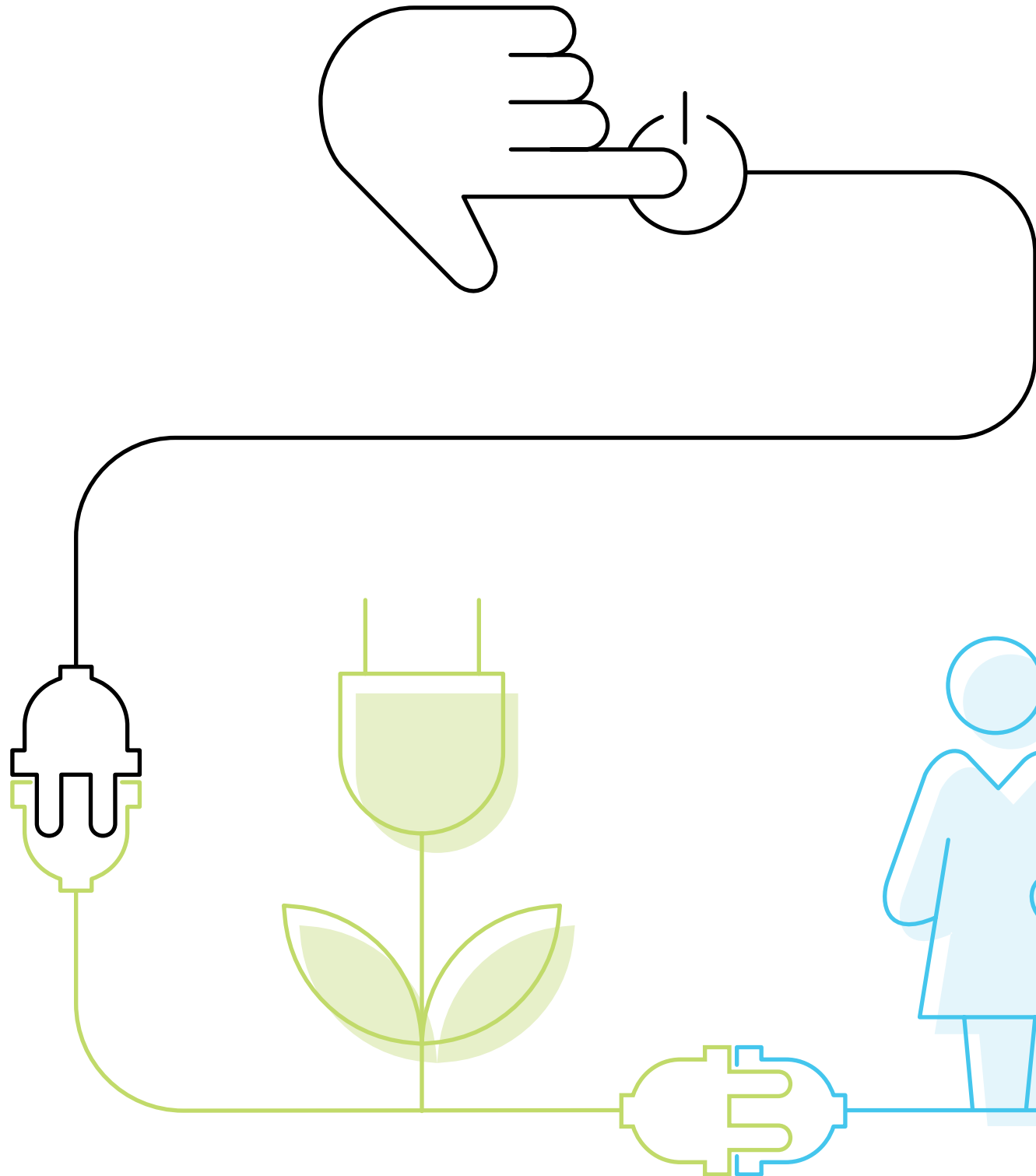


2022 ESG Report

Building a sustainable future for everyone

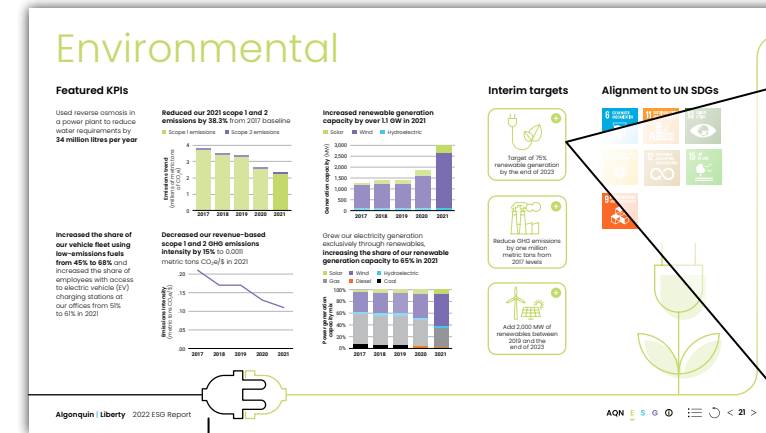
Algonquin



How to use this report

Disclosures in this report

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



Target of 75% renewable generation by the end of 2023

0% 50% 75%

65%

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% renewable generation capacity.

Section dashboards

- Key performance indicators
- Interim targets
- Alignment to UN Sustainable Development Goals

Pop-ups

Click for additional information

Navigating the report



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Go to table of contents

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Go to next page

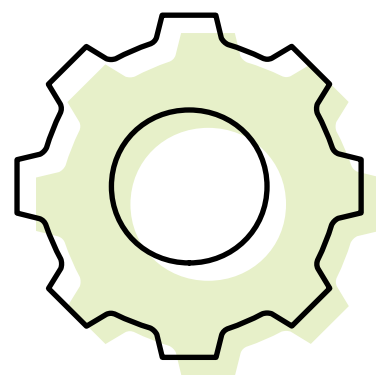
Page number

Go to previous page

Additional information

To view additional information, click on the following:

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



Building a sustainable future for everyone

AQN¹

E

S

G



Sustainability at Algonquin

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Forward-looking statements and forward-looking information

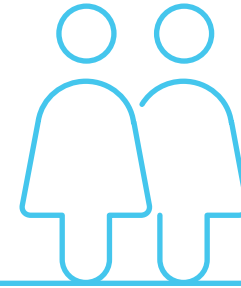
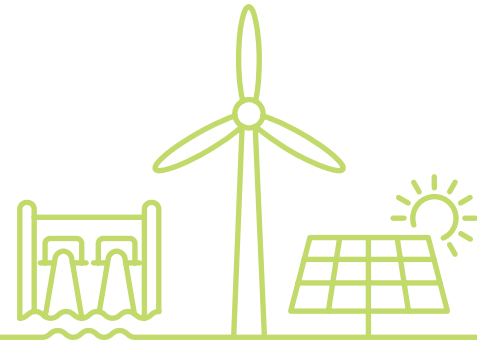
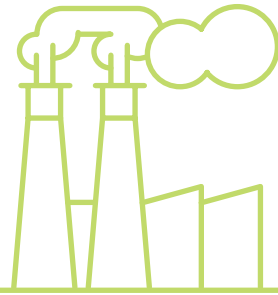
This report contains forward-looking information which is based on certain factors and assumptions and subject to certain risks. All forward-looking information in this report is given pursuant to the "safe harbor" provisions of applicable securities legislation. Please refer to "Forward-looking statements and forward-looking information" in the Appendix starting on [pg. 61](#) of this report.

* Unless otherwise indicated herein, the information in this report is provided as at December 31, 2021.

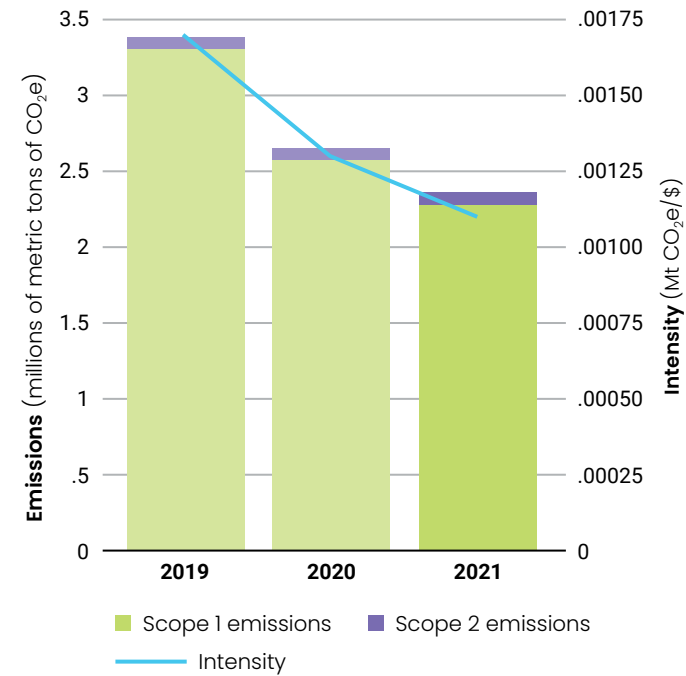
* All dollar references in this report are to U.S. dollars unless otherwise indicated.

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

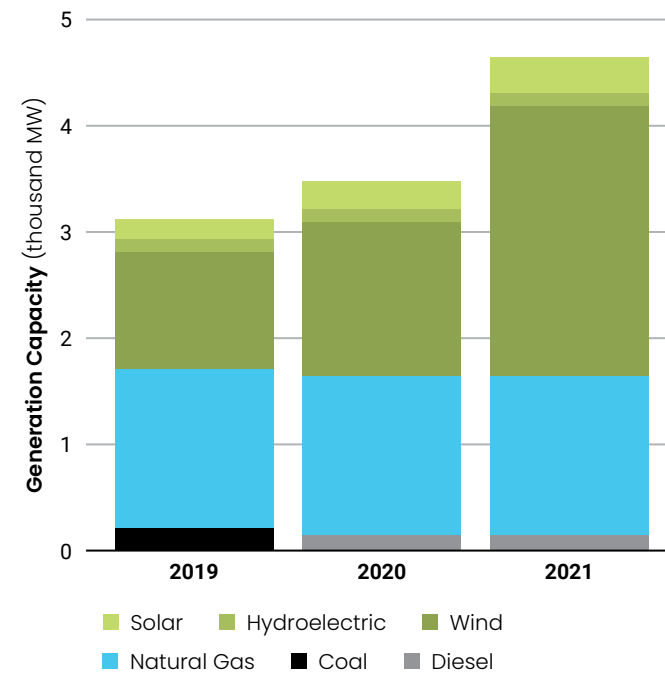
Highlights of key ESG metrics¹



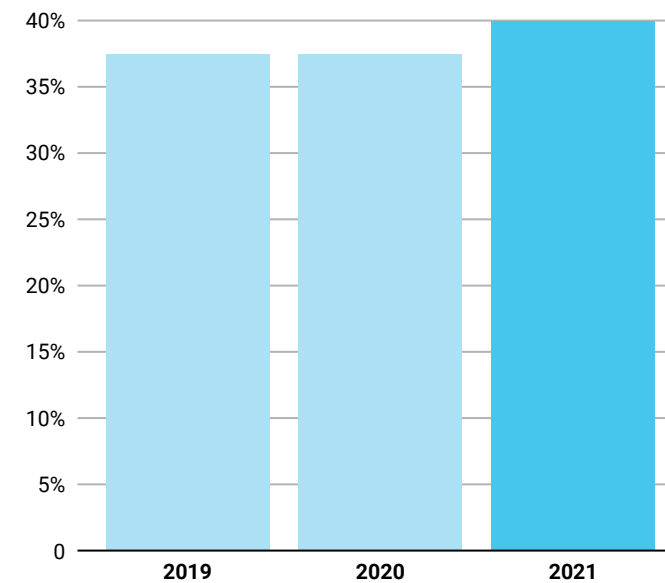
Algonquin's greenhouse gas emissions



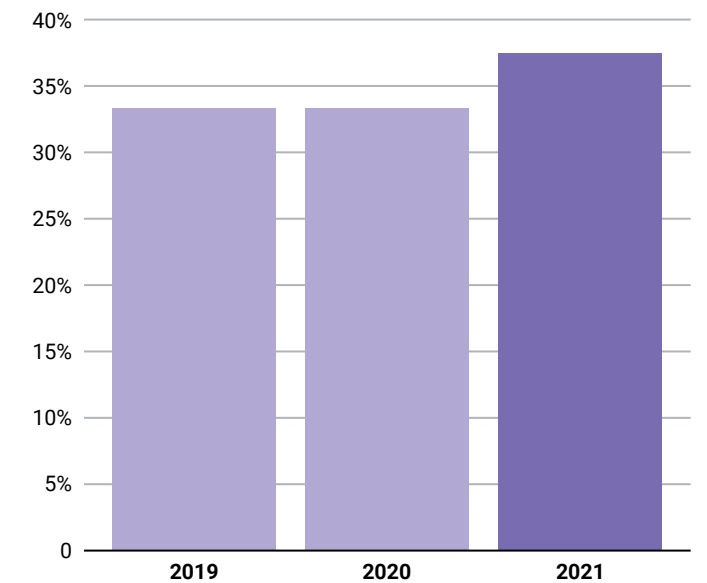
Algonquin's electricity generation capacity



Executive team Women's representation



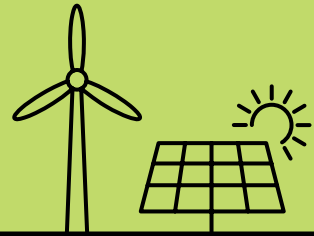
Board members Women's representation



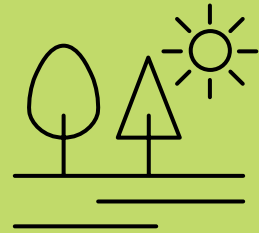
¹ All metrics as at December 31, 2021.

Executive summary

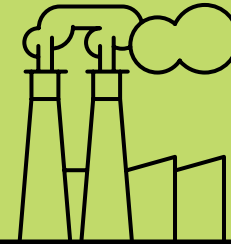
Environmental (Click on bold text for more details.)



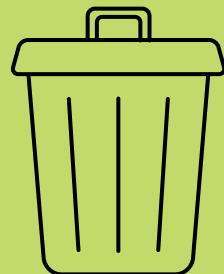
We are expanding our renewables portfolio and initiatives intended to transition to renewable energy (i.e., Greening the Fleet) as we progress towards our **net-zero by 2050 target**. We are committed to transitioning to a low-carbon economy.



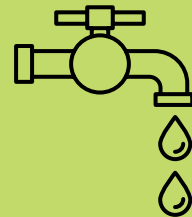
We view effective **land use and biodiversity** as important components of our environmental stewardship efforts. We are protecting biodiversity by conserving habitats, using effective operations and maintenance practices, and restoring habitats for pollinators.



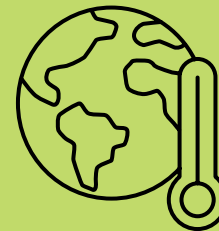
We are prioritizing measuring and reducing our **greenhouse gas (GHG) and air emissions**. Our efforts are informed through our GHG inventory and base year recalculation, which help us more reliably track our footprint and assess our progress.



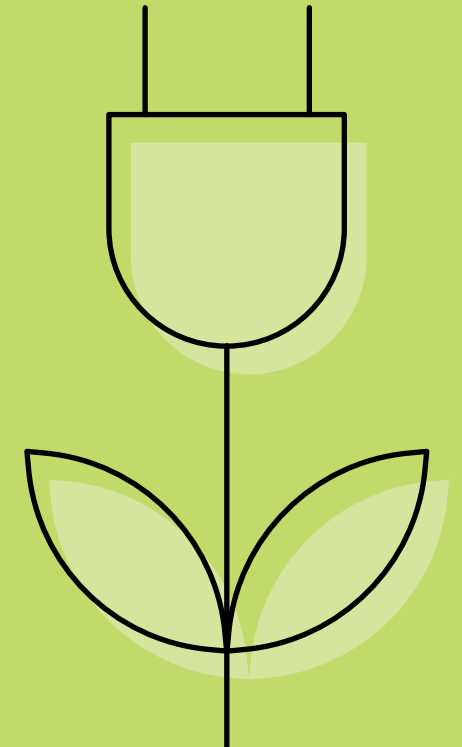
We are striving to limit our environmental footprint through responsible **waste and materials management**. Ongoing updates to an enterprise-wide waste management standard will help us deal with hazardous and non-hazardous waste across the organization.



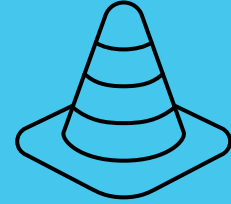
We are continuing with **responsible water management** practices across our fleet while also providing our customers with tools to use water more efficiently. At one of our thermal plants, we started using reverse osmosis to improve efficiency and are saving millions of litres of water annually.



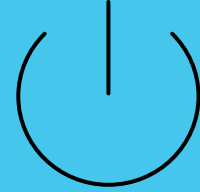
We are **mitigating climate change impacts** by increasing the resiliency of our assets. Our presence in multiple jurisdictions and our strategic business diversification provide built-in resilience to certain climate risks.



Social (Click on bold text for more details.)



We are continuing to prioritize **public health and safety** through actions like infrastructure hardening and by providing certain information in multiple languages to the communities we serve.



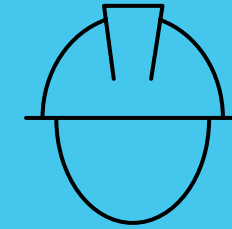
We are promoting **service reliability** to our customers and communities. Through effective asset management and innovative programs leveraging emergent technologies, we are demonstrating our commitment to meeting our customers' energy and water needs.



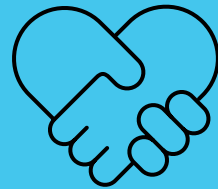
Providing a positive **customer experience** is a priority, and our energy efficiency programs and customers' energy and water savings are a testament to our dedication to providing high-quality, safe and reliable energy and water services.



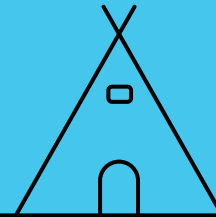
We are committed to **attracting and retaining talent**. We continue to invest in our employees' growth and development through promoting an inclusive energy transition, providing training to our workforce, and hiring locally where possible.



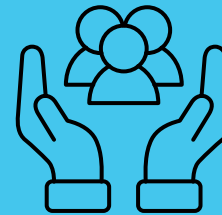
Our award-winning approach to **employee health and safety** is driven by our employees. We make this a priority through our annual safety symposia, resources supporting our employees' mental health, and our efforts to maintain health and safety in response to the COVID-19 pandemic.



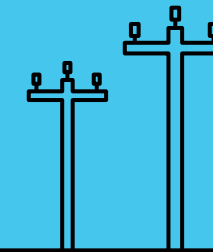
We are actively seeking to enhance the **diversity, equity, and inclusion** (DEI) of our workforce through our employee resource groups, effective talent management processes, and employee feedback that leads to action. We view DEI in our workforce as a key ingredient to our continued success.



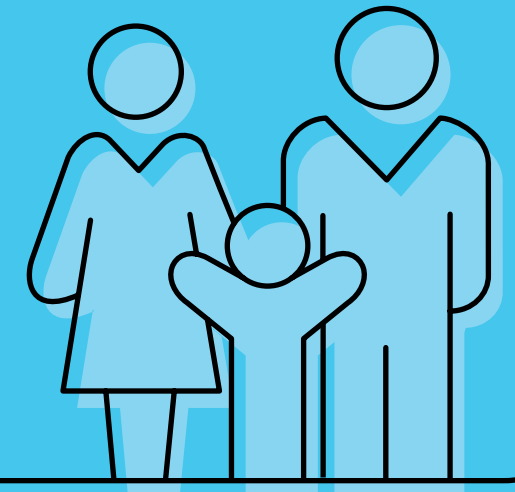
We are respectful of **Indigenous peoples**, their lands, their culture, and the important role they have had as traditional stewards of the land. We have incorporated Indigenous knowledge into our vegetation management, partnered with Indigenous communities, and trained some of our employees on Indigenous engagement.



We are actively contributing to the communities we serve through **community support and economic development** efforts across our organization. Our employee volunteers and Business and Community Development Team are making a difference locally.



When extreme weather events occur, **our teams mobilize to be there for our communities**. Investing in infrastructure resiliency helps us mitigate the impacts that climate change has on our customers.



Governance (Click on bold text for more details.)



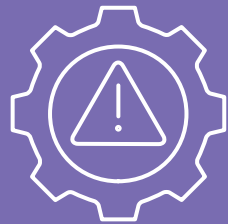
We take pride in our integrated approach to **sustainability governance** that engages stakeholders from across our organization, such as through our five Regional Sustainability Councils.



Ethics and integrity are values core to our corporate culture. In 2021, we demonstrated these values through our updated compliance and ethics framework, human rights policy, and emergency response plans.



Formal **integration of sustainability with strategy** as a single team further underscores the important mandate sustainability has in contributing to strategic decision making, development, and execution of our broader strategic corporate priorities.



The development of updated **risk management** frameworks embed risk management into our governance structures.



Maintaining and enhancing the integrity of our IT assets is critical to our organization's success. The introduction of two new **cybersecurity** policies, coupled with ongoing employee training, have furthered our efforts to mitigate risks to our cyber infrastructure.



Our work on **government affairs and public policy** helps us build relationships with key external stakeholders critical to our enterprise's success, such as elected officials and regulators. In 2021, increasing our contributions to trade associations and creating clear guidelines for those advocating to public officials on our behalf was prioritized.



Letter from the President and Chief Executive Officer



Arun Banskota

President and Chief Executive Officer

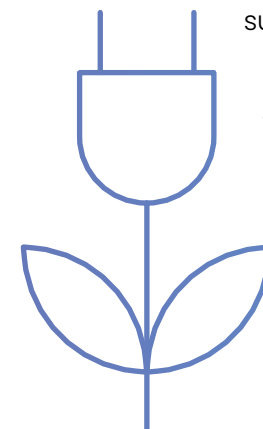
At Algonquin, we are committed to serving our customers, communities, and the planet with mission-critical services in energy and water in a safe, reliable, and affordable way. Our purpose of *sustaining energy and water for life* guides our actions and pushes us to grow and create value responsibly, operate with excellence in mind, and work to build a more sustainable future for our stakeholders.

Last year, this purpose guided us to share our target to achieve net-zero scope 1 and 2 emissions by 2050, and this year, as we've worked to chart our path to a clean energy transition, we're highlighting how we've done so with an eye toward the impact we have on the communities where we live and work. Our vision of an inclusive net-zero journey entails not only curbing emissions, but also striving towards creating meaningful work, promoting diversity and inclusion, uplifting communities, building strong relationships with local stakeholders, and including community members in our decision-making processes. Over the past year, we've worked hard to pursue this vision, and in our *2022 ESG Report*, I am excited to share some of the year's proudest moments and biggest wins from our sustainability journey.

Maximizing our clean investment impacts

We continue to make meaningful strides in our efforts to accelerate our positive impacts on the climate and environment. I take pride in the milestones we've reached, including increasing the share of our generation comprised of renewables from half to nearly two-thirds. Additionally, we **decreased our emissions intensity by 15%** between 2020 and the end of 2021 and, compared against our 2017 baseline, we've **reduced our scope 1 and 2 emissions by over 38%**. These achievements are major steps in our journey towards net-zero scope 1 and 2 greenhouse gas emissions by 2050 and making the planet cleaner and healthier for future generations.

