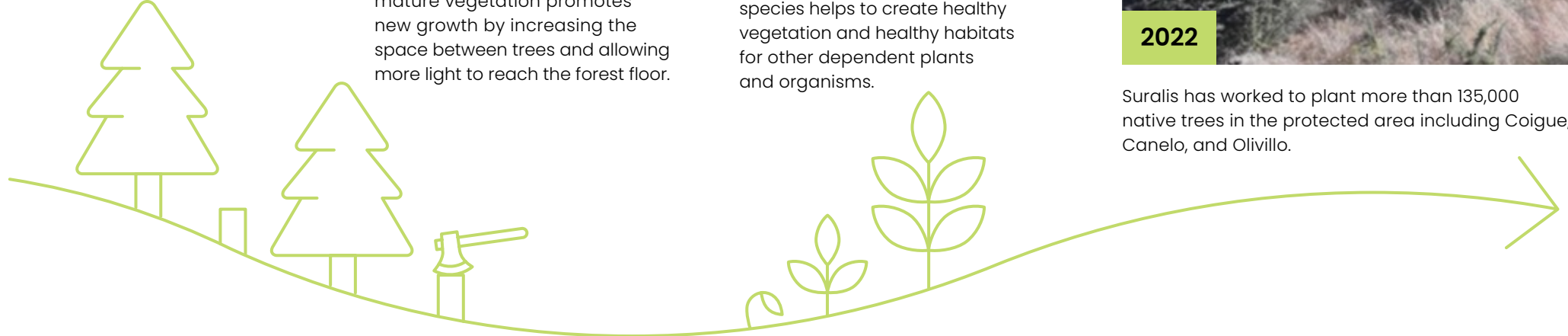
Removing dead or unhealthy vegetation from protected forests reduces competition from other species and allows new growth to flourish.

Selective old growth removal

Similar to strategic thinning of forests, carefully removing selected mature vegetation promotes new growth by increasing the space between trees and allowing more light to reach the forest floor.

Native species

Plants evolve to their environment. Species that grow to survive in their environment are considered indigenous and contribute to the survival of other species. As these organisms have evolved to succeed in this environment, they require less water and other vital resources, reducing the strain on other species. Planting native species helps to create healthy vegetation and healthy habitats for other dependent plants and organisms.



2014



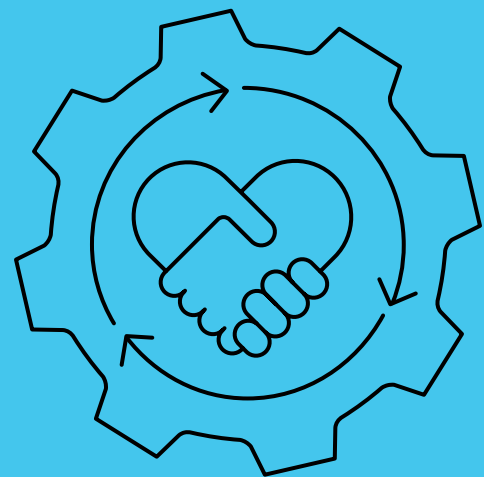
2022

Suralis has worked to plant more than 135,000 native trees in the protected area including Coigue, Canelo, and Olivillo.

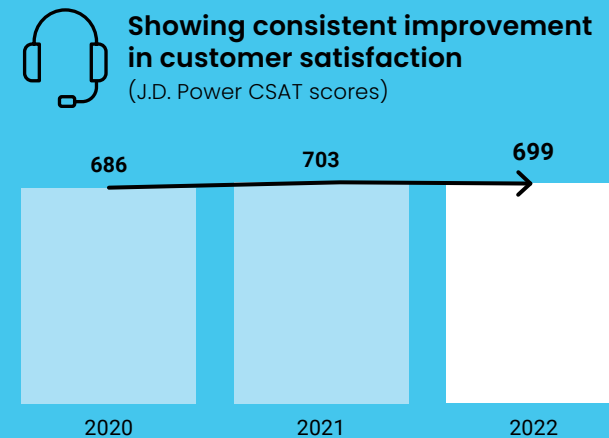
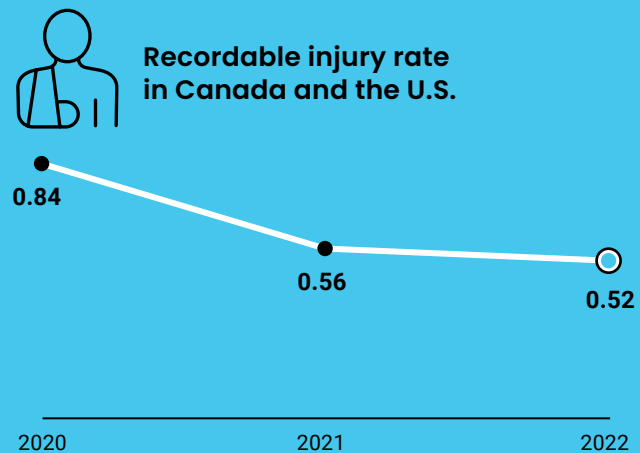
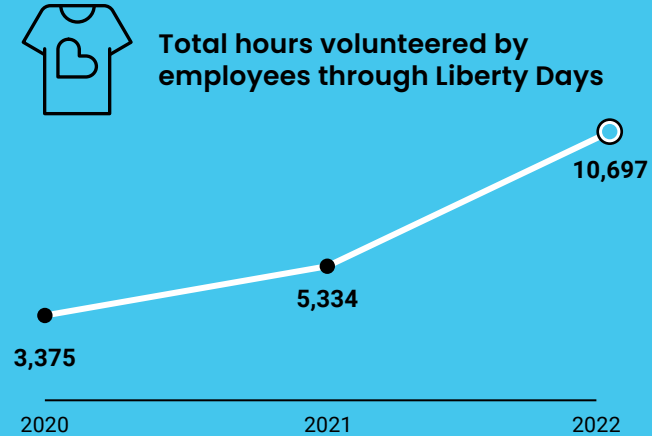
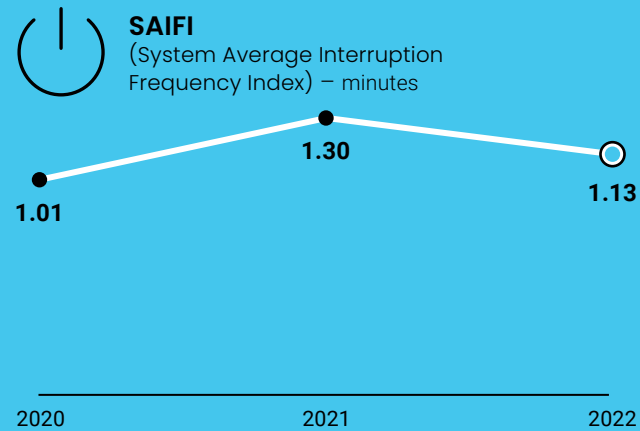
Social

Featured articles

-  Infrastructure investment, resiliency, and service reliability **31**
-  Customer experience **35**
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-  Diversity, equity, and inclusion **42**
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Performance highlights

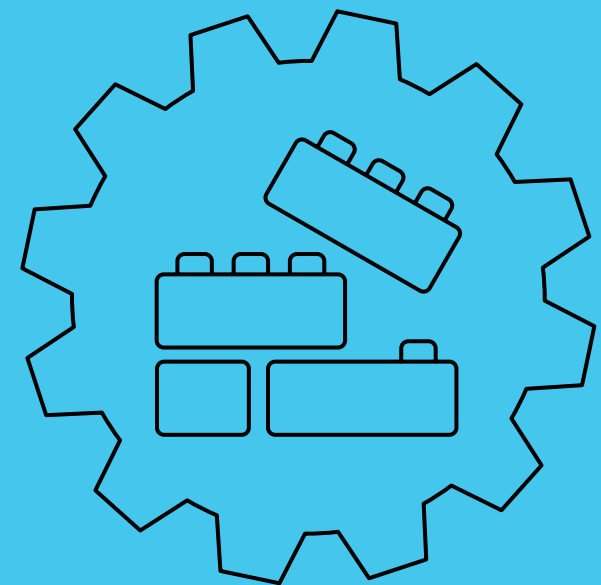


2023 ESG targets



Alignment to UN SDGs

Infrastructure investment, resiliency, and service reliability



Grid modernization

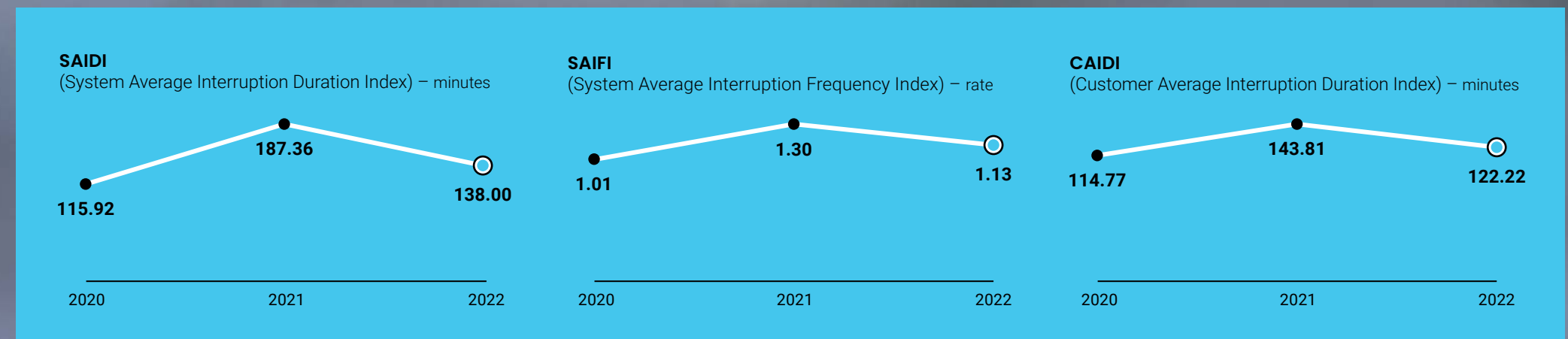
Modernizing the electrical grid and improving its resiliency to environmental factors are key initiatives that help us provide reliable power to our customers. We are making investments today that are intended to help us face challenges as we move toward net-zero, from frequent severe weather events prompted by climate change to increased demand driven by electrification. In 2022, we made strides to put systems in place that help us better understand the physical state of our assets, identify vulnerabilities, and make cost-effective investments to support our customers with dependable service well into the future.



Safe and reliable service is the top priority for our customers. We recognize our vital position as an essential service provider for them and we take this responsibility seriously. Amidst the challenges our infrastructure faces, we seek out opportunities to modernize our energy and water systems in a way that meets the needs of our customers today and into the future. The sizeable grid modernization investments Algonquin has underway demonstrate our commitment to providing affordable and reliable energy and water services.”



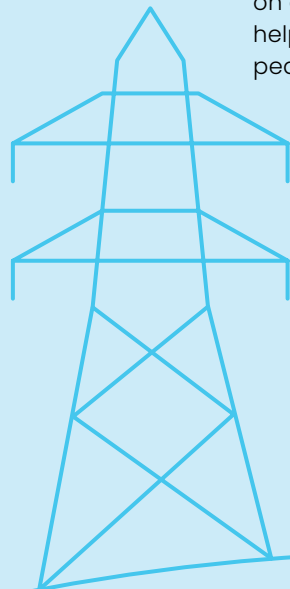
Johnny Johnston
Chief Operating Officer



2022 grid modernization initiatives



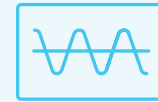
Our California electric utility has submitted a proposal to the local regulator for a critical customer storage project. The program proposes to install batteries at healthcare facilities and other critical service providers in the community, with the goal of adding resilience, reducing their reliance on diesel backup generators, and helping manage overall system peak power loads.



In collaboration with our Central Region team, we began a project to enhance the way we make equipment investment decisions. Historically, investments have been focused on vulnerabilities found through physical inspections or after power outages. But as the future needs of the grid change, so must our approach to grid investment. Leveraging more information about equipment condition and potential outage impacts across the entire system enables us to conduct scenario analysis and seek to maximize the value of investments for the new realities of the modern grid.



Working with other investor-owned utilities and regulatory stakeholders in Missouri, we took the first important steps towards a multi-year value-of-lost-load study to better understand from customers the value of avoiding power outages and the impact outages have on the communities where we work and live. The findings from this analysis are expected to help us to better prioritize investments and identify areas where upgrades and enhancements have the highest potential to support our communities.



Our technical teams in the Central and East Regions are exploring ways of optimizing line voltages to deliver value to our customers. Variations in voltage can affect customer bills, place stress on infrastructure, and erode power quality. Ongoing studies seek to establish whether opportunities are present for deploying additional technology to help resolve potential issues in an economical manner.



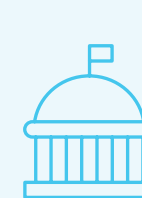
To support some of our Missouri customers with EVs, we started a pilot program that provides lower rates for EV charging during off-peak hours where the overall demand for electricity is lowest and wind energy output is typically the highest. As the program moves ahead, we plan to leverage the technical data collected over the course of the pilot to examine the impact of increased EV charging on our electricity infrastructure, with the goal of facilitating timely and appropriately sized grid upgrades that keep pace with increasing demand.



Read more about our residential EV charging pilot program (pg. 22).



Our New Hampshire electric utility has completed the first phase of a residential customer battery storage pilot project that seeks to explore the technical and economic performance of utility-owned storage batteries deployed on customer premises. The batteries were used to reduce system-wide peak demand, provide the participants with added outage resilience, and help optimize the output of participant-owned solar installations. Feedback from ongoing internal and external consultation is being assessed to calibrate the appropriate next steps for this project.



We submitted seven project concept papers in response to the U.S. Department of Energy's Grid Resilience and Innovation Partnership grant program that offers federal funding participation for resilience and smart grid projects judged to be the most impactful and innovative from the combination of technical, economic, and social perspectives. Of the seven papers submitted, five have advanced to the next round of evaluations, beating out stiff competition from companies across all 50 U.S. states. We intend to continue developing these applications in 2023 in the hopes of creating opportunities for our customers to benefit from smarter and more resilient infrastructure while reducing the impact on their rates.



New Hampshire December 2022 winter storms

In December 2022, much of the United States was hit by severe back-to-back storms Diaz and Elliot that left thousands of homes without power, including those of many of our New Hampshire customers. Our team took action to quickly and efficiently restore power, all while keeping our customers safe and informed.

Specifically, the local leadership team activated our Incident Command Structure and implemented our Emergency Response Plan, which is a comprehensive and collaborative effort designed to restore power to our customers in a safe and timely manner. Thanks to the preparedness, training, diligence, collaboration, and unwavering commitment to customers, our response to the winter storms was swift and safe.

At Algonquin, we believe emergency preparedness is one of the key ingredients in our formula for resiliency. That is why

our local leadership teams and employees conduct regular drills designed to help us respond to emergencies in a calm and orderly manner, establish processes that speed response times, and communicate proactively with customers to ensure they have the information they need.

By restoring power within 48 hours of both storms, our team's hard work helped us exceed expectations and resulted in positive feedback from our customers and other key stakeholders. In addition, our crews showed true care for our community by volunteering to assist neighboring utilities in their storm restoration efforts on Christmas Day.

We take pride in our work to provide our customers with reliable power in the face of emergencies and applaud the meaningful impact our employees make on the communities where we work and live.



Our response to Hurricane Fiona recognized with EEI award

Our Bermuda-based electric utility, BELCO, was awarded the EEI Emergency Response Award for its restoration efforts following Hurricane Fiona (2022) hitting the island in September 2022, just a few weeks after Hurricane Earl. The severe storm resulted in 83% of the island losing power. BELCO crews were able to restore power to 66% of our customers within 12 hours. With BELCO's Incident Command Structure managing restoration and coordinating restoration efforts, all power was successfully restored within five days with no safety incidents. Commitment to customers and employees is core to Algonquin's operational model across all our assets, and when possible, we mobilize assistance from other jurisdictions to aid in emergency response. This commitment is reflected in the swift, safe, and effective action after Hurricane Fiona.



Our entire team at BELCO is honored by this award which is a testament to the hard work and professionalism of our staff. Hurricanes are always a challenging time for Bermudians, but our BELCO team has well-established protocols for all aspects of preparing for weather events, and restoring power once a storm has passed. On behalf of all our staff at BELCO, I would like to thank EEI for their recognition of our efforts to quickly and safely restore power to our valued customers."

Wayne Caines
BELCO President



Customer experience

Providing ways for customers to reduce their monthly bills is growing in importance with recent increases in inflation and energy prices. Algonquin continues to explore opportunities to lessen the impact of rising utility bills through energy efficiency and water conservation programs, as well as increasing participation in financial aid programs for those that qualify.



Lowering customer bills through efficiencies

Providing our customers with information about how to conserve water and energy to lower their bills helps us deliver value and enhance the customer experience. We strive to educate our customers about opportunities to find efficiencies and better understand the origin of charges so they can adapt their usage with an eye toward savings. These efficiencies also present the added benefit of reducing strain on our infrastructure, reducing waste, and lowering emissions.

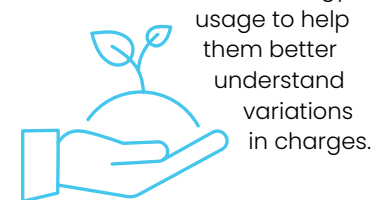
Helping customers better manage their bills

We provide information about local and regional utility efficiency programs, helping connect our customers with the programs so they can take full advantage of cost-saving options. To do this, we spotlight information about the programs on our websites, through communication campaigns, and by providing regular education and training programs for customers.



Paperless billing is better for customers and better for the environment

By increasing paperless billing and online self-service, we can provide customers with a more seamless, streamlined bill-paying experience, while also helping to reduce our costs. These savings can then be passed back to the customer base. It also helps our environmental efforts by reducing printed documents and the environmental effect of printing and mail delivery. We've also redesigned our bills to include breakdowns of our customers' water and energy

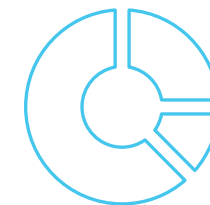


usage to help them better understand variations in charges.



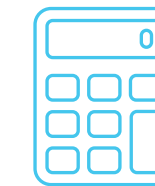
Customer First program

This program allows our customers to analyze changes in their service usage. This helps them better manage their water or energy consumption to realize lower costs. Enabling more customers to use this advanced technology helps us achieve scale, offering technology investments we can share with all our customers.



Calculating ways to reduce energy costs

Customers in our Central Region can leverage energy analysis calculators that show their household's energy usage and the energy consumption of their various appliances, helping them pinpoint the most impactful actions they can take to save both energy and money.



Encouraging cost-saving usage patterns

Through our campaign on the value of energy and water, customers can see how their daily activities and their appliance usage impacts the cost of the energy and water they use, and learn ways to increase efficiencies and lower usage to impact their bills.



Gaining insights from Liberty customers

We believe understanding our customers is the first step in providing them with top-tier service that meets their expectations. This is reflected in our Voice of the Customer program, which allows us to gather high-quality data on our customers' experience and their wants from their utility provider. This program is designed to allow us to close the loop on unresolved issues with customers and prioritize improvements in areas that matter most to them. The program was first piloted in 2021 and rolled out to electric, gas, and water customers in parts of our Central Region in 2022. It is helping us

...our overall customer satisfaction rating has remained above industry standard, averaging 70% to 86%.

improve our feedback collection process through the use of Qualtrics, an omni-channel survey platform which supplements our use of J.D. Power CSAT scores, social media, and traditional surveys.

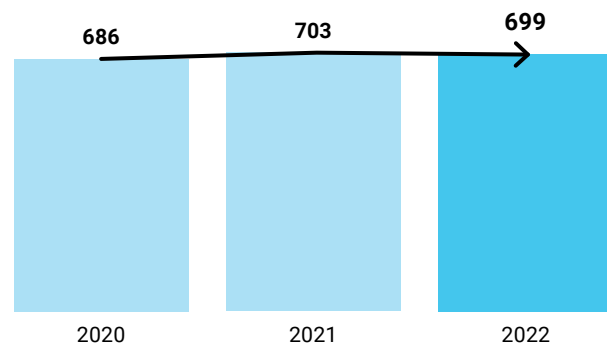
Since then, we have sent more than 350,000 surveys that have achieved industry-standard response rates. In 2022 alone, our rollout included conducting more than 190,000 surveys that showed our overall

customer satisfaction rating has remained above industry standard, averaging 70% to 86%.

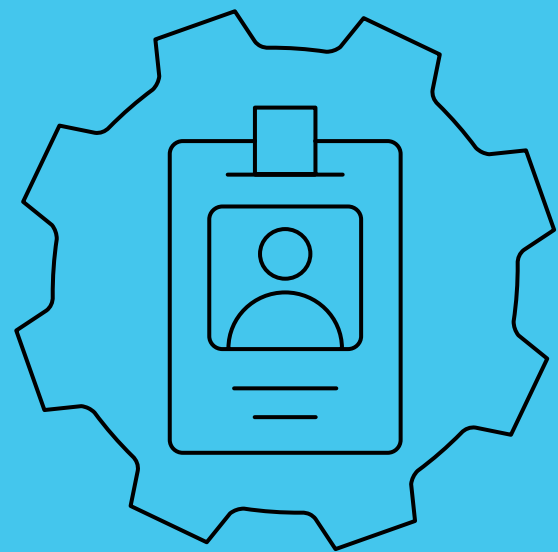
In 2022, we launched our Liberty Listens customer panel, a pilot in our Central and West Regions that by year-end had more than 250 customers on board. Liberty Listens aims to give our customers the opportunity to gather and share experiences and expectations in their own words.

Moving forward, we are gearing up to expand our Voice of the Customer program in the Central and West Regions and implement it in the East Region. Expanding the reach of this high-quality data-gathering tool is intended to enable us to better understand our customers' needs, which helps us identify solutions and opportunities to improve the customer experience.

Showing consistent improvement in customer satisfaction
(J.D. Power CSAT scores)

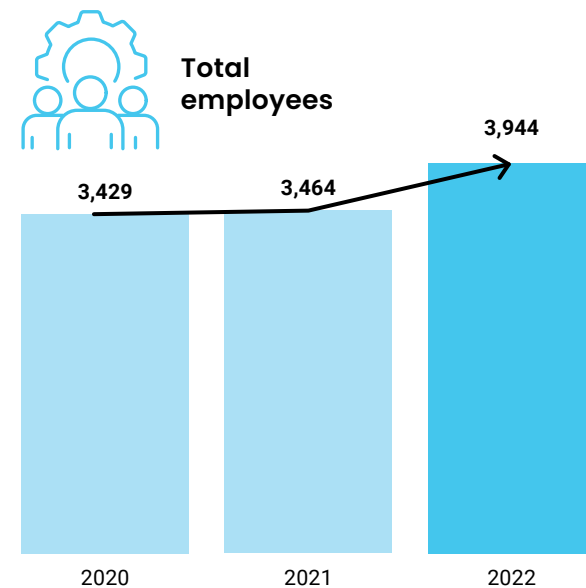


Talent attraction and retention



Changing labour markets

In light of the changing demographics of our workforce and external talent pools, Algonquin is focused on enhancing our talent attraction and retention capabilities to meet the needs of current and future employees. The organization recognizes shifts in the labour market are allowing us to better position ourselves to retain our talented workforce, competitively attract external talent, and continue to enhance the capabilities of our entire workforce.



Evolving to meet the needs of our diverse workforce

Algonquin is actively working to meet the needs of current and future employees. With extensive cross-collaboration between our human resource functions, we are improving the experience of employees throughout their careers at Algonquin, tailoring our support to meet their needs and skillsets.



Early career programs

Robust early career programs that give participants a fulsome experience and holistic exposure to work across the organization.



Personalized learning journeys

Relevant courses are tailored to individual skillsets and progressively enhance leadership qualities. Courses are paired with an evolving process of mentoring and coaching opportunities.



Competitive compensation, benefits, and pension

Our Total Rewards package is responsive to changing market conditions and labour expectations.

Support for the entire career path



Onboarding

Welcoming new hires with an evolving onboarding process featuring user-friendly tools and systems to improve our employees' experience at Algonquin and prepare them for their career ahead.



Career advancement

Providing employees with lateral movement and promotion opportunities for career growth, while supporting their health and wellness.



Retention

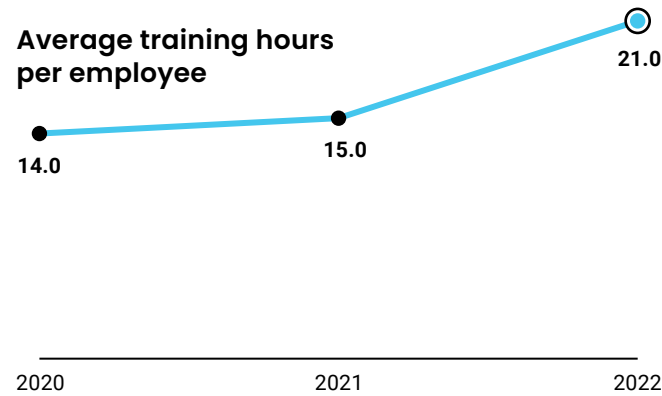
Offering employees progressive learning and development opportunities through:

- Promoting constructive communication and feedback
- Investing in their growth through courses, mentoring, and reimbursing external education
- Frequently checking in on engagement; and stay interviews.