A driver of this progress is our continued implementation of our **Greening the Fleet** initiative, and this past year we announced some exciting developments on this front. In 2021, we brought online 600 MW of new wind generation in our Midwest region as part of the initiative related to the closure of the Asbury coal-fired facility. And, upon the completion of our pending acquisition



of Kentucky Power, we intend to submit an Integrated Resource Plan which will evaluate the resources required to replace 1.4 GW of expiring coal power purchase agreements and the transfer or retirement of the Mitchell coal plant in 2028. This fits into our broader net-zero strategy

and should allow us an opportunity to contribute to the local economy through job creation and increased accessibility of renewable energy for our customers. Another example is our recent entry into the **renewable natural gas (RNG)** space through the acquisition of an anaerobic digestion RNG platform in Wisconsin, which is in addition to the RNG initiatives we have at every Liberty natural gas utility, be it RNG contracts or RNG development projects. Developing our expertise in RNG is a way of potentially greening our fuel supply to our customers, especially when we consider that RNG can have a negative carbon intensity.

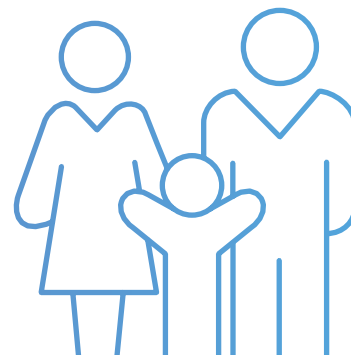
At Algonquin, we take pride not only in our progress toward our own net-zero target, but also in our ability to collaborate with other companies to help them achieve their ESG commitments. For example, in May 2022, we shared that we will be working with Meta to develop a 112 MW wind project in Michigan that will allow it to continue to grow its operations while maintaining a 100% renewable energy commitment. And, in August 2022, we announced that our team broke ground on the first solar project with Chevron under our agreement to co-develop renewable power in select locations across Chevron's global portfolio, helping to reduce their carbon intensity. Through these and other similar commercial projects under development with our partners, Algonquin is playing a role in the creation of hundreds of jobs and millions in property tax revenue annually to support local communities. We continue to work with like-minded customers and partners to generate value in the transition to a more sustainable future.

Serving our communities and stakeholders

We have also made the social impacts of our work an important consideration in our approach to decarbonizing and protecting our environment. We seek to foster a just and inclusive energy transition and are guided by our local operating model that helps us make decisions that are good for the planet and the people in the communities where we work and live. For example, through the closure of the Asbury coal-fired facility in 2020, we were able to transfer or retrain over two-thirds of the facility's staff, while the rest voluntarily retired. We continue to make our relationships with local stakeholders a priority, with community engagement being embedded in our local operations. These relationships have allowed us to create hundreds of local jobs across our footprint and contribute to communities financially in the form of municipal taxes, land rentals, and other agreements.

As our business grows, so does our employee base. Over the course of 2021, our **workforce has grown by 12%**, adding 443 new employees. Our employees, new and existing, have once again shown incredible agility and competence

over the past year, with many continuing to nimbly work in hybrid formats and uphold our strategic pillar of Operational Excellence in the wake of an ongoing global pandemic.



I am proud to lead a team of people who live our guiding principles and come to work every day ready to make a difference and live our purpose of *sustaining energy and water for life*.

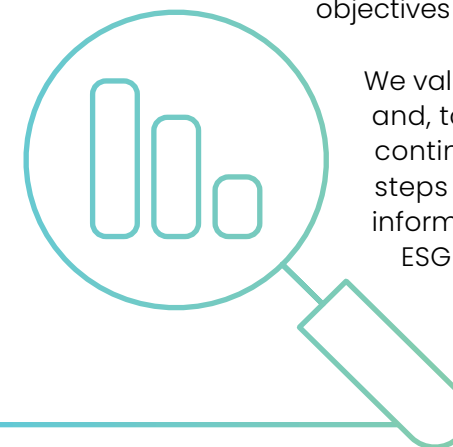
Because our talented, hard-working employees are at the heart of everything we do at Algonquin, we place a high premium on keeping them safe. Through our five-year health and safety plan, we have adopted new, forward-looking approaches to protecting our employees which have garnered meaningful results: as of June 25, 2022, our North American employees have **worked over 13 million hours with no lost time due to injury**. We're proud to have been recognized for our safety performance by the American Gas Association, which presented us with its **2021 Safety Achievement Award** in the mid-multi-utility category, and by the Canadian Gas Association, which recognized us in 2021 and 2020 with its Employee Safety Award.

In addition to keeping our mission-critical services running, our employees have been instrumental in helping our local fundraising and community support efforts. In 2021, our **employees raised over \$500,000** and contributed over 5,000 hours of their time to support their local communities. They have also shown a commitment to supporting each other at work through our employee resource groups (ERGs). Our ERGs are safe, inclusive spaces for those who are woman-identifying, LGBTQIA+, racial and ethnic minorities, and allies, to build community and shed light on their unique experiences.

We remain focused on customer affordability. One way we help customers save money is through our energy efficiency programs, and we have a number of these across our utilities. We also have low-income initiatives to support and help our most vulnerable customers. For example, at several of our electric utilities, we have biannual fuel adjustment clause updates that help to smooth fuel price spikes over a month period. These programs, in addition to a disciplined approach to keeping operating costs down, help us balance the reliability, availability, and affordability of services offered to our valued customers.

Governing sustainably

Honesty, integrity, and commitment to doing right by our stakeholders are central to fostering a just energy transition. Prioritizing good governance and considering our stakeholders' best interests are core to our ESG approach and a part of how we do business. These values help guide our sustainability efforts and reflect who we are as a company. Acting with integrity and being good stewards for our employees, customers, investors, regulators, and community members are critical objectives at Algonquin.



We value transparency and, to that end, continue to take steps to make information on our ESG performance

more accessible to our stakeholders. Through the launch of our **ESG Data Hub** on our corporate website, our key performance metrics are now widely available to the public, including our scope 1 and 2 emissions data that has been verified by an independent third party. We also continued to fine-tune our governance approach over the course of 2021, rolling out new policies to help us strengthen our cybersecurity strategy, ensure our relationships with governments reflect our values, and reinforce our commitment to ethics and compliance. We're also proud to have prioritized gender diversity in our corporate governance, with **women comprising 44% of our board of directors and 44% of our executive management team** as at August 31, 2022.

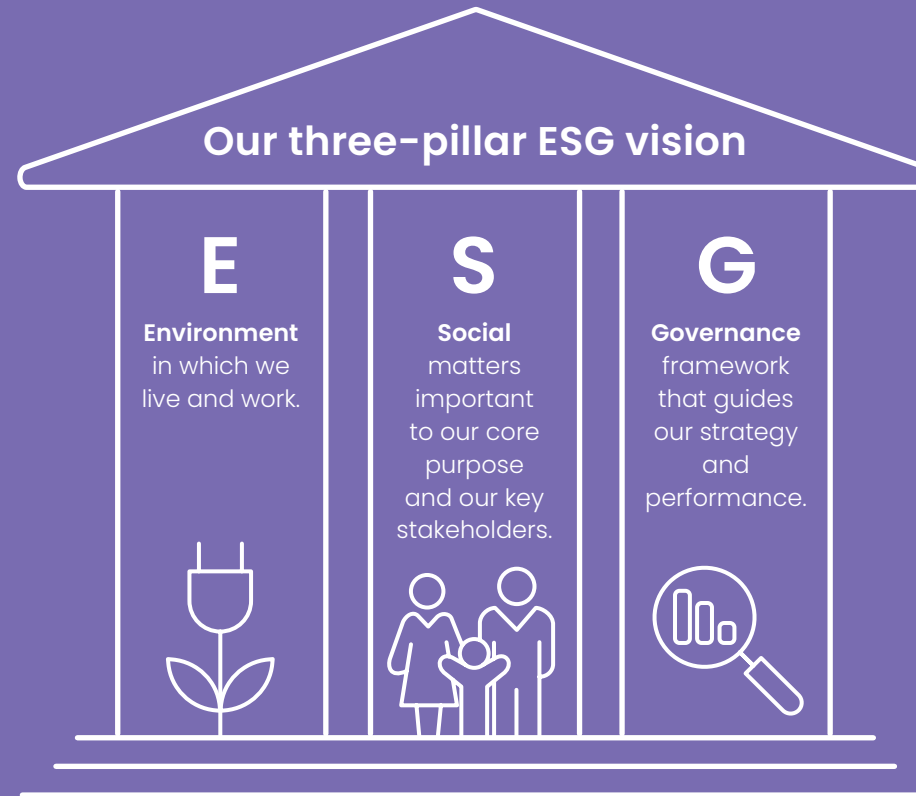
By directly embedding ESG targets in our corporate scorecard and compensation incentives, we are taking meaningful steps to advance our sustainability goals across the organization. We recognize there is always room for improvement, be it in our water efforts, indigenous relations, or DEI initiatives.

As we look to the future, I look forward to working with all our stakeholders to build a greener future and I am excited for the next chapter in our sustainability journey.

Arun Banskota
 President and Chief Executive Officer

About this report¹

We view communications with our stakeholders as integral to the way we do business. We work to maintain an open dialogue with stakeholders about our ESG performance. In this report, we lay out our ESG vision and the actions we've taken this year to make that vision a reality, all aligned with the three pillars that define our sustainability efforts.



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.

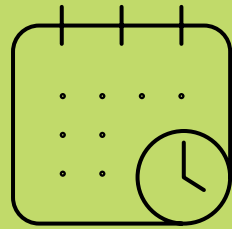
SUSTAINABLE DEVELOPMENT GOALS

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 SDG goals. 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

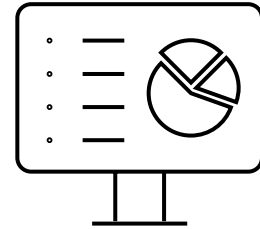




Reporting period

This report describes sustainability initiatives, programs, and projects taking place between January 1, 2021 and December 31, 2021, unless otherwise stated. Historical data from 2020 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 2021 reporting period and these are clearly marked, such as our ESG Performance Index and 2023 ESG interim targets.

 [Learn more about our ESG interim targets.](#)



Reporting frameworks

We rely on several widely accepted ESG reporting methodologies to inform our approach to sharing Algonquin's sustainability progress and key performance indicators (KPIs). 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 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 SDGs.

Currency

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



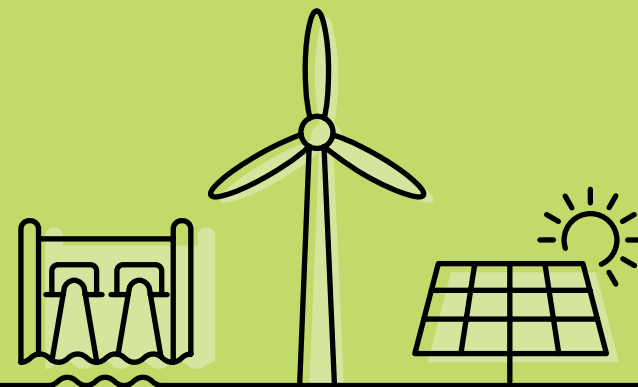
About us

Who we are

At Algonquin, parent company of Liberty, 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 Group

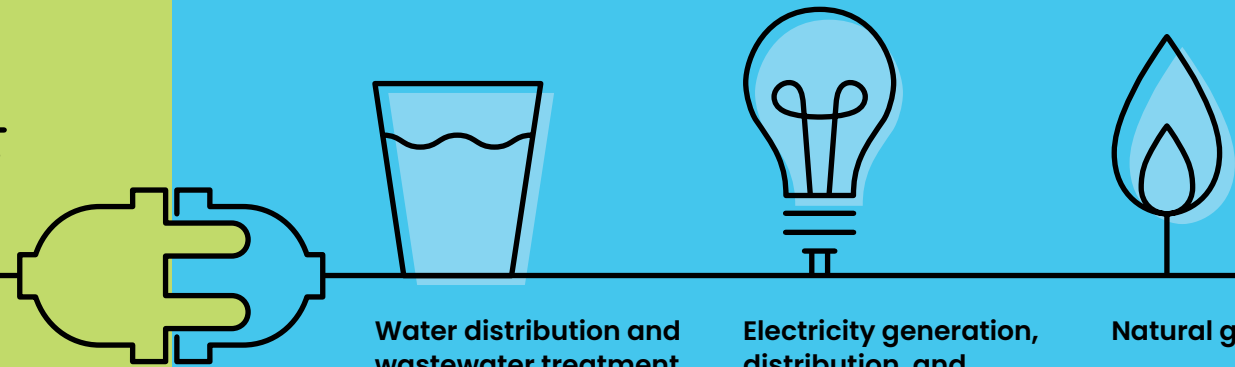
Our Renewable Energy Group owns and operates a diversified portfolio of wind, solar, hydroelectric, RNG, and thermal energy facilities across the United States and Canada. We generate and sell energy at non-regulated rates to provide accessible clean power.



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.



Water distribution and wastewater treatment

- Water distribution and wastewater operations in six states (Arizona, Arkansas, California, Illinois, Missouri, and Texas) and in Chile
- Approximately 413,000 customer connections

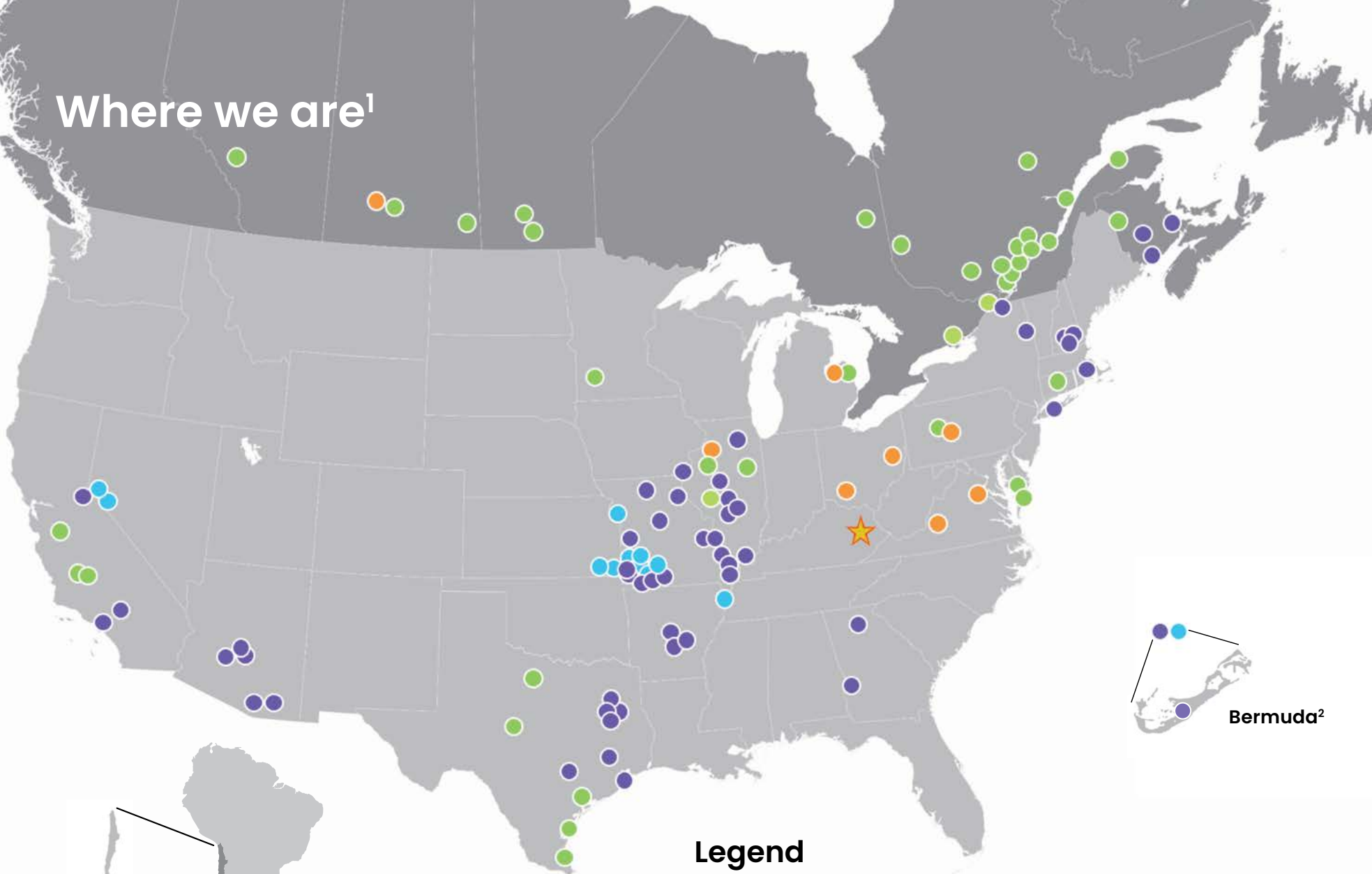
Electricity generation, distribution, and transmission

- Electricity distribution operations in six states (Arkansas, California, Kansas, Missouri, New Hampshire, and Oklahoma) and Bermuda
- Approximately 307,000 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 373,000 customer connections

Where we are¹



Legend

- Utility distribution system (Regulated Services Group)
- Rate-based power generation (Regulated Services Group)
- ★ Pending utility acquisition (Regulated Services Group)
- Operational power generation site (Renewable Energy Group)
- Development projects (Renewable Energy Group)

Chile³

¹ As at December 31, 2021

² BELCO: Bermuda Electric Light Company Limited

³ ESSAL: Empresa de Servicios Sanitarios de Los Lagos S.A.

Algonquin by the numbers

(\$ figures in U.S. dollars)

~\$9.7 billion
market cap (NYSE)

BBB credit rating

~4 GW
renewables in operation
and under construction

3,400+
employees

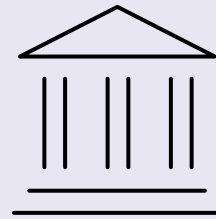
1988
company founded



Performance highlights

Our Values, Purpose, and Guiding Principles

Our purpose of *sustaining energy and water for life* guides our actions. This purpose drives us to bring value to our stakeholders as we work towards being a top utility and energy provider 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

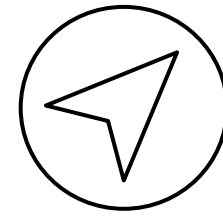
We strive for sustainable growth through strategic acquisitions and the development of world-class renewables.

Operational Excellence

We believe in doing everything to the best of our capabilities. Our vision of operational excellence is focused on safety, security, and reliability.

Sustainability

Leading the transition to a low-carbon economy through the pursuit of decarbonization initiatives, including partnership opportunities with like-minded corporate citizens.



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 will 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.

Team Work, 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

Always honest, we do the right thing and adhere to moral and ethical principles for self and team.

Owner Mind-Set

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

Outcome Focused

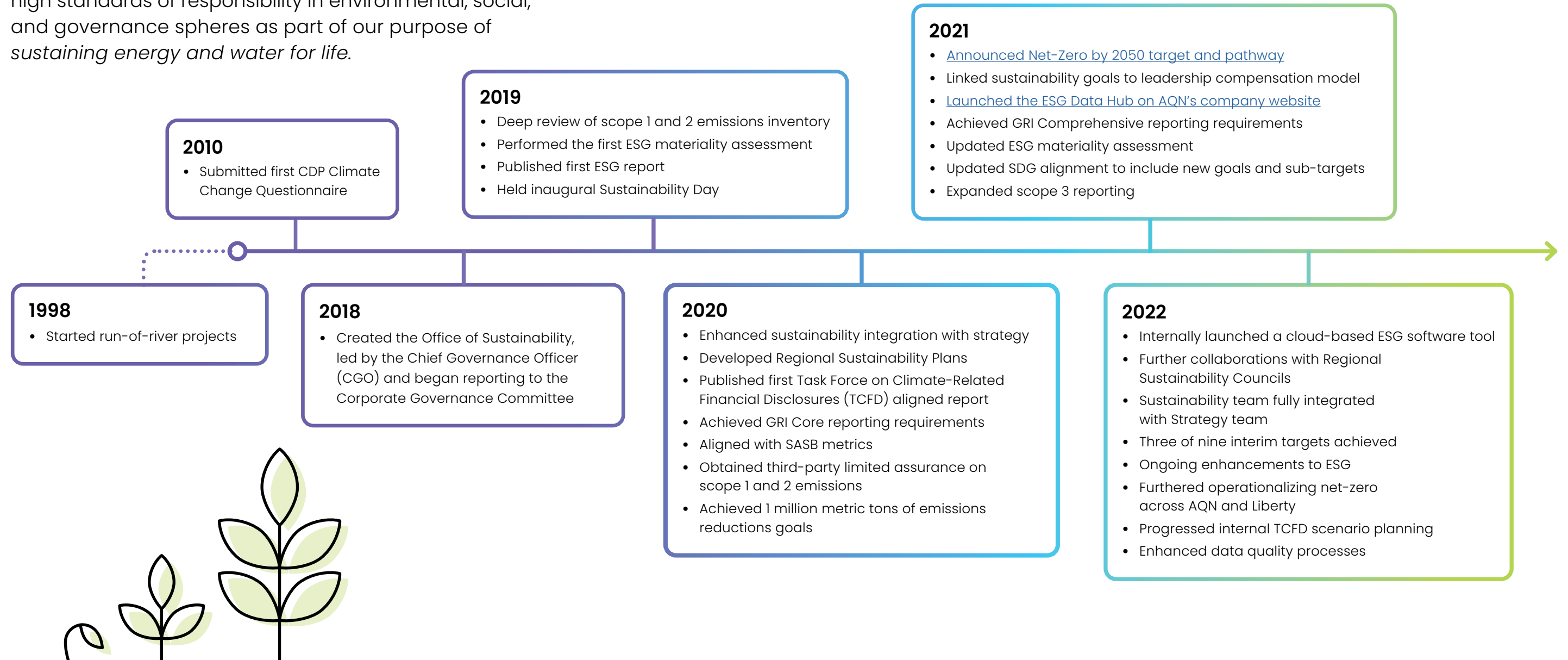
Have passion to exceed ambitious goals and safely deliver high quality business results. Strive to delegate for outcomes rather than by task.

Continuous Learning

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

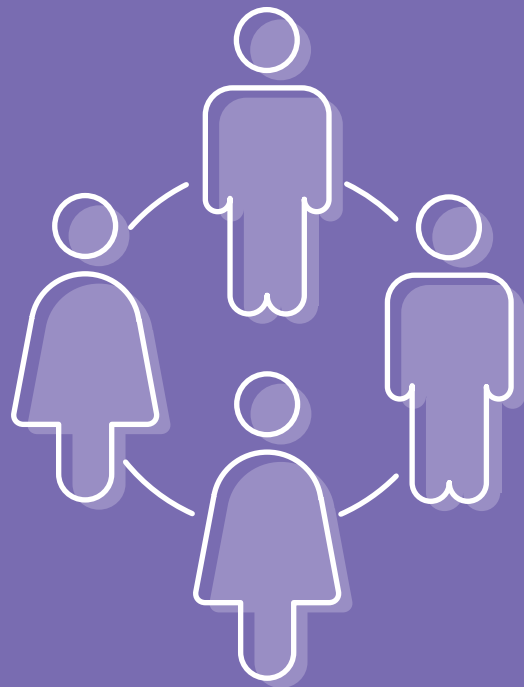
Our ESG journey

Sustainability is a key strategic pillar at Algonquin and is a continuously evolving journey. We strive to meet high standards of responsibility in environmental, social, and governance spheres as part of our purpose of *sustaining energy and water for life*.