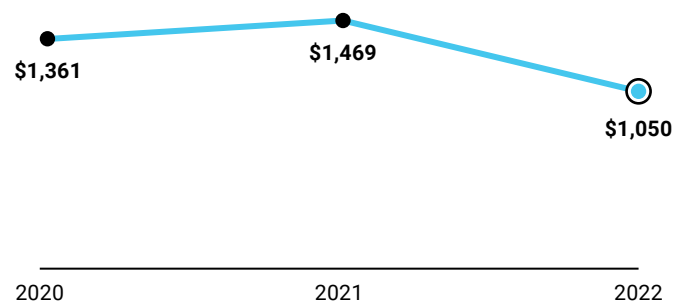


Employee training

Average training hours per employee

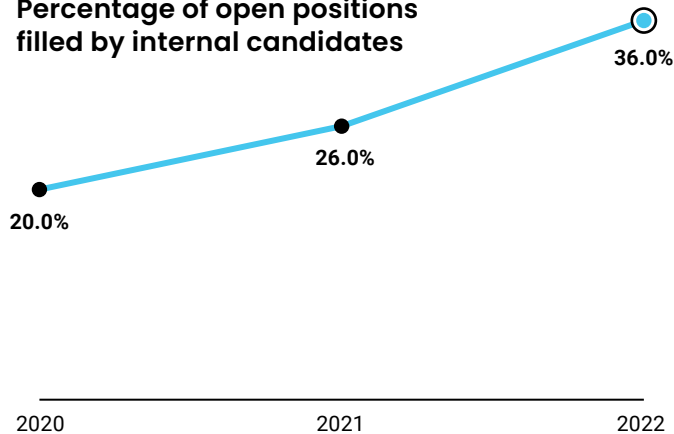


Amount spent per employee on training

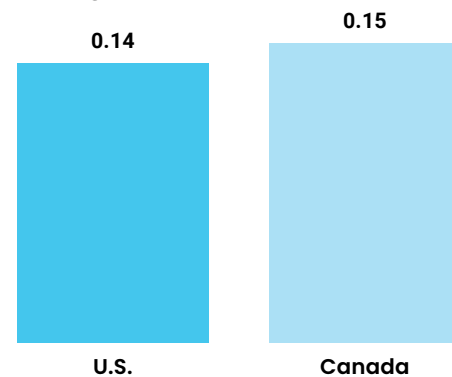


Employee turnover

Percentage of open positions filled by internal candidates



Turnover rate by region



Liberty Foundations

Building a skilled workforce from the ground up is a critical piece of our talent attraction and retention approach. To help us seed and develop talent in our organization, we launched Liberty Foundations, a two-year rotational program designed to help build skills for the future and expose early-career professionals, such as recent graduates, to a breadth of experiences across the company.

The program begins with a three-week Liberty Life orientation that introduces participants to areas ranging from environmental compliance to emergency dispatching and provides a chance to learn about the organization. Then, they are sorted into one of three streams (finance and accounting, engineering, or regulatory), where they participate in three seven-month rotations aimed at helping them identify where their interests lay, while building a related, robust,

well-rounded skillset. Students' rotations are complemented by enrichment activities to continue their exposure to different facets of our business, including visits to different facilities across our geographies to learn about the services we provide.

To help us build a pipeline of diverse and highly qualified candidates that can add value and diverse perspectives to our organization, we have partnered with student organizations such as the National Society of Black Engineers and Women in Science and Engineering.

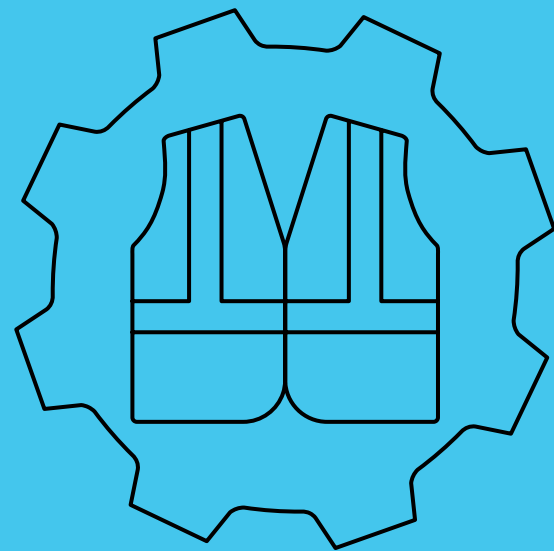
Through Liberty Foundations, we are helping build a workforce equipped with skills for the future and prepared for the challenges facing our evolving business. We are proud of all our first cohort has achieved through the program to date and are looking forward to welcoming our new students in 2023.

Manager training

To provide excellent service, we rely on our skilled employees. Through training and development programs, we strive to enable our employees to continuously improve our operations and internal engagement. In 2022, we established the New Manager and Director Program, serving as a valuable transition step for employees to help them build the skills required to effectively support their teams. This program sets participants up

for future success by providing training on the key components of managing a team, operational insights, giving constructive feedback, coaching for performance, effective goal setting, and more. The objective of this program is to better transition employees into management while simultaneously increasing team engagement and performance.

Employee health and safety



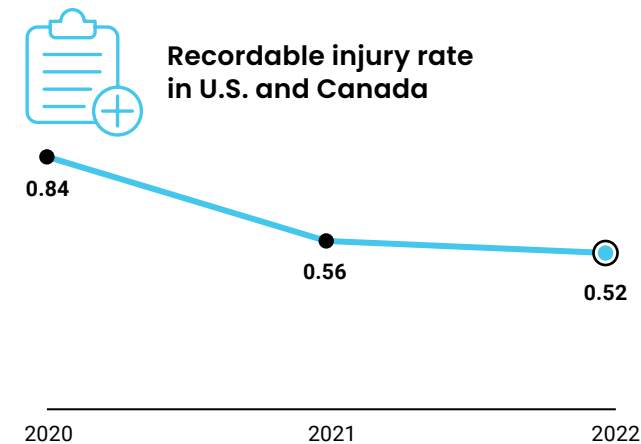
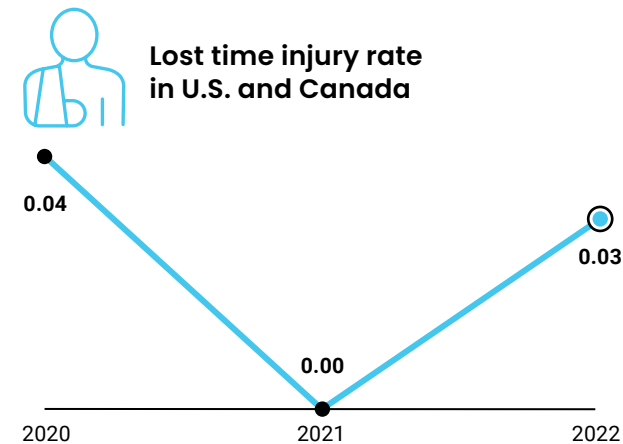
Our safety culture

At Algonquin, safety is more than a priority, it is part of our DNA and how we strive to work every day. It's so much more than statistics, targets, and goals. As an integral part of the Operational Excellence pillar, it helps guide the company toward success. We have adopted a safety model that empowers employees to recognize workplace hazards while on the job and to be empowered to take responsibility for their own safety, the safety of team members, and the safety of the public. This helps managers fulfill their responsibility of enforcing our safety culture and keeping their reports safe.

Our five-year health and safety plan is transforming the way the company looks at, and manages, safety. Rather than simply

focusing on past data and lagging indicators, we also look forward and focus on leading indicators to identify risks, trends, and anomalies to proactively prevent potential events. This is a new and important way of looking at health and safety management and the strategy is already yielding positive results.

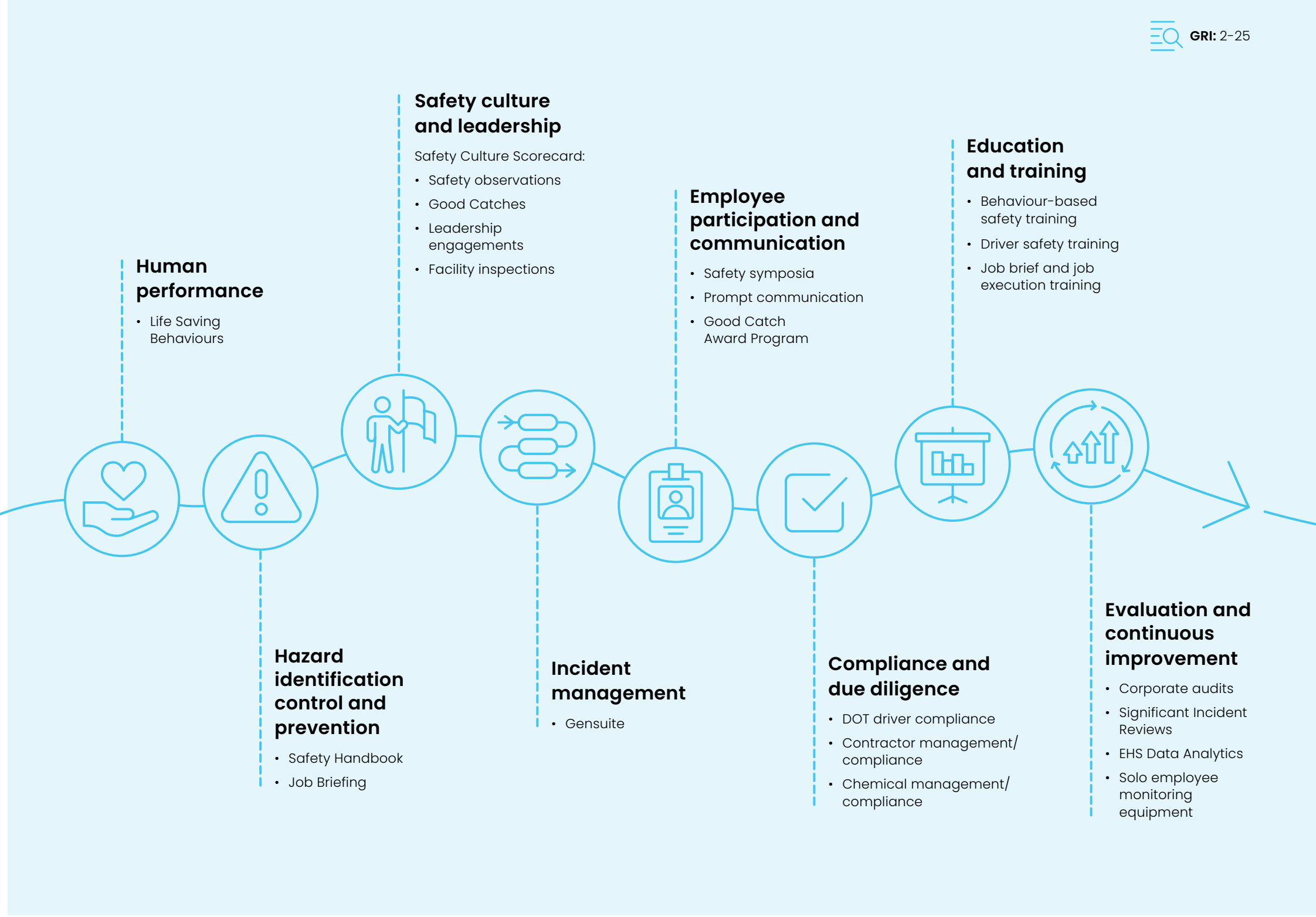
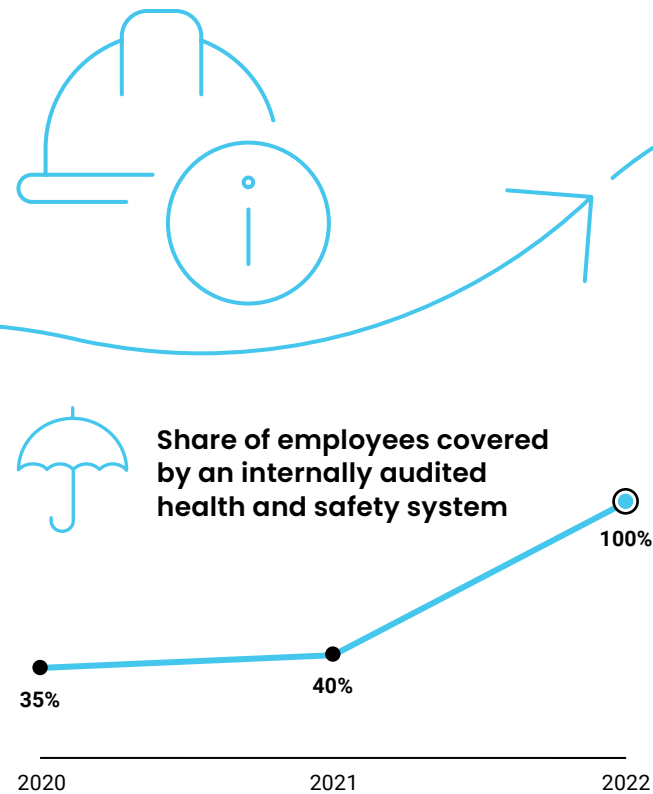
In 2022, we fully transitioned to predictive safety analytics, utilizing an Environmental, Health, and Safety (EHS) 4.0 model that digitizes health and safety data and provides real-time reporting and actionable information. This has become a useful tool for developing future strategic plans and processes.



Our health and safety programs

Our safety culture is supported by our regular safety programs such as the annual safety symposium, Safe Start, Smith Driving, and the Take Two program, just to name a few.

In 2020, the Life Saving Behaviours were developed to further raise awareness and allow employees to foster a culture of safety excellence. The Life-Saving Behaviours help us manage the risks associated with the work we do every day.



Recognition for our safety performance

Our commitment to safety and willingness to adapt and modernize has paid dividends. Over the past five years, Algonquin has seen continuous improvements in safety metrics, with 2021 and 2022 having the best safety results in the company's history. These results, which compare Algonquin to industry peers in Canada and the United States, put us in the top decile for both lost-time injuries and recordable injuries, and in the top quartile for preventable motor vehicle accidents. We received two safety achievement awards from the AGA and one from the CGA (shown below).



Our safety scorecard and leading indicators

As an enterprise-wide scorecard item, safety is also factored into the measurement of success for individuals and departments. Our approach to safety focuses on building a safety culture that emphasizes behaviour and forward-thinking, rather than simply developing processes and protocols based on past events or metrics. As a result, the company has updated regional scorecard metrics, so that individual and department success scores are based on the quality and quantity of the following:



Safety observations

Conversations between team members to share information, provide coaching, and recognize positive behaviour.



Good catch

Documentation of observations and actions that could have led to safety problems, injuries, etc.



Leadership engagements

Leaders are required to intentionally engage in EHS activities over the course of the year. For example, attending safety meetings, training, and symposia; conducting or participating in inspections; delivering focused presentations; participating in incident root-cause analysis investigations; implementing a safety-related corrective action; etc.



Inspections

More robust and detailed inspections of facilities and equipment to identify potential issues or problems before they occur.

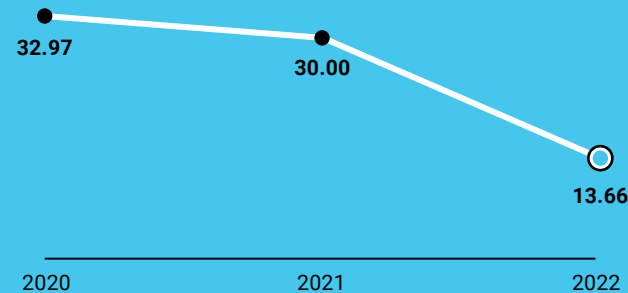


Action closure rate

If there is a hazard recognition or good catch, these issues are addressed, and action items are closed in a timely manner.

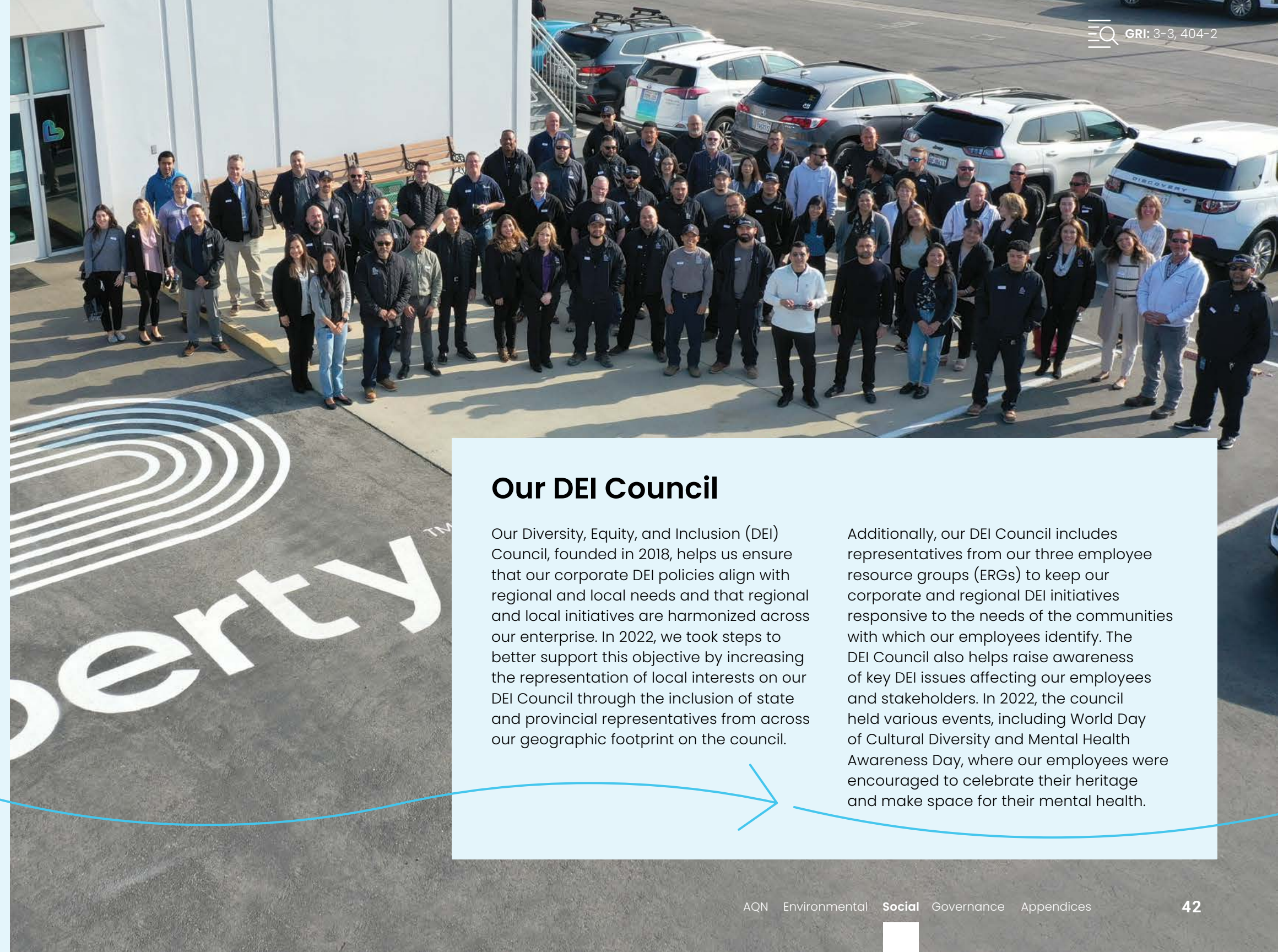


Near miss frequency rate in the U.S. and Canada.



These leading indicators not only track performance; they also help contribute to enterprise-wide transparency and a culture of trust and openness. This in turn is designed to foster an internally competitive safety culture among departments and regions, contributing to a better overall safety performance.

Diversity, equity, and inclusion



Our DEI Council

Our Diversity, Equity, and Inclusion (DEI) Council, founded in 2018, helps us ensure that our corporate DEI policies align with regional and local needs and that regional and local initiatives are harmonized across our enterprise. In 2022, we took steps to better support this objective by increasing the representation of local interests on our DEI Council through the inclusion of state and provincial representatives from across our geographic footprint on the council.

Additionally, our DEI Council includes representatives from our three employee resource groups (ERGs) to keep our corporate and regional DEI initiatives responsive to the needs of the communities with which our employees identify. The DEI Council also helps raise awareness of key DEI issues affecting our employees and stakeholders. In 2022, the council held various events, including World Day of Cultural Diversity and Mental Health Awareness Day, where our employees were encouraged to celebrate their heritage and make space for their mental health.

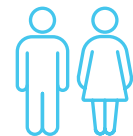
Spotlight on ERGs

We are proud to employ almost 4,000 people across our geographies and modalities. Our employees have unique backgrounds, varying experiences, and celebrate a host of cultures. We believe it is our individual differences that make Algonquin such a dynamic and innovative place to work. ERGs help us maintain this culture by enabling the creation of safe spaces, facilitating a sense of belonging, building opportunities for connection and community, and providing access to resources for our employees from underrepresented groups.

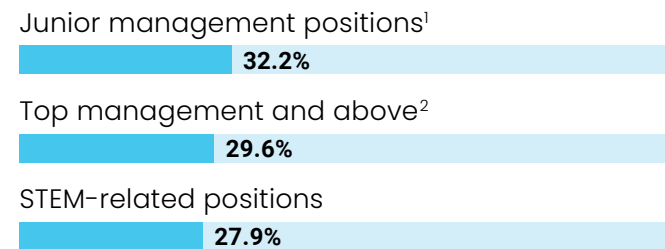
Beyond supporting members of the local community, our ERGs represent the diverse, intersecting identities of our employees and allow them to help each other thrive. Our three ERGs – Ethnically Diverse Group of Employees (EDGE), Friends at Liberty, and Women of Liberty – work collectively to live our values. Our network of ERGs seeks to provide space for all facets of our employees’ overlapping identities and celebrate all the communities they belong to. When one group rises, we all rise together, and our respective ERGs aim to interact in a manner that enables all underrepresented groups to know that they are supported.



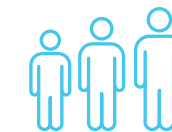
Share of U.S.-based employees who identify as...



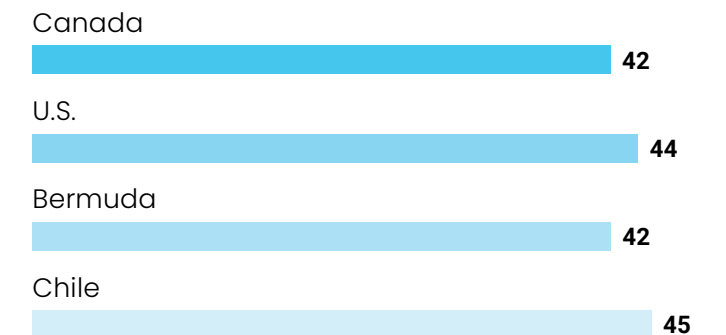
Share of women in... Canada and U.S. only



Share of employees who identify as...



Average age of employees by region (years)



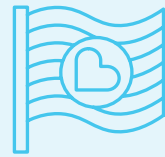
1. Junior management positions refer to first-line managers, junior managers, and the lowest level of management within the company’s management hierarchy.
 2. Top management and above positions refer to management positions with a reporting line which is at most two levels away from the CEO.



Ethnically Diverse Group of Employees

Ethnically Diverse Group of Employees' (EDGE) goal is to build a workforce reflective of the diverse communities in which we serve. It functions as a partner network that complements Algonquin's values, and helps facilitate a safe and equal opportunity work environment that supports and fosters innovation, engagement, education, and constructive dialogue among our impacted racial and ethnic communities.

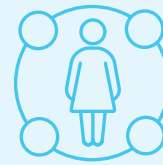
In 2022, EDGE relaunched with new, more senior leadership, re-establishing itself after supply chain issues, workforce changes, and other challenges brought on by the COVID-19 pandemic. The relaunch prioritized expanding the leadership team, building out committees, and launching conversations to understand the employees EDGE serves. EDGE also expanded its geographic reach, identifying representatives in each of our regions. In addition to these organizational shifts, EDGE boosted our broader organizational DEI efforts through its presence at the Arizona Corporation Commission Supplier Diversity Summit, sharing the strides our supplier diversity program has made, and getting feedback on how to improve our efforts.



Friends of Liberty

Through Friends of Liberty, our LGBTQIA+ employees and allies have a safe space to build community and form meaningful connections with their peers. Friends of Liberty also seeks to educate our employees outside the LGBTQIA+ community about the issues the community faces and how to build a respectful, safe, and inclusive work environment for their queer colleagues.

Throughout 2022, Friends of Liberty engaged with both employees and the broader communities we serve to raise awareness and provide educational opportunities. Internally, the group hosted an education series on the use of gender pronouns and how to build safe spaces for trans and nonbinary individuals. They also leveraged internal communication channels to elevate the experiences of LGBTQIA+ employees and provide a platform for them to share their stories. Externally, members of Friends of Liberty attended Pride events in Joplin, Missouri and Reno, Nevada to celebrate the queer community and raise awareness for LGBTQIA+ issues.



Women of Liberty

Women of Liberty seeks to create space for women across our organization to feel supported, speak up, and discuss issues they face in the workplace. For women working in a sector dominated by men, these spaces are crucial resources to support women's professional and personal development, engage younger women joining the workforce, and help increase the representation of women at all levels of the organization.

The group accomplished significant growth in 2022, expanding its membership to all regions across the organization, including Bermuda and New Brunswick, Canada. Women of Liberty also started a series of fireside chats highlighting women leaders from across the company. Women of Liberty provides professional development tools and knowledge transfer between chapters. The group's largest event of the year was International Women's Day, an event celebrating the accomplishments of women in our organization and raising awareness for the challenges women continue to face in the workplace and around the globe.