Stakeholder engagement

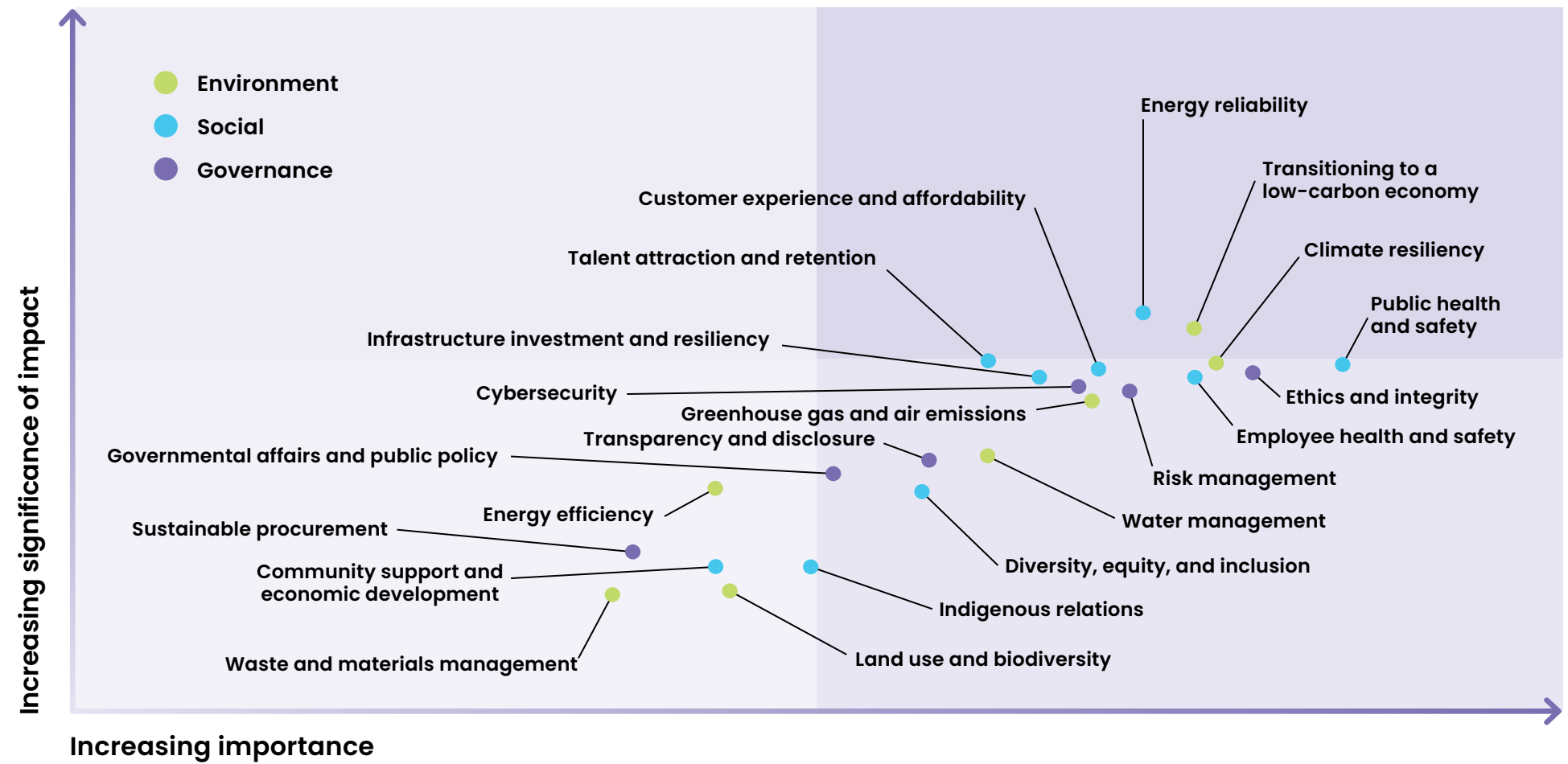
Ongoing engagement with our customers, employees, investors, communities, and regulators both informs our core operations and reflects the premium we place on strong communication with our stakeholders.



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, with our most recent ESG materiality assessment being carried out in 2021.

The ESG materiality matrix reflects results from our various stakeholders and their priority ESG topics. We intend to continue to review these priority issues as identified by our stakeholders and look for opportunities to enhance our ESG programs in harmony with our strategic pillars of Growth, Operational Excellence, and Sustainability.

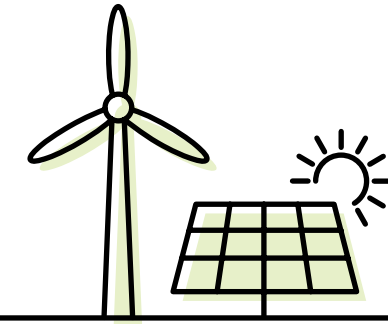
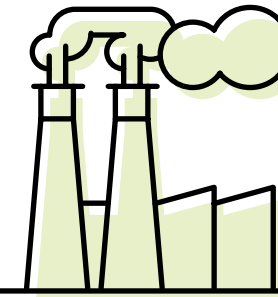
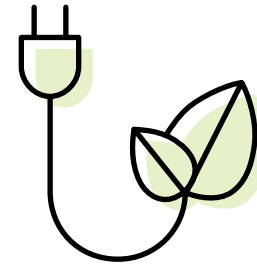


Progress toward our 2023 ESG interim targets

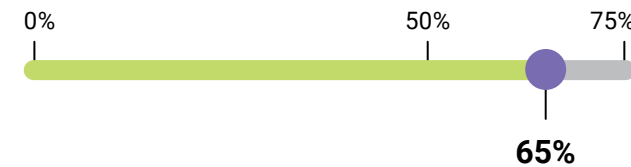
(as at August 31, 2022)

This section highlights the KPIs and ESG metrics used to measure our sustainability progress. While there are regional-based ESG metrics that work towards local sustainability improvements, these corporate-level interim targets apply more broadly across the organization. We expect to announce additional interim targets as our work progresses on the transition to net-zero.

Environmental

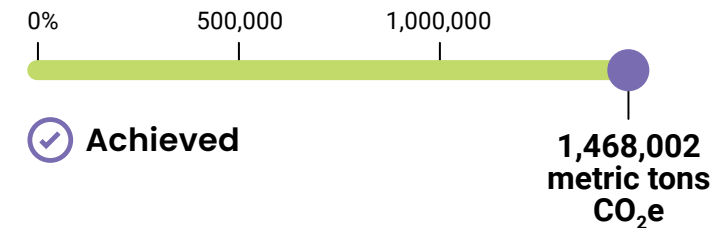


Target of 75% renewable generation by the end of 2023



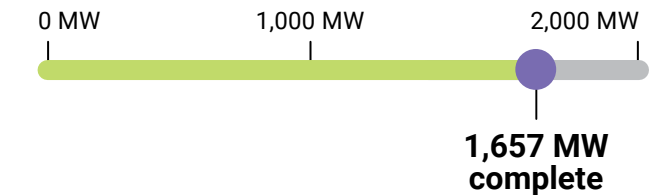
This target is focused on the total nameplate capacity (MW) of operationally controlled assets added to our renewable portfolio. These assets include wind, solar, and hydroelectric sites in both our regulated and non-regulated businesses. We are operating at 65% renewable generation capacity.

Reduce GHG emissions by one million metric tons from 2017 levels



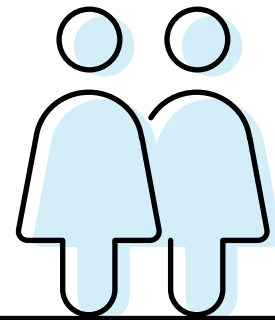
Our reduction target reflects an absolute reduction expressed as a fixed amount of GHGs. This target has been achieved with the early retirement of the Asbury coal-fired facility in March of 2020, and we have since demonstrated a cumulative reduction of over 1 million metric tons of CO₂e from our operations.

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

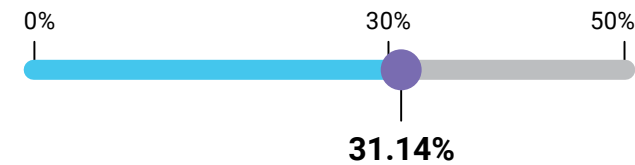


This goal targets the addition of 2,000 MW of renewable nameplate capacity to our existing portfolio and is based on completion of projects in our renewables pipeline as well as newly sourced projects. We have added 1,657 MW against our goal.

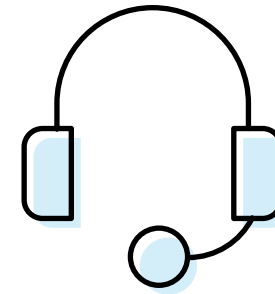
Social



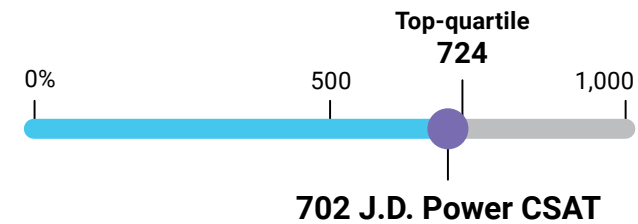
Exceed 30% women in leadership roles



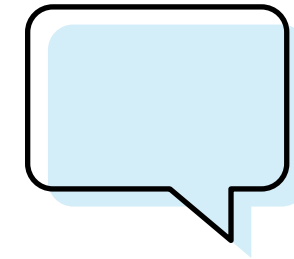
This target is based on the number of women versus the total number of employees at the level of Senior Manager or above. We continued to exceed this target, reporting 31.14% women in leadership roles. Although we are proud of our progress so far, we intend to continue to create opportunities for women to excel in leadership capacities and view this goal as an ongoing effort to exceed our 30% target by the end of 2023.



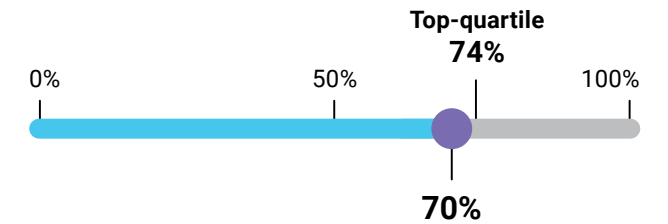
Achieve top-quartile customer service



This target aims to achieve a J.D. Power Customer Satisfaction Survey score of 724. Our current score is 702, and we are proud of the improvements made to date. We engage with our customers through several formats, including transactional surveys, customer councils, and town halls. We currently measure our Customer Satisfaction (CSAT) through the J.D. Power Customer Satisfaction Survey and are also actively incorporating other metrics like Net Promoter Score (NPS) to further understand our customers' experience. Since 2018, we have improved our score by over 50 points, have brought a number of our utilities up in quartile rankings, and continue to focus on making improvements to drive a positive customer experience.



Achieve top-quartile employee engagement

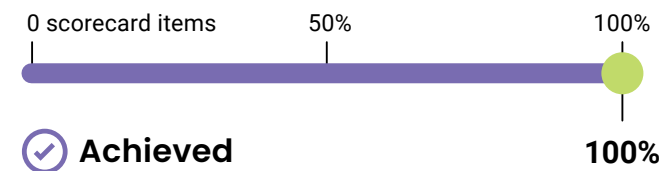


Our workforce continues to evolve along with our growth, and our employees are integral to our success. Building on previous years' practice of conducting an annual employee engagement survey, we are shifting to more frequent listening touchpoints so that employee feedback can inform action. Our most 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 provide opportunities for our teams to provide input on what is working well and what needs to be addressed.

Governance

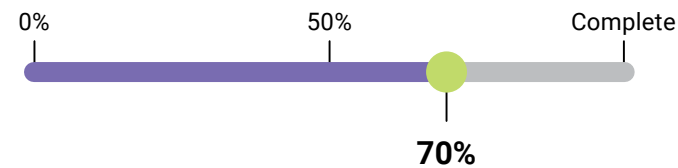


Embedding sustainability into our compensation model



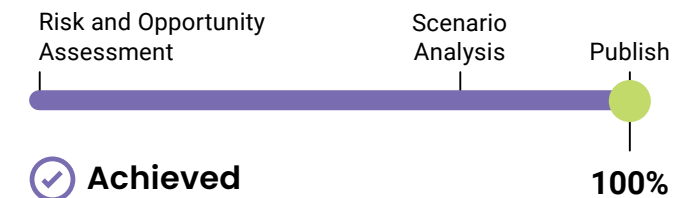
Our compensation model includes an annual corporate scorecard which is used to broadly measure success against our overall business goals. The results of the scorecard underpin the annual Short-term Incentive Plan provided to eligible employees. We successfully embedded ESG metrics in our 2020 Corporate Scorecard and achieved our goal ahead of our 2023 target. The 2021 and 2022 Corporate Scorecards also include objectives in all the Environmental, Social, and Governance 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 charged with advancing our compliance framework. To date, we have completed 70% of the plan, representing a 14% progression from our 2021 reporting period. Our 2023 goal is centered around 100% completion of the plan, which is inclusive of a plan refresh with external consultants.

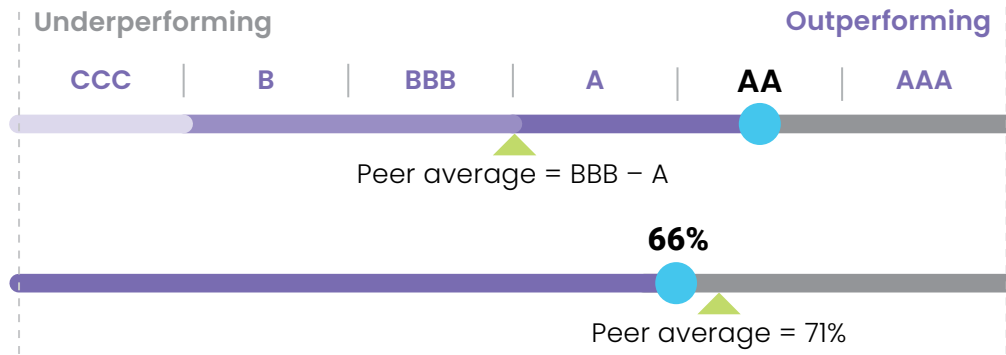
Publish a TCFD-aligned disclosure



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 on the risks and opportunities presented in our portfolio under various climate scenarios, and the team continues to make internal progress on TCFD-related initiatives across the enterprise.

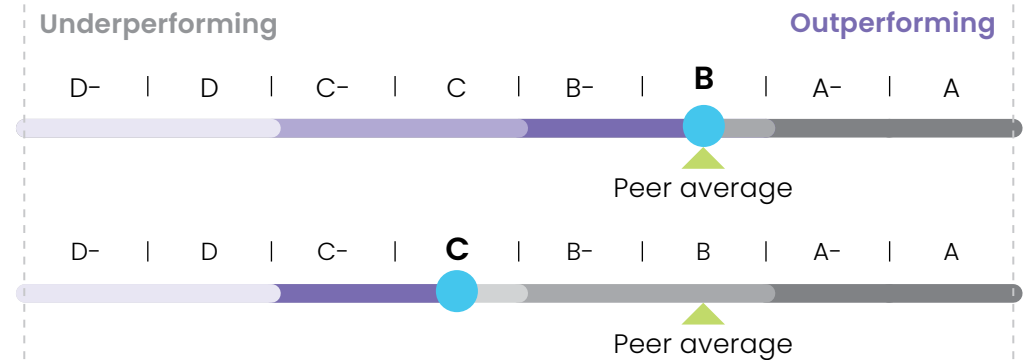
Sustainability reporting recognition^{1,2} (as at August 31, 2022)

We continue to strive to be an ESG leader in our industry, demonstrated by the quality of our disclosures and reporting and by the recognition we receive from ESG rating agencies.



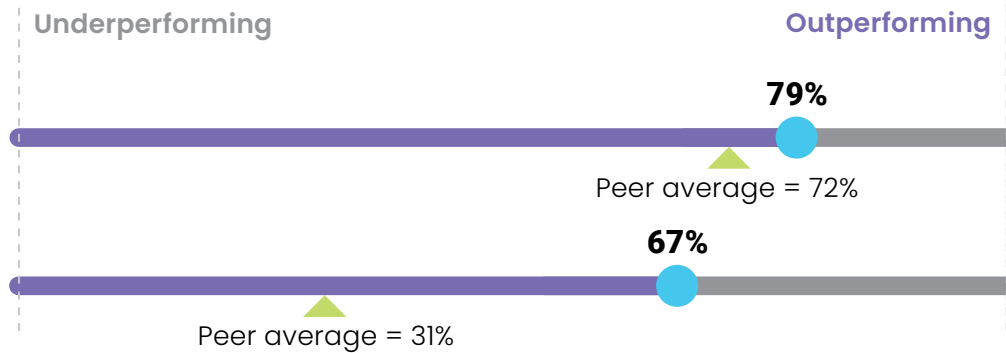
Climate Change

Water Security



ESG Evaluation

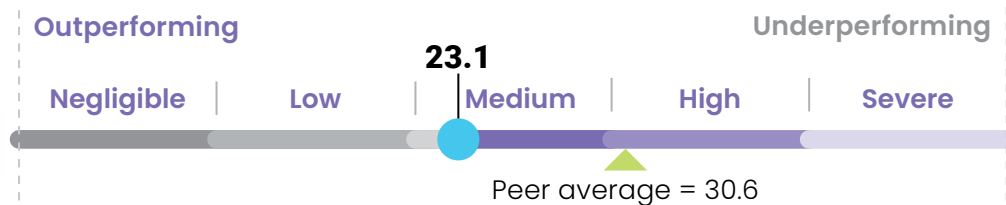
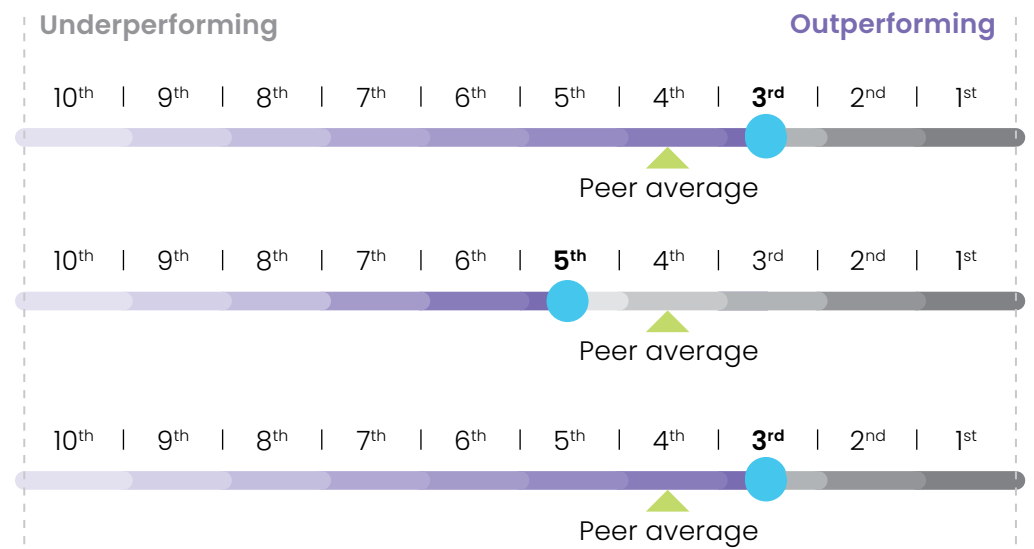
CSA (DJSI)



Environmental

Social

Governance



¹ The following scores depict Algonquin's ESG performance relative to rating agencies that Algonquin actively engages with. For more information, visit the ESG Rating Agency Recognition within [Algonquin's ESG Data Hub](#).

² Peer averages are based on the following peer groups: MSCI – Utilities; Sustainalytics – Multi-Utilities; Bloomberg GEI – Participating companies; CDP – Renewable Power Generation; and ISS – Multi-Utilities.

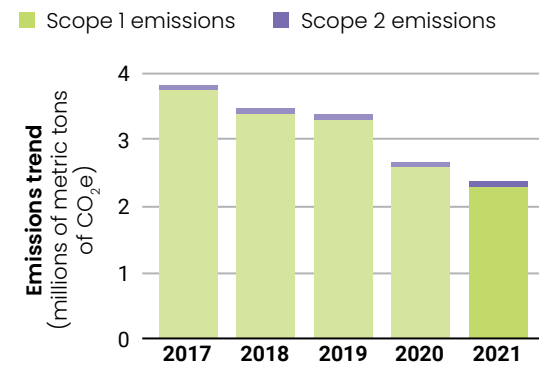
Environmental

Featured KPIs

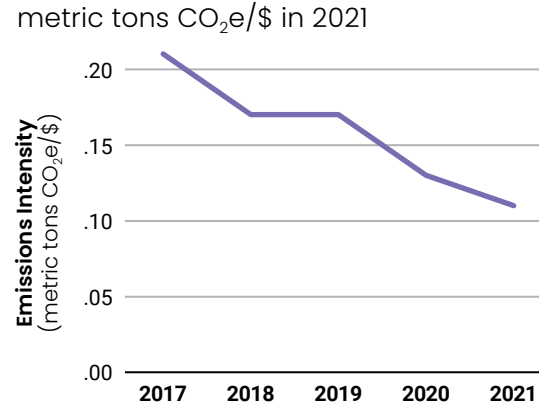
Used reverse osmosis in a power plant to reduce water requirements by **34 million litres per year**

Increased the share of our vehicle fleet using low-emissions fuels from **45% to 68%** and increased the share of employees with access to electric vehicle (EV) charging stations at our offices from 51% to 61% in 2021

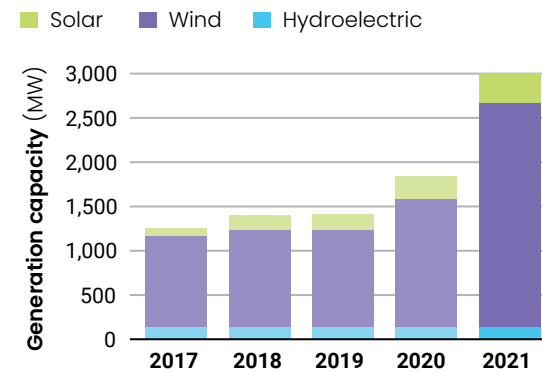
Reduced our 2021 scope 1 and 2 emissions by 38.3% from 2017 baseline



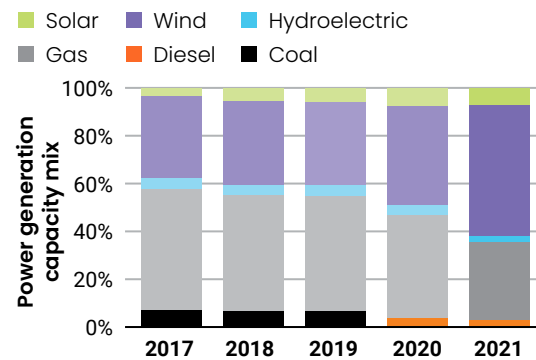
Decreased our revenue-based scope 1 and 2 GHG emissions intensity by 15% to 0.0011 metric tons CO₂e/\$ in 2021



Increased renewable generation capacity by over 1.1 GW in 2021



Grew our electricity generation exclusively through renewables, increasing the share of our renewable generation capacity to 65% in 2021



Interim targets

Target of 75% renewable generation by the end of 2023

Reduce GHG emissions by one million metric tons from 2017 levels

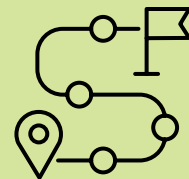
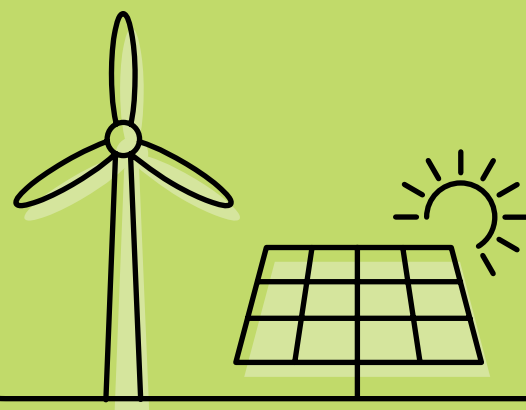
Add 2,000 MW of renewables between 2019 and the end of 2023

Alignment to UN SDGs



Transitioning to a low-carbon economy

Reducing our carbon footprint and striving to curb our emissions are important components of our commitment to pursuing SDG 13, Climate Action.