Coming out of COVID and the social unrest that the U.S. experienced in 2020, we see a heightened need

for ERGs. EDGE and other ERGs foster a sense of belonging. In many cases, they give diverse members of the team an opportunity to express how they feel, share their concerns, and just be heard. They are important because they give diverse groups of people a safe place to land.

After taking on the position of EDGE Chair, my top priority was to strengthen the foundation of EDGE. I brought in more people to serve in leadership for EDGE, started to build out committees, and launched conversations to understand the voice of the group.

Looking forward, I am most excited to bridge all the different cultures at Liberty.

An aspirational goal is to create a collaborative environment revealing that we have more in common than we believe. My vision for the group is to network, be seen, and create opportunities for advancement. //

Eric Fisher
EDGE Lead
Director, Procurement



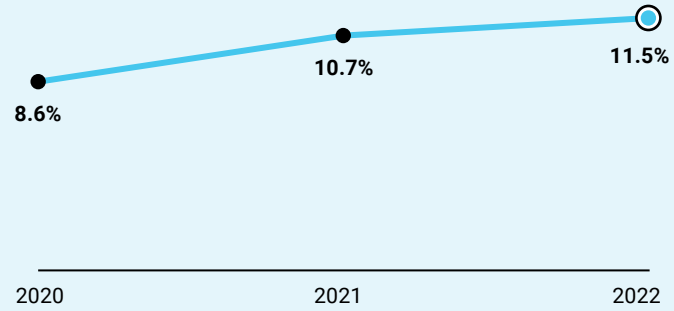


Diversity at Liberty

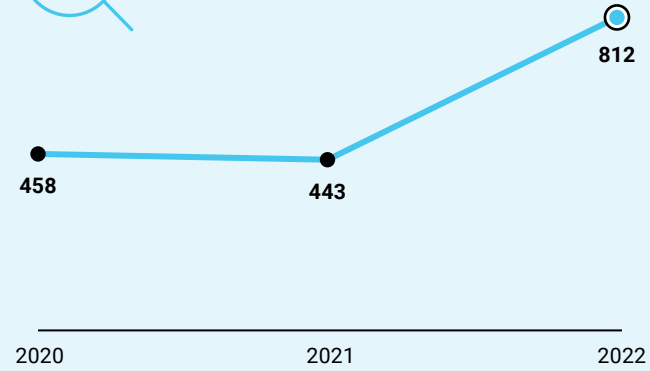
We view diversity as a strength for our organization, with our employees at the center of our efforts to improve our DEI initiatives.



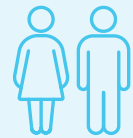
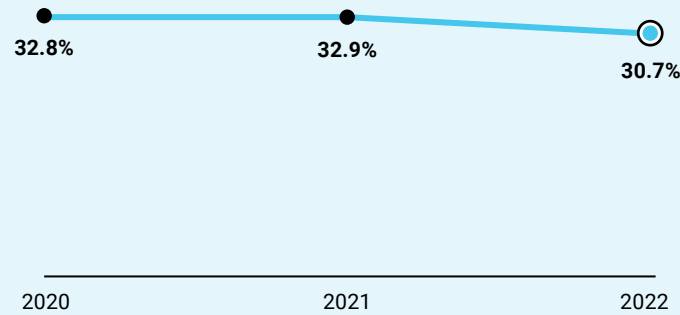
Share of employees in leadership roles (senior manager and above) who self-identify as a racial and/or ethnic minority



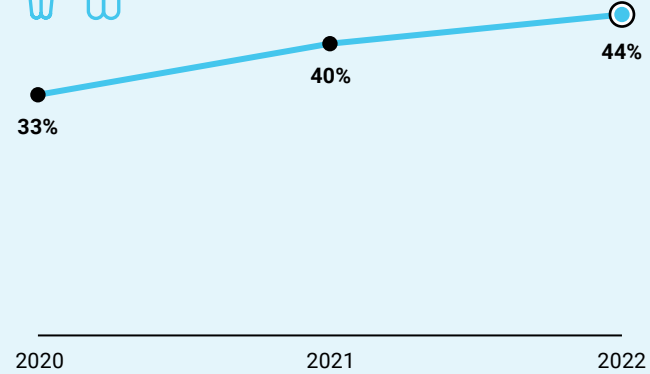
New employee hires



Share of employees who identify as women



Female directors on the Board of Directors



West Region Spanish website

Our efforts to promote inclusion and equity are not exclusive to our employees. At Algonquin, as a critical service provider, we strive to meet the needs of all our customers and to build resources tailored to the communities we serve. That is why, in 2022, we launched our West Region’s Spanish website to ensure that the information we share, ranging from tips on how to lower bills through efficiencies to vital safety information on Public Safety Power Shutoffs (PSPS), is available to both our English- and Spanish-speaking customers. Our customers and communities deserve access to information about our services and we are proud of this step to expand that access with an eye toward inclusivity.



Orange Shirt Day

Orange Shirt Day is an important time to reflect on the violence and persecution faced by Indigenous communities across Canada and remember victims of the residential school system. An example of how we commemorated this solemn occasion and raised awareness of the continued injustices and inequities faced by Indigenous peoples across Canada was when our Total Rewards team used a Liberty Day to tie-dye hundreds of shirts with materials purchased by Liberty featuring art designed by a young Indigenous artist. The shirts were purchased by Liberty employees, local schools, and other businesses, with all of the proceeds – more than \$9,000 – going to the Woodland Cultural Center in Brantford, Ontario, Canada. This organization works to preserve, promote, and strengthen Indigenous language, culture, art, and history, bringing the story of the Hodinohsho:ni people of the Eastern Woodlands to life through innovative exhibitions and programs.



Learn more about the Woodland Cultural Centre.



The Total Rewards team’s work to commemorate this occasion grew out of my own history and experience working to support the Indigenous community on Orange Shirt Day prior to joining our team. With the additional resources, dedication, and enthusiasm of my team members and our workplace overall, we were able to grow our impact and expand the reach of our efforts.

Our workplace’s efforts to foster education on the issues facing Indigenous peoples across Canada and our employees’ commitment to supporting the Indigenous community are manifested in the hard work my team put in to help us dye the shirts and the tremendous support we got from our colleagues through purchases. I take immense pride in the dedication shown by my teammates and our ability to translate that dedication into tangible impact through our partnership with Woodland Cultural Centre.”

Sheila Romano-Francis
Human Resources
Information System Analyst



Fredricton, NB



Moncton, NB

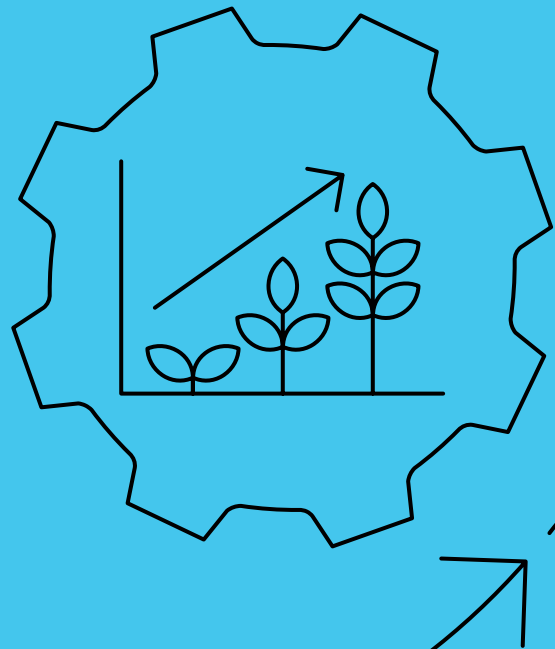


St. John, NB



Learn more about Liberty Days (pg. 48).

Community support and economic development



Our four-pillar community engagement strategy

At Algonquin, lifting up the communities where we live and work is part and parcel of our purpose of *sustaining energy and water for life*. We do this through the economic and social value of the services we provide, jobs we create, and community support efforts we engage in. These stem from a belief that a healthy community is a more economically supportive community for both its people and its businesses.

In 2021, our Community Giving Council developed our four-pillared strategy to generate value for our communities that has continued to guide the impact we create at a local level. While these four themes apply to the whole company, our local teams tailor their approaches to meet the needs of their communities to better align our corporate principles with local imperatives.



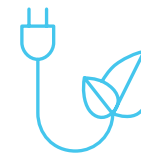
Education and a next-generation workforce



Diversity, equity, and inclusion



Resilient communities



Environmental conservation



Heart and Hands Week

Supporting and delivering value to our communities is a year-round objective that we work hard to achieve every day. We also believe that setting aside time for employees to get involved and give back helps us build stronger connections to the communities where we live and work. That is why we held

our inaugural Hearts and Hands Week in 2022, dedicated to prioritizing our community support goals through employee volunteering and donations. Our employees rose to the occasion by volunteering roughly 1,100 hours (equal to one and a half months!) in Liberty Hours and donating more than \$80,000

to support our local communities. We are extremely proud of our employees' hard work, dedication, and giving spirit that helps us deliver value to our communities every single day and especially during Heart and Hands Week.

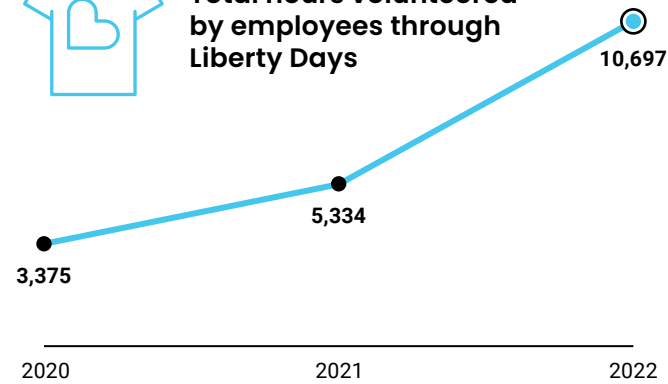


Liberty Days – across our service territory

Liberty Days are paid volunteer hours our employees are encouraged to use to participate in activities that give back to their communities. They play a key role in our work to support local areas and help our employees engage with our community development priorities.



Total hours volunteered by employees through Liberty Days



Carl Junction, Missouri Helping the helpers

Not-for-profit organizations are vital to the communities they serve. In our Central Region, volunteers showed these organizations their support with a day of volunteering organized by the Carl Junction Area Chamber of Commerce. In total, volunteers worked with 12 different not-for-profits providing a host of services to the local community. Their hard work helped support organizations making a difference in their community and showed the not-for-profits how much value their efforts create.

Tahoe, California Supporting our unhoused neighbors

Those experiencing homelessness are members of our community and, at Algonquin, we believe supporting them as they find a path to stable housing is important to helping build strong and inclusive communities. Our employee volunteers took this to heart and worked with the Tahoe Coalition for the Homeless to help restore three motels purchased by the organization to serve as permanent housing for unhoused members of the community. We take pride in their hard work and look forward to the positive impact it will have on the Tahoe community.

Columbus, Georgia Chattahoochee River cleanup

Environmental protection is part of how we do business at Algonquin and a value reflected in our dedicated employees. This commitment to safeguarding the natural world drove some of our East Region employees to spend a day cleaning up the Chattahoochee River. Volunteers collected more than 24 cubic yards of waste from the waterway to help support the local ecosystem and preserve a key community resource. With this project, our employee volunteers demonstrated their enthusiasm for protecting their environment. We are proud of their hard work and dedication.

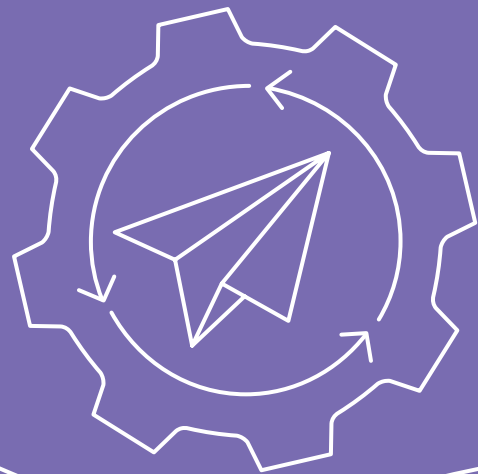
Burt Island, Bermuda Waterstart

Our purpose, *sustaining energy and water for life*, is reflected not only in our operations but in the way we give back to our communities. Employee volunteers in Bermuda embodied this when they traveled to Burt Island to learn about living sustainably off-the-grid and the island's local ecosystem. The team also helped shore up the small community's water catcher by clearing trees and grass from the surrounding area. This experience not only gave our volunteers the chance to give back, but also an opportunity to learn.

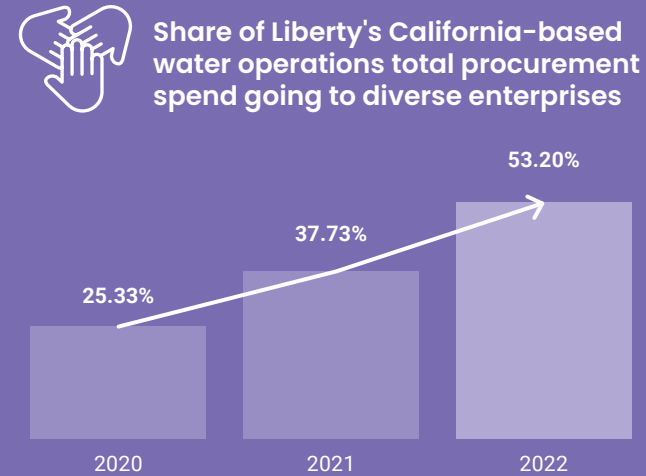
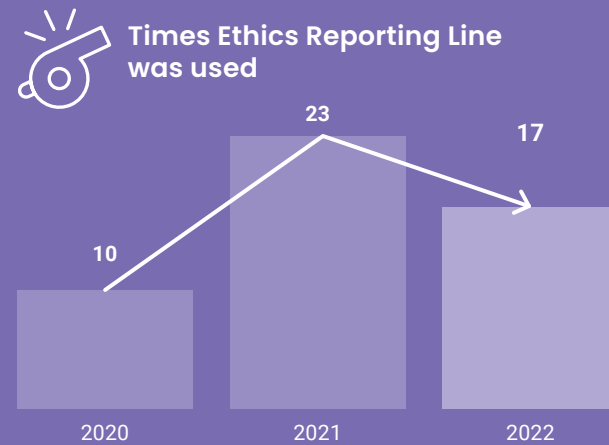
Governance

Featured articles

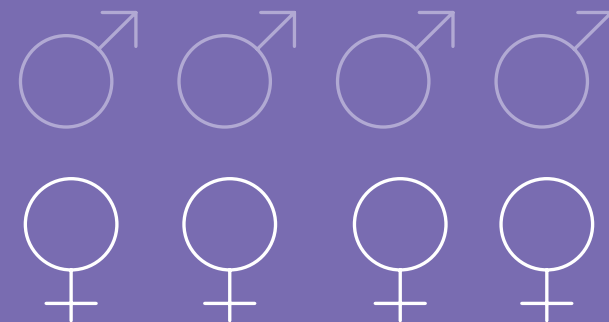
-  Sustainability governance 50
-  ESG oversight 51
-  Ethics and integrity 53
-  Risk management 54
-  Sustainable procurement 56
-  Government affairs and public policy 57



Performance highlights



50% of independent directors are women



2023 ESG targets

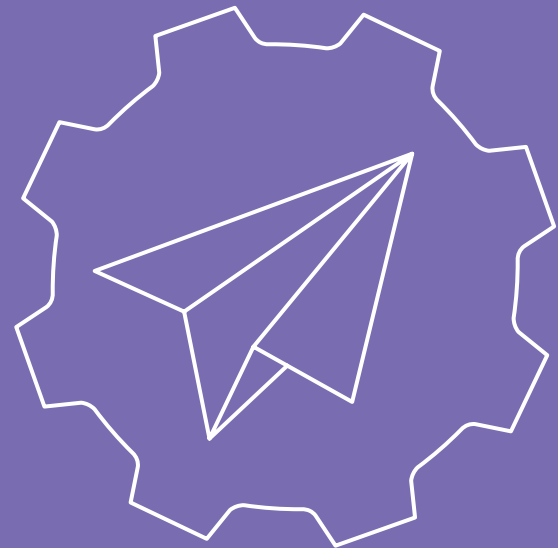


Alignment to UN SDGs



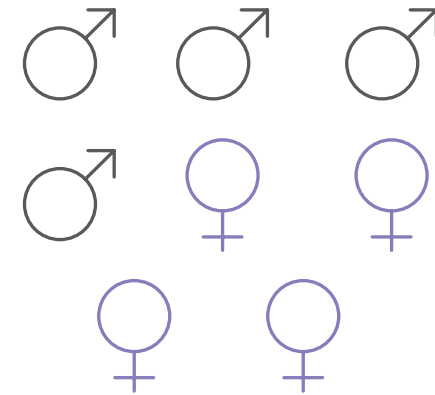
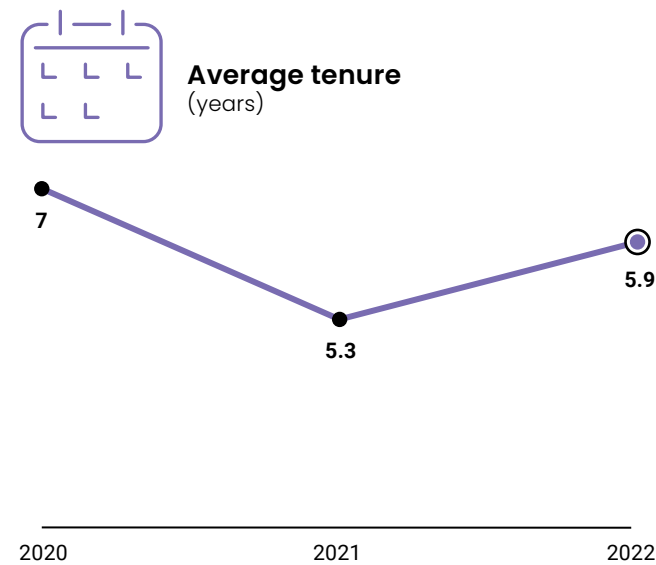
Sustainability governance

Review The Mandate of the Board of Directors, as well as the mandates for each of the four Board committees.

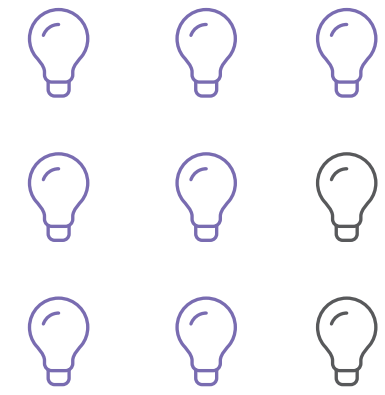


Board overview¹

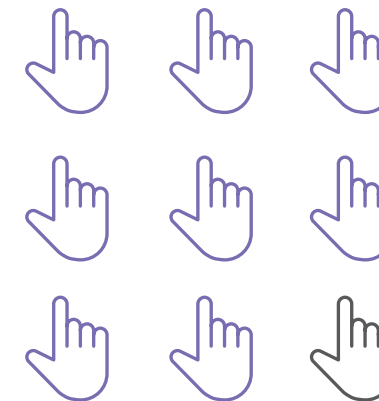
Strong corporate governance is valued at Algonquin. Our Board of Directors (Board) has functions and responsibilities related to, among other things, the organization's strategic plans, risk management, human resource management, financial information, communications and disclosure, corporate governance, and sustainability. Board oversight is an essential element for the integration of sustainability performance into Algonquin's corporate strategy. The Board is supported by its four standing committees. The Corporate Governance Committee was involved in reviewing this ESG report.



50%
of independent directors are women.



7 of 9
Directors who have human resources and/or DE&I-related experience

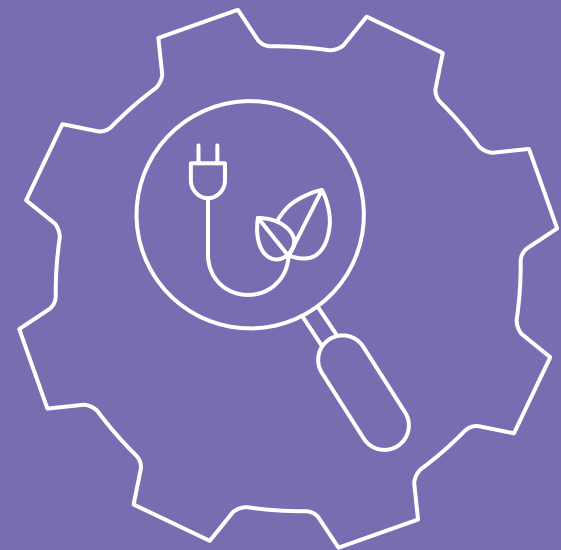


8 of 9
Directors are independent.



100%
Board and committee meeting attendance

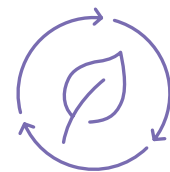
ESG oversight



Building sustainability into our business

Quarterly updates to the Corporate Governance Committee and the Board are shared by senior management to provide updates and recommendations on key ESG initiatives at Algonquin.

The Strategy Team and Sustainability Teams continue to integrate and further embed sustainability into our strategic priorities. The Regional Sustainability Councils (RSCs) made headway with aiding the integration of sustainability across Algonquin's geographies and modalities. As they began to implement their Regional Sustainability Plans, RSCs were able to make progress in enacting meaningful local and regional programs and policies to support Algonquin's sustainability and business strategy across our footprint.

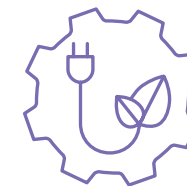


The Sustainability Team has also continued to:

Facilitate stakeholder engagement on sustainability



Support the integration of ESG principles into the organization's work



Collect sustainability data



Report ESG disclosures

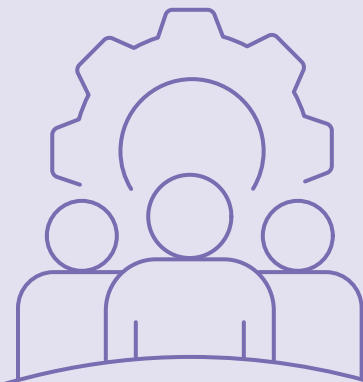


Support and develop net-zero plans



Spotlight on Regional Sustainability Councils

Our RSCs work to drive positive change at the local level and help us tailor our broader sustainability approach to regional contexts and considerations. Comprised of dedicated, hard-working, and motivated employee volunteers, RSCs play an integral role in both prioritizing sustainability issues in their regions and raising regional ESG priorities to our corporate Sustainability Team. In 2022, our RSCs made strides in helping promote sustainability at all levels of the organization. We take tremendous pride in all they have accomplished.



West RSC

- Implemented a commercial rebate program resulting in an estimated 421,000 kilowatt hours (kWh) of energy savings for two local ski resorts through upgrades in snowmaking equipment and an additional 1,187,000 kWh of energy savings through installation of lighting and refrigeration equipment energy management controls for our corporate customers.
- Hosted customer workshops, in English and Spanish, focused on water efficiency to support regional water conservation goals.
- Celebrated Pride Month by raising Pride flags in our offices, participating in Pride events, and supporting employee education on issues facing the LGBTQIA+ community.
- Promoted water conservation through statewide plans to align to drought mitigation efforts.
- Supported employee education on climate action through presentations on Scope 1, 2, and 3 emissions at regional town hall events and held sustainability education and engagement activities during Earth Week.
- Held regular Liberty Days in coordination with local Community Giving Committees to help employees support their communities.

Central RSC

- Offered opportunities for employees to learn about sustainability through updates highlighted in company-wide newsletters.
- Promoted the adoption of EVs through the rollout of our EV smart charge pilot program, offering employees EV rebates, and providing charging stations at our offices.
- Held regular Liberty Days to provide employees more opportunities to support their local communities.
- Introduced improvements to our water management approach, including the deployment of AMI for our water systems in the region and reducing the use of treated water in our State Line power generation plant.
- Further enhanced our work-from-home policies to promote accessibility and offer employees more flexibility.
- Continued our partnership with the Arbor Day Foundation to plant more than 4,000 trees across the region.

East RSC

- Celebrated Earth Day with education and events, including one held in Fort Benning, Georgia that welcomed roughly 200 members of the local community to learn and participate in activities.
- Promoted engagement in the local community by holding Liberty Day events.
- Collaborated with other RSCs to promote our sustainable procurement goals and adopt the TCFD reporting framework.
- Explored paths toward integrating innovative new energy sources, including RNG, into our supply and added RNG into our New York gas utility's energy mix.
- Developed literature on emissions reduction in collaboration with our East Region communications and marketing teams to help highlight our focus on climate to potential customers.
- Built connections with not-for-profit organizations with missions aligned with our sustainability goals, notably with The Nature Conservancy, where our East RSC Lead sits on the Board of Trustees.

Bermuda RSC

- Held quarterly sustainability training days to educate employees on how to integrate sustainability into their daily lives.
- Organized monthly Liberty Days focusing on addressing a host of social and environmental issues, allowing employees to make a meaningful impact on their community.
- Offset workforce emissions through the purchase of Gold Standard certified carbon credits, helping us advance in our path to net-zero.
- Built a new vehicle shelter for EVs and set out plans to equip the shelter with solar panels to reduce emissions associated with charging.
- Advanced BELCO's asset retirement projects to reduce strain on operations and create space for the development of new green projects.
- Supported company-wide talent attraction and retention goals through the development of an apprenticeship program.


Ethics and integrity



Our approach to supporting a culture of ethical behaviour

Ethical behaviour and mindfulness are key parts of our approach to corporate governance. We believe that enabling and encouraging our employees and leaders to act with integrity and speak up when something does not seem right helps us build a stronger, more resilient organization. That is why we have embedded principles of ethics and integrity into our corporate scorecard and have developed policies to set the standard for the kind of behaviour expected of our employees. We have also built out a support system to help our employees raise compliance and ethics complaints to be investigated. Our Robust Compliance Framework initiative is strengthening our company compliance program through culture, people, processes, and tools to support compliance. These efforts help us safeguard the integrity of our organization, mitigate risk, and act in an ethical manner in accordance with our values and mission.

 **Read our ethics policies**

 GRI: 2-16, 2-26, 3-3

Supporting our employees in building a robust compliance culture

 **Compliance questions**

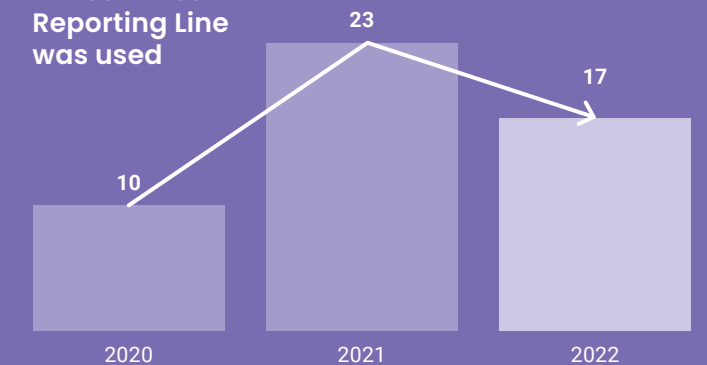
Employees are encouraged to ask questions about compliance and can send their inquiries to a dedicated Compliance Team email address.

 **Ethics Reporting Line**

We have an ethics line that provides our employees and stakeholders an anonymous reporting channel to share concerns and potential breaches of our Code of Business Conduct and Ethics.



Times Ethics Reporting Line was used

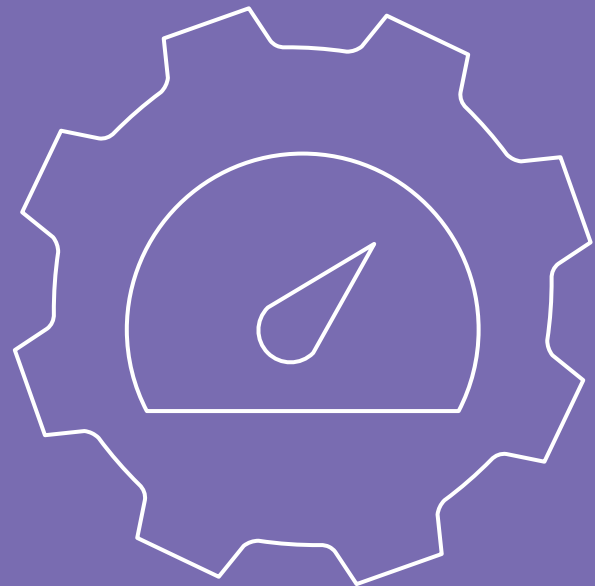


Risk management

Civility Policy

At Algonquin, we regularly revisit, review, and update our policies to make sure they are reflective of evolving regulations and cultural contexts. In 2022, we made key changes to our Civility Policy to help us continue protecting our employees and mitigate regulatory risks. This policy, initially created in 2018, implemented a zero-tolerance stance on harassment and discrimination, designed to maintain a culture of respect conducive to facilitating a psychologically safe workplace.

In 2022, we reinforced these rules with the re-introduction of in-person training aimed at helping leaders across the organization understand their responsibilities in upholding a culture of safety and civility. Additionally, the policy has been updated to help support the integration of acquisitions into this culture while reflecting the context of their regulatory environments.



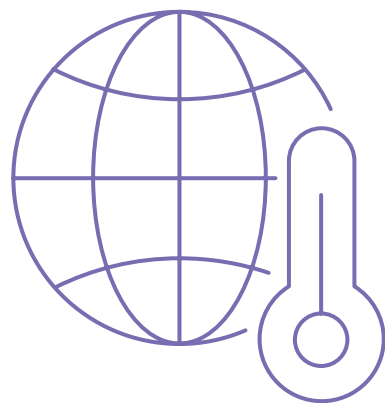
Integrating climate-risk

As we continue to enhance our understanding of climate change impacts on our business, we have worked through climate-risk workshops with employees across all levels, geographies, and modalities to help improve our awareness of these risks.

Representatives from our wind, solar, hydro, and thermal assets, as well our electric, natural gas, and water and wastewater utilities, hailing from across our diverse geographic footprint, joined these workshops to investigate the physical risks to assets and operations posed by a changing climate. The workshops enabled attendees to delve into different facets of these risks and solutions, including:

- Scenario analyses of forecasted climate outcomes across time horizons, aimed at helping operational leads factor climate risks into their plans for the future.
- Exploration of potential risk exposures to physical assets with the aim of developing current and proposed risk mitigation and risk management plans.
- Deep dives into specific physical hazards including floods, severe storms, drought, wildfires, temperature and precipitation anomalies, sea level rise, and average wind speed and solar irradiance changes.

Through these workshops, we are able to facilitate increased cross-collaboration between regions and asset types, building connections between employees across the company to promote idea sharing, management techniques, and best practices. Forging these communication channels is critical to helping us build an integrated, comprehensive approach to managing climate risk that considers the unique circumstances of our geographically and modality diverse business. Also, this signals progress in formally integrating operational-level climate-related risks into our ERM program.



Seeking ESG and Enterprise Risk Management (ERM) alignment

As ESG risks become increasingly salient to our business, we have worked to embed these ESG risks into our broader approach to managing risk at the enterprise level. In 2022, our risk management processes continued this evolution with the integration of ESG-related risks into the organization's operational risk registers supported by the collaborative efforts of our sustainability and ERM teams.

These teams worked closely to map ESG areas to our ERM program risk categories at various operational levels. Aligning ESG risks with our existing risk management framework helps support enhanced management of ESG risks. This exercise has strengthened the coordination between our three strategic pillars – Growth, Operational Excellence, and Sustainability – and helped us develop a more encompassing approach to managing risks to our organization.



Cybersecurity

Cyber threats are constantly evolving. So, we too must work tirelessly to evolve and improve our cyber defenses. To help achieve our cybersecurity goals, we continue to partner with others in our industry, cybersecurity experts, and the U.S. and Canadian governments to share information, data, strategy, and best practices.

In addition to improving cybersecurity programs, our focus remains on educating and preparing our employees to successfully navigate cyber threats. Cultivating a cybersecurity culture helps support our employees in leveraging cybersecurity conscientiousness in all aspects of their work and personal lives.

Our Cybersecurity Program takes us on a journey that encompasses all facets of Algonquin's business from our customer service representatives to our field and frontline employees, and broader workforce. These efforts are designed to enhance our ability to identify, protect, detect, respond to, and recover from cyberattacks, thereby helping to pave the way for a more secure future for Algonquin in the cyber world.



Algonquin's Cybersecurity Program helps us deliver safe, reliable, and cost-effective energy and water services for the communities we serve. We continue to grow and mature our cybersecurity capabilities with a strong focus on continuous improvement. Our investments in strengthening our cybersecurity better help us position ourselves among cybersecurity leaders in our industry and to do our part to contribute to, and improve, the utilities sector."

Colin Penny
Executive Vice President, IT and Digital Transformation



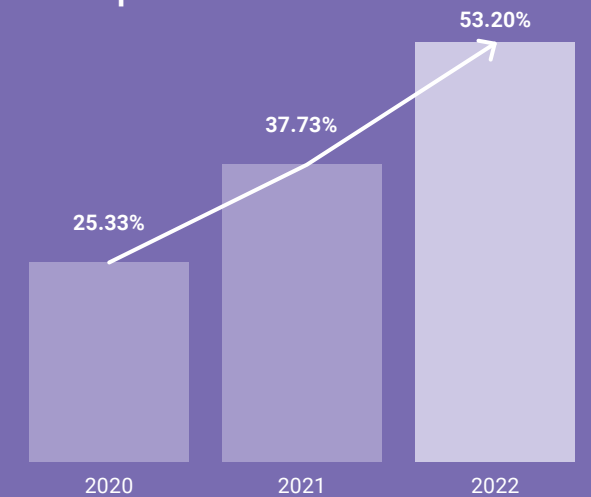
Sustainable procurement

We believe prioritizing diversity not only strengthens our workforce, but also our supply chain. As such, our California water utility has been working hard to increase the representation of traditionally marginalized groups in our procurement network. This includes people of color, women, members of the LGBTQIA+ community, disabled veterans, and people with disabilities. Beyond working directly with vendors from these groups, in 2022, we built relationships with community-based organizations representing a diversity of communities, allowing us to connect with the business leaders they represent.

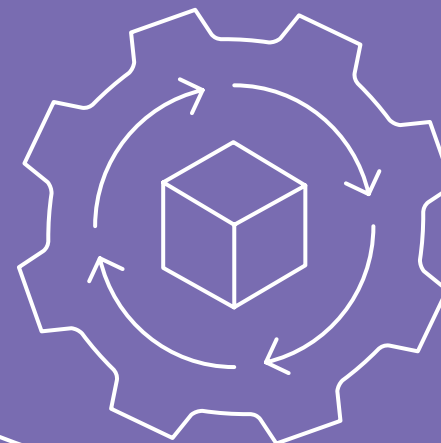
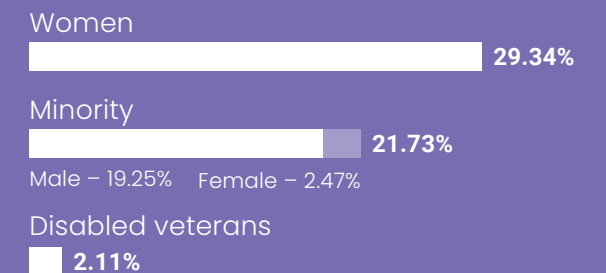
As a result, we exceeded our target share of our California water utility's procurement spending on businesses owned by minorities and women by 30 per cent, with a majority coming from diverse suppliers. This represents an increase of more than 15 per cent from 2021. We are proud of these results and believe the continuation of these efforts helps us create a stronger, more sustainable supply chain into the future.



Share of Liberty's California-based water operations total procurement spend going to diverse enterprises...



...by category.



Government affairs and public policy



Our Government Affairs team

Our Government Affairs team leads our engagement with policymakers at federal, state, and provincial levels and advocates for policies that support our strategic pillars of Growth, Operational Excellence, and Sustainability. The team's mission is to support the successful execution of our business strategy through on-the-ground intelligence with a clear line of sight into identifying both business risks and opportunities.

In 2022, the team completed its three-year roadmap, which helped us build our internal capacity, establish our priorities, manage risks, and pursue strategic initiatives. This plan enabled us to build a comprehensive early warning system for potential policy-related risks, expand the team's geographic scope, develop robust reporting structures, and allowed us to prioritize not only advocating against harmful policies but also encouraging policies that support Algonquin's goals and mission. Looking forward, the team intends to embark on a journey guided by another three-year roadmap, helping us set a course for the future.



Appendix I: Forward-looking statements and forward-looking information

This document contains statements that constitute “forward-looking information” within the meaning of applicable securities laws in each of the provinces and territories of Canada and the respective policies, regulations and rules under such laws or “forward-looking statements” within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 (collectively, “forward-looking information”). The words “aims”, “anticipates”, “believes”, “could”, “can”, “estimates”, “expects”, “forecasts”, “intends”, “may”, “might”, “plans”, “targets”, “projects”, “schedule”, “seeks”, “should”, “strives”, “targets”, “will”, “would” (and grammatical variations of such terms) and similar terms are often intended to identify forward-looking information, although not all forward-looking information contains these identifying words. Specific forward-looking information in this report includes, but is not limited to, statements relating to: the energy transition; the sale of AQN’s renewable energy business; the optimization of our regulated portfolio; expected value creation; our Customer First program; our Cybersecurity Program; our WM Standard; expected future growth, investments and results of operations;

expectations regarding generation availability, reliability, capacity and production; sustainability and ESG strategy, initiatives, projects, targets and goals, including related to reducing greenhouse gas emissions, decarbonization, net-zero targets (including interim targets to reach net-zero), alignment with SDGs, RNG, hydrogen (including the Northeast Hydrogen Hub), battery storage, electric vehicles, grid hardening and modernization, renewable generation, workforce diversity, women in leadership, customer service, employee engagement, governance, compensation, compliance and disclosure and the expected benefits, outcomes, timing and results thereof; our response to emergencies; outcomes of our safety goals and plans; community investment and engagement efforts; customer benefits; integration of ESG-related analysis, insights and opportunities into Algonquin’s business processes and strategies; ongoing and planned projects, including expectations regarding costs, timing, in-service dates, completion dates, production/generation capacity and community benefits; regulatory, procurement, employee and governmental policy and legislative initiatives and approaches, including our Government Affairs Team’s three-year road map; biodiversity, water, vegetation and other conservation initiatives; employee attraction, retention and engagement initiatives; expectations regarding DEI; disclosure of information; and laws and/or regulations. All forward-looking information is given pursuant to the “safe harbour” provisions of applicable securities legislation. The forecasts and projections that make up the forward-looking

information contained herein are based on certain factors or assumptions which include, but are not limited to: the receipt of applicable regulatory approvals and requested rate decisions; the presence of a favourable regulatory environment (including for decarbonization initiatives and matters); the commercial viability of emerging technologies relating to decarbonization; the absence of any material equipment breakdown or failure; availability of financing (including tax equity financing and self-monetization transactions for U.S. federal tax credits) on commercially reasonable terms and the stability of credit ratings of Algonquin and its subsidiaries; the absence of unexpected material liabilities or uninsured losses; the continued availability of commodity supplies and stability of commodity prices; the absence of interest rate increases or significant currency exchange rate fluctuations; the absence of significant operational, financial or supply chain disruptions or liability, including relating to import controls and tariffs; the continued ability to maintain systems and facilities to ensure their continued performance; the absence of a severe and prolonged downturn in general economic, credit, social or market conditions; the successful and timely development and construction of new projects; the closing of pending acquisitions substantially in accordance with the expected timing for such acquisitions; the absence of capital project or financing cost overruns; sufficient liquidity and capital resources; the absence of significant counterparty defaults; the continuation of long-term weather patterns and trends; the continued competitiveness of electricity pricing

when compared with alternative sources of energy; the realization of the anticipated benefits of Algonquin’s acquisitions and joint ventures; the absence of a change in applicable laws, political conditions or public policies and directions by governments materially negatively affecting Algonquin; the ability to obtain and maintain licenses and permits; maintenance of adequate insurance coverage; the absence of material fluctuations in market energy prices; the absence of material disputes with taxation authorities or changes to applicable tax laws; continued maintenance of information technology infrastructure and the absence of a material breach of cybersecurity; the successful implementation of new information technology systems and infrastructure; favourable relations with external stakeholders; favourable labour relations; that Algonquin will be able to successfully integrate newly acquired entities, and the absence of any material adverse changes to such entities prior to closing; the absence of undisclosed liabilities of entities being acquired; that such entities will maintain constructive regulatory relationships with applicable regulatory authorities; the ability of Algonquin to retain key personnel of acquired entities and the value of such employees; no adverse developments in the business and affairs of the sellers during the period when transitional services are provided to Algonquin in connection with any acquisition; the ability of Algonquin to satisfy its liabilities and meet its debt service obligations following completion of any acquisition; the ability of Algonquin to successfully execute future “greening the fleet” initiatives; the viability, financial and otherwise,

of community engagement efforts and sustainability projects; the reliability of scientific evidence upon which sustainability efforts are based; the reliability of software and collection systems for ESG data; the availability of diverse suppliers and qualified personnel to satisfy continued diversity and inclusion efforts; and the ability of the Algonquin to effect a sale of AQN's renewable energy business and realize the anticipated benefits therefrom. The forward-looking information contained herein is subject to risks, uncertainties and other factors that could cause actual results to differ materially from historical results or results anticipated by the forward-looking information. Factors which could cause results or events to differ materially from current expectations include, but are not limited to: changes in general economic, credit, social and market conditions; changes in prevailing attitudes and tolerances with respect to climate change and net-zero strategies and initiatives; changes in customer energy usage patterns and energy demand; reductions in the liquidity of energy markets; global climate change; advancements in environmental science; the development of new sustainable technologies; the incurrence of environmental liabilities; natural disasters, diseases, pandemics, public health emergencies and other force majeure events and the collateral consequences thereof, including the disruption of economic activity, volatility in capital and credit markets and legislative and regulatory responses; critical equipment breakdown or failure; supply chain disruptions; the imposition of import controls or tariffs; the failure of information technology infrastructure

and other cybersecurity measures to protect against data, privacy and cybersecurity breaches; physical security breach; the loss of key personnel and/or labour disruptions; failure to successfully implement, and cost overruns and delays in connection with, new information technology systems and infrastructure; seasonal fluctuations and variability in weather conditions and natural resource availability; reductions in demand for electricity, natural gas and water due to developments in technology; reliance on transmission systems owned and operated by third parties; issues arising with respect to land use rights and access to Algonquin's facilities; terrorist attacks; fluctuations in commodity and energy prices; capital expenditures; reliance on subsidiaries; the incurrence of an uninsured loss; a credit rating downgrade; an increase in financing costs or limits on access to credit and capital markets; inflation; increases and fluctuations in interest rates and failure to manage exposure to credit and financial instrument risk; currency exchange rate fluctuations; restricted financial flexibility due to covenants in existing credit agreements; an inability to refinance maturing debt on favourable terms; disputes with taxation authorities or changes to applicable tax laws; failure to identify, acquire, develop or timely place in service projects to maximize the value of tax credits; requirement for greater than expected contributions to post-employment benefit plans; default by a counterparty; inaccurate assumptions, judgments and/or estimates with respect to asset retirement obligations; failure to maintain required regulatory authorizations; changes in,

or failure to comply with applicable laws and regulations; failure of compliance programs; failure to identify attractive acquisition or development candidates necessary to pursue Algonquin's growth strategy; failure to dispose of assets (at all or at a competitive price) to fund Algonquin's operations and growth plans; delays and cost overruns in the design and construction of projects; loss of key customers; facilities being condemned or otherwise taken by governmental entities; increased external stakeholder activism adverse to Algonquin's interests; fluctuations in the price and liquidity of Algonquin's common shares and Algonquin's other securities; impact of significant demands placed on Algonquin as a result of pending acquisitions or growth strategies; potential undisclosed liabilities of any entities being acquired by Algonquin; uncertainty regarding the length of time required to complete any pending acquisitions; the failure to implement Algonquin's strategic objectives or achieve expected benefits relating to acquisitions, dispositions or other initiatives, including with respect to the intended sale of AQN's renewable energy business; the possibility of adverse reactions or changes in business relationships or relationships with employees resulting from the announcement or completion of the intended sale of AQN's renewable energy business; risks relating to the diversion of the Board's or management's attention in connection with the intended sale of AQN's renewable energy business; indebtedness of any entity being acquired by Algonquin; unanticipated expenses and/or cash payments as a result of change of control and/or

termination provisions in purchase or sale agreements; and the reliance on third parties for certain transitional services following the completion of an acquisition. Although Algonquin has attempted to identify important factors that could cause actual actions, events, or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Some of these and other factors are discussed in more detail under the heading "Enterprise Risk Factors" in Algonquin's most recent annual information form and under the heading "Enterprise Risk Management" in Algonquin's most recent annual and interim management discussion and analysis, each of which has been filed on SEDAR and EDGAR. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such forward-looking information. Accordingly, readers should not place undue reliance on forward-looking information. While subsequent events and developments may cause Algonquin's views to change, Algonquin disclaims any obligation to update any forward-looking information or to explain any material difference between subsequent actual events and such forward-looking information, except to the extent required by applicable law. All forward-looking information contained herein is qualified by these cautionary statements.

Appendix II:

SASB index^{1, 2}

Legend (click sources found in tables)

A	2023 Annual Information Form	I	Internal link within this report
AR	2022 Annual Report	M	2023 Management Information Circular
CC	2022 CDP Climate Change Survey	S	2023 ESG Report
CW	2022 CDP Water Security Survey	T	2020 TCFD Climate Change Assessment Report
E	2022 ESG Performance Index	W	External report

Electric utilities and power generators³

Greenhouse gases (GHGs) and energy resource planning

		2022	2021	2020	
EU-110a.1	Gross global Scope 1 emissions (Mt CO ₂ e)	2,542,820	2,281,126	2,580,834	
	Percentage covered under emission-limiting regulations	99.42%	99.70%	99.70%	
	Percentage covered under emission-reporting regulations	99.73%	97.60%	97.60%	
EU-110a.2	GHG emissions associated with power deliveries	Owned power	2,250,381	1,984,603	-
		Purchased power	355,787	353,434	-
EU-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	S 4	Letter from the Chief Executive Officer		
		S 15	Progress toward our 2023 ESG targets		
		S 20	Transitioning to a low-carbon economy		
		S 55	Integrating climate-risk		
EU-110a.4	Number of customers served in markets subject to renewable portfolio standards (RPS)	273,544	94,596	95,277	
	Percentage of fulfillment of RPS target	100%	100%	100%	

1. Scope of disclosure: Unless explicitly noted, annual data herein is presented for the fiscal year beginning on January 1 and end on December 31 of the specified year, and data reflecting a specific point in time is given as at December 31 of the specified year.

2. Disclosure interpretation: "0" is used when value of data is equal to zero. "-" is used when data is unavailable. Data is left blank when historical data is not applicable.

3. Gross global Scope 1 emissions, EU-110a.2, EU-110a.3, EU-140a.1, EU-000.A, EU-000.B, EU-000.D, EU-000.E include 2022 acquisitions (Liberty New York Water). 2021 and 2022 have been recalculated in alignment with Base Year Recalculation Policy.

Air quality ⁴		2022	2021	2020	
EU-120a.1	NO _x (Mt)	508	483	493	
	SO _x (Mt)	10	11	10	
	PM ₁₀ (Mt)	74	79	100	
	Lead (Mt)	0.00031	0.00009	0.00007	
	Mercury (Mt)	0.10207	0.00004	0.00003	
Water management					
EU-140a.1	Total water withdrawn (ML)	1,614	11,098	12,232	
	Percentage of water withdrawn in regions with high or extremely high baseline water stress	19.79%	5.84%	24.70%	
EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	3	1	3	
EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	S 27 Water management S 55 Integrating climate-risk S 55 Seeking ESG and ERM alignment			
Coal ash management					
EU-150a.1	Amount of coal combustion residuals (CCR) generated (Mt CO ₂ e)	0	0	0	
	Percentage of CCR recycled	0.0%	0.0%	0.0%	
EU-150a.2	Total CCR impoundments by hazard	High hazard potential	0	0	0
		Significant hazard potential	0	0	0
		Low hazard potential	0	0	1
		Less than low hazard potential	0	0	0
		Incised	0	0	0
	Total CCR impoundments by structural integrity assessment	Satisfactory	0	0	1
		Fair	0	0	0
		Poor	0	0	0
		Unsatisfactory	0	0	0
		Not applicable	0	0	0

4. 100% of NO_x, SO_x, PM₁₀, lead, and mercury emissions are near population centers.