Our path to net-zero

In our 2021 ESG Report, we unveiled our target to achieve net-zero scope 1 and 2 emissions by 2050. This year, we are sharing further insights into why we set this target, how it was developed, and where it will lead us as we look to the future.

Our motivation

We developed our net-zero pathway bearing in mind the present challenges posed by climate change. As we see weather growing more extreme and people across the globe being affected by climate change, we believe working to address this challenge is not only embedded in our purpose of *sustaining energy and water for life*, but it is also the right thing to do. Efforts towards Greening the Fleet (i.e., initiatives intended to transition to renewable energy) afford us a tremendous opportunity to generate value through low-carbon solutions and technologies, create new jobs and career paths, and contribute to the prosperity of the communities where we work and live. We are motivated to play a positive role in addressing and mitigating ongoing climate challenges, and forge a path to a more sustainable future from both environmental and social perspectives.

How we did it

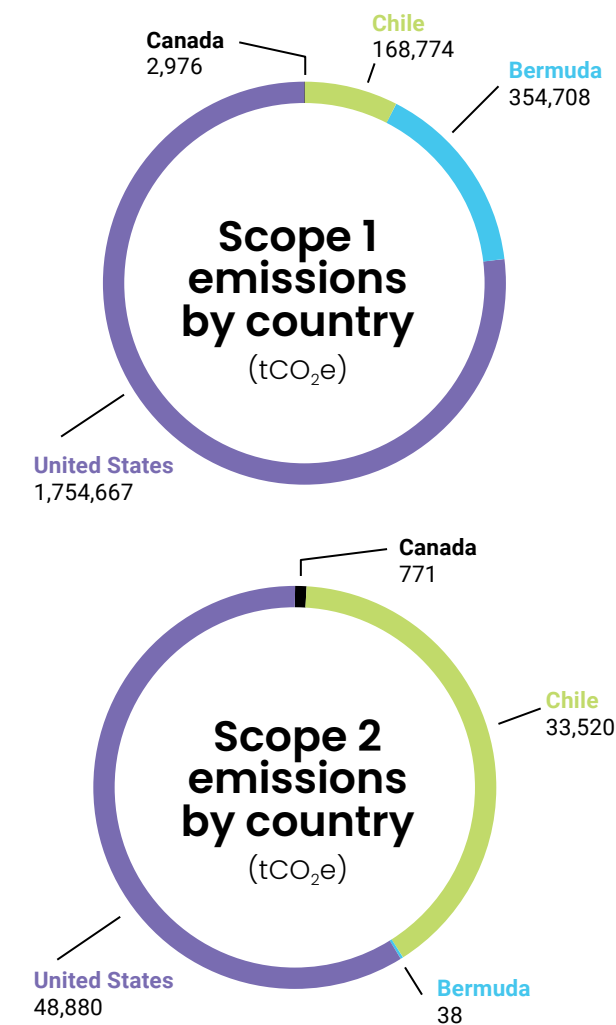
We took a collaborative approach to drafting our roadmap to net-zero by 2050. Our plan benefitted from know-how in fields ranging from engineering and operations to finance and law, receiving input from across our business modalities and perspectives from across our geographies. Through efforts in data analysis, information-sharing, and brainstorming, and parsing out challenges and opportunities, we put forward a thoughtful and multifaceted vision of our journey towards net-zero.

Looking forward

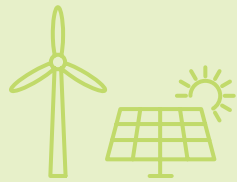
With emissions reductions of over 38% since 2017, and with over 1,500 wind turbines and over 1.2 million solar panels in our growing renewables fleet, we are off to a strong start towards net-zero. But we recognize that this is just the beginning and we intend to build on our existing foundations by expanding our renewables capacity in wind and solar while exploring additional avenues like storage, RNG, and green hydrogen. We intend to actively continue as agents of change as we focus not only on greening our own portfolio, but also on collaborating with partners to help them achieve their goals.



Emissions across our geographies



* tCO₂e = metric tons of CO₂e

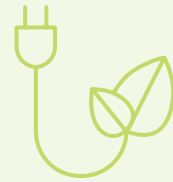


Greening our fleet

A key initiative of our net-zero strategy is greening our fleet, and over the years we have continued to make meaningful progress on this front. Notably, we have:

- Progressed our Midwest *Greening the Fleet* initiative through the acquisition and construction of three new wind generation facilities, comprising 600 MW of wind energy. These new facilities, combined with the early retirement of the Asbury coal-fired facility in 2020, have contributed to a significant reduction in our CO₂e emissions while supporting important growth and sustainability priorities for Algonquin.
- Decreased our annual GHG emissions by over 900,000 metric tons of CO₂e and our fleet's water dependence by 240 million litres as a result of retiring our Asbury coal-fired facility in 2020.
- Reduced our annual scope 1 and 2 emissions by approximately 35% and 41% in our Midwest operations and in our California electric operations, respectively, relative to 2017 levels.

We are proud of the progress we've made in curbing our emissions and are excited about the opportunities ahead as we continue on our net-zero journey.

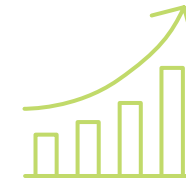
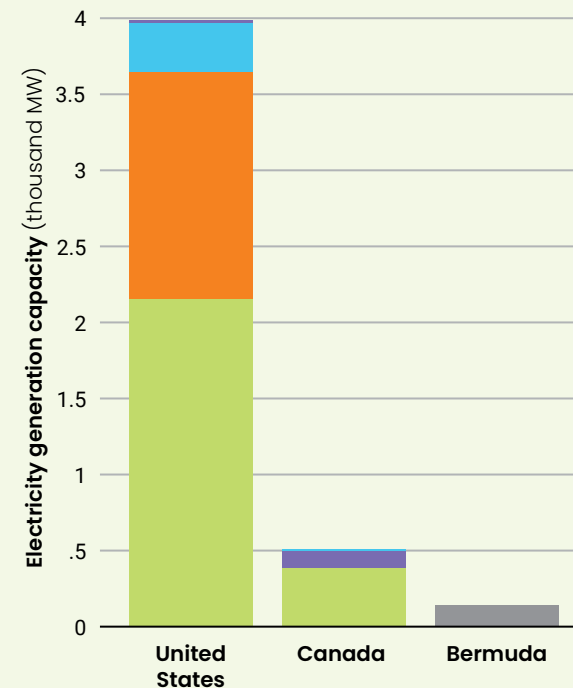


Our generation capacity

Over the course of 2021, we grew our share of renewable energy capacity from 53% to 65% by continuing to add to our wind and solar portfolio.

Algonquin's electricity generation capacity

Wind Natural gas Solar
Hydroelectric Diesel

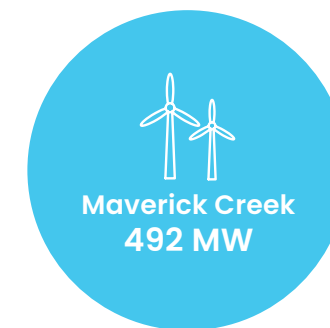


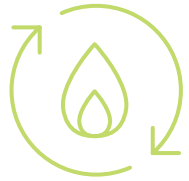
Expanding our renewables portfolio

This expansion is due in part to increased demand from our commercial and industrial partners and we are pleased to be able to support their journeys in reducing their carbon footprints and investing in renewable energy.

Fully commissioned renewables in 2021

Renewable rate-based generation for Regulated Services Group





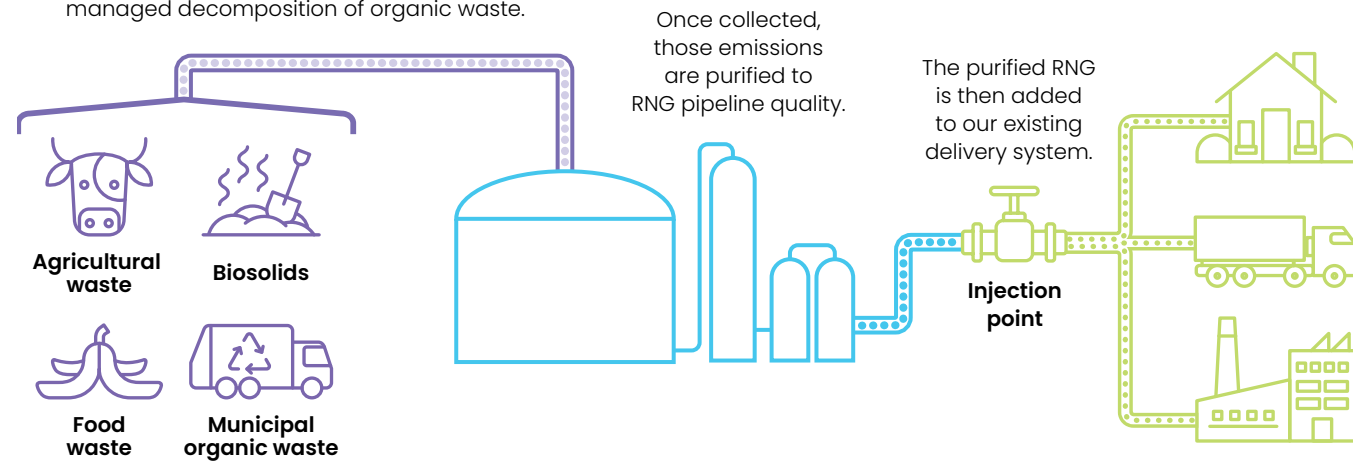
Renewable natural gas

RNG generally has a lower carbon intensity than conventional natural gas, meaning RNG can play an important role in reducing GHG emissions associated with downstream customer gas usage, such as for heating homes.

Our involvement in RNG helps us understand and build on this important low-carbon solution that supports our efforts toward net-zero while bringing benefits to the local community, farmers, and customers.

How does RNG work?

RNG starts with the collection of biogas, a mixture of gases that mainly consist of methane and carbon dioxide from the carefully managed decomposition of organic waste.



In our effort to support innovative sources of renewable energy, in 2021 we entered into an agreement to acquire a RNG development platform with a portfolio of four RNG projects. These projects will use waste from dairy farms in Wisconsin to capture RNG and inject it into the local natural gas distribution grid.

Algonquin has RNG developments underway at all of our Liberty natural gas utilities.



Jeff Norman

Chief Development Officer

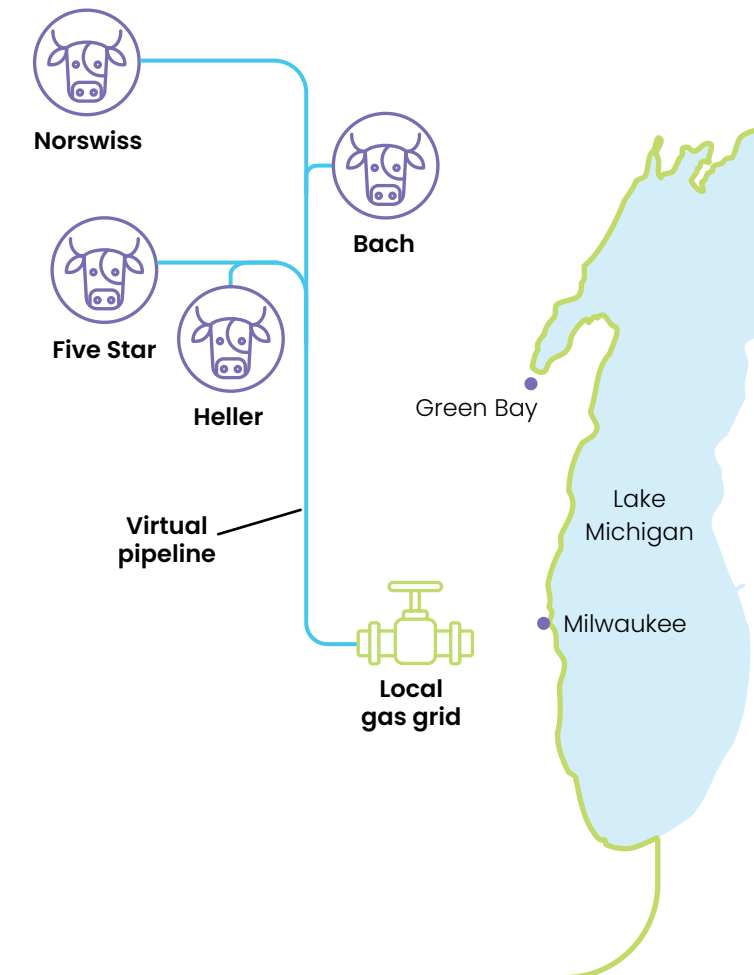
Expanding our renewables portfolio is a key component of our journey to net-zero emissions by 2050 and we are proud to be dedicating resources to significantly grow our renewables capacity.

In 2021, we nearly doubled our renewables portfolio by adding over 1,100 MW of renewable energy, bringing four new wind and two new solar facilities to full commercial operation. We've also invested in new energy sources like RNG, giving us an opportunity to apply our expertise in renewable development to an energy-generation method known for its low net-carbon intensity, and giving us a strategic foothold in a highly attractive sector of the RNG market. Our development strategy is guided by our sustainability commitments and the assets we've added to our portfolio are a testament to the role our net-zero target plays in the growing demand for renewable energy.



RNG projects

Dairy farm RNG projects have the potential for negative carbon intensity, typically pulling between 200 and 400 grams of GHGs from the atmosphere per megajoule of energy produced.



Climate resiliency and energy efficiency

Through ongoing internal engagement with subject matter experts, we continue to build on our 2020 TCFD Climate Change Assessment in order to further understand our climate risks and build more resilient systems capable of adapting to climate change. As the challenges of climate change increase, so has our response, as we continue to consider how to better handle and adapt to extreme weather conditions. This ongoing work is central to our commitment to operate our business in a way that delivers clean, efficient, and reliable energy.



Resilience through diversity

We believe that Algonquin has built-in resilience by virtue of our diverse business modalities and geographic operating locations. We view this diversification to be an advantage as it can lessen the organizational-level impacts of certain emerging climate risks, while also providing multiple opportunity pathways as we transition to a low-carbon economy.

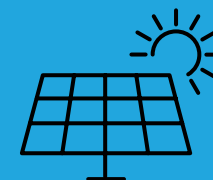
Diversification supports resiliency

Inherent resilience
Strategic diversification

Regional diversification
Operating across North America and internationally, mitigating vulnerability to regional climate risks

Multiple business modalities
Operating across electric, natural gas, and water and wastewater

Strategic segmentation
Leveraging regulated and unregulated expertise to navigate regional complexities



Community solar facility for our customers

With our newly operational Prosperity community solar facility, located on 60 acres of reclaimed mining land in Missouri, we can further deliver on our commitment to providing high-quality, reliable, and cost-effective renewable energy solutions to our customers. This facility leverages the innovative technology of bifacial solar panels on a single-axis tracking system to increase the efficiency and load factor of solar panels attached to the grid.

Through our community program, we are providing innovative ways for our customers to access renewable energy – an example of our SDG 7 “Affordable and clean energy” commitment in action. Our customers can subscribe to blocks of energy generated from the facility at an affordable rate and will receive a credit on their monthly energy bill for the energy produced by the blocks. This allows our customers to access renewable energy while bypassing the often prohibitive costs associated with purchasing rooftop solar systems.





Power safety shutoffs and wildfire protection

Wildfires are a risk we face in some of our geographic regions, and this risk has been exacerbated by climate change. Keeping our customers and employees safe, while keeping the power on and the water flowing, is integral to our company's purpose. When it comes to wildfire mitigation, we have taken measures to limit the impacts of wildfires in our service territories. These measures include strategic vegetation management, infrastructure hardening, and collaborating with partners to promote best practices.

We also have programs at some of our utilities to help prevent fires, such as the Public Safety Power Shutoffs (PSPS) protocol. A PSPS is a safety procedure to proactively turn off power when, and where, conditions present increased wildfire risk.

We work with weather experts to monitor real-time weather data and forecasts. If it is determined that the forecasted conditions exceed safety thresholds, we may initiate a PSPS to keep our customers and employees safe. We support our communities in preparing for PSPSs by seeking to provide them with as much notice as possible along with resources to help them remain safe and secure during outages.

We work with our customers to help them prepare in the event of a PSPS

Our efforts include:



Confirming customer contact information is up to date within our system, as this is often the first channel of communication when a PSPS could affect a customer.



Providing guidelines on how to create an emergency kit. Emergency kits often include items such as flashlights, batteries, first aid supplies, food, and water.



Documenting customer medical needs that may be impacted during a PSPS.



Encouraging customers to have an evacuation plan in the event of a PSPS (such as keeping a full tank of gasoline and cash on hand for emergencies).

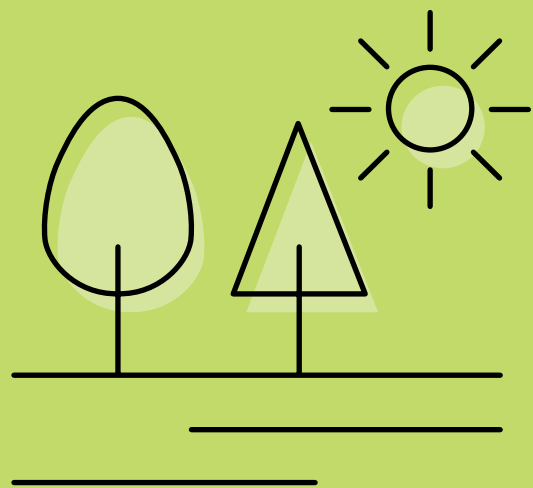


Making important safety information widely accessible in multiple languages to certain communities we serve to help members of language minority groups stay informed and safe during emergency shutoffs. Depending on the area, languages may include English, French, Spanish, German, Mandarin, Vietnamese, and Tagalog.



Land use and biodiversity

At Algonquin, we value and seek to protect the ecosystems that we work in. We strive to be good environmental stewards and take pride in our efforts to help these ecosystems thrive, while maintaining high standards of service for our customers.



How we are protecting biodiversity



Conserving habitats

We have purchased and maintain 19.4 acres of land in the Ozark area near Buffalo, Missouri. This land serves as an ideal habitat for thousands of endangered grey bats.



Adjusting operations and maintenance practices

At our wind facilities, we regularly work with biologists to monitor and protect local species by promoting compliance to environmental permits and proactively applying adaptive mitigation techniques as may be required.



Restoring habitats

Our Power to the Pollinator program is expanding as we grow our dedicated pollinator gardens for monarch butterflies and other essential pollinators.





Managing vegetation to promote biodiversity

We work with local partners to incorporate best practice land use and minimize our impact on local ecosystems. Local partners help us enhance our practices, providing unique perspectives and local knowledge that help us better understand how we can preserve biodiversity and reliable service to our customers.



Leiberg's Panic Grass
(*Dichanthelium leibergii*)



Bunchflower
(*Melanthium virginicum*)

Introducing wildflowers in right-of-ways

We use right-of-way (ROW) surveys, as part of our ROW Habitat Program, to promote biodiversity on the ground by educating our employees and partners on plant identification. This year, our surveys and education efforts have resulted in the discovery of two plant species in our territories. Our employees identified Bunchflower in Hickory County, MO, surveying vegetation for the ROW Habitat Program. Also found at the same site was Leiberg's Panic Grass. Both plants are brand new species recorded in Hickory County. Plant samples were sent to the Missouri Botanical Gardens and the Missouri State Botanist, resulting in official confirmation and recognition.

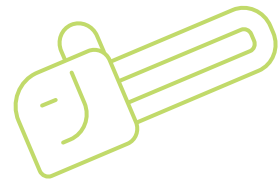


Supporting the Arbor Day Foundation

Working to understand our diverse ecosystems is pivotal to maintaining our operations. Along with our ROW Habitat Program, we also collaborate with the Arbor Day Foundation to promote the use of responsibly placed vegetation in ROWs around power lines. We work with them to plant selected species of trees that are low-growing, to minimize the potential for service loss due to fallen trees or other natural impediments and allow us to leave valuable ecological and biodiverse areas untouched.

Not only does working with the Arbor Day Foundation help us increase the reliability of our service, but it also helps our customers. The Arbor Day Foundation's responsibly placed vegetation program includes the use of energy saving trees. A properly placed deciduous tree can provide shade to the home or business in the summer, reducing cooling costs. In addition, these trees, which lose their leaves in autumn, can allow sunlight to warm the building, reducing heating costs. Similarly, evergreen trees that do not lose their foliage in autumn months act as wind control that can reduce heating costs. The Arbor Day Foundation states that responsible tree placement, with energy savings in mind, can result in up to a 60% reduction in heating and cooling costs.



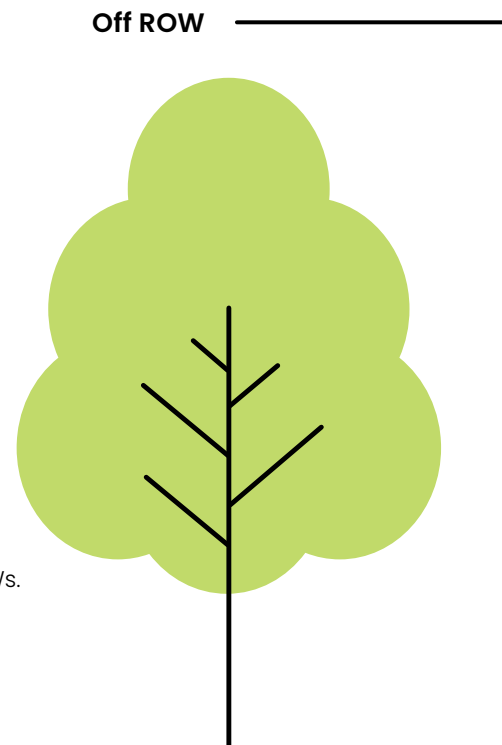


What is integrated vegetation management?

Effective vegetation management helps maintain the integrity of utility infrastructure and supports reliable utility service by preventing species from interfering with assets' operation. Integrated vegetation management (IVM) uses a variety of methods to control non-compatible vegetation while promoting compatible vegetation. This approach effectively increases biodiversity and ecosystem services on land managed by Algonquin. In addition to evaluating the compatibility of vegetation for protecting both physical infrastructure and the biodiversity surrounding it, compatible species have been selected for their cultural significance to Indigenous populations. At Algonquin, we are actively working to build out our IVM program with the twin goals of increasing the reliability of service for our customers and preserving biodiversity in the areas surrounding our physical assets.