Energy affordability

			2022	2021	2020
EU-240a.1	Average retail electric rate by customer type (\$/kWh) ⁵	Residential	0.21	0.13	0.14
		Commercial and industrial	0.16	0.11	0.12
EU-240a.3	Number of residential customer electric disconnections for non-payment		9,291	4,320	2,412
	Percentage reconnected within 30 days		69%	60%	58%
EU-240a.4	Discussion of the impact of external factors on customer affordability of electricity, including the economic conditions of the service territory		S 35 Customer experience S 31 Infrastructure investment resiliency and service reliability S 54 Risk management AR 49 Enterprise Risk Management T 16 Climate change risk control and mitigation		

Workforce health and safety

EU-320a.1	Total recordable incident rate (TRIR)			
	Total recordable fatality rate (TRFR)		E 104	Health and safety
	Total recordable near miss frequency rate (NMFR)			

End-use efficiency and demand

EU-420a.1	Percentage of electric utility revenues from rate structures	Decoupled	47.0%	46.6%	42.0%
		Lost revenue adjustment mechanism (LRAM)	0%	0%	0%
EU-420a.2	Percentage of electric load served by smart grid technology (%/MWh)		100%	100%	63%
EU-420a.3	Customer electricity savings from efficiency measures by market (MWh)		15,818	24,290	19,042

Grid resiliency

EU-550a.1	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations		0	0	1
EU-550a.2	System Average Interruption Duration Index (SAIDI)		138.00	187.4	115.9
	System Average Interruption Frequency Index (SAIFI)		1.13	1.3	1.0
	Customer Average Interruption Duration Index (CAIDI)		122.2	143.8	114.8

5. Algonquin's Bermuda-based electric operations have been included in 2022.

Activity Metrics

			2022	2021	2020
EU-000.A	Average active customer connections	Residential	261,900	260,600	259,600
		Commercial and industrial	42,800	42,100	42,200
EU-000.B	Total electricity delivered (MWh)	Residential	2,899,600	2,769,700	2,485,900
		Commercial and industrial	3,849,300	3,701,100	3,406,000
EU-000.C	Length of transmission lines (km)		2,026	2,021	2,279
	Length of distribution lines (km)		13,917	13,655	12,977
	Total electricity generated (MWh)		14,483,858	12,837,833	9,499,073
EU-000.D	Percentage of electricity by energy source	Coal	0.0%	0.0%	0.0%
		Natural gas	30.6%	29.5%	48.8%
		Diesel	3.8%	4.4%	0.9%
		Hydropower	4.2%	4.5%	5.7%
		Solar	4.3%	4.5%	4.3%
		Wind	57.1%	57.1%	40.4%
	Percentage in regulated markets		45.6%	35.0%	49.7%
EU-000.E	Total wholesale electricity purchased (MWh)		1,804,896	1,758,986	1,847,869

Gas utilities and distributors

Energy affordability

			2022	2021	2020
GU-240a.1	Average retail gas rate by customer type (\$/MMBtu)	Residential	17.56	11.49	11.18
		Commercial and industrial	9.16	6.41	6.41
		Transportation	0.74	0.81	1.01
GU-240a.3	Number of residential disconnections (non-payment)		8,574	12,287	6,228
	Percentage reconnected within 30 days		55%	63%	55%
GU-240a.4	Discussion of impact of external factors on customer affordability of gas, including the economic conditions of the service territory		S 35	Customer experience	
			S 54	Risk management	

End-use efficiency

GU-420a.1	Percentage of gas utility revenues from rate structures	Decoupled Lost revenue adjustment mechanism (LRAM)	86% 0%	86% 0%	86% 0%
GU-420a.2	Customer gas savings – efficiency measures (MMBtu)		184,483	197,675	195,890

Integrity of gas delivery infrastructure

GU-540a.1	Number of reportable pipeline incidents		9	11	12
	Number of corrective action orders (CAO)		0	0	1
	Number of notices of probable violation (NOPV)		16	22	13
GU-540a.2	Percentage of distribution pipeline that is cast/wrought iron		1.19%	1.40%	1.60%
	Percentage of distribution pipeline that is unprotected steel		0.78%	0.90%	0.94%
GU-540a.4	Description of efforts to manage the integrity of gas delivery infrastructure, including risks related to safety and emissions		S 31	Infrastructure investment resiliency and service reliability	
			S 54	Risk management	

Activity metrics

			2022	2021	2020
GU-000.A	Average active customer connections	Residential	320,300	318,600	317,100
		Commercial and industrial	38,800	38,100	37,700
GU-000.B	Gas delivered (MMBtu)	Residential	20,912,000	20,703,000	21,214,000
		Commercial and industrial	20,607,000	18,696,000	18,362,000
GU-000.C	Length of transmission pipelines (km)		16.2	16.0	19.8
	Length of distribution pipelines (km)		13,719.2	13,623.0	13,485.7

Water utilities and distributors⁶

Energy management

			2022	2021	2020
WU-130a.1	Energy consumption	Total energy consumed (GJ)	673,840	516,843	292,726
		Percentage grid electricity	87.1%	96.0%	93.0%

Distribution network efficiency

WU-140a.1	Water main replacement rate		0.4%	0.3%	0.5%
WU-140a.2	Volume of non-revenue real water losses (ML)		39,024	29,743	7,600

Effluent quality management

WU-140b.1	Number of incidents of non-compliance associated with water effluent quality permits, standards, and regulations		106	13	9
WU-140b.2	Discussion of strategies to manage effluents of emerging concern	While contaminants of emerging concern are currently not regulated, Algonquin may address these concerns in its wastewater effluents on a case-by-case basis through education, recycling, new technologies, and/or limiting the source of the constituent.			

6. WU-130a.1, WU-140b.1, WU-250a.1, WU-440a.1, WU-000.A, WU-000.B, WU-000.C, WU-000.D include 2020 acquisitions.

Water affordability and access

			2022	2021	2020		
WU-240a.1	Average retail water rate (\$/100 CCF)	North America	Residential	0.05	0.05	0.05	
			Commercial and industrial	0.04	0.04	0.03	
		Chile	Residential	0.66	0.71	-	
			Commercial and industrial	0.64	0.70	-	
WU-240a.3	Number of residential disconnections (non-payment) ⁷ Percentage reconnected within 30 days				5,606	1,474	1,973
					65%	44%	80%
WU-240a.4	Discussion of impact of external factors on customer affordability of water, including economic conditions of the service territory				§ 27	Water management	
					§ 35	Customer experience	
					§ 54	Risk management	

Drinking water quality

			2022	2021	2020
WU-250a.1	Number of drinking water violations	Acute health-based	0	0	0
		Non-acute health-based	10	3	0
		Non-health-based	0	2	1

WU-250a.2 Discussion of strategies to manage drinking water contaminants of emerging concern

Algonquin's Regulated Services Group is committed to protecting public health and meets or surpasses all state and federal health standards for tap water in the communities where it does business. To help advance the science of drinking water, we have been collecting data for the EPA since the Fifth Unregulated Contaminant Monitoring Rule was enacted in December 2021. Collecting information about the occurrence of unregulated compounds is the first step in the EPA's efforts to determine whether they should be regulated. Water quality is at the foundation of our regulated water utility business, and we aim to act proactively, in advance of proposed laws and/or regulations, to ensure the health and safety of our customers.

7. Algonquin's water operations based in Chile (Suralis, formerly ESSAL) have been included in 2022.

End-use efficiency

	2022	2021	2020
WU-420a.2 Customer water savings from efficiency measures, by market (m ³)	102,301	89,754	75,213

Water supply resiliency

WU-440a.1 Total water sourced from regions with high or extremely high baseline water stress (ML) Percentage purchased from third-party	79,655 9%	134,138 36%	69,033 39%
WU-440a.2 Volume of recycled water delivered to customers (ML)	1,121	1,379	2,191
WU-440a.3 Discussion of strategies to manage risks associated with the quality and availability of water resources	<u>S 27</u> <u>S 54</u>	Water management Risk management	

Network resiliency and impacts of climate change supply resiliency

WU-450a.1 Wastewater treatment capacity located in 100-year flood zones (m ³ /day)		1,340	1,345	1,341	
WU-450a.2 Number of sanitary sewer overflows (SSO) Volume of sanitary sewer overflows (SSO) – (m ³)		607 3,117	669 3,353	21 304	
WU-450a.3 Unplanned service disruptions (number of occurrences and number of customer connections affected)	< 4 Hours	Occurrences Connections	559 76,976	707 82,068	230 3,711
	4 – 12 Hours	Occurrences Connections	192 100,818	203 59,696	13 129
	> 12 Hours	Occurrences Connections	11 33,058	9 10,036	0 0
WU-450a.4 Description of efforts to identify and manage risks and opportunities related to the impact of climate change on distribution and wastewater infrastructure		<u>S 27</u> <u>S 54</u>	Water management Risk management		

Activity metrics

		2022	2021	2020	
WU-000.A	Average active wastewater connections	48,100	46,500	45,300	
	Average active water distribution connections	497,500	359,200	355,500	
WU-000.B	Percentage of water sourced by source type	Surface water	13.0%	15.3%	7.5%
		Groundwater	83.5%	79.6%	78.6%
		Third-party water	3.5%	5.2%	13.6%
		Other	-	-	0.2%
Total water sourced (ML)		196,222	134,138	69,033	
WU-000.C	Wastewater treated (ML)	12,238	10,478	9,596	
	Water provided (ML)	157,545	106,737	73,130	
WU-000.D	Average volume of wastewater treated per day (m ³ /day) ⁸	Sanitary sewer	392,974	32,510	46,465
		Storm water sewer	-	-	-
		Combined sewer	180,773	236,453	183,540
WU-000.E	Length of water mains (km)	8,341	7,181	3,208	
	Length of sewer pipes (km)	3,139	3,153	980	

8. Increase in 2022 average volume of wastewater treated per day via sanitary sewer is due to Algonquin's 2022 acquisition of its New York-based water operations.

Appendix III:

GRI content index

Statement of use

Algonquin Power & Utilities Corp. has reported the information cited in this GRI content index for the period January 1, 2022 to December 31, 2022 with reference to the GRI Standards.

GRI 1 used GRI 1: Foundation 2021

Legend (click sources found in tables)

A	2023 Annual Information Form
AR	2022 Annual Report
CC	2022 CDP Climate Change Survey
CW	2022 CDP Water Security Survey
E	2022 ESG Performance Index
M	2023 Management Information Circular
S	2023 Sustainability Report
T	TCFD Climate Change Assessment Report
W	External report

Organization and its reporting practices

No.	Disclosure	Source and notes	Priority issue alignment
2-1	Organizational details	S 10 About us S 11 Where we are A 1.1 Name, address, and location A 2 General development of the business	
2-2	Entities included in the organization’s sustainability reporting	S 10 About us A 1.2 Intercorporate Relationships A 2 General development of the business	
2-3	Reporting period, frequency, and contact point	S 8 About this report AR 97 Acquisitions Accompanying footnotes through report identify any restatements of information.	
2-4	Restatements of information	S 8 About this report AR 97 Acquisitions Accompanying footnotes through report identify any restatements of information.	
2-5	External assurance	W 2022 GHG Verification Report	

Activities and workers

No.	Disclosure	Source and notes	Priority issue alignment
2-6	Activities, brands, products, and services	S 10 S 56 A 2 A 3 W AR 18 AR 28 AR 39 AR 28 AR 39	About us Sustainable procurement General development of the business Description of the business Supplier Code of Conduct Regulated services group highlight Development of renewable energy assets Summary of Property, Plant, and Equipment Expenditures Development of renewable energy assets Summary of Property, Plant, and Equipment Expenditures
2-7	Employees	S 11 S 37 S 39 E 105-109, 125-126	Where we are Talent attraction and retention Employee health and safety Employee demographics
2-8	Workers who are not employees	S 37 E 105-109, 125-126	Talent attraction and retention Employee demographics

Governance

No.	Disclosure	Source and notes	Priority issue alignment
2-9	Governance structure and composition	S 50 A 8 W M 24	Board overview Directors and Officers Mandate of the Corporate Governance Committee Corporate governance practicalities
2-10	Nomination and selection of the highest governance body	M 15	Director nominees

Governance continued

No.	Disclosure	Source and notes	Priority issue alignment
2-11	Chair of the highest governance body	M 21 Director profiles, Kenneth Moore W Position description, Chair of the Board	
2-12	Role of the highest governance body in overseeing the management of impacts	S 4 Letter from the Chief Executive Officer S 14 Stakeholder engagement S 50 Sustainability governance A 3.9 Oversight of sustainability M 24 Corporate governance practices W Mandate of the Risk Committee W Mandate of the Corporate Governance Committee	
2-13	Delegation of responsibility for managing impacts	S 50 Sustainability governance S 55 Seeking ESG and ERM alignment M 32 Committees of the Board of Directors M 37 Position descriptions M 55 Corporate scorecard and results W Mandate of the Risk Committee W Mandate of the Corporate Governance Committee	

Governance continued

No.	Disclosure	Source and notes	Priority issue alignment
2-14	Role of the highest governance body in sustainability reporting	S 50 Sustainability governance S 55 Seeking ESG and ERM alignment A 3.9 Oversight of sustainability W Mandate of the Corporate Governance Committee	
2-15	Conflicts of interest	W Code of Business Conduct and Ethics M 51 Risk management and compensation	
2-16	Communication of critical concerns	S 53 Ethics and integrity S 54 Risk management No critical concerns have been identified	
2-17	Collective knowledge of the highest governance body	M 15 Director nominees M 34 New director orientation M 36 Continuing education for Directors	
2-18	Evaluation of the performance of the highest governance body	W Mandate of the Corporate Governance Committee M 24 Corporate governance practices	
2-19	Remuneration policies	M 44 Executive compensation M 70 Executive compensation information	
2-20	Process to determine remuneration	M 44 Executive compensation	
2-21	Annual total compensation ratio	E 108 Employee pay ratios	

Strategy, policies, and practices

No.	Disclosure	Source and notes	Priority issue alignment
2-22	Statement on sustainable development strategy	S 4 Letter from the Chief Executive Officer	
2-23	Policy commitments	S 12 Our values, purpose, and guiding principles S 12 Our strategic pillars S 12 Our guiding principles W Who we are M 24 Corporate governance practices Algonquin's operations are carried out in accordance with the precautionary principle. Algonquin acknowledges that when an activity poses a threat to human health or the environment, precautionary measures should be taken.	
2-24	Embedding policy commitments	A 26 Social and Environmental Policies and Commitment to Sustainability M 36 Continuing education for directors M 39 Corporate and Board policies	
2-25	Processes to remediate negative impacts	S 22 Climate resiliency and energy efficiency S 24 Grid hardening S 31 Grid modernization S 40 Our safety programs S 55 Integrating climate-risk	
2-26	Mechanisms for seeking advice and raising concerns	S 53 Ethics and integrity M 24 Corporate governance practices W Ethics Reporting Policy	
2-27	Compliance with laws and regulations	E 114 Social and economic compliance E 120 Compliance with environmental laws and regulations	

Strategy, policies, and practices continued

No.	Disclosure	Source and notes	Priority issue alignment
2-28	Membership associations	<p>Industry Associations:</p> <ul style="list-style-type: none"> American Gas Association American Wind Energy Association Canadian Electricity Association Edison Electric Institute Global Business Alliance National Association of Water Companies Solar Energy Industry Association <p>Governmental Agencies:</p> <ul style="list-style-type: none"> Independent Electric Systems Operator National Energy Board U.S. Department of Energy U.S. Environmental Protection Agency 	

Stakeholder engagement

No.	Disclosure	Source and notes	Priority issue alignment
2-29	Approach to stakeholder engagement	<p>S 4 Letter from the Chief Executive Officer</p> <p>S 14 Stakeholder engagement</p> <p>S 25 Kodiak Prairie restoration certification</p> <p>S 36 Gaining insights from Liberty customers</p> <p>S 46 Orange Shirt Day</p> <p>S 47 Heart and Hands Week</p>	
2-30	Collective bargaining agreements	E 106 Collective bargaining agreement coverage	

Material topics

No.	Disclosure	Source and notes	Priority issue alignment
3-1	Process to determine material topics	<u>S 14</u> Our stakeholders' priority ESG topics	
3-2	List of material topics	<u>S 14</u> Our stakeholders' priority ESG topics	

Economic performance

3-3	Management of material topics	<u>S 14</u> Our stakeholders' priority ESG topics <u>S 56</u> Sustainable procurement <u>W</u> Supplier Code of Conduct <u>W</u> Code of Business Conduct and Ethics <u>AR 1</u> MD&A	<ul style="list-style-type: none"> • Climate resiliency • Transitioning to a low-carbon economy • Talent attraction and retention • Infrastructure investment and resiliency • Employee health and safety • Ethics and integrity • Transparency and disclosure • Risk management
201-1	Direct economic value generated and distributed	<u>E 103</u> Economic value generated and distributed	
201-2	Financial implications and other risks and opportunities due to climate change	<u>I</u> Climate change risk control and mitigation <u>CC</u> Risks and opportunities <u>CW</u> Risks and opportunities	
201-3	Defined benefit plan obligations and other retirement plans	<u>E III</u> Defined benefit plan	
201-4	Financial assistance received from government	Algonquin receives various forms of financial assistance from various levels of government in the regions it operates. Algonquin does not currently track this information centrally.	

Market presence

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	S 14 Our stakeholders' priority ESG topics S 56 Sustainable procurement W Supplier Code of Conduct W Code of Business Conduct and Ethics AR 1 MD&A	
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	E 109 Ratios of entry level wage to local minimum wage	
202-2	Proportion of senior management hired from the local community	Algonquin does not document the location of employees prior to employment.	

Indirect economic impacts

3-3	Management of material topics	S 14 Our stakeholders' priority ESG topics S 56 Sustainable procurement W Supplier Code of Conduct W Code of Business Conduct and Ethics AR 1 MD&A	<ul style="list-style-type: none"> • Climate resiliency • Transitioning to a low-carbon economy • Greenhouse gas and air emissions • Customer experience and affordability • Energy reliability • Talent attraction and retention
203-1	Infrastructure investments and services supported	S 10 About us S 11 Where we are S 31 Infrastructure investment, resiliency, and service reliability	<ul style="list-style-type: none"> • Community support and economic development • Infrastructure investment and resiliency • Cybersecurity
203-2	Significant indirect economic impacts	S 20 Transitioning to a low-carbon economy S 47 Community support and economic development	<ul style="list-style-type: none"> • Governmental affairs • Sustainable procurement

Procurement practices

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	S 14 Our stakeholders' priority ESG topics S 56 Sustainable procurement W Supplier Code of Conduct W Code of Business Conduct and Ethics AR 1 MD&A	<ul style="list-style-type: none"> Community support and economic development Sustainable procurement
204-1	Procurement budget used for local suppliers	Algonquin spends approximately 2% of its annual procurement budget on local suppliers.	

Anti-corruption

3-3	Management of material topics	S 14 Our stakeholders' priority ESG topics S 56 Sustainable procurement W Supplier Code of Conduct W Code of Business Conduct and Ethics AR 1 MD&A	<ul style="list-style-type: none"> Ethics and integrity Transparency and disclosure Risk management Cybersecurity
205-1	Operations assessed for risks related to corruption	E 114, 129 Anti-corruption	
205-2	Communication and training about anti-corruption policies and procedures	E 114, 129 Anti-corruption	
205-3	Confirmed incidents of corruption and actions taken	E 114, 129 Anti-corruption	

Anti-competitive behaviour

3-3	Management of material topics	S 14	Our stakeholders' priority ESG topics	<ul style="list-style-type: none">• Ethics and integrity• Transparency and disclosure• Risk management
		S 56	Sustainable procurement	
		W	Supplier Code of Conduct	
		W	Code of Business Conduct and Ethics	
		AR 1	MD&A	
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	E 114 , 129	Anti-competitive	

Environment

Energy

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	S 20 Transitioning to a low-carbon economy S 22 Climate resiliency and energy efficiency W Our Commitment to Sustainability W Our Commitment to the Environment I 60 Electric utilities and power generators I 64 Gas utilities and distributors CC CDP Climate Change	
302-1	Energy consumption within the organization	E 117, 130 Internal energy consumption	<ul style="list-style-type: none"> • Transitioning to a low-carbon economy • Greenhouse gas and air emissions • Energy efficiency • Land use and biodiversity • Customer experience and affordability • Energy reliability • Risk management
302-2	Energy consumption outside of the organization	Energy consumption from Algonquin's customers is the primary source of energy outside the organization. Energy delivered to end customers is outlined on pg. 19 and 28 of Algonquin's 2022 Annual Report. Other sources of energy consumption have not been collected but are primarily from: Algonquin's investments in Atlantica Sustainable Infrastructure plc., Plum Point and Iatan coal facilities; fuel production and extraction activities; and the generation of electricity distributed by Algonquin.	
302-3	Energy intensity	E 117, 130 Internal energy consumption	
302-4	Reduction of energy consumption	E 117, 130 Internal energy consumption	
302-5	Reductions in energy requirements of products and services	E 115-116 Greenhouse gas emissions E 117, 130 Internal energy consumption	

Water and effluents

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	S 27 I 65 CW	Water management Water utilities and services CDP Water Security Survey
303-1	Interactions with water as a shared resource	S 27 T 24 CW 1 CW 3	Water management Regulated services: climate-related risks and opportunities Current State Procedures
303-2	Management of water discharge-related impacts	S 27 T 24 CW 1 CW 3	Water management Regulated services: climate-related risks and opportunities Current State Procedures
303-3	Water withdrawal	E 118, 131	Water withdrawal
303-4	Water discharge	E 118, 131	Water discharge
303-5	Water consumption	E 118, 131	Water consumption

- Climate resiliency
- Land use and biodiversity
- Water management
- Public health and safety
- Customer experience and affordability

Biodiversity

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	<p><u>S 25</u> Land use and biodiversity</p> <p><u>W</u> Our Commitment to Sustainability</p>	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<p><u>E 120</u> Species impact</p> <p>Algonquin has collected this information for its operations in the following regions: California (locations specific to Algonquin's California-based electric utility), Arkansas, Kansas, Missouri, Oklahoma, and New Hampshire.</p>	
304-2	Significant impacts of activities, products, and services on biodiversity	Algonquin has collected this information for its operations in the following regions: California (locations specific to Algonquin's California-based electric utility), Arkansas, Kansas, Missouri, Oklahoma, and New Hampshire.	<ul style="list-style-type: none"> • Climate resiliency • Land use and biodiversity • Ethics and integrity • Risk management
304-3	Habitats protected or restored	Algonquin has collected this information for its operations in the following regions: California (locations specific to Algonquin's California-based electric utility), Arkansas, Kansas, Missouri, Oklahoma, and New Hampshire.	
304-4	International Union for Conservation of Nature's (IUCN) Red List species and national conservation list species with habitats in areas affected by operations	Algonquin has collected this information for its operations in the following regions: California (locations specific to Algonquin's California-based electric utility), Arkansas, Kansas, Missouri, Oklahoma, and New Hampshire.	

Emissions

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	<p><u>S 20</u> Transitioning to a low-carbon economy</p> <p><u>I</u> TCFD Climate Change Assessment Report</p> <p><u>W</u> Our Commitment to Sustainability</p> <p><u>CC</u> CDP Climate Change Survey</p>	
305-1	Direct (Scope 1) GHG emissions	<u>E 115</u> Scope 1 emissions	
305-2	Energy indirect (Scope 2) GHG emissions	<u>E 115</u> Scope 2 emissions	
305-3	Other indirect (Scope 3) GHG emissions	<u>E 116</u> Scope 3 emissions	<ul style="list-style-type: none"> • Climate resiliency • Transitioning to a low-carbon economy • Greenhouse gas and air emissions • Public health and safety
305-4	GHG emissions intensity	<u>E 116</u> Scope 1 and Scope 2 emissions	
305-5	Reduction of GHG emissions	<p><u>S 20</u> Transitioning to a low-carbon economy</p> <p><u>E 115</u> Scope 1 emissions</p> <p>Note: GHG emission reductions are apparent on a year-over-year basis. See footnote 29 in the ESG Performance Index for details.</p>	
305-6	Emissions of ozone-depleting substances (ODS)	<u>E 116</u> Other emissions from electricity generation	
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	<u>E 116</u> Other emissions from electricity generation	

Waste

No.	Disclosure	Source and notes		Priority issue alignment
3-3	Management of material topics	S 26	Waste and materials management	
306-1	Waste generation and significant waste-related impacts	S 26	Waste and materials management	
306-2	Management of significant waste-related impacts	S 26	Waste and materials management	
306-3	Waste generated	E 119, 132	Waste generation	
306-4	Waste diverted from disposal	E 119, 132	Waste diverted	
306-5	Waste directed to disposal	E 119, 132	Waste directed to disposal	

- Climate resiliency
- Land use and biodiversity
- Waste and materials management

Environmental compliance

3-3	Management of material topics	S 20 W	Transitioning to a low-carbon economy Our Commitment to the Environment	
2-27	Compliance with laws and regulations	E 120, 133	Compliance with environmental laws and regulations	

- Climate resiliency
- Transitioning to a low-carbon economy
- Ethics and integrity
- Transparency and disclosure
- Risk management

Supplier environmental assessment

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	<p><u>S 56</u> Sustainable procurement</p> <p><u>W</u> Supplier Code of Conduct</p>	
308-1	New suppliers that were screened using environmental criteria	<p>Algonquin does not currently screen suppliers using environmental criteria. Algonquin has engaged primary suppliers with sustainability-focused questionnaires to gauge sustainability performance in the supply chain. Algonquin continues to evaluate opportunities to integrate environmental criteria into supplier screening processes.</p>	<ul style="list-style-type: none"> • Climate resiliency • Ethics and integrity • Sustainable procurement
308-2	Negative environmental impacts in the supply chain and actions taken	Algonquin does not currently track supply chain environmental impacts.	

Social

Employment

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	S 37 Talent attraction and retention	
401-1	New employee hires and employee turnover	S 37 Talent attraction and retention E 109-110, 127 Hiring rates E 110, 127 Turnover rates	<ul style="list-style-type: none"> • Talent attraction and retention • Employee health and safety • Ethics and integrity
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Algonquin's full-time employees are eligible for the following benefits: life insurance, health care, disability and invalidity coverage, parental leave, retirement provision, and stock ownership.	
401-3	Parental leave	E 110, 127 Parental leave	

Labour/management relations

3-3	Management of material topics	S 39 Employee health and safety S 56 Sustainable procurement W Code of Business Conduct and Ethics	<ul style="list-style-type: none"> • Public health and safety • Talent attraction and retention • Employee health and safety • Ethics and integrity
402-1	Minimum notice periods regarding operational changes	Algonquin adheres to notice periods identified in relevant union agreements. In instances without union agreements, an internal review process identifies appropriate time periods to notify employees of significant operational changes.	