Wire Zone – Border Zone (WZBZ)

Liberty is expanding the use of WZBZ on electric transmission ROWs.

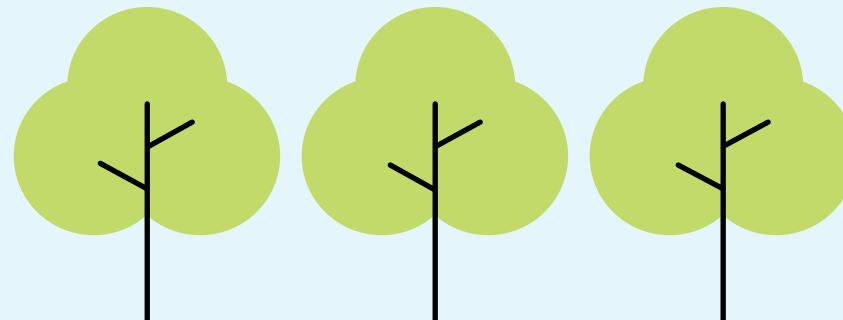


What is compatible vegetation?

Desirable vegetation that is consistent with the intended land use is considered compatible and is selected using three main criteria. First, at maturity, the species will be a height that will not interfere with nearby infrastructure. Second, it should be a species considered native to the local environment. Finally, preference is given to species considered culturally appropriate. We prioritize historically accurate representations of the species in the service territories where we operate. For example, in our Western Region, we prioritize alpine forest species, whereas in our central region, prairie habitat and pollinator-friendly species are selected as this area of the country was traditionally grasslands.

Border Zone

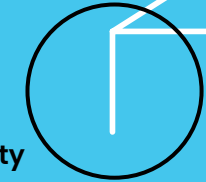
The Border Zone is the area between the limits of the ROW and the Wire Zone. Border Zone vegetation is comprised of Wire Zone vegetation plus taller-growing shrubs that will not encroach on the Wire Security Zone.



Right tree, right place

Our Regulated Services Group, which operates 7,000 miles of electric transmission and distribution lines, is developing IVM programming that complies with national safety and reliability standards and incorporates regional and local goals to benefit biodiverse wildlife habitat.

Wire Security Zone



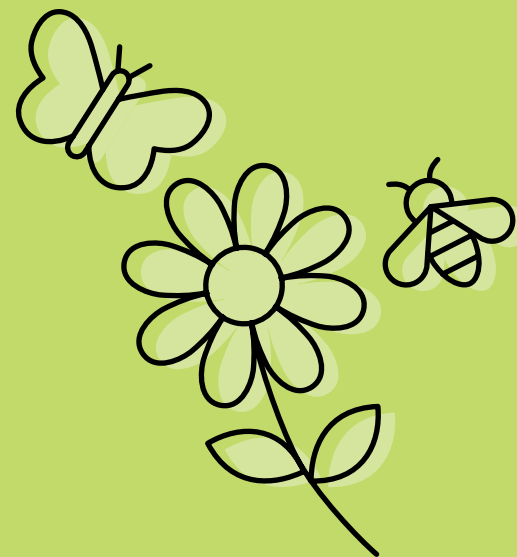
Wire Zone

The Wire Zone is directly beneath the electric conductors that extends outward 20 feet towards the ROW limit. Vegetation within the Wire Zone is comprised of low-growing compatible plant communities that include grasses, ferns, forbs, and low-growing shrubs.



Pollinators

Pollinators, such as honeybees and monarch butterflies, are experiencing population declines across their territories. Utilities are uniquely positioned to boost the health of pollinators through tracts of largely undeveloped land, such as transmission line ROWs.



Pollinator gardens in our East Region

We are proud to continue our Power to the Pollinator program. We have now converted over 80 acres across our Central Region of previously maintained and mowed areas into pollinator fields. We have partnered with the Bee and Butterfly Habitat Fund and Quail Forever to continue developing this program. Expanding our pollinator program converts high maintenance areas to low maintenance as we remove turf that must be mowed and replace it with pollinator friendly wildflowers and native grasses. This work not only benefits pollinator species, it also simultaneously minimizes noise pollution, cuts maintenance spending by reducing the need for regular mowing, and reduces our carbon footprint.

This year, we've made several improvements to further the impacts our pollinator program has on the climate and environment. For example, we are using native plants that have deep, extensive roots, resulting in greater carbon sequestration from the atmosphere when compared to turf grasses with shorter root structures. Should a wildfire occur, these CO₂-storing root systems remain untouched under the ground.



In 2021, our East Region built 92 square feet of pollinator gardens adjacent to their offices and workplaces. These gardens were planted with local wildflowers and vegetables, and are maintained and harvested by Liberty volunteers. These gardens are expected to expand over time.

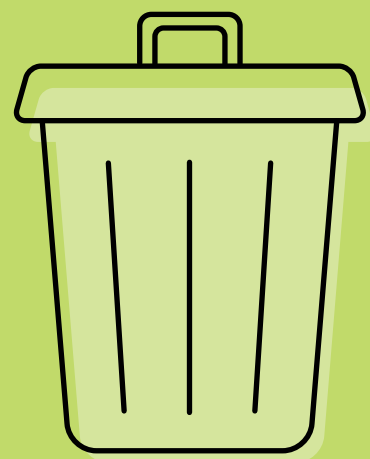


Milkweed and monarch butterflies

Part of our unique pollinator seed mix is the inclusion of milkweed. Milkweed is essential for monarch butterflies, as it is a host species and the only food source that monarch caterpillars eat. Monarchs lay their eggs on milkweed and, by eating the plants, their caterpillars accumulate toxins that provide protection from predators when they become adult butterflies.

Waste and materials management

Limiting our waste footprint and responsibly managing the hazardous and non-hazardous waste we generate is an important component of our efforts to protect the environment and the communities where we work and live.



Development of new waste management standard

2021 brought on the development of an updated enterprise-wide waste management standard aimed at setting expectations, ensuring consistency in on-site waste management approaches across the organization, and complying with the range of regulations governing how we generate, handle, store, and dispose of waste across the diverse communities we serve.

Over the course of 2022 and 2023, Algonquin will deploy our waste management standard to key segments of the business.

The development of this standard underscores our commitment to environmental stewardship in alignment with our corporate values and dedication to sustainability.

The new waste management standard:



Identifies how we deal with both hazardous and non-hazardous waste.



Distinguishes the roles of stakeholders across the organization – from senior leaders to contractors – in upholding the standard.



Outlines how training, reporting and emergency response will bolster our efforts to responsibly and safely manage our waste footprint.

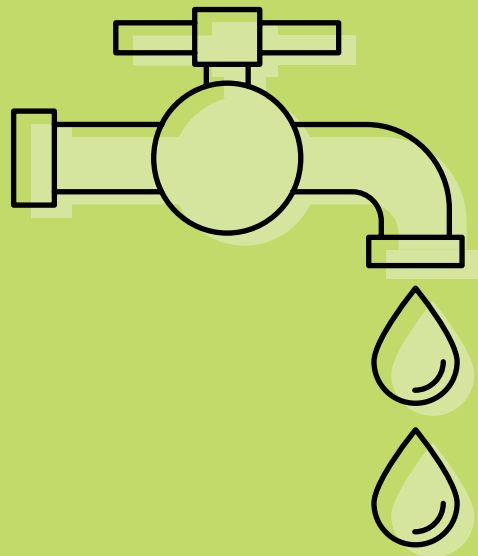


Altavista Solar PV Project

Our Altavista Solar Facility in Virginia went into commercial operation in June 2021.

Water management

We are taking steps in an effort to minimize our impact on freshwater and groundwater through responsible resource management, conservation, operation, and reuse of wastewater.



Water management by the numbers

Water recharged

Total 2020: 2,433 million litres



Total 2021: 2,641 million litres



Recycled water delivered¹

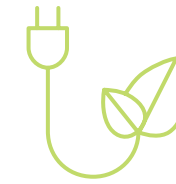
Total 2020: 2,191 million litres



Total 2021: 1,379 million litres

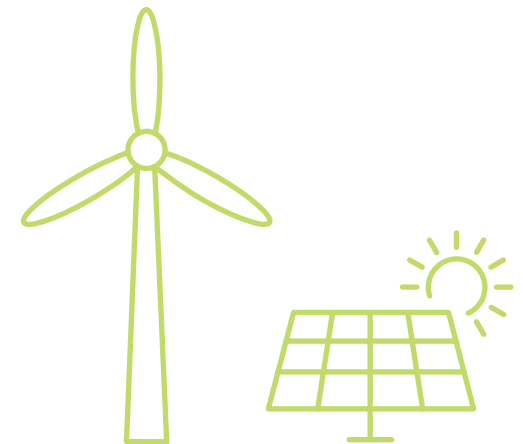


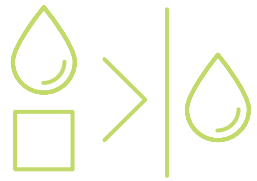
¹ Decrease in 2021 recycled water delivered is in part due to: 1) a large customer served by Liberty's Gold Canyon facility not receiving water for a prolonged period; and 2) a portion of pre-treatment water sent to Liberty's Goodyear treatment facility being below treatable quality to meet irrigation standards of a customer.



Renewable energy reduces water use

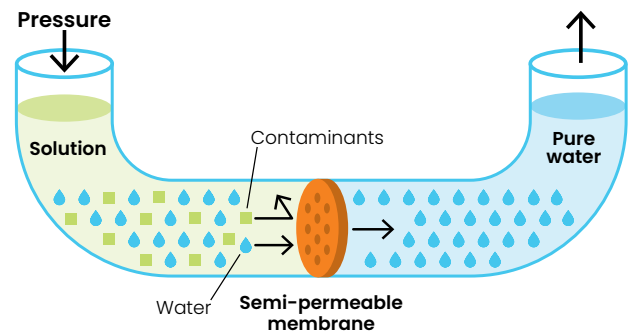
Our *Greening the Fleet* initiative and deployment of renewable energy not only helps decarbonize the energy system, it reduces the electricity network's reliance on water. For example, the retirement of our Asbury coal-fired facility resulted in the annual reduction of our fleet's water dependence by approximately 240 million litres. With Algonquin's proven track record for developing renewables, we continue to reduce demand for fossil-fuel and water-intensive energy sources.





Reverse osmosis

At our State Line power generation plant in Joplin, Missouri, our team demonstrated their innovative spirit by leveraging reverse osmosis reject water to limit water waste, helping us reduce our environmental footprint and sewage bills. With this new initiative, reject water from the reverse osmosis process is used to reduce the water requirements of the cooling tower at the plant, resulting in annual cost savings and saving an estimated 34 millions of water per year.



What is reverse osmosis?

Reverse osmosis is used to purify water. Through this process, contaminated water is put under pressure and pushed through a semipermeable filter. The filter catches the contaminants while allowing the clean water to pass through.



Water efficiency for our customers

As our purpose of *sustaining energy and water for life* so clearly illustrates, conserving the vital ecosystems we operate within is integral to our business. Fresh water is one of the most valuable commodities on the planet, representing only 3% of all water on Earth. At Algonquin, we are working to do our part to preserve and conserve this precious resource, especially in the water-stressed regions in which we operate.

Algonquin's combination of improving customer awareness along with no-cost water audits is a key component of our approach to water conservation. The Water Use Calculator tool found in the Water Conservation section of our website provides immediate and relevant feedback to customers on their water usage, improving customer awareness. Combining this evaluative process with no-cost

water audits allows our customers to identify leaks in their homes and provides repair and upgrade recommendations that will help save water. In addition to our Water Use Calculator and water audit program, we provide various water saving devices to our residential and commercial customers at no cost. These devices are intended to help our customers use water more efficiently and conserve this vital resource.



Water efficiency by the numbers

In 2021, across our West Region, we've made a meaningful impact on our communities by supporting water conservation:



Completed 145 water audits.



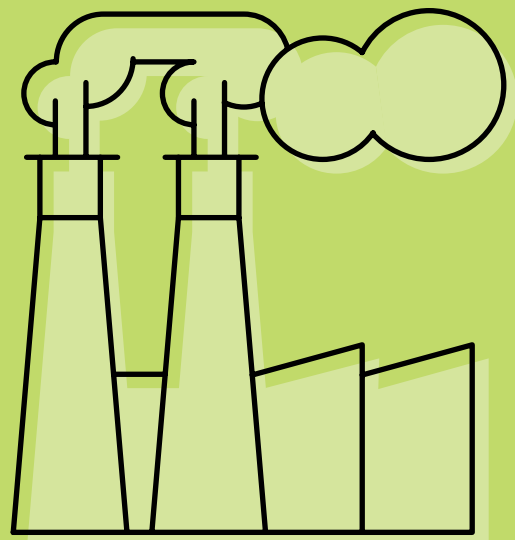
Distributed over 1,750 water efficient devices and issued roughly 3,000 rebates for water efficient devices.



Saved approximately 413 million litres of water through our efficient devices programs.

Greenhouse gas and air emissions

Reducing GHG emissions is essential to reaching our net-zero by 2050 target and addressing climate change. We are prioritizing our responsibility to work toward these goals by dedicating resources to lowering our emissions.



Our GHG inventory

By developing a corporate GHG inventory, we continue to build on our understanding of both the direct and indirect impacts of our business' operations so that we are better equipped to manage and reduce our GHG footprint where feasible. Algonquin's GHG emissions are consolidated through an operational-control approach.



Emission scope definitions by the GHG Protocol

Scope 1 emissions

Direct GHG emissions from sources owned or controlled by the company.

Scope 2 emissions

Indirect GHG emissions from the generation of purchased energy consumed by the company.

Scope 3 emissions

All other indirect emissions that occur in a company's value chain but from sources not owned or controlled by the company.

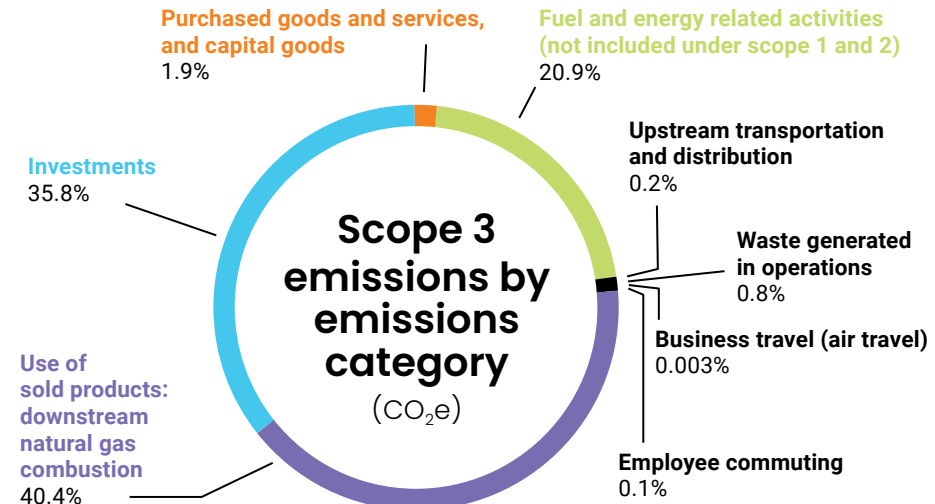
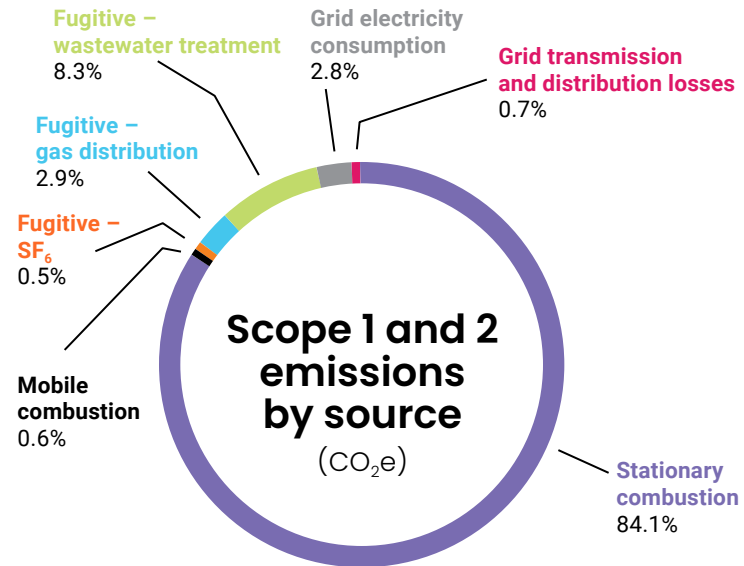
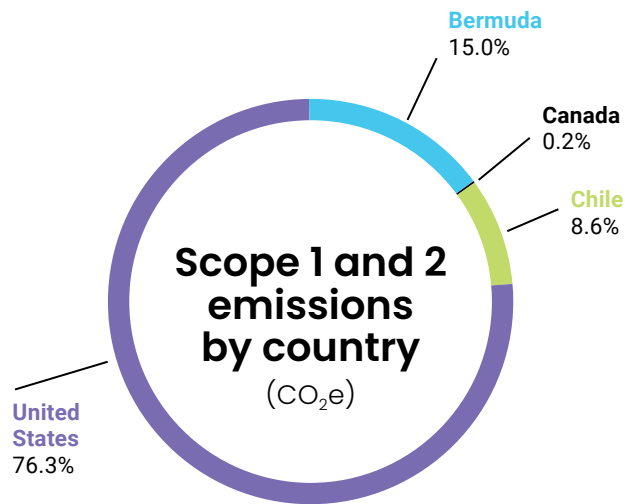
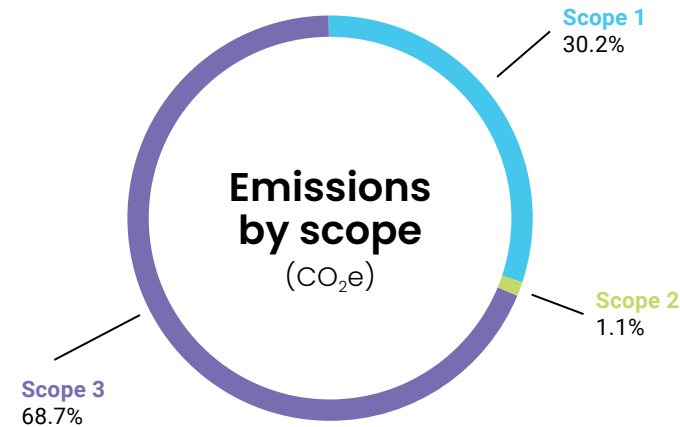


Sugar Creek Wind Project

Our Sugar Creek Wind Project in Logan County, IL helps address Illinois' growing electricity demand with clean, homegrown energy while diversifying Logan County's economy and supporting jobs in the local community.

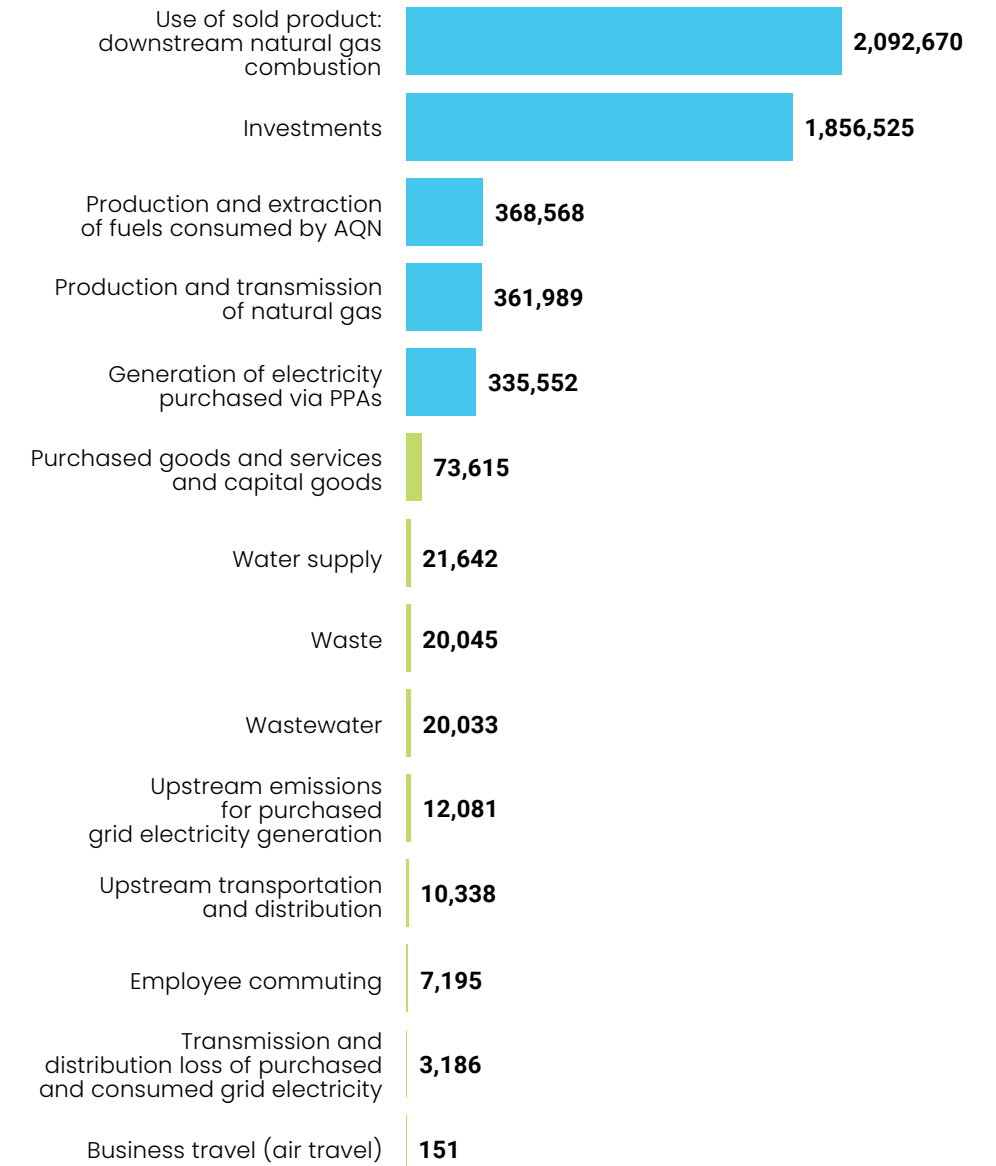


Our 2021 GHG emissions profile



Scope 3 emissions by source

(tCO₂e)¹



¹ tCO₂e = metric tons of CO₂e



Evolution of our GHG inventory

Developing a GHG inventory is an essential step for our net-zero planning and emissions management. Disclosing GHG emissions is also becoming increasingly important to our stakeholders.

We have been making improvements to enhance the completeness and accuracy of our inventory.



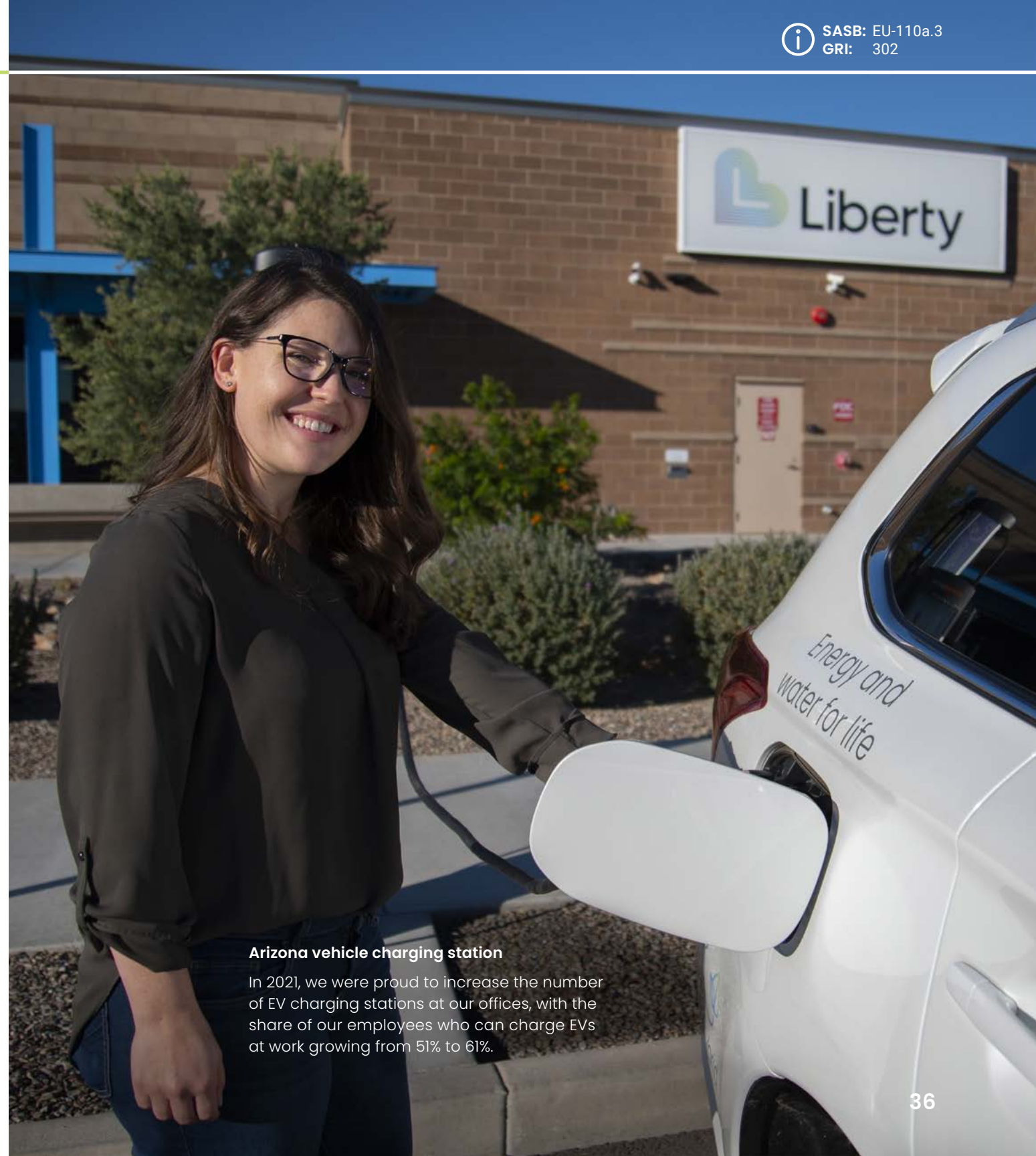
Visit our [ESG Data Hub](#).

Improved completeness

Over the years, we have been gradually expanding our GHG coverage with enhanced GHG activity data availability and improved quantification methodology for scope 1, 2, and 3 emissions. For example, our inventory includes fugitive sulfur hexafluoride (SF₆) emissions. SF₆ is the most potent greenhouse gas (22,800 times more potent than CO₂) that is widely used in high-voltage electric switchgear. For scope 3 emissions, we are now reporting emissions from **9 of 15 categories of scope 3** sources currently relevant to our business as defined by the GHG Protocol.

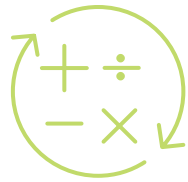
Accuracy

For the past three years, Algonquin has engaged with a third-party to conduct an independent limited assurance review of our scope 1 and 2 GHG emissions inventory. The GHG verification reports are publicly available on our corporate ESG Data Hub site.



Arizona vehicle charging station

In 2021, we were proud to increase the number of EV charging stations at our offices, with the share of our employees who can charge EVs at work growing from 51% to 61%.



GHG Base Year Recalculation Policy

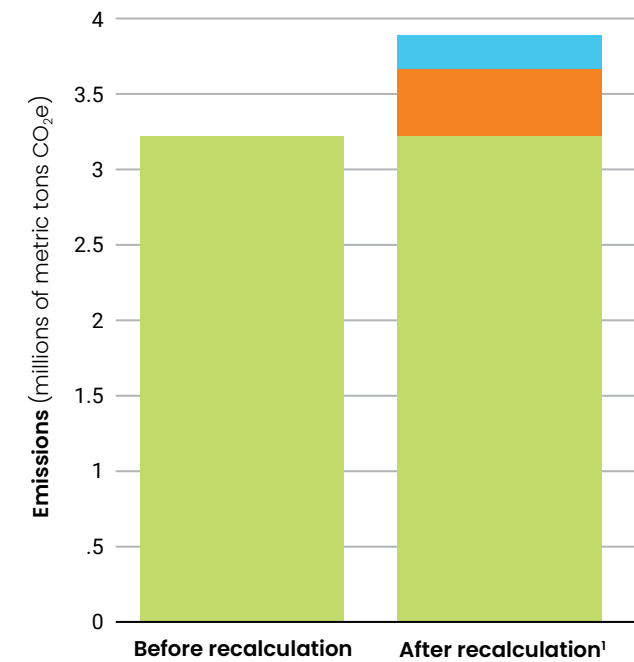
Baseline emissions refer to the production of greenhouse gases that have occurred in the past and which are being produced prior to the introduction of certain strategies to reduce emissions. The GHG Protocol requires an organization to establish a base year for its GHG inventory in order to facilitate tracking of emissions and progress towards emission reduction goals. To maintain consistency over time, Algonquin has selected 2017 as our base year for establishing an initial emissions reduction target. As previously stated, Algonquin’s growth strategy has the effect of changing our asset profile from time to time due to acquisitions, divestments, mergers, and other operating changes. These modifications can alter our emissions profile significantly (e.g., the acquisitions of BELCO and ESSAL), which makes meaningful comparisons to historical emission levels difficult. Our GHG Base Year Recalculation Policy serves as a guideline that defines the circumstances and thresholds that may trigger a base year and historical year recalculation. The policy outlines the methodology for carrying out recalculations to maintain a fair year-over-year comparison.

According to our recalculation policy, emissions from acquired facilities should be added to the base year and all previous years’ emissions only after one full calendar year of data is available for the facility. Given that the 2021 reporting year is the first calendar year that the full-year data became available for BELCO and ESSAL, and that their base year emissions satisfy the policy’s 5% condition, we decided to recalculate our base year and all historical years’ emissions to reflect the changes in our organizational structure. In addition, the two gas utilities which were acquired in late 2019 (St. Lawrence Gas and New Brunswick Gas) were also included for the base year and historical year emissions recalculation exercise.

With the recalculation process, our 2017 base year scope 1 and 2 emissions have increased from 3.2 million to 3.8 million metric tons of CO₂e. The adjusted base year emissions will provide valuable insights for our ongoing net-zero planning.

Base year (2017) emissions recalculation

- Base year – original
- Addition – St. Lawrence Gas
- Addition – ESSAL
- Addition – BELCO
- Addition – New Brunswick Gas



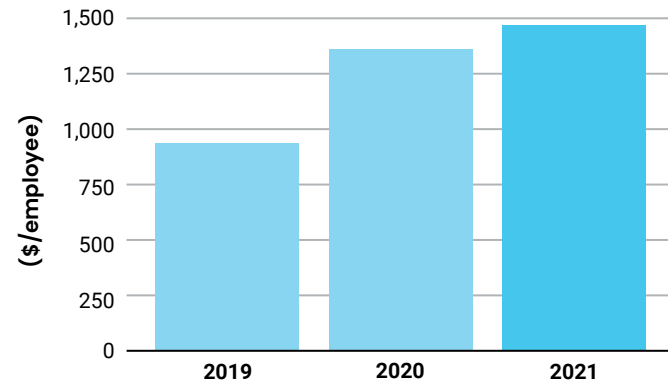
¹ New Brunswick Gas and St. Lawrence Gas contributed 2,847 and 2,389 metric tons of CO₂e respectively to the recalculated total.



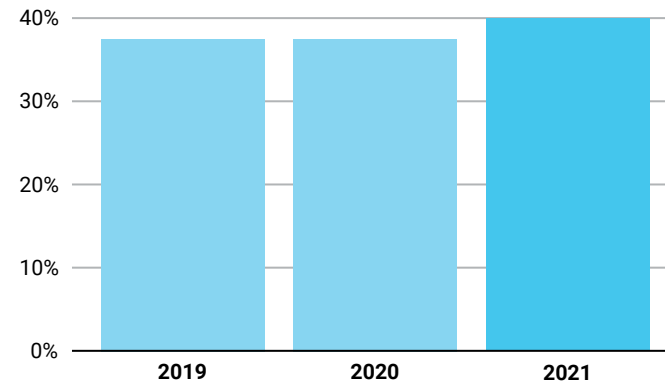
Social

Featured KPIs

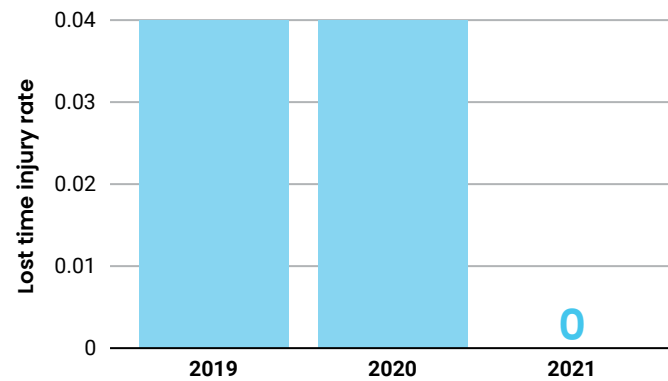
Increased average amount invested per employee on training



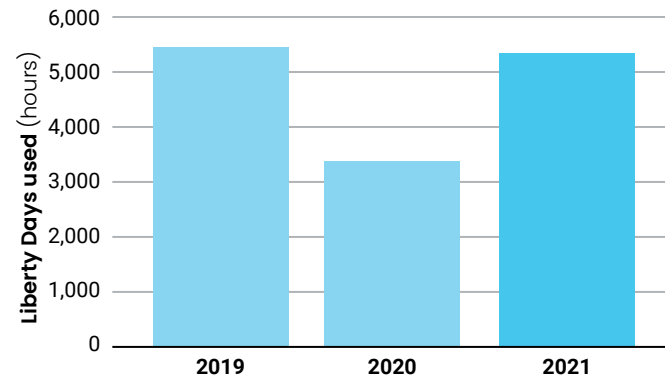
Increased representation of women on our executive team from 37.5% to 40%



Achieved an industry-leading 0 lost time injury rate, suffered no fatalities, and decreased our recordable injury rate by 38%



Increased employee volunteer hours by 58%, from 3,375 hours to 5,334 hours



Interim targets

Exceed 30% women in leadership roles

Achieve top-quartile customer service

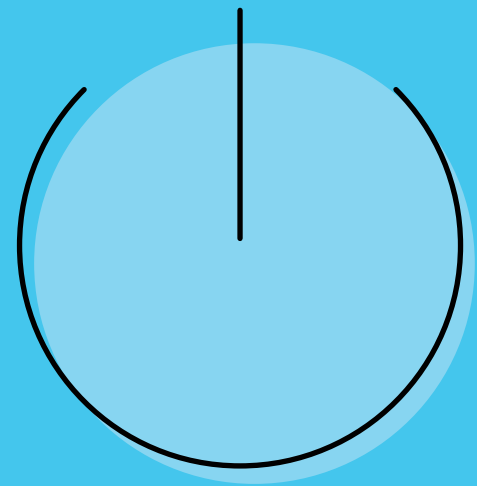
Achieve top-quartile employee engagement

Alignment to UN SDGs



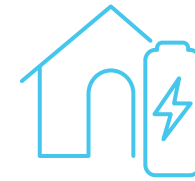
Service reliability

Our communities depend on reliable energy and water services. We take pride in our commitment to serving our customers' needs and work hard to provide customers with reliable energy and water services, even in the face of major challenges.



Managing our assets for reliability

Effective oversight of our facilities allows us to protect the integrity of our assets, respond to incidents in a timely manner, and, most critically, provide reliable services to our customers. As an example of our efforts on this front, in 2021 we began rolling out our new geographic information system (GIS) across several utilities in our fleet, including at our water and wastewater facilities in our West Region and our gas facilities in our Central and East regions. The GIS tool is expected to facilitate real-time collaboration between field and office teams, leading to an improved ability to address system disruptions and in turn deliver consistent service for our customers.



Battery Storage Pilot Program – delivering value to customers

As part of our sustainability commitment, we strive to leverage emerging technologies and business models in the delivery of clean, efficient, and reliable energy.

of innovation at Algonquin. This technology has the potential to save our customers money while also providing backup power during an outage to the customer's home.

In our New Hampshire electric service territories, we are working with our customers to deploy interval-meters and batteries behind-the-meter as part of our Battery Storage Pilot Program. This program is designed so that the batteries dispatch to the grid during forecasted coincident peak demand conditions to reduce demand on the system, and in turn, reduce transmission

charges for both Regional Network Service (RNS) and Local Network Service (LNS). At all other times, batteries will automatically power customers' homes during the normal critical peak hours of the day and deliver value through time-of-use (TOU) bill savings. We believe this was the first program in the U.S. that paired behind-the-meter storage along with TOU rates and is a prime example

"...this was the first program in the U.S. that paired behind-the-meter storage along with TOU rates and is a prime example of innovation at Algonquin."

After receiving regulatory approval in 2019, we successfully launched the pilot in 2020 and, by the end of 2021, had installed batteries at 186 homes. While we continue to measure the effectiveness of this project, we are pleased to report that Algonquin has exceeded ISO New England's system coincident peak requirement, met peak hour 11 out of 12 months in 2021, and reduced load to

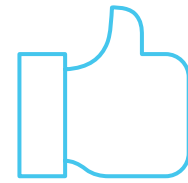
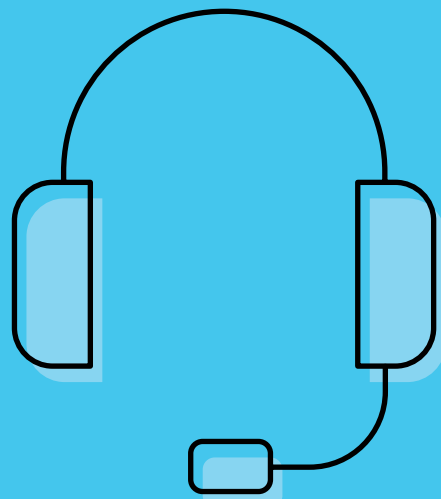
grid for a total of 51 MW from 73 dispatches during critical peak hours. This translates to lower transmission costs during peak hours each month as well as reducing strain on the local distribution system.



View the video on our Battery Storage Pilot Program.

Customer experience and affordability

Providing affordable and reliable electricity, water, and gas services to our customers is not only critical to our continued growth and success, but also aligns with our guiding principles and commitment to serving the communities we call home.



Customer satisfaction by the numbers

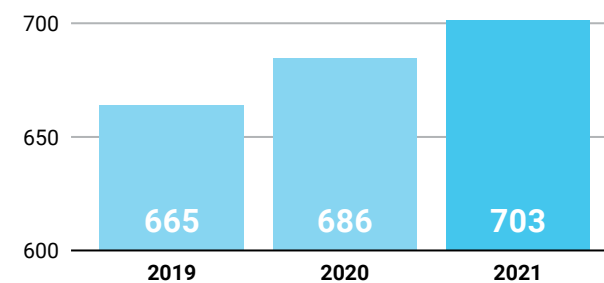
We take pride in our efforts to provide our customers with the best experience possible and this hard work is, reflected in part, through our customer satisfaction scores from J.D. Power, which measure customer satisfaction with utility providers across six factors:

- Power Quality and Reliability
- Price
- Billing and Payment
- Communications
- Corporate Citizenship
- Customer Care

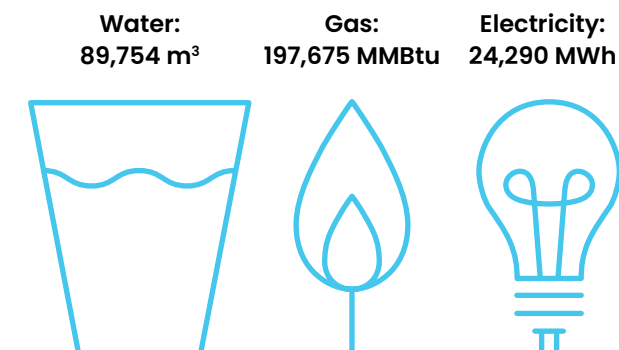
We are proud to have made strides in our customer satisfaction scores since 2018. This has been accomplished through a

variety of ongoing efforts across our regions, starting with reinforcing our customer culture by creating regional customer satisfaction councils to work locally to increase customer satisfaction. We have launched programs to better understand the voice of our customer, enhanced our Net Promoter Score program, rolled out our Customer First program which brings improvements to billing services, deployed advanced metering infrastructure (AMI) technology, and improved our communications efforts. Our teams are focused on placing the customer at the center of relevant decisions and strategy, and we view this as a testament to our efforts to pursue our guiding principle of customer centricity.

Our J.D. Power customer satisfaction score shows consistent improvement



Algonquin's 2021 end-use customer savings from efficiency measures



Talent attraction and retention

Algonquin’s employees are foundational to our ability to provide excellent service to our customers and value to our shareholders. We work hard to not only attract talented people, but also to invest in their growth and development so they can thrive alongside our business.



Inclusive transition

We seek open dialogue and collaboration with the communities in which we operate and believe diversity and inclusion results in a more just society, resilient communities, and a high-performing workforce. As we move forward on executing our strategic priorities, and as we navigate towards our net-zero 2050 target, we will strive to do so in a responsible way that also considers the social impacts to our stakeholders.

Algonquin’s approach to greening our fleet broadly supports the United Nation’s International Labor Organization definition of Just Transition: “A Just Transition means greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind.” We believe that supporting the goals of a Just Transition means striving for inclusive, open dialogue with our stakeholders, to seek input and feedback, and to continue to foster an inclusive energy transition while striking an effective balance in providing service to our customers.

Our decarbonization efforts offer exciting opportunities to provide accessible renewable energy and low-carbon

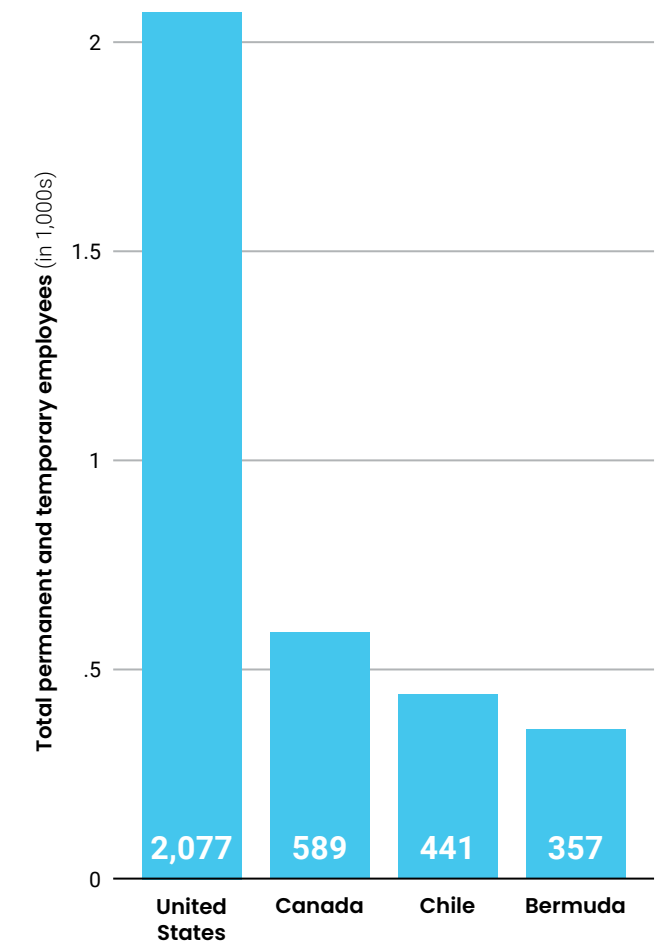
technologies to the communities we serve, create meaningful work, and foster the growth of new industries. However, we also understand that existing carbon-intensive industries play an important role in fueling local economies. This is why, as we transition, we intend to continue offering retraining opportunities for employees and seek ways to generate local jobs where possible.

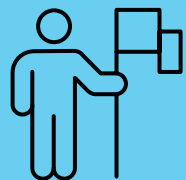
We take pride in our track record of leveraging local employment in our service territories. For example, with our recent acquisition of Liberty New York Water, recruitment efforts were launched to fill 20 new jobs to provide local customer service, procurement, regulatory, and finance support. Having more local jobs and integrating acquisitions into our local operating model facilitates improved local communication and engagement.

Having a strong track record on inclusive transition helps us as we grow in other communities and as we further our efforts towards building a low-carbon economy while remaining cognizant of our impacts on local workers, families, and communities.



Employees across our geographies





Liberty Foundations

Through development and growth, we endeavor to attract, and retain, world-class talent to support our company's core purpose of *sustaining energy and water for life*. In 2021, we launched Liberty Foundations, a two-year rotational program designed to offer new graduates exposure to a wide array of career paths within the utilities space.

As part of our Liberty Foundations curriculum, each new graduate will complete an in-depth orientation to our company, including exposure to fundamental departments across the organization, such as operations, engineering, and customer service. Upon completion of the orientation, rotational streams are selected based on education, experience, and skills in our engineering, regulatory, or finance departments.

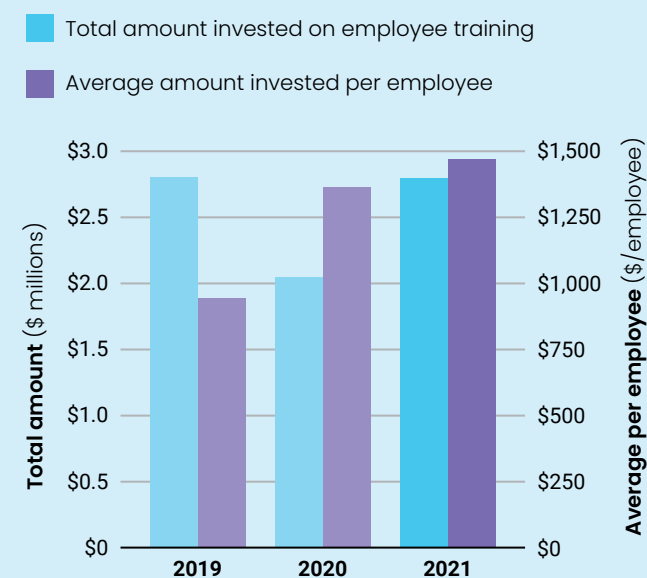
We are proud to offer this program for new graduates to kick-start their careers with Algonquin. We look forward to welcoming new graduates to our organization and seeing them introduce fresh perspectives and new ideas to our growing team.