Occupational health and safety

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	<p>S 39 Employee health and safety</p> <p>A 3.9 Environmental, health and safety</p> <p>A 4.3 Health and safety laws and regulations</p> <p>W Code of Business Conduct and Ethics</p>	
403-1	Occupational health and safety management system	An internal management system is in place. Algonquin is currently in the process of implementing OHSAS18001 certification.	
403-2	Hazard identification, risk assessment, and incident investigation	Current practices to identify hazards, assess risks, and investigate incidents include pre-job hazard analysis and collaborative discussions.	
403-3	Occupational health services	The occupational health services currently contributing to hazard identification, minimization, and elimination include Job Safety Analysis (JSA) and Job Hazard Analysis (JHA). Standards and guidelines are followed.	
403-4	Worker participation, consultation, and communication on occupational health and safety	Worker participation, consultation, and communication on occupational health and safety is facilitated through collaboration with union and collective bargaining units. Annual regional safety planning meetings are also held.	<ul style="list-style-type: none"> • Talent attraction and retention • Employee health and safety • Ethics and integrity
403-5	Worker training on occupational health and safety	Worker training on occupational health and safety is facilitated by following site annual safety plans.	
403-6	Promotion of worker health	Worker health is promoted through safety standards and guidelines, a five-year safety plan, and safety symposia.	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational health and safety impacts are mitigated and prevented through collaborative partnerships with the American Gas Association (AGA) and the Edison Electric Institute (EEI).	
403-8	Workers covered by an occupational health and safety management system	E 105 , 125 Workers covered by an environmental, health, and safety management system	
403-9	Work-related injuries	E 104 , 124 Work-related injury	
403-10	Work-related ill health	E 105 , 124 Work-related ill health	

Training and education

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	<p><u>S 39</u> Employee health and safety</p> <p><u>S 42</u> Diversity, equity, and inclusion</p> <p><u>S 56</u> Cybersecurity</p> <p><u>A 3.9</u> Environmental, health and safety</p> <p><u>A 4.3</u> Health and safety laws and regulations</p> <p><u>W</u> Code of Business Conduct and Ethics</p>	
404-1	Average hours of training per year per employee	<u>E 111, 128</u> Training	
404-2	Programs for upgrading employee skills and transition assistance programs	<p><u>S 38</u> Manager training</p> <p><u>S 43</u> Diversity, equity, and inclusion</p> <p>Upgrading employee skills: leadership and professional skills are developed through various leadership training courses, trainer qualification programs, and mentorship opportunities. Specialized skills are developed by facilitating over 35 in-house training programs and hundreds of online training courses.</p> <p>Transition assistance programs: led through the Employee Assistance Program. This program provides retirement planning and services such as counseling and training for adjusting to post-work changes.</p>	<ul style="list-style-type: none"> • Transitioning to a low-carbon economy • Talent attraction and retention • Employee health and safety • Diversity, equity, and inclusion • Risk management
404-3	Percentage of employees receiving regular performance and career development reviews	<u>E 111</u> Performance reviews	

Diversity and equal opportunity

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	S 39 S 42 W	Employee health and safety Diversity, equity, and inclusion Board and Executive Diversity Policy
405-1	Diversity of governance bodies and employees	M 16 E 105-109, 125-126 E 113	Director skills matrix Employee demographics Board of Directors
405-2	Ratio of basic salary and remuneration of women to men	E 109	Employee compensation by gender and level

- Talent attraction and retention
- Diversity, equity, and inclusion
- Ethics and integrity
- Transparency and disclosure

Non-discrimination

3-3	Management of material topics	W	Code of Business Conduct and Ethics
406-1	Incidents of discrimination and corrective actions taken	E 112, 128	Discrimination incidents

- Talent attraction and retention
- Employee health and safety
- Diversity, equity, and inclusion
- Ethics and integrity
- Transparency and disclosure
- Risk management

Rights of Indigenous peoples

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	S 46 Orange Shirt Day	<ul style="list-style-type: none"> Public health and safety Indigenous relations Employee health and safety Diversity, equity, and inclusion Ethics and integrity Risk management Governmental affairs and public policy Sustainable procurement
411-1	Incidents of violations involving rights of Indigenous peoples	E 113, 129 Indigenous relations	

Human rights assessment

3-3	Management of material topics	<p><u>W</u> Human Rights Policy</p> <p><u>W</u> Code of Business Conduct and Ethics</p> <p><u>W</u> Supplier Code of Conduct</p>	<ul style="list-style-type: none"> Public health and safety Talent attraction and retention Employee health and safety Ethics and integrity Risk management Sustainable procurement
412-1	Operations that have been subject to human rights reviews or impact assessments	E 113 Human rights	
412-2	Employee training on human rights policies or procedures	Algonquin's Human Rights Policy was developed in 2021 and the company continues to explore opportunities for employee training on the policy.	
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Algonquin does not currently integrate human rights clauses or human rights screening into investment agreements and contracts.	

Local communities

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	<u>S 47</u> <u>W</u>	Community support and economic development Liberty economic development
413-1	Operations with local community engagement, impact assessments, and development programs	<u>E 103, 123</u>	Community engagement

- Public health and safety
- Community support and economic development
- Indigenous relations
- Ethics and integrity
- Transparency and disclosure
- Risk management
- Sustainable procurement

Supplier social assessment

3-3	Management of material topics	<u>S 56</u> <u>W</u>	Sustainable procurement Supplier Code of Conduct
414-1	New suppliers that were screened using social criteria	Algonquin integrates health and safety criteria in supplier screening processes. Algonquin has engaged primary suppliers with sustainability-focused questionnaires to gauge sustainability performance in the supply chain. Algonquin continues to evaluate opportunities to integrate additional social criteria into supplier screening processes.	
414-2	Negative social impacts in the supply chain and actions taken	Algonquin does not currently track supply chain social impacts outside of health and safety compliance.	

- Public health and safety
- Community support and economic development
- Diversity, equity, and inclusion
- Ethics and integrity
- Transparency and disclosure
- Risk management
- Sustainable procurement

Public policy

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	S 57 W Government affairs and public policy Policy on Lobbyist Code of Conduct	
415-1	Political contributions	As per Algonquin's corporate policy governing political contributions, Algonquin made no political contributions in 2022. Information on political contributions made by Algonquin's employee-led political action committee is available at www.fec.gov . Algonquin is currently developing its Political Engagement Policy.	<ul style="list-style-type: none"> • Ethics and integrity • Transparency and disclosure • Risk management • Governmental affairs and public policy

Customer health and safety

3-3	Management of material topics	S 39 Our safety culture	<ul style="list-style-type: none"> • Public health and safety • Customer experience and affordability • Energy reliability • Employee health and safety
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Algonquin was involved in one incident of non-compliance with regulations related to customer health and safety that resulted in a fine in 2022.	<ul style="list-style-type: none"> • Ethics and integrity • Transparency and disclosure • Risk management

Customer privacy

No.	Disclosure	Source and notes	Priority issue alignment
3-3	Management of material topics	S 56 W W	<ul style="list-style-type: none"> Public health and safety Customer experience and affordability Ethics and integrity Risk management
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	E 103, 123	<ul style="list-style-type: none"> Cybersecurity Sustainable procurement

Socioeconomic compliance

3-3	Management of material topics	S 15 S 53	<ul style="list-style-type: none"> Progress toward our 2023 ESG targets Ethics and integrity 	<ul style="list-style-type: none"> Public health and safety Ethics and integrity Transparency and disclosure
2-27	Compliance with laws and regulations	E 114	Social and economic compliance	<ul style="list-style-type: none"> Risk management Governmental affairs and public policy

Appendix IV:

Our stakeholders' "ESG materiality" issues defined

Environment

Climate resiliency

Investing in our operational infrastructure, assets, and internal systems to proactively mitigate risk and adapt to climate change.

Transitioning to a low-carbon economy

Progressing toward an economy that is driven by low-carbon power sources with minimal or no output of greenhouse gas emissions into the atmosphere.

Greenhouse gas and air emissions

Managing, measuring, and reducing greenhouse gas and other emissions that are released as a result of our operations and activities.

Energy efficiency

Efficiently managing our consumption (e.g., fuel and electricity) and promoting energy reliability, affordability, and demand reductions with our customers.

Land use and biodiversity

Managing our operations in a way that is mindful of impacts on natural resources, wildlife, and ecosystems.

Water management

Effective withdrawal and consumption of water, treatment of wastewater, and management of wastewater discharge across our operations to minimize negative impacts on fresh water and groundwater sources while benefiting the communities where we operate.

Waste and materials management

Preventing, reducing, reusing, and recycling hazardous and non-hazardous waste generated across our operations and value chain to minimize negative impacts on air, land, water, natural resources, and wildlife.

Social

Public health and safety

Managing our assets and operations with the goal of safeguarding the health, safety, and well-being of all stakeholders in the communities where we operate.

Community support and economic development

Supporting and investing in community development that stimulates local social, cultural, and economic growth.

Indigenous relations

Actively engaging with Indigenous communities, respecting their interests, and partnering with them on projects that create positive mutual benefits.

Customer experience and affordability

Delivering cost-effective and high-quality services that seek to meet or exceed the needs and preferences of our customers.

Energy reliability

Meeting our customers' energy needs by mitigating the frequency of outages or service disruptions associated with our transmission and pipeline infrastructure.

Infrastructure investment and resiliency

Modernizing our infrastructure while exploring innovative ways to deliver flexible, reliable, and resilient energy solutions for our customers.

Employee health and safety

Creating and upholding a safety culture focused on the mental, emotional, and physical health of employees and contractors.

Diversity, equity, and inclusion

Promoting a culture of equality and inclusion, where all employees receive fair and equal treatment and diverse perspectives are celebrated.

Talent attraction and retention

Attracting world-class employees and continuing their personal and professional growth in alignment with our business purpose, strategy, and the transition to a low-carbon economy.

Governance

Ethics and integrity

Maintaining high standards of ethics and integrity throughout all levels of our business, and in our working relationships with all stakeholders, while striving for compliance with all applicable laws and regulations.

Transparency and disclosure

Committing to publicly sharing reliable and accurate information on our environmental, social, and governance performance.

Risk management

Forecasting, evaluating, and disclosing key financial, environmental, social, and governance risks and identifying procedure, plans, or initiatives to avoid or minimize negative impacts of the associated risks.

Cybersecurity

Investing in proactive measures to strengthen our internal controls and adopting best-practice technologies and employee training to monitor for and prevent data breaches.

Governmental affairs and public policy

Having a proactive government affairs approach to manage risk, proactively influence and support policy agendas, and advocate for causes that affect our local communities and create opportunities.

Sustainable procurement

Adopting standards that facilitate our work with like-minded suppliers who align with our social and environmental practices and considerations.

Appendix V:

Glossary

Acronyms

AGA	American Gas Association
AQN	Algonquin Power & Utilities Corp.
AMI	Advanced metering infrastructure
BELCO	Bermuda Electric Light Company Limited
CAIDI	Customer Average Interruption Duration Index
CNG	Compressed natural gas
CSAT	Customer satisfaction
DEI	Diversity, equity, and inclusion
ERG	Employee resource group
ESSAL	Empresa de Servicios Sanitarios de Los Lagos S.A.
ESG	Environmental, social, and governance
EV	Electric vehicle
GRI	Global Reporting Initiative
ISO	Independent system operator
LGBTQIA+	Lesbian, gay, bisexual, transgender, queer/questioning, intersex, and asexual
PSPS	Public Safety Power Shutoffs
RNG	Renewable natural gas
RSC	Regional Sustainability Council
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SASB	Sustainability Accounting Standards Board
SDG	Sustainable Development Goals
SF ₆	Sulfur hexafluoride
TCFD	Task Force on Climate-Related Financial Disclosures
TOU	Time-of-use

Measurements

CCF	100 cubic feet
CO ₂ e	Carbon dioxide equivalent
GGE	Gasoline gallon equivalent
GW	Gigawatt
GWh	Gigawatt hours
km	Kilometer
ML	Megaliter
Mt	Metric ton
MW	Megawatt
MWh	Megawatt hours
PJ	Petajoule
\$USD	United States dollar
tCO ₂ e	Metric tons of CO ₂ e

INDEPENDENT PRACTITIONER’S LIMITED ASSURANCE REPORT

To the management of Liberty Utilities (Canada) Corp.,

We have been engaged by Liberty Utilities (Canada) Corp. to undertake a limited assurance engagement on certain Subject Matter Information of Algonquin Power & Utilities Corp. (“the Company”), included in the Company’s 2023 ESG Report Appendix – Environmental Metrics Table (the “Report”) in Appendix A and as described below, for the year ended December 31, 2022.

Subject Matter Information and Applicable Criteria

Subject Matter Information	Units	Applicable Criteria
Scope 1 GHG emissions	2,542,820 tonnes CO _{2e}	Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (the ‘GHG Protocol’)
Scope 2 GHG emissions (location-based) and (market-based)	89,200 tonnes CO _{2e}	Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (the ‘GHG Protocol’) GHG Protocol Scope 2 Guidance, an amendment to the GHG Protocol Corporate Standard
Scope 3, Category 3 GHG emissions – Fuel and energy related activities not included in scope 1 and 2	1,161,196 tonnes CO _{2e}	Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition (the ‘GHG Protocol’)
Scope 3, Category 11 GHG emissions – Use of Sold Products: Downstream Natural Gas Combustion	2,205,268 tonnes CO _{2e}	GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Supplement to the GHG Protocol Corporate Accounting and Reporting Standard
Scope 3, Category 15 GHG emissions – Investments	1,878,009 tonnes CO _{2e}	

Other than as described in the preceding paragraph, we did not perform assurance procedures on the remaining information included in the Report, and accordingly, we do not express a conclusion on this information.

Management’s Responsibility

Management is responsible for the preparation and presentation of the subject matter information in accordance with the applicable criteria.

There are no mandatory requirements for the preparation or presentation of GHG emissions data. As such, the Company has applied the World Resources Institute/World Business Council for Sustainable Development’s Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (the ‘GHG Protocol’ and its own internally developed criteria, which are presented in Appendix A.

Management is responsible for the development of such criteria and for determining the appropriateness of the use of the applicable criteria.

Management is also responsible for such internal control as management determines necessary to enable the preparation and presentation of the subject matter information that is free from material misstatement, whether due to fraud or error.

Practitioner's Responsibilities

Our responsibility is to express a limited assurance conclusion on the subject matter information based on evidence we have obtained. We conducted our limited assurance engagement in accordance with Canadian Standards on Assurance Engagements (CSAE) 3410 *Assurance Engagements on Greenhouse Gas Statements*. This standard requires that we plan and perform our engagement to obtain limited assurance about whether based on the procedures performed and evidence obtained, any matter(s) has come to our attention to cause us to believe that the subject matter information is materially misstated.

The procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, it is not a guarantee that a limited assurance engagement conducted in accordance with this standard will always detect a matter that causes the practitioner to believe that the subject matter information is materially misstated.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report.

The nature, timing and extent of procedures performed depends on our professional judgment, including an assessment of the risks of material misstatement, whether due to fraud or error, and involves obtaining evidence about the subject matter information.

Our engagement included: assessing the appropriateness of the underlying scope 1, scope 2 and scope 3 emissions data the suitability of the criteria used by the Company in preparing the subject matter information in the circumstances of the engagement and evaluating the appropriateness of the methods, policies and procedures used in the preparation of subject matter information and the reasonableness of estimates made by the Company. Our procedures included:

- Inquiries with relevant staff at the corporate and facility level to understand the data collection and reporting processes for the Subject Matter Information;
- Assessment of the suitability and application of the Applicable Criteria;
- Where relevant, performance of walkthroughs of data collection and reporting processes for the Subject Matter Information;
- Comparison of a sample of the reported data for the Subject Matter Information to underlying data sources;
- Inquiries of management regarding key assumptions and, where relevant, the re-performance of calculations on a sample basis;
- Completion of virtual site visits to a sample of Liberty Utilities' facilities, including walkthrough of facility level data collection and reporting processes, interviews with senior management and relevant staff and virtual site tours; and,
- Reviewing the presentation of the Subject Matter Information in the Report to determine whether it is consistent with our overall knowledge of, and experience with, the greenhouse gas emissions performance of Liberty Utilities.

Our engagement included, amongst others, the following procedures: making inquiries, primarily of persons responsible for the preparation of performance information for the Subject Matter Information, and applying analytical and other evidence gathering procedures, as appropriate.

The engagement was conducted by a multidisciplinary team which included professionals with suitable skills and experience in both assurance and in the applicable subject matter, including environmental, social and governance aspects.

Practitioner’s Independence and Quality Management

We have complied with the relevant rules of professional conduct/code of ethics applicable to the practice of public accounting and related to assurance engagements, issued by various professional accounting bodies, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

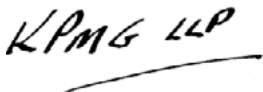
The firm applies Canadian Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements* which requires the firm to design, implement and operate a system of quality management, including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Significant Inherent Limitations

Historical non-financial information, such as that contained in the Report, is subject to more inherent limitations than historical financial information, given the characteristics of the underlying subject matter and methods used for determining this information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable evaluation techniques, which can result in materially different measurements and can impact comparability. The nature and methods used to determine such information, as described in the applicable criteria, may change over time, and it is important to read the Company’s reporting methodology available in Appendix A below.

Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion. Based on the procedures performed and evidence obtained, no matters have come to our attention to cause us to believe that the Company’s subject matter information for the year ended December 31, 2022, is not prepared and presented, in all material respects, in accordance with the applicable criteria.



Chartered Professional Accountants

May 2, 2023
Vancouver, Canada

Algonquin Power & Utilities Corp.'s 2023 ESG Report Appendix – Environmental Metrics Table

22 ESG Report Appendix – Greenhouse Gas (GHG) metrics

Greenhouse gas (GHG) emissions (Mt CO ₂ e) ^{1,2,3,4}	2022	2021	2020
Scope 1 emissions⁵			
Power generation - thermal ⁶	2,250,381	1,984,603	2,297,508
Power generation - renewable ⁷	580	472	521
Utilities - electric	12,059	17,343	6,840
Utilities - natural gas	73,662	79,728	82,037
Utilities - water/wastewater	205,916	200,228	194,139
Other uncategorized ⁸	223	235	1,274
Total Scope 1 emissions	2,542,820	2,282,609	2,582,317
Scope 2 emissions⁹			
Power generation - thermal	250	392	278
Power generation - renewable ¹⁰	3,212	2,514	1,786
Utilities - electric	16,188	17,529	16,752
Utilities - natural gas	1,614	2,001	1,294
Utilities - water/wastewater	67,883	74,576	66,650
Other uncategorized	53	94	253
Total Scope 2 emissions	89,200	97,106	87,014
Scope 3 emissions¹¹			
Category 3 - Fuel and energy related activities (not included under Scope 1 and 2) ¹²	1,161,196	1,081,376	1,088,463
Category 11 - Use of sold product ¹³	2,205,268	2,082,670	2,102,071
Category 15 - Investments ¹⁴	1,878,009	2,041,826	1,867,132

¹ Greenhouse gases included in calculations: CO₂, CH₄, N₂O, and SF₆. Global Warming Potentials (100-year time horizon) published in the IPCC Fourth Assessment Report are used in the emissions calculation. All emission figures are in metric tons CO₂e (Mt CO₂e).

² 2022 Scope 1 and 2 emissions by gas type: CO₂: 2,355,771 Mt CO₂e, CH₄: 266,185 Mt CO₂e, N₂O: 3,118 Mt CO₂e, and SF₆: 6,947 Mt CO₂e.

³ GHG emissions are calculated following the Greenhouse Gas Protocol Corporate Standard (GHG Protocol) and Corporate Value Chain (Scope 3) Account and Reporting Standard. Emission factors are sourced from best-practice references such as the Canadian National Inventory Report (NIR, published in 2022), USEPA's GHG Emission Factors Hub (published in 2021), IEA's Emissions Factors Database (published in 2021), and UK DEFRA's GHG Conversion Factors (published in 2022). Regarding emission factors for grid electricity, US facilities use 2020 eGRID factors published by USEPA in 2022, while facilities use 2020 factors published by IEA in 2022, and Canadian facilities use 2019 factors published in the 2022 NIR.

⁴ GHG emissions are consolidated through an operational-control approach.

⁵ Base year identification: 2017. Base year and historical year GHG emissions have been recalculated following AQN's GHG Base Year Recalculation Policy, to include full-year emissions from Liberty New York Water. A baseline recalculation is required when the following conditions are met: the facilities in operation in the reporting year changed from those in the base year in a non-organic way; changes in calculation methods, data monitoring, emissions factors and other assumptions have taken place; errors have been discovered in calculation methods and assumptions; operational boundaries have been modified in comparison to the base year; and the cumulative effect of expected changes from the base year recalculation exceed 5% of base year emissions. The recalculated Scope 1 and 2 emissions in 2017 are 3,759,264 Mt CO₂e and 88,248 Mt CO₂e, respectively.

⁶ Immaterial sources include fugitive emissions - leakage of refrigerants used in buildings and release of CO₂ from fire extinguishers.

⁷ This category includes AQN's thermal power generation facilities in the US and Bermuda.

⁸ This category includes AQN's wind, solar, and hydroelectric power generation facilities that were fully operating in 2022 from both regulated and non-regulated businesses.

⁹ This category includes all other sites that are not included in above categories, such as some office buildings. Due to the change of the GHG calculation platform starting from the 2021 reporting year, the included sites under this category in 2020 are slightly different from 2021 and onwards.

¹⁰ Scope 2 emission figures are location-based. Market-based emissions are equal to location-based emissions because there are no contractual instruments used in the calculation of Scope 2 emissions.

¹¹ Historical Scope 3 emissions from renewable power generation facilities were adjusted to remove the Tinkex hydroelectric facility, as it has been using self-generated renewable electricity.

¹² All emissions for Categories 3, 11, and 15 are calculated using actual data, obtained either through AQN's internal tracking system, or from suppliers or other value chain partners.

¹³ This Category includes emissions from the following subcategories: 1) upstream generation emissions of distributed electricity, 2) upstream production & transmission emissions of distributed gas, 3) upstream emissions of purchased and consumed fuels, 4) upstream emissions of purchased and consumed electricity, and 5) Transmission & Distribution loss emissions of purchased and consumed electricity. Emissions were calculated by applying appropriate upstream emission factors sourced from various jurisdictions, such as the UK DEFRA and USEPA, to the amount of fuels and electricity that AQN consumed and delivered.

¹⁴ This was calculated by applying the natural gas combustion emission factor sourced from USEPA's GHG Emission Factors Hub (published in 2022) to the total amount of natural gas that was delivered to industrial, commercial, and residential customers in the 2022 reporting year.

¹⁵ Investment emissions were calculated by applying AQN's percentage ownership to a facility's total gross Scope 1 and 2 emissions. The reported emissions include emissions from a 7.52% and 12.0% ownership in the Plum Point and Iatan coal power plants respectively, and approximately 43-44% ownership interest (specifically, 42.90% in 2022, 43.60% in 2021, and 44.20% in 2020) in Atlantica Sustainable Infrastructure PLC. 2021 and 2020 emissions have been updated to use Atlantica's gross Scope 1 emissions.

Appendix VII:

ESG Performance Index

2022

Sustaining energy
and water for life

June 27, 2023

Algonquin



2022 ESG performance index¹

Summary

Environment

		Historical		
		2022	2021	2020
Greenhouse gas (GHG) emissions (Mt CO ₂ e) ²	Scope 1	2,542,820 [†]	2,282,609	2,582,317
	Scope 2	89,200 [†]	97,106	87,014
	Intensity (Mt CO ₂ e/\$USD revenue)	0.0010	0.0011	0.0013
Energy consumption intensity	Power generation assets: MWh consumed/MWh generated	0.79	0.88	1.13
	Algonquin/Liberty: MWh consumed/\$USD revenue	0.0042	0.0047	0.0066
	Regulated business: MWh consumed/customer connections	8.73	8.65	11.56
Water usage (thousand m ³)	Water delivered	157,545	106,737	73,130
	Water withdrawal	204,397 [†]	145,250	69,033
	Water discharge	80,357 [†]	73,642	26,188

Social

		2022	2021	2020
Total number of employees		3,944 [†]	3,464	3,429
Female representation	Board	44.4%	37.5%	33.3%
	Executive Team	44.4%	40.0%	37.5%
	Leadership roles – Canada and US only ³	31.0%	30.0%	32.2%
	Workforce – Canada and US only	33.4%	32.9%	32.8%
Health and safety	Workforce fatalities	0 [†]	0	0
	Lost Time Injury Rate (LTIR) – Canada and US only	0.03	0.00	0.04
	Recordable Injury Rate (RIR) – Canada and US only	0.52	0.56	0.84
Electricity grid reliability	System Average Interruption Duration Index (SAIDI)	138.00 [†]	187.36	115.92
	System Average Interruption Frequency Index (SAIFI)	1.13 [†]	1.30	1.01
Community investment (\$USD millions)		31.2 [†]	34.9	18.1

Governance

		2022	2021	2020
Incidents of corruption		0 [†]	0	0
Legal actions for anti-competitive practices		1 [†]	0	1
Violations involving rights of indigenous peoples		0 [†]	0	0
Substantiated complaints received regarding customer privacy		0 [†]	0	0

[†] See breakdown by country under the heading "2022 ESG performance index - country breakdown" beginning on pg. 121.

1. Scope of disclosure: Unless explicitly noted, annual data herein is presented for the fiscal year beginning on January 1 and ending on December 31 of the specified year, and data reflecting a specific point in time is given as at December 31 of the specified year. Unless specifically noted, all relevant metrics include Bermuda and Chile. Unless explicitly noted, all relevant metrics are provided for operationally controlled assets only, and data is provided on a 100% basis for each such asset. Historical data that was not available is represented by "-".
2. 2020 and 2021 GHG emissions have been recalculated following Algonquin's GHG Base Year Recalculation Policy, to include full-year emissions from Liberty New York Water. Previously published emission figures (2017–2021) will differ. See footnote 22 for details.
3. Leadership roles refer to employees in the following job levels: Executive, Senior Vice President, Vice President, President, Senior Director, Director, and Senior Manager.