Employee training by the numbers

Training and skill development is critical to our employees' success and an important component of our approach to building talent in our workforce. We take pride in the investments we make in helping our employees learn and grow, and believe it is one of the keys to sustaining growth and operational excellence. In 2021, we invested approximately \$2.8 million in our employees' professional development and believe this will pay dividends in the future.

Amount invested in training



Succession planning

Identifying and preparing future leaders helps build a foundation for future growth and is a key ingredient of effective talent management. We are working to develop our next generation of leaders who will shape our organization's future. In 2021, we evolved our succession framework and continued to focus on equipping our leaders with the tools and skills to identify and develop talent. An ongoing cycle of review of succession opportunities, requirements, and capabilities is expected to enable us to prepare for transitions and grow our leaders.



Kirsten Olsen

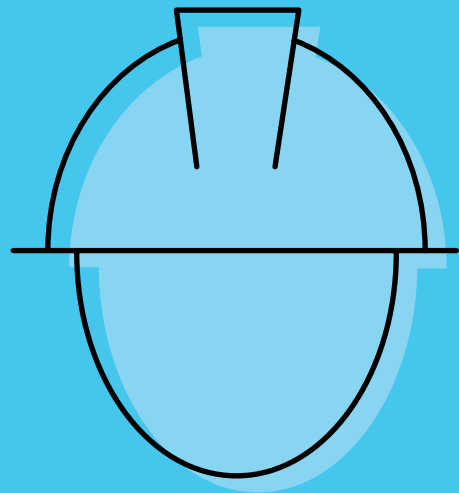
Chief Human Resources Officer

“ We are dedicated to making Algonquin a great place to work and pursue professional growth. ”

Our employees' contributions to our success are invaluable and we are proud to have a workforce of talented and dedicated people who come to work every day to make a difference. As our business grows and evolves, there are many opportunities for our employees to learn new skills and continue to make an impact for our customers and communities. In keeping with this, we have not only sought to grow our workforce responsibly, but also invest in helping employees build their skills and forge fulfilling career paths. We have increasingly dedicated resources to expanding opportunities for training and professional development to enhance the skills of our existing employees and have worked hard to build connections with promising new talent to help guide our organization into the future.

Employee health and safety

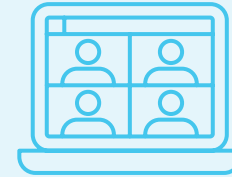
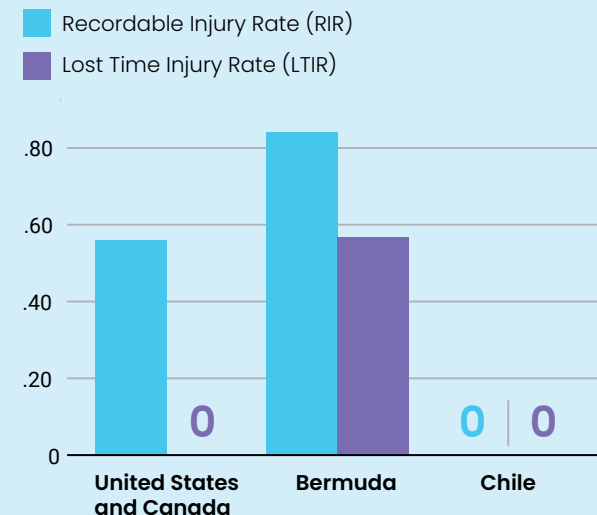
Safeguarding the health and safety of employees is critical to providing our high-quality water and energy services. Our award-winning safety approach has allowed us to provide the training and resources necessary to keep our employees safe and protected at work.



Recognition for our health and safety performance

We work hard to foster a safe work environment and are extremely proud that our efforts have been recognized by the American Gas Association (AGA). Our 2021 safety performance garnered us the AGA's Safety Achievement Award in the mid-multi-utility category, highlighting our superior safety outcomes among our peers. The award recognized that, as of June 25, 2022, our employees clocked over 13 million hours without any lost time injuries.

Employee health and safety across our geographies



Safety symposium

2021 marked the tenth year Algonquin has held our annual Safety Symposium, an event aimed at bringing our employees together to focus on workplace safety. Much like athletes, before undertaking a job or activity, our employees need to be focused, engaged, prepared, and capable – both physically and mentally – to take on the day's tasks. This year's symposium saw employees from across our regions participating virtually to highlight and reflect on our many safety programs and activities, and discuss how we operationalize and embed safety at Algonquin.



Johnny Johnston

Chief Operating Officer

Safety, trust, and transparency are defining characteristics of our culture at Algonquin and are reflected in our approach to protecting employees at work.

Our five-year health and safety plan, put in place in 2019, encourages our employees to regularly discuss safety performance, carefully identify root causes and lessons from incidents and near misses (or good catches as we often like to call them), and encourage leadership at all levels to engage on safety issues with their teams. These actions help employees feel accountable for their safety and that of their co-workers, keep lines of communication open between employees, and encourage employees to be risk aware and continuously learning on how to be even safer based on the experiences of others. As a result, we have seen continued improvement in our safety performance, and I would like to thank all our employees in helping us achieve this.



Mental health

In 2021, we all faced unprecedented challenges as a result of the COVID-19 pandemic and ongoing shifts in the workplace. We are proud of our employees for rising to face these challenges with commendable dedication and commitment. We understand that overcoming these extraordinary obstacles can take a toll on mental health and wellbeing and are committed to supporting our employees so they can feel safe and bring their best selves to work every day. To support our employees in handling the stress and personal struggles the year may have brought, we provided several tools and implemented policies to help employees manage their mental health, including extending access to our Employee Assistance Program and Headspace Health, and establishing more flexible work options to help employees achieve greater work-life balance.



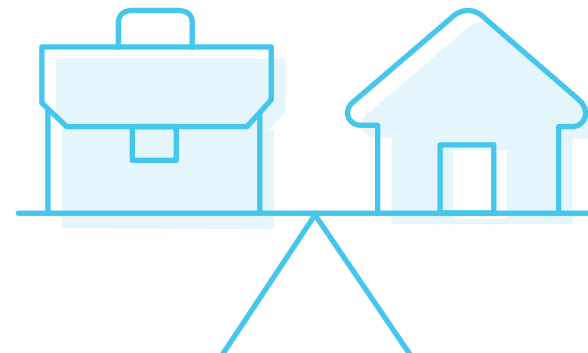
COVID-19 response

At the outset of the pandemic, our employees worked hard to ensure our customers across Canada, the United States, Bermuda, and Chile were provided with critical electric, water, and gas services while following public health measures aimed at keeping communities safe. As we entered the second year of the COVID-19 pandemic, we have continued to make strides in our ability to both maintain high standards of service to our customers and protect the health and safety of our employees. We take pride in upholding our commitment to the communities we serve in this difficult time and appreciate our employees' hard work to ensure we continue to provide vital services to our customers.

Since the start of the pandemic, our employees have showcased impressive resilience and determination to continue supporting our purpose despite the

challenges that have come their way. As restrictions eased and we gained deeper insight and experience into how to protect our employees, we have been able to bring many back to working on site, with roughly 40% of our workforce working in-person by the end of 2021.

In addition, we have offered enhanced support for employees to help balance family matters and other commitments with their responsibilities at work and have implemented new policies allowing for more flexible work schedules.



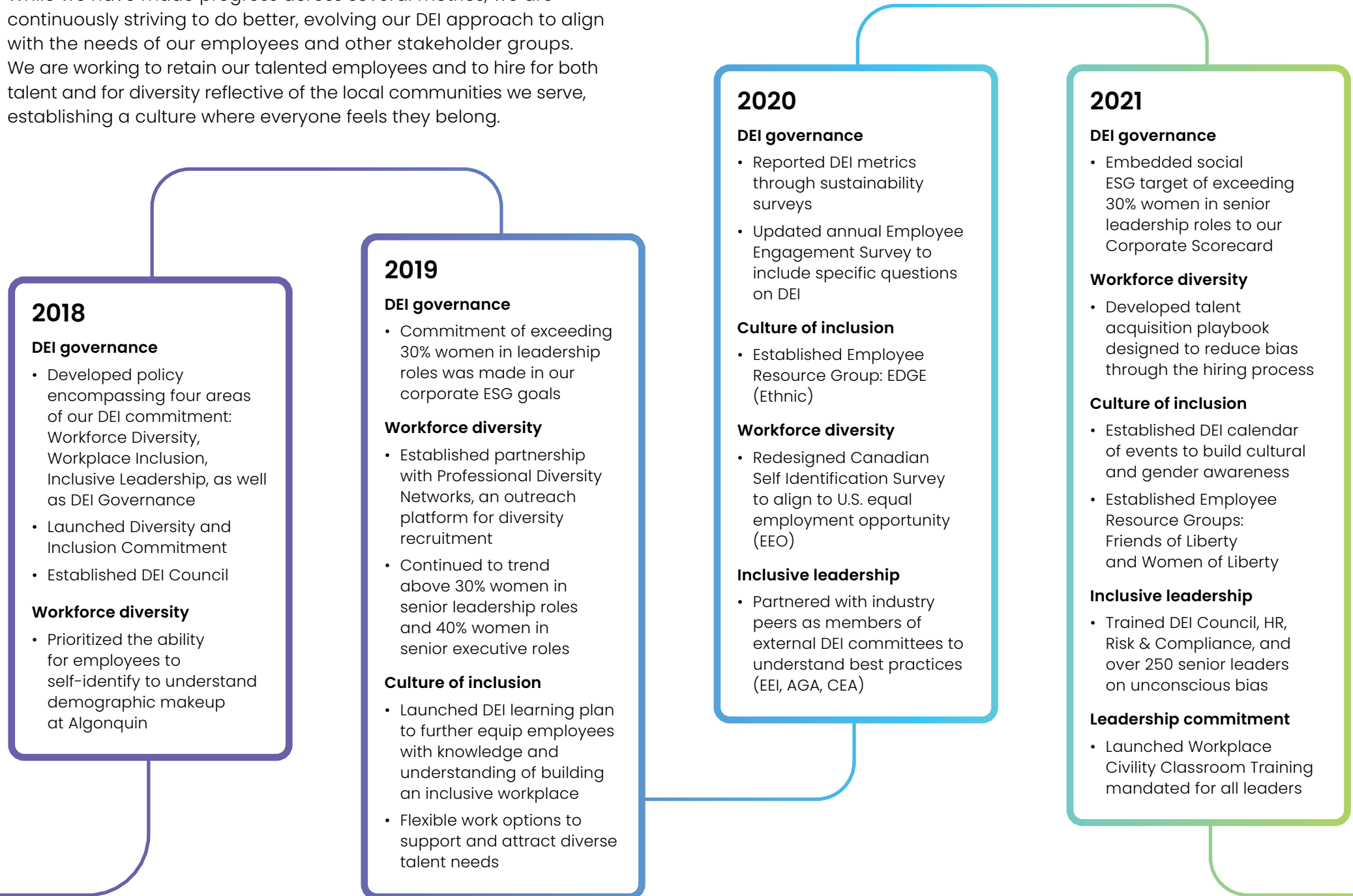
Diversity, equity, and inclusion

We believe a diverse workforce and inclusive culture are key ingredients for innovation, operational excellence, and organizational efficacy. When our employees with different backgrounds and identities can come to work knowing they will be included and given the resources they need to succeed, our organization thrives. The premium we place on DEI is a reflection of our values, purpose, and company culture.



Our DEI Journey

While we have made progress across several metrics, we are continuously striving to do better, evolving our DEI approach to align with the needs of our employees and other stakeholder groups. We are working to retain our talented employees and to hire for both talent and for diversity reflective of the local communities we serve, establishing a culture where everyone feels they belong.



2018

DEI governance

- Developed policy encompassing four areas of our DEI commitment: Workforce Diversity, Workplace Inclusion, Inclusive Leadership, as well as DEI Governance
- Launched Diversity and Inclusion Commitment
- Established DEI Council

Workforce diversity

- Prioritized the ability for employees to self-identify to understand demographic makeup at Algonquin

2019

DEI governance

- Commitment of exceeding 30% women in leadership roles was made in our corporate ESG goals

Workforce diversity

- Established partnership with Professional Diversity Networks, an outreach platform for diversity recruitment
- Continued to trend above 30% women in senior leadership roles and 40% women in senior executive roles

Culture of inclusion

- Launched DEI learning plan to further equip employees with knowledge and understanding of building an inclusive workplace
- Flexible work options to support and attract diverse talent needs

2020

DEI governance

- Reported DEI metrics through sustainability surveys
- Updated annual Employee Engagement Survey to include specific questions on DEI

Culture of inclusion

- Established Employee Resource Group: EDGE (Ethnic)

Workforce diversity

- Redesigned Canadian Self Identification Survey to align to U.S. equal employment opportunity (EEO)

Inclusive leadership

- Partnered with industry peers as members of external DEI committees to understand best practices (EEI, AGA, CEA)

2021

DEI governance

- Embedded social ESG target of exceeding 30% women in senior leadership roles to our Corporate Scorecard

Workforce diversity

- Developed talent acquisition playbook designed to reduce bias through the hiring process

Culture of inclusion

- Established DEI calendar of events to build cultural and gender awareness
- Established Employee Resource Groups: Friends of Liberty and Women of Liberty

Inclusive leadership

- Trained DEI Council, HR, Risk & Compliance, and over 250 senior leaders on unconscious bias

Leadership commitment

- Launched Workplace Civility Classroom Training mandated for all leaders



DEI in the workplace

In 2021, we updated our policies regarding diversity, equity, and inclusion in the workplace to ensure they are reflective of our values and the current climate.

In addition to this updated policy, our employee resource groups (ERGs) have continued to serve as strong sources of community building for

our woman-identifying, LGBTQIA+, and racial and ethnic minority employees. ERGs play a role in supporting employees who face systemic disadvantages by providing safe spaces where they can connect with their colleagues and advance the interests of their identity groups.

In addition to prohibiting harassment and discrimination, our DEI in the workplace framework also sets out our key focus areas:



Enhance workforce diversity



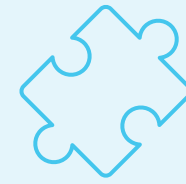
Cultivate a culture of inclusion in the workplace and community



Leadership commitment



DEI governance



Self-identification

At Algonquin, we believe our workforce is made better when employees are provided tailored resources to help them succeed.

A critical component of providing these resources is having adequate information on the groups with which employees identify so we can fill any gaps in our programming and evolve our DEI approach to suit the needs of our changing workforce. In 2021, we began giving employees the opportunity to identify as LGBTQIA+, members of racial and ethnic groups, veterans, or persons with disabilities, helping us enhance our understanding of the diverse identities represented in our workforce and better adapt our programs to meet their needs.



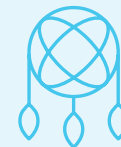
Friends of Liberty



Women of Liberty



EDGE

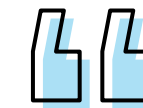


Indigenous Relations



Angie Custer

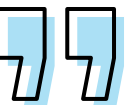
Co-President, Friends of Liberty



Friends of Liberty helps LGBTQIA+ employees come together to find a sense of community

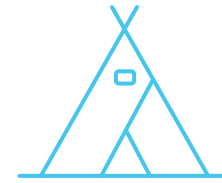
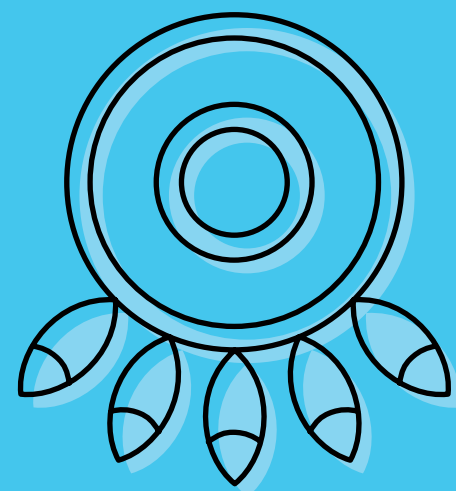
at work and offers an opportunity for support and connection for members of the queer community and allies alike.

We're proud to have built a strong network of LGBTQIA+ employees and allies that celebrates the diversity in our workforce and fosters respect, understanding, and inclusion. We're also proud to have been able to leverage the connections we've built among our employees to support LGBTQIA+ causes across our regions and give back to the community.



Indigenous relations

We acknowledge the challenges facing the Indigenous communities where we work, and we strive to collaborate with local Indigenous leaders and other stakeholders to address their interests and needs. We are respectful of Indigenous peoples, their lands, their culture, and the important role they have had as traditional stewards of the land.



Our Indigenous engagement journey

Some of our earliest projects were constructed in collaboration with Indigenous groups. Since then, approaches to Indigenous engagement have continued to evolve. With this in mind, we are being deliberate and methodical in our guiding principles for respectful and enlightened engagement to manage our relationships with Indigenous communities, acknowledging the importance of engaging with these communities in good faith and learning from their knowledge of the land. We have begun foundational activities and aim to expand on these in the future as we evolve how we forge relationships with Indigenous communities.

Our efforts represent the start of a longer journey toward a more comprehensive plan to guide our relationship with Indigenous communities and consider their perspectives and priorities when decision making.



In our western U.S. regions

We are working with our external partners to advise how to employ culturally appropriate species selection as a part of our vegetation management practices. We have provided training to our employees and partners to identify priority species and their importance to Indigenous people.



In northern Ontario

In northern Ontario, Algonquin has partnered with Fortis Inc. and 24 First Nations on the 1,800 km Wataynikaneyap Power transmission project. This important project is being built to connect 17 remote First Nations to the Ontario power grid. Upon completion of the project, these communities will benefit from reliable and safe power, in place of existing diesel generation.



Land acknowledgment

We respectfully acknowledge that the lands on which many of our assets reside are within traditional territories of various Indigenous communities.

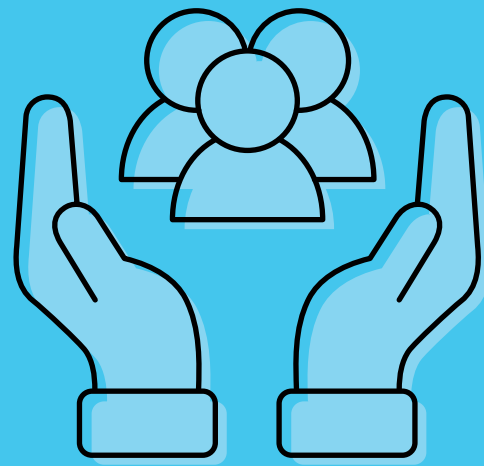


Training an Indigenous relations group

A group of employees underwent training to provide necessary context on Indigenous relations and insight into effectively engaging with Indigenous populations to help inform our nascent work on developing a culturally responsive approach to managing our relationships with Indigenous communities.

Community support and economic development

In addition to guiding our core operations, our purpose and guiding principles encourage us to give back to the communities where we operate. We believe this investment in local communities strengthens our business and builds opportunities for stakeholders across our service areas.



The unsung heroes – our Business and Community Development Team

Delivering essential services such as electricity, water, and gas truly takes a village. An essential part of our village at Algonquin is the Business and Community Development (BCD) Team. Our BCD managers play a pivotal role in ensuring customers and communities thrive.

What does a day in the life of a BCD representative look like?



Promptly acting on any issue by providing 24/7 support for all key accounts, specializing in the support of outage communication and billing

questions, resolving power quality issues, communicating rate changes and resulting implications, and assisting with construction planning and execution on key account facilities.



Overseeing key accounts for major industrial customers, school districts, and entire communities.



Coordinating logistics for response and recovery teams during outages.



Joining local Chambers of Commerce and working with local and state economic development

teams to incentivize business migration to service territories and drive community investment.

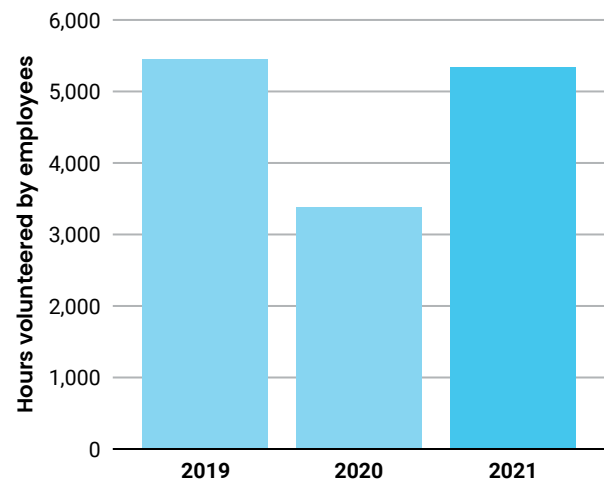




Liberty Days

Across our geographies, Algonquin employees use Liberty Days, a set number of paid work hours our employees are encouraged to use to support our corporate community engagement goals, to support their local communities and engage with stakeholders. We take pride in their work to serve their communities and believe it embodies our corporate purpose and values. In 2021, our employees spent a total of 5,334 hours supporting their communities, a 58% increase from 2020.

Liberty Days used



Baxter Springs, KS

In Baxter Springs, our employees demonstrated their dedication to their community by leading an initiative to found Liberty Park. Liberty Park was built on repurposed land that previously housed a substation that provided power to the area. The land has been transformed into a green space for the local community. The park includes a walking trail and picnic area that the community and visitors can enjoy, and a mural featuring a collage of community-themed artwork created by local students. The Baxter Springs Chamber representatives and the Mayor spoke at the opening event about the community's positive relationship with Liberty.

Apple Valley, CA

For the past several years, our employees located in our Downey, CA offices have participated in Operation Gobble, a Thanksgiving charitable event organized by the California Water Association (CWA). This year, we extended the program to include our Apple Valley, CA employees. Operation Gobble involves the donation of turkeys to a non-profit organization chosen by local legislators and the delivery of donated turkeys to those in need.

Massena, NY

Leaders and board members from our East Region came together over the holiday season to serve meals to frontline workers at Massena Memorial Hospital. They joined a group of hospital volunteers to support the healthcare workers keeping their local community healthy and safe in the face of the ongoing COVID-19 pandemic.



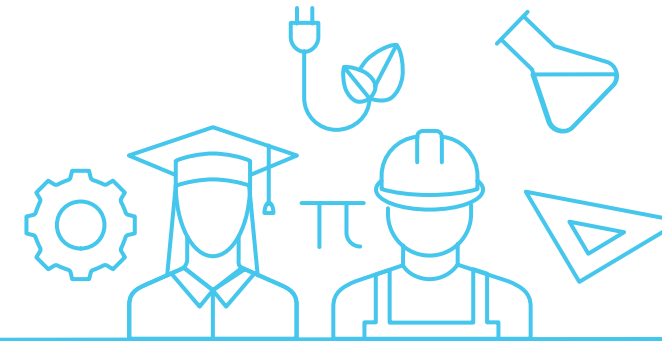
Community giving strategy

In 2021, our Community Giving Council developed a comprehensive strategy to drive greater impact in the communities where we live and work. This strategy includes four standardized themes aligned across Liberty.

While these are corporate themes, it is important that the local teams determine the best focus based on community needs. This is aligned with our local operating approach. We are also working to increase awareness of our engagement opportunities and recognizing employees who go above and beyond.

As we look to the future and begin implementing this strategy, we believe these efforts will support enhanced impact in our communities and improved employee engagement.