Operational metrics

	Historical		
	2022	2021	2020
Utility connections			
Electricity	308,698 [†]	307,000	306,000
Natural gas	375,000 [†]	373,000	371,000
Water and wastewater	559,562 [†]	413,000	410,000
Total	1,243,260	1,093,000	1,087,000

Energy delivered to our customers

	2022	2021	2020
Electricity (GWh) – regulated (retail)	6,749	6,471	5,892
Electricity (GWh) – unregulated (contractual agreements)	8,179	6,851	5,046
Total electricity (GWh)	14,927	13,322	10,937
Total electricity (PJ)	53.7	48.0	39.4
Natural gas (PJ)	43.8	41.6	41.8
Total (PJ)	97.5	89.5	81.1

Water and wastewater services provided to our customers

	2022	2021	2020
Water provided (thousand m ³)	157,545	106,737	73,130
Wastewater treated (thousand m ³)	12,238	10,478	9,596

Electricity generation capacity (MW)⁴

	2022	2021	2020
Natural gas ⁵	1,496 [†]	1,496	1,496
Heavy fuel oil	140 [†]	140	140
Wind	2,593 [†]	2,537	1,452
Hydroelectric	132 [†]	134	134
Solar	332 [†]	329	258
Total	4,692[†]	4,636	3,479
Renewable energy total	3,056 [†]	3,000	1,843
Renewable energy portfolio (%)	65% [†]	65%	53%

4. MW capacity is based on installed generator nameplate capacity. Facilities that are not operationally controlled by Algonquin are excluded.

5. Includes 100% nameplate capacity of the State Line natural gas facility.

Operational metrics (continued)

	Historical		
	2022	2021	2020
Net electricity generated (GWh)			
Natural gas	4,434 [†]	3,784	4,635
Heavy fuel oil	545 [†]	563	85
Wind	8,277 [†]	7,332	3,833
Hydroelectric	601 [†]	583	543
Solar	627 [†]	575	404
	Total	12,838	9,499
	Renewable energy total	8,490	4,779
	Renewable energy portfolio (%)	66%	50%
Customer satisfaction	2022	2021	2020
J.D. Power CSAT Score ⁶	699	703	686
Percentage of customer emails sent ⁷	35%	35%	33%
Energy reliability	2022	2021	2020
SAIDI (minutes)	138.00 [†]	187.36	115.92
SAIFI (rate)	1.13 [†]	1.30	1.01
CAIDI – Customer Average Interruption Duration Index (minutes)	122.22 [†]	143.81	114.77
Electricity transmission and distribution	2022	2021	2020
Length of transmission lines (km) – US only	2,026	2,021	2,279
Length of distribution lines (km) – US only	13,917	13,780	13,616
Transmission losses in % – US only	2.90%	2.90%	2.90%
Technical distribution losses in % – US only	4.30%	4.20%	4.20%
Natural gas transmission and distribution	2022	2021	2020
Length of transmission lines (km)	16	16	20
Length of distribution lines (km)	13,719	13,623	13,486
Leakage rate in distribution infrastructure	0.0161	0.0100	0.0146

6. Algonquin's J.D. Power Customer Satisfaction (CSAT) score is calculated internally based on J.D. Power CSAT scores for each of Algonquin's individual utilities in the Canada and the US. Scores are consolidated into an enterprise-wide value, based on a customer connection weighting.

7. 2022 data has been revised to include the percentage of emails sent to our customers. 2021 and 2020 data have also been revised.

Operational metrics (continued)

		Historical	
	2022	2021	2020
Water utility water mains and sewer pipes			
Length of water mains (km)	8,341 ¹⁸	7,181	3,208
Length of sewer pipes (km)	3,148 [†]	3,153	980
Cybersecurity			
Substantiated complaints received concerning breaches of customer privacy	0 [†]	0	0
Identified leaks, thefts, or losses of customer data	0 [†]	0	0
Economic value generated and distributed (\$USD millions)			
Economic value generated (EVG) – revenue	2,981.7 [†]	2,561.5	1,849.9
Economic value distributed (EVD)			
Operation costs	1,646.2 [†]	1,174.2	740.6
Employee wages and benefits	342.5 [†]	352.8	294.7
Payments to providers of capital	660.1 [†]	535.1	453.1
Payments to government – Canada and US only	5.5 [†]	5.0	5.6
Community Investments – Canada and US only	1.4	1.4	0.8
Economic value generated and distributed (EVG&D) by market			
Economic value retained (regulated)	303.7 [†]	391.9	241.9
Economic value retained (unregulated)	16.8 [†]	101.0	113.1
Total Economic value retained	320.5 [†]	492.9	355.1
Community engagement			
Operations with local community engagement	See regional breakdowns for detail	100%	100%
Payments under community contribution agreements, land rentals, or municipal taxes (\$USD millions) – Canada and US only	31.2 [†]	34.9	18.1
Cash contributions (\$USD)	See regional breakdowns for detail	1,185,000	1,672,000
Management overheads	96,000	188,961	158,471
Liberty Days used – hours volunteered by employees – Canada and US only	10,697	5,334	3,375

8. The increase in the length of water mains in 2022 was due to the inclusion of New York American Water.

Workforce and social indicators

Health and safety ⁹		Historical		
Work-related injury		2022	2021	2020
Fatalities from work-related injury	Employees	0 [†]	0	0
	Non-employees	0 [†]	0	0
Recordable injuries	Employees	21 [†]	19	21
	Non-employees	N/A ¹⁰	2	2
RIR – Canada and US only		0.52 ^{†11}	0.56	0.84
Work-related injuries include:		The primary work-related injuries identified for employees in 2022 are muscle strains, cuts, and abrasions.		
High-consequence work-related injuries (number)	Employees	1 [†]	0	1
	Non-employees	0 [†]	2	2
LTIR – Canada and US only		0.03	0.00	0.04
Near Miss Frequency Rate (NMFR) – Canada and US only		13.66	30.00	32.97
Work-related hazards posing high-consequence injury risk:		Identified through job safety analysis and pre-job inspections, primary high-consequence work-related injuries include electrical shocks, falls from heights, and struck against injuries. High-consequence work-related injuries included in this reporting period are potential for electric shock or burn, and manual work with ergonomic stressors.		
Total hours worked by employees		7,913,991 [†]	7,368,526	5,204,161

9. Algonquin does not have total hours worked by contractors and cannot normalize OH&S metrics. Algonquin will be seeking to improve OH&S disclosure for contractors.

10. Safety rates are typically reported based on the overall performance of contractors and cannot be specifically obtained for activities carried out on "Liberty sites." As a result, the precise rates pertaining to these sites are currently unavailable.

11. Chile and Bermuda RIR data is available in the country breakdown section.

Health and Safety (continued)

		Historical		
Work-related ill health		2022	2021	2020
Fatalities from work-related ill health	Employees	0 [†]	0	0
	Non-employees	0 [†]	0	0
Recordable work-related ill health cases	Employees	0 [†]	0	0
	Non-employees	0 [†]	0	0
Work-related hazards posing ill health risks:		Identified through job safety analysis and pre-job inspections, primary work-related hazards posing ill-health risks include soft muscle injury and chemical exposure. Zero work-related ill health injuries were reported in 2022.		
Injury elimination/mitigation strategy:		Algonquin's injury elimination/mitigation strategy follows local action plans and a five-year occupational health and safety plan following the hierarchy of controls methodology.		

Workers covered by an environmental, health, and safety (EHS) management system

		2022	2021	2020
Workers covered by EHS system		100%	100%	100%
Workers covered by internally audited EHS system	Employees	100% ^{†12}	40%	35%
	Non-employees	100%	100%	100%
Employees covered by externally audited EHS system ¹³	Canada and US	N/A ¹⁴	5%	5%

Employee demographics

		Historical		
Number and geographic location of employees		2022	2021	2020
Canada	Permanent	665	564	500
	Temporary	18	25	21
US	Permanent	2,424	2,064	2,113
	Temporary	14	13	15
Bermuda	Permanent	366	345	341
	Temporary	1	12	-
Chile	Permanent	456	422	439
	Temporary	0	19	-
Total Algonquin/Liberty workers		3,944	3,464	3,429
Algonquin/Liberty employees		See regional breakdowns for detail	67.5%	72.6%
Non-employees		See regional breakdowns for detail	32.5%	27.4%

12. During the years 2020 and 2021, audits were primarily concentrated on specific parts of the company. However, the auditing process was limited and affected by the constraints imposed by the COVID-19 pandemic. With the easing of COVID-19 restrictions, we have resumed conducting in-person audits to ensure a more comprehensive assessment of safety measures and practices within the company.

13. Our Chile operation is ISO 45001 certified while our US, Canada, and Bermuda operations have internal management systems in place.

14. No external audits were conducted in 2022.

Employee demographics (continued)

		Historical		
Collective bargaining agreement coverage – Canada and US only		2022	2021	2020
Percentage of employees who are salaried	Canada	100%	73%	73%
	US	67%		
Percentage of employees covered by collective bargaining agreements	Canada	0%	27%	27%
	US	33%		
Gender and self-identification		2022	2021	2020
Women		See regional breakdowns for detail	32.9%	32.8%
Men		See regional breakdowns for detail	67.1%	67.2%
Self-identified minorities		See regional breakdowns for detail	13.7%	9.8%
Self-identified veterans		See regional breakdowns for detail	3.1%	2.0%
Self-identified employees with disability		See regional breakdowns for detail	0.3%	0.5%
By employment contract¹⁵		2022	2021	2020
Permanent employees	Female	1,192 [†]	860	857
	Male	2,719 [†]	1,768	1,756
Temporary employees	Female	20 [†]	18	13
	Male	13 [†]	20	23
By employment type¹⁵		2022	2021	2020
Full-time employees	Female	1,196 [†]	869	865
	Male	2,722 [†]	1,777	1,766
Part-time employees	Female	12 [†]	8	5
	Male	4 [†]	6	8
Casual employees	Female	4 [†]	1	0
	Male	6 [†]	5	5
Female representation		2022	2021	2020
All management positions – Canada and US only		32.0%	33.2%	34.3%
Junior management positions – Canada and US only		32.2%	35.9%	35.8%
Top management and above – Canada and US only		29.6%	30.4%	32.2%
Revenue-generating positions – Canada and US only		18.6%	31.3%	31.9%
STEM-related positions – Canada and US only		27.9%	25.5%	26.3%

15. Historical numbers do not include our operations in Chile and Bermuda.

Employee demographics (continued)

		Historical		
Collective bargaining agreement coverage – Canada and US only		2022	2021	2020
Percentage of employees who are salaried	Canada	100%	73%	73%
	US	67%		
Percentage of employees covered by collective bargaining agreements	Canada	0%	27%	27%
	US	33%		
Gender and self-identification		2022	2021	2020
Women		See regional breakdowns for detail	32.9%	32.8%
Men		See regional breakdowns for detail	67.1%	67.2%
Self-identified minorities		See regional breakdowns for detail	13.7%	9.8%
Self-identified veterans		See regional breakdowns for detail	3.1%	2.0%
Self-identified employees with disability		See regional breakdowns for detail	0.3%	0.5%
By employment contract¹⁵		2022	2021	2020
Permanent employees	Female	1,192 [†]	860	857
	Male	2,719 [†]	1,768	1,756
Temporary employees	Female	20 [†]	18	13
	Male	13 [†]	20	23
By employment type¹⁵		2022	2021	2020
Full-time employees	Female	1,196 [†]	869	865
	Male	2,722 [†]	1,777	1,766
Part-time employees	Female	12 [†]	8	5
	Male	4 [†]	6	8
Casual employees	Female	4 [†]	1	0
	Male	6 [†]	5	5
Female representation		2022	2021	2020
All management positions – Canada and US only		32.0%	33.2%	34.3%
Junior management positions – Canada and US only		32.2%	35.9%	35.8%
Top management and above – Canada and US only		29.6%	30.4%	32.2%
Revenue-generating positions – Canada and US only		18.6%	31.3%	31.9%
STEM-related positions – Canada and US only		27.9%	25.5%	26.3%

15. Historical numbers do not include our operations in Chile and Bermuda.

Employee demographics (continued)

		Historical			
Leadership roles (senior manager and above)		2022	2021	2020	
Women – Canada and US only		30.98%	30.0%	32.2%	
Men – Canada and US only		69.02%	70.0%	67.8%	
Self-identified minorities – Canada and US only		11.46%	10.7%	8.6%	
Executive team		2022	2021	2020	
Members		9	10	8	
Women		44.4%	40.0%	37.5%	
Men		55.6%	60.0%	62.5%	
Self-identified minorities		11.1%	10.0%	12.5%	
Self-identification of employees working in the US¹⁶		2022	2021	2020	
Percentage of employees working in the US		63.2%	60.0%	80.3%	
Share of racial, ethnic, and indigenous self-identifications		Asian	1.9%	1.8%	1.5%
		Black or African American	3.7%	4.0%	2.1%
		Hispanic or Latino	6.9%	6.8%	4.7%
		Caucasian	78.6%	83.7%	62.5%
		Indigenous or Native	0.9%	1.1%	1.1%
		Other	8.0%	2.6%	28.2%
Employee pay ratios – Canada and US only		2022	2021	2020	
Pay ratio of CEO total compensation to median employee compensation ¹⁷	Canada	50.62	55.02	50.82	
	US	48.79			
Base pay ratio (highest paid to median) by region	Canada	6.36	9.23	9.50	
	US	3.60	3.56	3.62	
Salary growth ratio (highest paid to median) by region	Canada	1.76	(0.23)	0.73	
	US	1.65	0.63	0.61	

16. Self-identification declarations are voluntary in Canada.

17. CEO compensation used in the calculation includes Base Salary (BS), Short-Term Incentive Pay (STIP), Long-Term Incentive Pay (LTIP), cash allowance for business use vehicle, and compensatory change (pension) for the reporting year. Median employee compensation includes salaries, wages, bonuses, incentives, benefits, and any other forms of remuneration where applicable. The calculation has included all employees, including senior executives but excluding CEO. Historical ratios have been updated to reflect the definition change of the calculation.

Employee demographics (continued)

		Historical			
Employee compensation by gender and level – Canada and US only		2022	2021	2020	
Equal pay ratio (female/male) by level	Executive (base pay only)	0.82	0.94	0.85	
	Executive (base pay + other)	0.70	-	0.61	
	All managers and above (base pay only)	Canada	0.95	0.93	0.92
		US	0.96		
	All managers and above (base pay + other)	Canada	0.87	0.92	0.91
		US	0.95		
Non-managers (base pay only)	Canada	0.94	0.75	0.75	
	US	0.74			
Equal pay ratio (female/male) by function	Office	Canada	0.77	0.77	
		US			0.67
	Field	Canada	0.91	0.89	
		US			0.81
Equal pay ratio (female/male) by region	Canada	0.84	0.90	0.88	
	US	0.80	0.80	0.80	
Women in top 10% of salaries	Canada	30.0%	27.0%	28.7%	
	US	23.0%			

Ratios of entry level wage to local minimum wage (by region and gender)

		2022	2021	2020
Canada	Female	1.48	1.80	1.76
	Male	1.56	1.53	1.46
US	Female	1.42	1.18	1.26
	Male	1.40	1.83	2.52

Employee attraction and retention

Hiring rates

	2022	2021	2020
Percentage of open positions filled by internal candidates	36.0%	26.0%	20.0%
Total number of employee hires	812	443	458

Hiring rates (continued)

		2022	2021	2020
Employees hired by gender	Female	See regional breakdowns for detail	0.39	0.39
	Male	See regional breakdowns for detail	0.61	0.61
Employees hired by region (ratio between Canada and US)	Canada	0.33	0.44	0.32
	US	0.67	0.56	0.68

Turnover rates

			2022	2021	2020
Total employee turnover rate			See regional breakdowns for detail	0.15	0.07
Volunteer employee turnover rate			See regional breakdowns for detail	0.13	0.05
Employee turnover rate by gender – Canada and US only	Female	Canada	0.16	0.18	0.08
		US	0.16		
	Male	Canada	0.15	0.14	0.07
		US	0.14		
Employee turnover rate by region – Canada and US only	Canada		0.15	0.16	0.05
	US		0.14	0.15	0.08

Employee attraction and retention

Parental leave

			2022	2021	2020
Employees entitled to parental leave	Female	See regional breakdowns for detail		990	842
	Male	See regional breakdowns for detail		2,046	1,720
Employees that took parental leave	Female	See regional breakdowns for detail		32	13
	Male	See regional breakdowns for detail		15	4
Employees that took parental leave and returned	Female	See regional breakdowns for detail		18	7
	Male	See regional breakdowns for detail		14	4
Return to work rate	Female	See regional breakdowns for detail		0.56	0.54
	Male	See regional breakdowns for detail		0.93	1.00
Employees that took parental leave and were retained	Female	See regional breakdowns for detail		18	7
	Male	See regional breakdowns for detail		14	4
Parental leave retention rate	Female	See regional breakdowns for detail		0.50	0.46
	Male	See regional breakdowns for detail		0.80	1.00

Employee attraction and retention (continued)

			Historical		
Defined benefit plan			2022	2021	2020
Salary contributed by employee/employer – Canada and US only	Employee	Canada	1%	0%	0%
		US	8%		
	Employer	Canada	5%	4% – 8%	4% – 8%
		US	401{k} = 3.6% Pension = 8.5%		
Level of participation in retirement plans – Canada and US only			100%	100%	100%
Defined benefits plan and other retirement plans:			<ul style="list-style-type: none"> - Plan's liabilities are met by organization's general resources - Separate fund exists to pay for the plan's pension liabilities - Scheme's liabilities are 100% covered, estimated on actuarial basis calculated annually 		

Employee engagement

	2022	2021	2020
Employee engagement score	See regional breakdowns for detail	62%	73%
Percentage of employees covered	See regional breakdowns for detail	83%	88%

Learning and development

			Historical		
Training ¹⁸			2022	2021	2020
Average training hours by gender	Female		22.0 [†]	18.0	13.6
	Male		20.0 [†]	17.0	14.6
Average training hours by level	Senior managers and above ¹⁹		10.0 [†]	21.0	13.5
	Middle managers ²⁰		15.0 [†]	26.0	17.3
Average training hours by job function	Office		18.0 [†]	18.0	13.1
	Field		23.0 [†]	16.0	17.8
Average training hours per employee			21.0 [†]	15.0	14.0
Average amount spent per employee on training (\$USD/employee)			1,050 [†]	1,469	1,361
Amount invested in employee training (\$USD) ²¹			3,644,131 [†]	2,792,187	2,047,115

Non-discrimination

			Historical		
Performance reviews			2022	2021	2020
Percentage of employees who received performance review – Canada and US only			100% ²²	100%	100%

18. The data presented in column 2022 includes Algonquin's operations in Canada, US, and Bermuda (both regulated and unregulated).

19. Historical definition of Senior Manager included positions of Senior Manager and above. 2021 and 2022 definition has been revised to Vice President and above.

20. Historical definition of Middle Manager included positions of Managers up to Team Leaders. 2021 and 2022 definition has been revised to Senior Directors and Directors.

21. Investments in employee training only include hard costs (costs directly related to the production, development, and administration of training initiatives).

22. Only regular full-time, regular part-time, and non-union employees who have joined before September 30 were eligible for performance review.

Non-discrimination (continued)

Discrimination incidents

	Historical		
	2022	2021	2020
Number of incidents of discrimination	1†	3	8
Number of incidents reviewed by Algonquin	1†	3	8
Number of incidents no longer subject to action	1†	3	8
	Remediation plans implemented and/or being implemented	All actions that were recommended were completed.	

Governance and policy

Board of Directors

Experience and background

	2022	2021	2020
Independent directors	8	8	8
Average tenure (years)	5.9	5.3	7
Directors with operational experience ²³	4	7	9
Directors with governance and/or risk management experience	9	9	9
Directors with senior executive experience	8	8	7
Total Board members	9	9	10

Demographics

	2022	2021	2020	
By gender	Female	44%	40%	33%
	Male	56%	60%	67%
By age	< 30 years	0%	0%	0%
	30–50 years	11%	0%	0%
	> 50 years	89%	100%	100%

Compliance

Indigenous relations

	2022	2021	2020
Violations involving rights of indigenous peoples	0 [†]	0	0

Human rights

	2022	2021	2020	
Operations subject to human rights reviews and impact assessments	Canada	100%	100%	100%
	US	100%	100%	100%

23. The year-over-year change is attributable to a modification in the definition of operational experience to be more specific to the energy/utility sector. The current definition is "Directors with operational experience as a senior executive in energy or utility operations, engineering, project management and development, or construction."

Compliance (continued)

	Historical		
	2022	2021	2020
Anti-corruption			
Operations assessed for corruption-related risks (government relations, conflicts of interest, and foreign interests) ²⁴	100% [†]	100%	100%
Board of directors and employees who received anti-corruption communications and received anti-corruption policy training ²⁵	100%	100%	100%
Incidents of corruption and actions taken	0 [†]	0	0
Percentage of employees who completed annual Code of Business Conduct and Ethics training	100%	100%	100%
Number of times Ethics Reporting Line was used	17 [†]	23	10
Anti-competitive behaviour			
Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	1 [†]	0	1
Social and economic compliance			
Total monetary value of significant fines (\$USD millions)	0	4	1
Number of non-monetary sanctions	0	0	0
Political spending			
Amount spent on lobbying (\$USD)	1,068,200 [†]	745,000	807,397
Amount spent on trade associations (\$USD)	1,208,800 [†]	1,042,000	785,000

24. Algonquin has not performed risk assessments for all our operating assets, and our approach to risk assessment is not solely focused on "corruption." We have conducted risk assessments for activities related to corruption based on the available resources and collaboration with the business. However, there is still a possibility of unidentified corruption-related risks that may exist.

25. Currently, anti-corruption training is embedded into the Annual Code of Business Conduct and Ethics training.

Environment

GHG emissions (Mt CO₂e)²⁶⁻²⁹

	Historical		
	2022	2021	2020
Scope 1 emissions³⁰			
Power generation – thermal ³¹	2,250,381	1,984,603	2,297,508
Power generation – renewable ³²	580	472	521
Utilities – electric	12,059	17,343	6,840
Utilities – natural gas	73,662	79,728	82,037
Utilities – water/wastewater	205,916	200,228	194,139
Other uncategorized ³³	223	235	1,274
Total Scope 1 emissions	2,542,820	2,282,609	2,582,317
Scope 2 emissions³⁴			
Power generation – thermal	250	392	278
Power generation – renewable ³⁵	3,212	2,514	1,786
Utilities – electric	16,188	17,529	16,752
Utilities – natural gas	1,614	2,001	1,294
Utilities – water/wastewater	67,883	74,576	66,650
Other uncategorized	53	94	253
Total Scope 2 emissions	89,200	97,106	87,014

26. GHG gases included in calculations: CO₂, CH₄, N₂O, and SF₆. Global Warming Potentials (100-year time horizon) published in the IPCC Fourth Assessment Report are used in the emissions calculation. All emission figures are in metric tons CO₂e (Mt CO₂e). 2022 Scope 1 and 2 emissions by gas type: CO₂: 2,355,771 Mt CO₂e, CH₄: 266,185 Mt CO₂e, N₂O: 3,118 Mt CO₂e, and SF₆: 6,947 Mt CO₂e.

27. GHG emissions are calculated following the Greenhouse Gas Protocol Corporate Standard (GHG Protocol) and Corporate Value Chain (Scope 3) Account and Reporting Standard. Emission factors are sourced from best-practice references such as the Canadian National Inventory Report (NIR, published in 2022), USEPA's GHG Emission Factors Hub (published in 2022), IEA's Emissions Factors Database (published in 2022), and UK DEFRA's GHG Conversion Factors (published in 2022). Regarding emission factors for grid electricity, US facilities use 2020 eGRID factors published by USEPA in 2022, Chile facilities use 2020 factors published by IEA in 2022, and Canadian facilities use 2019 factors published in the 2022 NIR.

28. GHG emissions are consolidated through an operational-control approach.

29. Base year identification: 2017. Base year and historical year GHG emissions have been recalculated following Algonquin's GHG Base Year Recalculation Policy to include full-year emissions from Liberty New York Water. A baseline recalculation is required when the following conditions are met: the facilities in operation in the reporting year changed from those in the base year in a non-organic way; changes in calculation methods, data monitoring, emissions factors and other assumptions have taken place; errors have been discovered in calculation methods and assumptions; operational boundaries have been modified in comparison to the base year, and the cumulative effect of expected changes from the base year recalculation exceed 5% of base year emissions. The recalculated Scope 1 and 2 emissions in 2017 are 3,759,264 Mt CO₂e and 88,248 Mt CO₂e, respectively.

30. Immaterial sources include fugitive emissions – leakage of refrigerants used in buildings and release of CO₂ from fire extinguishers.

31. This category includes Algonquin's thermal power generation facilities in the US and Bermuda.

32. This category includes Algonquin's wind, solar, and hydroelectric power generation facilities that were fully operating in 2022 from both regulated and unregulated businesses.

33. This category includes all other sites that are not included in above categories, such as some office buildings. Due to the change of the GHG calculation platform starting from the 2021 reporting year, the included sites under this category in 2020 are slightly different from 2021 and onwards.

34. Scope 2 emission figures are location-based. Market-based emissions are equal to location-based emissions because there are no contractual instruments used in the calculation of Scope 2 emissions.

35. Historical Scope 2 emissions from renewable power generation facilities were adjusted to remove the Tinker hydroelectric facility, as it has been using self-generated renewable electricity.

GHG emissions (Mt CO₂e)(continued)

Scope 1 and Scope 2 emissions and emission intensities

	2022	2021	2020
Total Scope 1 + 2 emissions	2,632,020	2,379,715	2,669,331
Total emissions from power generation (Mt CO ₂ e)	2,254,423	1,987,981	2,300,093
Emission intensity – power generation (Mt CO ₂ e from power generation/MWh power generation)	0.1608	0.1997	0.2091
Emission intensity – revenue (Mt CO ₂ e/\$USD revenue)	0.0010	0.0011	0.0013
GHG reduction below 2017 baseline (%)	-31.6%	-38.1%	-30.6%

Scope 3 emissions³⁶

	2022	2021	2020
Category 3 – Fuel and energy-related activities (not included under Scope 1 and 2) ³⁷	1,161,196	1,081,376	1,088,463
Category 11 – Use of sold product ³⁸	2,205,268	2,092,670	2,102,071
Category 15 – Investments ³⁹	1,878,009	2,041,826	1,867,132

Other emissions (Mt)

	Historical		
Other emissions from electricity generation (Mt)⁴⁰	2022	2021	2020
NO _x emissions	508	483	493
SO _x emissions	10	11	10
Mercury emissions	0.102070	0.00000	0.00003
Particulate matter emissions	74	79	100
Lead emissions	0.0003	0.0000	0.0001
Persistent organic pollutants	-	-	-
Volatile organic compounds	16	46	84
Hazardous air pollutants	7	5	5
Ozone-depleting substances	-	-	-

36. All emissions for Categories 3, 11, and 15 are calculated using actual data, obtained either through Algonquin's internal tracking system, or from suppliers or other value chain partners.

37. This Category includes emissions from the following subcategories: 1) upstream generation emissions of distributed electricity, 2) upstream production and transmission emissions of distributed gas, 3) upstream emissions of purchased and consumed fuels, 4) upstream emissions of purchased and consumed electricity, and 5) transmission and distribution loss emissions of purchased and consumed electricity. Emissions were calculated by applying appropriate upstream emission factors sourced from various jurisdictions, such as the UK DEFRA and USEPA, to the amount of fuels and electricity that Algonquin consumed and delivered.

38. This was calculated by applying the natural gas combustion emission factor sourced from USEPA's GHG Emission Factors Hub (published in 2022) to the total amount of natural gas that was delivered to industrial, commercial, and residential customers in the 2022 reporting year.

39. Investment emissions were calculated by applying Algonquin's percentage ownership to a facility's total gross Scope 1 and 2 emissions. The reported emissions include emissions from a 7.52% and 12.0% ownership in the Plum Point and Iatan coal power plants respectively, and approximately 43–44% ownership interest (specifically, 42.9% in 2022, 43.6% in 2021, and 44.2% in 2020) in Atlantica Sustainable Infrastructure PLC. 2021 and 2020 emissions have been updated to use Atlantica's gross Scope 1 emissions.

40. Metrics provided below are for US thermal facilities only.

Energy consumption and generation capacity

		Historical		
Internal energy consumption (MWh)		2022	2021	2020
Non-renewable sources	Gasoline	32,438 [†]	39,163	17,369
	Diesel	77,591 [†]	62,123	48,282
	Liquified petroleum gas (LPG)	2,192 [†]	1,850	5,246
	Natural gas	10,152,537 [†]	8,624,164	10,583,263
	Fuel oil	1,307,337 [†]	1,488,153	164,138
Electricity consumption		179,802 [†]	155,334	91,954
Total internal energy consumption (MWh)		11,751,897[†]	10,370,787	10,910,252
Electricity generated and sold		14,483,858	10,269,746	9,499,073
Energy consumption intensity	Power generation assets: MWh consumed/MWh generated	0.79	0.88	1.13
	Algonquin/Liberty: MWh consumed/\$USD revenue	0.0042	0.0047	0.0066
	Regulated business: MWh consumed/Customer connections	8.73	8.65	11.56
Generation capacity		2022	2021	2020
Nameplate capacity of generation assets by source (MW)	Natural gas	1,496 [†]	1,496	1,496
	Heavy fuel oil	140 [†]	140	140
	Hydroelectric	132 [†]	134	134
	Solar	332 [†]	329	258
	Wind	2,593 [†]	2,537	1,452
	Total generation capacity (MW)	4,692[†]	4,636	3,479
Energy capacity mix (%)	Natural gas	32% [†]	32%	43%
	Heavy fuel oil	3% [†]	3%	4%
	Hydroelectric	3% [†]	3%	4%
	Solar	7% [†]	7%	7%
	Wind	55% [†]	55%	42%
	Total renewable generation capacity (%)	65%[†]	65%	53%

Water and effluents

		Historical		
		2022	2021	2020
Water withdrawal				
Water withdrawal by source (thousand m ³)	Surface water	31,247 [†]	27,860	9,546
	Ground water	164,086 [†]	109,006	79,486
	Third-party water	9,059 [†]	8,380	9,599
	Other source	5 ^{†41}	1	164
	Total water withdrawal	204,397[†]	145,248	98,795
Water withdrawal from water stressed regions by source (thousand m ³)	Surface water	1,265 [†]	0	-
	Ground water	72,968 [†]	13,560	-
	Third-party water	7,035 [†]	7,475	-
	Other source	0 [†]	0	-
Water discharge				
Water discharge by source (m ³)	Surface water	52,491,457 [†]	46,574,167	12,967,475
	Ground water	261,883 [†]	136,005	350,048
	Seawater ⁴²	27,169,423 [†]	25,358,995	7,805,834
	Third-party water	434,361 [†]	1,582,615	5,064,148
	Total water discharge	80,357,124[†]	73,651,782	26,187,505
Water discharge in water stressed regions by source (m ³)	Surface water	0 [†]	0	-
	Ground water	62 [†]	58	-
	Ocean and seawater	0 [†]	11	-
	Third-party water	208 [†]	935	-
Water consumption				
Total water consumption (thousand m ³)		22,063 [†]	74,209 ⁴³	25,665
Total water consumption in water stressed regions (thousand m ³)		11,722 [†]	4,013	-
Water utility energy usage				
Water supplied to customers (thousand m ³)		157,537	117,215	82,726
Energy used by water utilities (MWh)		187,178	143,567	81,313
Energy intensity of water supply (MWh/thousand m ³)		1.19	1.22	0.98

41. "Other source" data reported for 2021 and 2022 includes harvested rainwater from BELCO.

42. Seawater discharge was from ESSAL (re-branded to Suralis in May 2023) operations.

43. This number was updated in 2023. Previously, the water consumption for ESSAL was calculated using the amount of water billed. It has been updated to reflect 2021 water consumption after discounting total water delivered to customers.

Waste

Waste generation (Mt)		2022	2021	2020
Waste generated	Hazardous waste ⁴⁴	15,989 [†]	51,864	20,797
	Non-hazardous waste	17,790 [†]	25,793	312,827
	Total waste generated	33,778[†]	77,657	333,624
Waste diverted (Mt)		2022	2021	2020
Hazardous waste diverted by recovery type (offsite)	Reuse	0 [†]	0	2
	Recycling	5,805 [†]	6,104	9,678
	Other – recovery (including energy recovery) and composting	2,236 [†]	40,044	-
	Total hazardous waste diverted	8,041[†]	46,148	9,680
Non-hazardous waste diverted by recovery type (offsite)	Reuse	0 [†]	0	1,689
	Recycling	2,019 [†]	7,304	221,672
	Other – recovery (including energy recovery) and composting	629 [†]	615	0.003
	Total non-hazardous waste diverted	2,648[†]	7,918	223,362
Waste directed to disposal (Mt)		2022	2021	2020
Hazardous waste disposed by disposal operation (offsite)	Incineration with energy recovery	0 [†]	2	23
	Incineration without energy recovery	10 [†]	0	49
	Landfilling	7,938 [†]	5,714	10,754
	Other	0 [†]	0	292
	Total hazardous waste disposed	7,948[†]	5,716	11,117
Non-hazardous waste disposed by disposal operation (offsite)	Incineration with energy recovery	0 [†]	3	549
	Incineration without energy recovery	1 [†]	0	0.15
	Landfilling	15,141 [†]	17,872	77,754
	Other	0 [†]	0	11,162
	Total non-hazardous waste disposed	15,142[†]	17,875	89,465

44. In 2021, Liberty completed significant environmental remediation projects (in Massachusetts) which resulted in increased amounts of both hazardous and non-hazardous wastes.

Biodiversity

Species impact

		Historical		
		2022	2021	2020
Land developed for pollinators	Square feet	3,728,623	2,546,645	1,430,753
IUCN Red List species and national conservation list species with habitats in areas affected by operations	Critical endangered	4	4	2
	Endangered	36	36	52
	Vulnerable	25	25	13
	Near threatened	9	9	2
	Least concern	14	14	-

Fleet and Compliance

		Historical		
		2022	2021	2020
Fleet				
Percentage of vehicle fleet using low-emission fuel		67%	68%	45%
Number of Compressed Natural Gas (CNG) capable vehicles		249	275	279
Volume of CNG Gas Gallon Equivalent used (GGE)		83	181	385
Electric ports installed for employee vehicles		161 ⁴⁵	151	97
Percentage of employees with access to electric vehicle charging at office		65% ⁴⁶	61%	51%

Compliance with environmental laws and regulations

		2022	2021	2020
Number of violations with environmental laws and regulations	See regional breakdowns for detail		24	7
Monetary value of environmental fines (\$USD millions)	See regional breakdowns for detail		3.7	0.7
Environmental liability accrued at year end (\$USD millions)	See regional breakdowns for detail		69.2	-

45. This includes all charging ports located on Liberty properties including those also accessible for public use.

46. This is for Canada, US, and Bermuda only.

2022 ESG performance index – country breakdown⁴⁷

Summary

Environment

		Canada	US	Bermuda	Chile
GHG emissions (Mt CO ₂ e)	Scope 1	3,034	2,025,017	341,705	173,064
	Scope 2	344	55,789	0	33,067
Water usage (thousand m ³)	Withdrawal	28	134,941	7 ⁴⁸	69,421
	Discharge	0.02	13,717	2.04 ⁴⁸	66,638

Social

		Canada	US	Bermuda	Chile
Total number of employees		683	2,438	367	456
Health and safety	Workforce fatalities	0	0	0	0
	SAIDI	N/A	140.40	118.57	N/A
Electricity grid reliability	SAIFI	N/A	1.15	0.98	N/A
Community investment (\$USD millions)		3.9	27.3	-	-

Governance

		Canada	US	Bermuda	Chile
Incidents of corruption		0	0	0	0
Legal actions for anti-competitive practices		0	0	0	1
Violations involving rights of indigenous peoples		0	0	0	0
Substantiated complaints received regarding customer privacy		0	0	0	0

47. Figures in this "2022 ESG performance index – country breakdown" section present 2022 data only. See footnote 1. Due to rounding or calculation of metrics, the amount may not sum to the total Algonquin figure presented above. When data is not applicable to a business operation or region, it is denoted as "N/A".

48. This figure only includes BELCO.

Operational metrics

Utility connections

	Canada	US	Bermuda	Chile
Electricity	N/A	302,228	6,470	N/A
Natural gas	3,934	371,066	N/A	N/A
Water and wastewater	N/A	315,725	N/A	243,837

Electricity generation capacity (MW)

	Canada	US	Bermuda	Chile
Natural gas	0	1,496	0	N/A
Heavy fuel oil	0	0	140	N/A
Wind	440	2,153	0	N/A
Hydroelectric	116	16	0	N/A
Solar	10	322	0	N/A
Total	565	3,987	140	N/A
Renewable energy total	565	2,491	0	N/A
Renewable energy portfolio (%)	100%	62%	0%	N/A

Net electricity generated (GWh)

	Canada	US	Bermuda	Chile
Natural gas	0	4,434	0	N/A
Heavy fuel oil	0	0	545	N/A
Wind	1,372	6,905	0	N/A
Hydroelectric	549	52	0	N/A
Solar	15	612	0	N/A
Total	1,936	12,002	545	N/A
Renewable energy total	1,936	7,569	0	N/A
Renewable energy portfolio (%)	100%	63%	0%	N/A

Operational metrics (continued)

Energy reliability

	Canada	US	Bermuda	Chile
SAIDI (minutes)	N/A	140.40	118.57	N/A
SAIFI (rate)	N/A	1.15	0.98	N/A
CAIDI (minutes)	N/A	122.32	121.23	N/A

Water utility water mains and sewer pipes

	Canada	US	Bermuda	Chile
Length of water mains (km)	N/A	6,108	N/A	2,233
Length of sewer pipes (km)	N/A	1,191	N/A	1,957

Cybersecurity

	Canada	US	Bermuda	Chile
Substantiated complaints received concerning breaches of customer privacy	0	0	0	0
Identified leaks, thefts, or losses of customer data	0	0	0	0

Economic value generated and distributed (\$USD millions)

	Canada	US	Bermuda	Chile
Economic value generated (EVG) – revenue	261.1	2,359.0	267	94.6
Economic value distributed (EVD)				
Operation costs	47.0	1,409.5	147.3	42.4
Employee wages and benefits	33.3	239.4	54.2	15.6
Payments to providers of capital	55.7	593.1	6.7	4.6
Payments to government – Canada and US only	3.8	1.7	-	-
Economic value generated and distributed (EVG&D) by market				
Economic value retained (regulated)	112.6	105.7	58.8	26.6
Economic value retained (unregulated)	8.7	8.1	0.0	0.0
Total Economic value retained	121.3	113.8	58.8	26.6

Community engagement

	Canada	US	Bermuda	Chile
Operations with local community engagement	50%	60%	40%	-
Payments under community contribution agreements, land rentals, or municipal taxes (\$USD millions) – Canada and US only	3.9	27.3	-	-
Cash contributions (\$USD)	\$152,726	\$791,749	-	\$33,979

Workforce and social indicators

Health and Safety

Work-related injury

		Canada	US	Bermuda	Chile
Fatalities from work-related injury	Employees	0	0	0	0
	Non-employees	0	0	0	0
Recordable injuries	Employees	0	15	5	1
	RIR	0.00	0.52 ⁴⁹	1.25	0.20
	Work-related injuries include:	The primary work-related injuries identified for employees in 2022 are muscle strains, cuts, and abrasions.			
High-consequence work-related injuries	Employees	0	1	0	0
	Non-employees	0	0	0	0
	Work-related hazards posing high-consequence injury risk:	Identified through job safety analysis and pre-job inspections, primary high-consequence work-related injuries include electrical shocks, falls from heights, and struck against injuries. High-consequence work-related injuries included in this reporting period are potential for electric shock or burn, and manual work with ergonomic stressors.			
Total hours worked by employees		-	6,104,288 ⁴⁹	800,204	1,009,499

Work-related ill health

		Canada	US	Bermuda	Chile
Fatalities from work-related ill health	Employees	0	0	0	0
	Non-employees	0	0	0	0
Recordable work-related ill health cases	Employees	0	0	0	0
	Non-employees	0	0	0	0
	Work-related hazards posing ill health risks:	Identified through job safety analysis and pre-job inspections, primary work-related hazards posing ill-health risks include soft muscle injury and chemical exposure. Zero work-related ill health injuries were reported in 2022.			
	Injury elimination/mitigation strategy:	Algonquin's injury elimination/mitigation strategy follows local action plans and a five-year occupational health and safety plan following the hierarchy of controls methodology.			

49. This includes both Canada and US.

Health and Safety (continued)

Workers covered by an EHS management system

		Canada	US	Bermuda	Chile
Workers covered by EHS system		100%	100%	100%	100%
Workers covered by internally audited EHS system	Employees	100%	100%	100%	100%
	Non-employees	100%	100%	100%	100%

Employee demographics

Number and geographic location of employees⁵⁰

		Canada	US	Bermuda	Chile
Number and geographic location of employees ⁵⁰	Algonquin/Liberty employees	94.3%	95.0%	100.0%	100.0%
	Non-employees	5.7%	5.0%	0.0%	0.0%

By age group⁵⁰

		Canada	US	Bermuda	Chile
Age ranges	< 30 years	12.5%	13.0%	13.8%	8.8%
	30–50 years	63.5%	53.5%	59.2%	59.4%
	> 50 years	24.0%	33.6%	27.0%	31.8%

Average age (years)⁵⁰

		Canada	US	Bermuda	Chile
Female employees		42	44	43	43
Male employees		41	43	42	45
	All employees	42	44	42	45

Gender and employment categories⁵⁰

			Canada	US	Bermuda	Chile
Employee function by gender	Office	Female	43.0%	50.1%	38.5%	43.0%
		Male	57.0%	49.9%	61.5%	57.0%
	Field	Female	22.8%	18.3%	18.1%	19.4%
		Male	77.2%	81.8%	81.9%	80.6%
Employee level by gender	Senior managers and above	Female	32.4%	26.5%	42.9%	0.0%
		Male	67.6%	73.5%	57.1%	100.0%
	Middle managers	Female	31.3%	28.3%	23.4%	20.0%
		Male	68.8%	71.7%	76.6%	80.0%

50. Bermuda data is for BELCO only.

Employee demographics (continued)

Age and employment categories⁵¹

			Canada	US	Bermuda	Chile
Employee function by age	Office	< 30 years	12.4%	11.9%	4.3%	5.0%
		30–50 years	64.6%	52.8%	71.4%	51.5%
		> 50 years	23.0%	35.4%	24.3%	43.6%
	Field	< 30 years	12.6%	13.8%	14.7%	9.6%
		30–50 years	59.1%	54.0%	55.9%	64.3%
		> 50 years	28.4%	32.2%	29.4%	26.0%
Employee level by age	Senior managers and above	< 30 years	0.0%	0.0%	0.0%	0.0%
		30–50 years	46.0%	23.5%	90.9%	55.6%
		> 50 years	54.1%	76.5%	9.1%	44.4%
	Middle managers	< 30 years	0.0%	0.0%	0.0%	0.0%
		30–50 years	65.0%	45.5%	73.3%	50.0%
		> 50 years	35.0%	54.6%	23.3%	50.0%

Gender and self-identification⁵¹

		Canada	US	Bermuda	Chile
Women		39.2%	31.8%	22.7%	20.8%
Men		60.8%	68.2%	77.3%	79.2%
Self-identified minorities		11.9%	15.3%	0.0%	0.0%
Self-identified veterans		0.3%	3.8%	0.0%	0.0%
Self-identified employees with disability		0.4%	0.3%	0.0%	1.1%

By employment contract

		Canada	US	Bermuda	Chile
Permanent employees	Female	258	766	73	95
	Male	407	1,658	293	361
Temporary employees	Female	10	9	1	0
	Male	8	5	0	0

By employment type

		Canada	US	Bermuda	Chile
Full-time employees	Female	765	263	73	95
	Male	411	1,657	293	361
Part-time employees	Female	8	3	1	0
	Male	1	3	0	0
Casual employees	Female	2	2	0	0
	Male	3	3	0	0

51. Bermuda data is for BELCO only.

Employee attraction and retention

Hiring rates

		Canada	US	Bermuda	Chile
Employees hired by gender	Female	0.46	0.39	0.33	0.28
	Male	0.54	0.61	0.67	0.72

Turnover rates

		Canada	US	Bermuda	Chile
Total employee turnover rate		0.16	0.14	0.05 ⁵²	-
Volunteer employee turnover rate		0.13	0.12	0.03 ⁵²	-

Parental leave⁵²

		Canada	US	Bermuda	Chile
Employees entitled to parental leave	Female	221	572	-	-
	Male	255	1,292	-	-
Employees that took parental leave	Female	6	20	1	11
	Male	2	21	5	0
Employees that took parental leave and returned	Female	4	12	1	11
	Male	2	20	5	0
Return to work rate	Female	0.67	0.60	1.00	1.00
	Male	1.00	0.95	1.00	0.00
Employees that took parental leave and were retained	Female	3	11	1	-
	Male	2	20	5	-
Parental leave retention rate	Female	0.50	0.55	1.00	-
	Male	1.00	0.95	1.00	-

Employee engagement⁵²

		Canada	US	Bermuda	Chile
Employee engagement score		73%	70%	70%	73%
Percentage of employees covered		86%	81%	77%	83%

52. Bermuda data is for BELCO only.

Learning and development

Training

		Canada	US	Bermuda	Chile
Average training hours by gender	Female	19.0	22.0	34.0	-
	Male	16.0	13.0	64.0	-
Average training hours by level	Senior managers and above	8.0	9.0	21.0	-
	Middle managers	15.0	13.0	35.0	-
Average training hours by job function	Office	16.0	14.0	61.0	-
	Field	22.0	17.0	53.0	-
Average training hours per employee		18.0	16.0	58.0	-
Average amount spent per employee on training (\$USD/employee)		1,057	926	1,863	-
Amount invested in employee training (\$USD)		711,417	2,252,820	679,894	-

Discrimination incidents

	Canada	US	Bermuda	Chile
Number of incidents of discrimination	0	1	0	0
Number of incidents reviewed by Algonquin	0	1	0	0
Number of incidents no longer subject to action	0	1	0	0

Remediation plans implemented and/or being implemented

All actions that were recommended were completed.

Governance and policy

Compliance

Indigenous relations

	Canada	US	Bermuda	Chile
Violations involving rights of indigenous peoples	0	0	0	0

Anti-corruption

	Canada	US	Bermuda	Chile
Operations assessed for corruption related risks (government relations, conflicts of interest, and foreign interests)	100%	100%	100%	100%
Incidents of corruption and actions taken	0	0	0	0
Number of times Ethics Reporting Line was used	3	7	1	6

Anti-competitive behaviour

	Canada	US	Bermuda	Chile
Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	0	0	0	1

Political spending

	Canada	US	Bermuda	Chile
Amount spent on lobbying (\$USD)	0	1,008,200	0	60,000
Amount spent on trade associations (\$USD)	35,798	1,103,002	0	70,000

Environment

Energy consumption and generation capacity

Internal energy consumption (MWh)

	Canada	US	Bermuda	Chile	
Non-renewable sources	Gasoline	1,427	29,347	0	1,664
	Diesel	321	21,595	50,722	4,952
	Liquified petroleum gas (LPG)	144	2,048	0	0
	Natural gas	1,511	10,151,026	0	0
	Fuel oil	0	72,419	1,234,918	0
Electricity consumption	3,281	97,752	0	78,768	
Total internal energy consumption (MWh)	6,684	10,374,189	1,285,640	85,384	

Generation capacity

	Canada	US	Bermuda	Chile	
Nameplate capacity of generation assets by source (MW)	Natural gas	0	1,496	0	N/A
	Heavy fuel oil	0	0	140	N/A
	Hydroelectric	116	16	0	N/A
	Solar	10	322	0	N/A
	Wind	440	2,153	0	N/A
	Total generation capacity (MW)	565	3,987	140	N/A
Energy capacity mix (%)	Natural gas	0%	38%	0%	N/A
	Heavy fuel oil	0%	0%	100%	N/A
	Hydroelectric	20%	0.4%	0%	N/A
	Solar	2%	8%	0%	N/A
	Wind	78%	54%	0%	N/A
	Total renewable generation capacity (%)	100%	62%	0%	N/A

Water and effluents

Water withdrawal

	Canada	US	Bermuda	Chile	
Water withdrawal by source (thousand m ³)	Surface water	0	5,728	0	22,895
	Ground water	0	120,185	0	46,525
	Third-party water	28	9,028	2	0
	Other source	0.003	0.08	5	0
	Total water withdrawal	28	134,941	7	69,421
Water withdrawal from water stressed regions by source (thousand m ³)	Surface water	0	1,265	N/A	N/A
	Ground water	0	72,968	N/A	N/A
	Third-party water	0.09	7,035	N/A	N/A

Water discharge

	Canada	US	Bermuda	Chile	
Water discharge by source (m ³)	Surface water	0	13,442,659	0	39,048,799
	Ground water	0	61,758	2,037	198,088
	Seawater	0	0	0	27,169,423
	Third-party water	23	212,280	0	222,058
	Total water discharge	23	13,716,696	2,037	66,638,368
Water discharge in water stressed regions by source (m ³)	Surface water	0	-	N/A	N/A
	Ground water	0	62	N/A	N/A
	Ocean/seawater	0	-	N/A	N/A
	Third-party water	0	208	N/A	N/A

Water consumption

	Canada	US	Bermuda	Chile
Total water consumption (thousand m ³)	28	20,003	2,024	7
Total water consumption in water stressed regions (thousand m ³)	0.09	11,722	N/A	N/A

Waste

Waste generation (Mt)

		Canada	US	Bermuda	Chile
Waste generated	Hazardous waste	3	9,206	175	6,604
	Non-hazardous waste	560	11,073	346	5,811
	Total waste generated	563	20,280	521	12,415

Waste diverted (Mt)

		Canada	US	Bermuda	Chile
Hazardous waste diverted by recovery type (offsite)	Reuse	0	0	0	0
	Recycling	1	205	0	5,599
	Other – recovery (including energy recovery) and composting	2	2,233	0	0
	Total hazardous waste diverted	3	2,439	0	5,599

Non-hazardous waste diverted by recovery type (offsite)	Reuse	0	0	0	0
	Recycling	44	1,975	0	0
	Other – recovery (including energy recovery) and composting	13	616	0	0
	Total non-hazardous waste diverted	57	2,591	0	0

Waste directed to disposal (Mt)

		Canada	US	Bermuda	Chile
Hazardous waste disposed by disposal operation (offsite)	Incineration with energy recovery	0	0	0	0
	Incineration without energy recovery	0	10	0	0
	Landfilling	0	6,758	175	1,005
	Other	0	0	0	0
	Total hazardous waste disposed	0	6,768	175	1,005

Non-hazardous waste disposed by disposal operation (offsite)	Incineration with energy recovery	0	0	0	0
	Incineration without energy recovery	0	0	1	0
	Landfilling	503	8,482	345	5,811
	Other	0	0	0	0
	Total non-hazardous waste disposed	503	8,482	346	5,811

Fleet and Compliance

Compliance with environmental laws and regulations

	Canada	US	Bermuda	Chile
Number of violations with environmental laws and regulations	0	67	0	0
Monetary value of environmental fines (\$USD millions)	0	0.0002	0	0
Environmental liability accrued at year end (\$USD millions)	0	0	0	0

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