Education and a next-generation workforce



Diversity, equity, and inclusion



Resilient communities

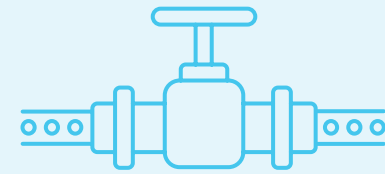
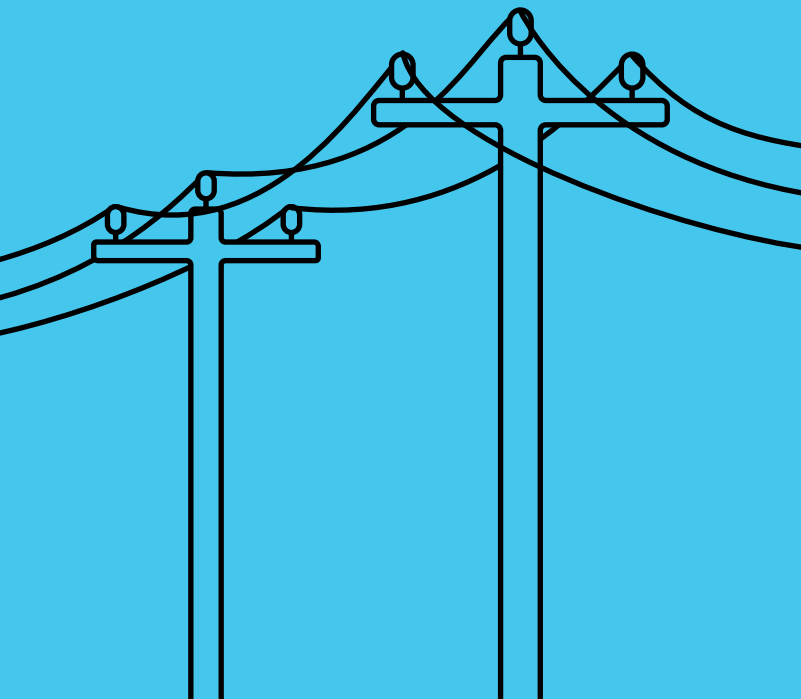


Environmental stewardship



Infrastructure investment and resiliency

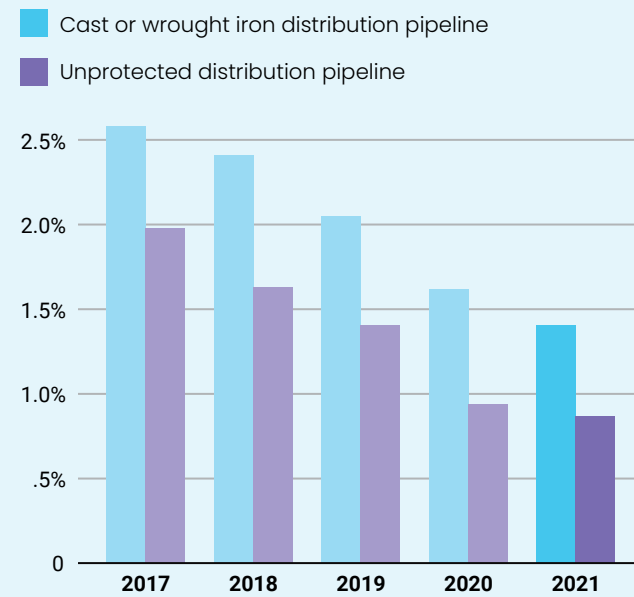
As the threats posed by climate change become more salient to our customers, our communities, and our business, securing the resiliency of our infrastructure is more important than ever. Investing in our infrastructure is an important step in delivering reliable energy and water services to our customers.



Gas pipeline upgrades

Maintaining the integrity of our gas pipelines helps us provide our customers with reliable service, promote public safety, and limit methane leakages. As such, we have been working hard to upgrade our gas pipeline infrastructure and are proud of our progress. 2021 marks the fourth year in a row that we reduced the share of unprotected and cast or wrought iron pipeline in our distribution infrastructure through upgrades.

Percentage of AQN distribution pipeline



Winter Storm Uri – response from Business and Community Development Team

In February 2021, Winter Storm Uri presented a significant challenge to North American essential service delivery networks. While the Winter Storm wreaked havoc on electricity, water, and gas delivery systems, our utility teams on the ground mobilized to address the challenging situation.

Our Business and Community Development (BCD) managers demonstrated unwavering perseverance as they worked to support our customers and communities in their time of need. Customers were promptly informed about possible curtailments and were walked through the implications of ongoing trends in the local energy market. Grid operators implemented system-wide rolling blackouts and we worked with agility to inform our customers. We also tried to support essential services such as hospitals, schools, recreation facilities, and shelters to remain with power. Our social media teams also worked around the clock to update customers and ensure key information was relayed as required.

Winter Storm Uri compromised Algonquin’s local water utility infrastructure in Pine Bluff, AR. Realizing the importance of being there in person for the communities hardest hit, a team of Central Region employees banded together to make the five- to eight-hour drive to Pine Bluff. Equipped with two tractor trailers full of bottled water and Algonquin’s customer-centric spirit, our BCD team spent the next three days, rain or shine, there for the Pine Bluff community. Moments like this demonstrate that we truly care about the communities we’re in.

Governance

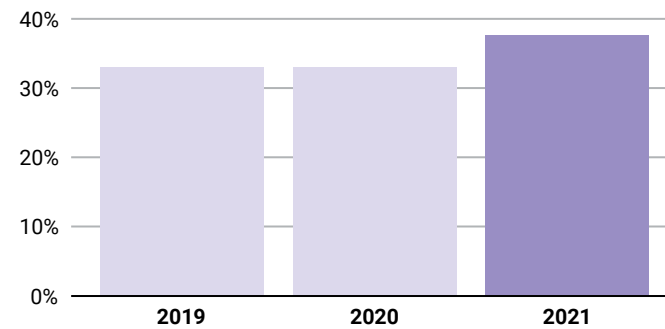
Featured KPIs

Published and enhanced policies related to cybersecurity, human rights, supplier, and lobbyist codes of conduct

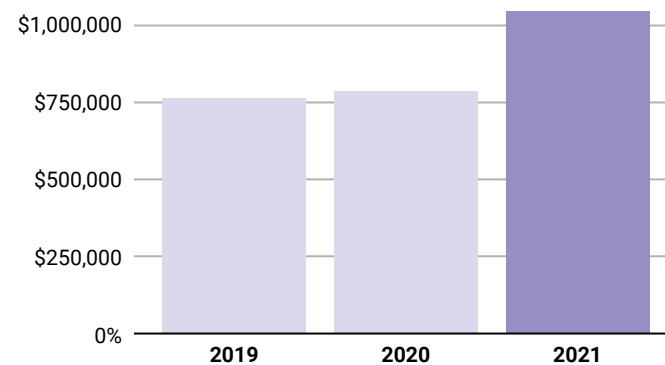
Maintained percentage of employees who completed annual **Code of Business Conduct and Ethics training at 100%**

Launched our ESG Data Hub, centralizing our ESG data and improving our data transparency

Increased representation of **women on our board** from 33% as at December 31, 2020, to **37.5% as at December 31, 2021**



Dedicated more resources to trade associations, **increasing spending by 32%**



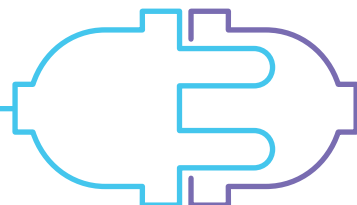
Interim targets

Embedding sustainability into our compensation model

Build a robust compliance framework

Publish a TCFD-aligned disclosure

Alignment to UN SDGs



Sustainability governance

At Algonquin, our approach to sustainability governance is based on cross-functional collaboration, accountability, and strategic oversight.

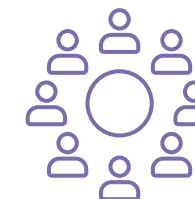
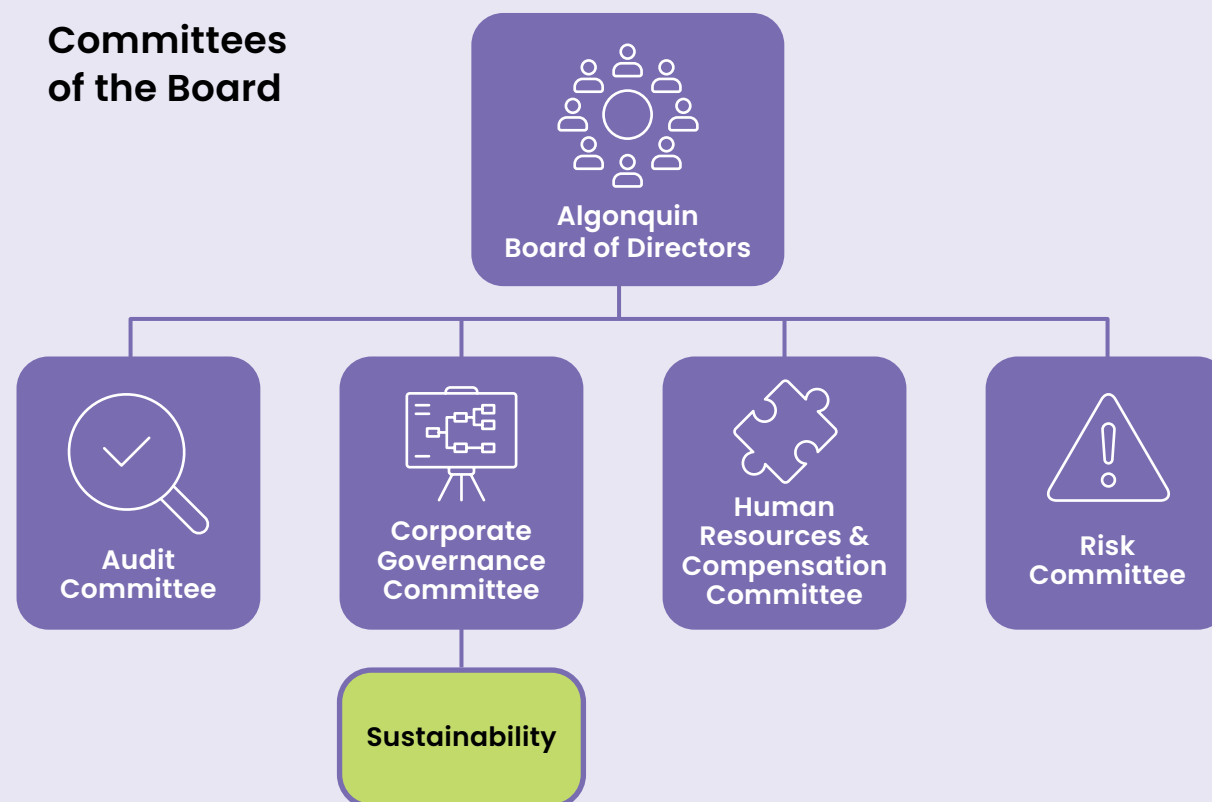


Strong corporate governance

Algonquin’s Board of Directors (the “Board”) has functions and responsibilities related to the organization’s strategic plans, risk management, human resource management, financial information, communications and disclosure, corporate governance, and sustainability, among other things.

Board oversight is an essential element in 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.

Committees of the Board



Board Highlights

(as at December 31, 2021)



37.5%
of Directors were women



7 of 8
Directors were independent



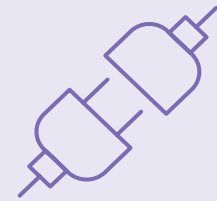
6.1 years –
average tenure



57%
of independent Directors were U.S. based

ESG oversight

The Corporate Governance Committee is mandated to review and make recommendations to the Board regarding sustainability matters, including ESG matters, and their integration into Algonquin’s business. This includes oversight of the ongoing development and progress of Algonquin’s sustainability plan and initiatives.



Integrating sustainability across the business

Senior management shares quarterly updates with the Corporate Governance Committee so that it, and the Board, are provided with reliable and up-to-date information, insights, and performance tracking on key ESG initiatives.

With the appointment of Helen Bremner as Executive Vice President, Strategy and Sustainability, Algonquin continues to prioritize sustainability across the organization, integrating it into the development and execution of our broader strategic corporate priorities. In addition to this role in forming our corporate strategy, the sustainability team has continued:

- Facilitating stakeholder engagement on sustainability topics
- Supporting groups across the organization in integrating ESG principles into their work
- Collecting sustainability data
- Reporting ESG disclosures

Our Regional Sustainability Councils (RSCs) have also continued to guide our sustainability efforts across regions and sectors. RSCs are comprised of employees from our East, Central, West, and Bermuda regions, as well as our

Renewable Energy Group, who work to identify and address sustainability issues relevant to their region at the local level. In 2020, the RSCs developed Regional Sustainability Plans that identified key ESG issues affecting their regions and business lines. These plans tailored targets to RSCs’ unique contexts, rooted in broader organizational ESG priorities and UN SDGs. Since identifying their strategies, the RSCs have worked together to coordinate their efforts with organizational priorities and implement their plans.

In 2021, our RSCs made strides in achieving their goals across ESG priorities. They narrowed their environmental focus to reducing their carbon footprints and addressing climate change, social focus to supporting employees and communities, and governance focus to integrating sustainability into their general business strategies. The RSCs have made impressive progress toward operationalizing these goals, with some building relationships with external players critical to helping them hit their targets, identifying the environmental impact of their targets on specific projects and assets, and taking other steps to make their plans a reality and support Algonquin’s overall sustainability and business strategy.



Helen Bremner

Executive Vice President, Strategy and Sustainability

“ Sustainability is foundational to how we do business at Algonquin. ”

By building sustainability into our core strategy, we are embedding ESG considerations into our decision-making processes and evolving our approach to developing our corporate strategy with a view toward long-term value creation. We believe this will not only help us make a more positive impact on the environment and the communities where we live and work, but will also support our other strategic pillars of Growth and Operational Excellence.

Ethics and integrity

Our commitment to ethics and integrity compliance is enshrined in our ESG goals and we hold ourselves accountable through our corporate scorecard. In addition, we have worked hard to provide information and a host of resources to equip our employees to meet our high ethics and integrity standards.



Featured policies

(Click on bold text for more detail.)



Other AQN policies



Human Rights Policy

At Algonquin, we seek to promote human rights across our value chain. In 2021, through the publication of our Human Rights Policy, we made a public commitment to respect, support, and protect fundamental personal freedoms. This action highlights how our organization is working to keep business practices aligned with international standards.

In crafting this policy, we followed principles influenced by United Nations guidelines and frameworks. This policy helps us operationalize company values and integrate humanitarian responsibility into what we do.

By prioritizing human rights, we hope to set expectations for our company and throughout our value chain.



Our Code of Business Conduct and Ethics employee resources

Email

We have a dedicated compliance question address that employees can email to ask about compliance or company policies.

Ethics reporting line

Our employees can use this reporting line to anonymously report suspected breaches of our Code of Business Conduct and Ethics.

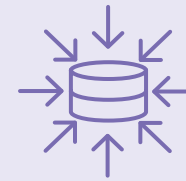
Risk management

To prepare us for the challenges and opportunities that come our way, we have integrated enterprise risk management processes and policies into our governance structure. We identify, assess, and plan for risks facing our business and believe that information-sharing, monitoring, analysis, and communication are critical to maintaining a culture of responsible governance.



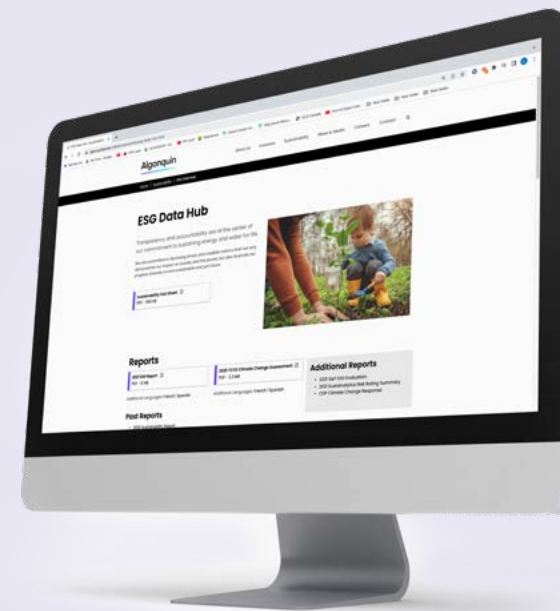
Risk management frameworks

In 2021, we continued to assess the resilience of our business. Building on the climate-related scenario analyses conducted in 2020 that helped us identify various transition and physical risks and opportunities, we moved forward with beginning to operationalize climate-related insights across the business. We began the process of formally integrating the identified risks into the organization's enterprise risk management framework and longer-term strategic outlook.



Introducing our ESG Data Hub

Our various stakeholder groups expect, and demand, clear and representative data. In 2021, we introduced the ESG Data Hub as a central location for us to share public disclosures related to sustainability and ESG. This is an important step in our sustainability journey and has allowed us to improve the accessibility of our ESG data.



Visit the ESG Data Hub.



Mary Ellen Paravalos

Chief Compliance and Risk Officer

“Effective and responsible corporate governance and a strong ethical culture are critical to creating and preserving organizational value.”

Our enterprise risk management program, and our progress on building a robust compliance framework, are key elements to support our successful operations and business growth. Through sound policies, training and engagement, and fostering risk management, continuous learning, and performance-focused mindsets, we continue to enhance the ways we improve business practices and make critical business decisions.





Cybersecurity

As many of our employees entered their second year of working virtually, we continued to advance and evolve our cybersecurity strategy in an effort to meet the needs of a hybrid workforce. We believe that continuing to invest in tools like employee training helps to reduce the threat of cyber incidents. Further, as many of our employees have grown more accustomed to remote work, their capacity to detect and report cybersecurity threats has grown.

Strong cybersecurity track record

We are proud of our strong cybersecurity track record. This year, we have received no complaints regarding breaches of customer privacy and identified no leaks, threats, or losses of customer data.

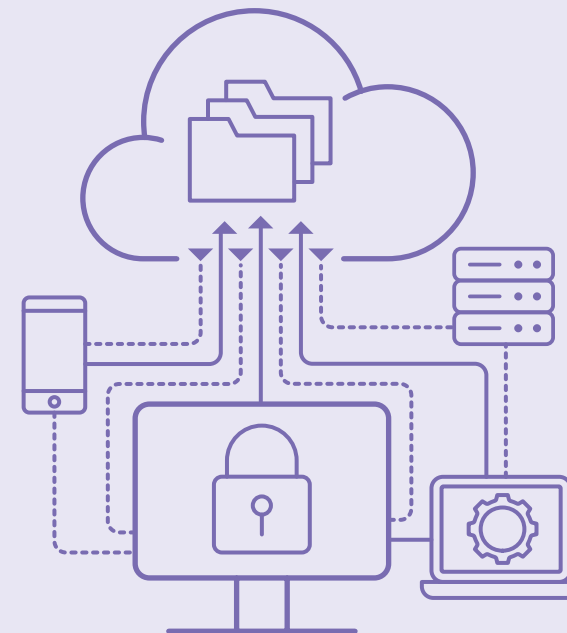
New cybersecurity policies

In 2021, we implemented two new policies aimed at enhancing our ability to mitigate the impacts of security incidents and manage risks. Our new Incident Response Policy put in place our Operational Cybersecurity Incident Response Plan to help us anticipate, detect, contain, and review cybersecurity incidents occurring within our organization. We also worked to develop a policy outlining our approach to managing security risks posed by third parties that support our work. Additionally, we have continued to provide our employees with educational opportunities and resources to remain informed about cybersecurity threats and how to respond.



Using cloud-based software for effective data management

In 2021, we launched the use of a cloud-based sustainability platform globally accredited by the Climate Disclosure Project (CDP), a GRI-certified tool, and a partner to S&P's Corporate Sustainability Assessment (CSA) for the Dow Jones Sustainability Indices (DJSI) family. This software has helped streamline our data collection and sustainability reporting processes, while providing us with a robust, globally consistent system.



Colin Penny

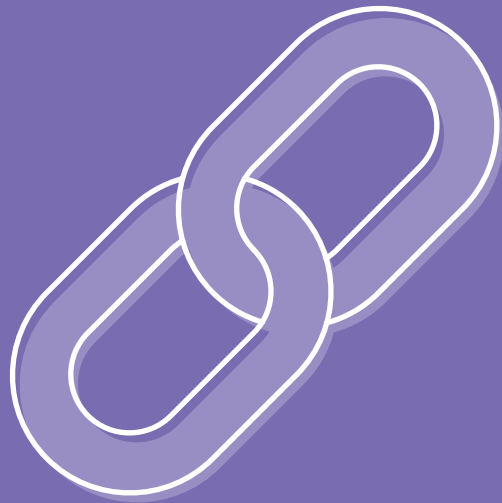
Executive Vice President,
IT and Digital Transformation

We are committed to providing safe, secure, and reliable services.

As owners and operators of critical infrastructure, we have a duty to protect the systems, services, and infrastructure that we provide to our customers, many of whom are family and friends. We know that targeted attacks against critical infrastructure entities, such as Algonquin, continue to expand in volume and sophistication. As technology continues to change the way utility services are delivered, the value of data and information entrusted to us increases and the potential impact of a cyber attack upon our operations and communities increases as well. We are committed to rising to the challenge in defending and responding to attacks targeting our critical infrastructure assets and the personal information of our customers. Our team is proud to be members of the local communities we service, and we do not take lightly the trust that we work hard to maintain in continuing to provide safe, secure, and reliable services to those communities.

Sustainable procurement

We strive to manage our ESG impact at all points in our supply chain across our business. Working with like-minded suppliers is crucial in achieving this goal and we have implemented policies and standards in an effort to further our work with partners who share our values.

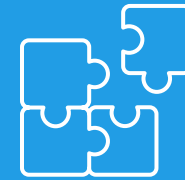


Supplier Code of Conduct

We seek to select suppliers that engage in practices that reflect our values and corporate purpose and we view this as an important component to building a sustainable value chain over time. In addition to being guided by our sustainability goals in selecting upstream suppliers, we seek to work to encourage entities downstream in our supply chain to act with integrity through our Policy on Supplier Code of Conduct. This year, we updated the code to reflect changing conditions and business processes. The new policy sets expectations for suppliers to adhere to ethical labor standards and, where possible, pursue sustainable practices. In setting out these criteria, we seek to make our supply chain more ethical, resilient, and sustainable.



To learn more, check out our **Policy on Supplier Code of Conduct** on our ESG Data Hub.



Supplier diversity

At Algonquin, the value we place on diversity and inclusion isn't limited to our workforce. We are working to expand the perspectives represented in all our stakeholder groups and striving to build a more inclusive business from different angles. We believe promoting diversity in our supply chain is not only foundational to who we are and reflective of our values, but also creates more resilient value chains and promotes operational excellence.

In 2021, our West Region worked hard to include a more diverse set of perspectives in our supply chain to help our business remain competitive and innovative. We have allocated resources to supporting this goal, including the creation of a new position

tasked with enhancing our diversity measures across our value chain. With these resources in place, we are equipped to implement our commitment to diversity, equity, and inclusion by mindfully enhancing our outreach and programming to build a more inclusive value chain. This year, we are proud that our supply chain included approximately 33% women-, ethnic minority-, service-disabled veteran-, and LGBTQIA+-owned companies, and we are looking forward to continuing to build more relationships with partners like these who offer unique perspectives in support of our business goals.



Government affairs and public policy

At Algonquin, we believe in the critical role engaging with government has to play in the success of our business and in meeting the needs of the communities we serve. Our Governmental Affairs team works closely with elected officials and policymakers at all levels of government to help us manage risk and advocate for policies that support the interests of our customers and stakeholders.

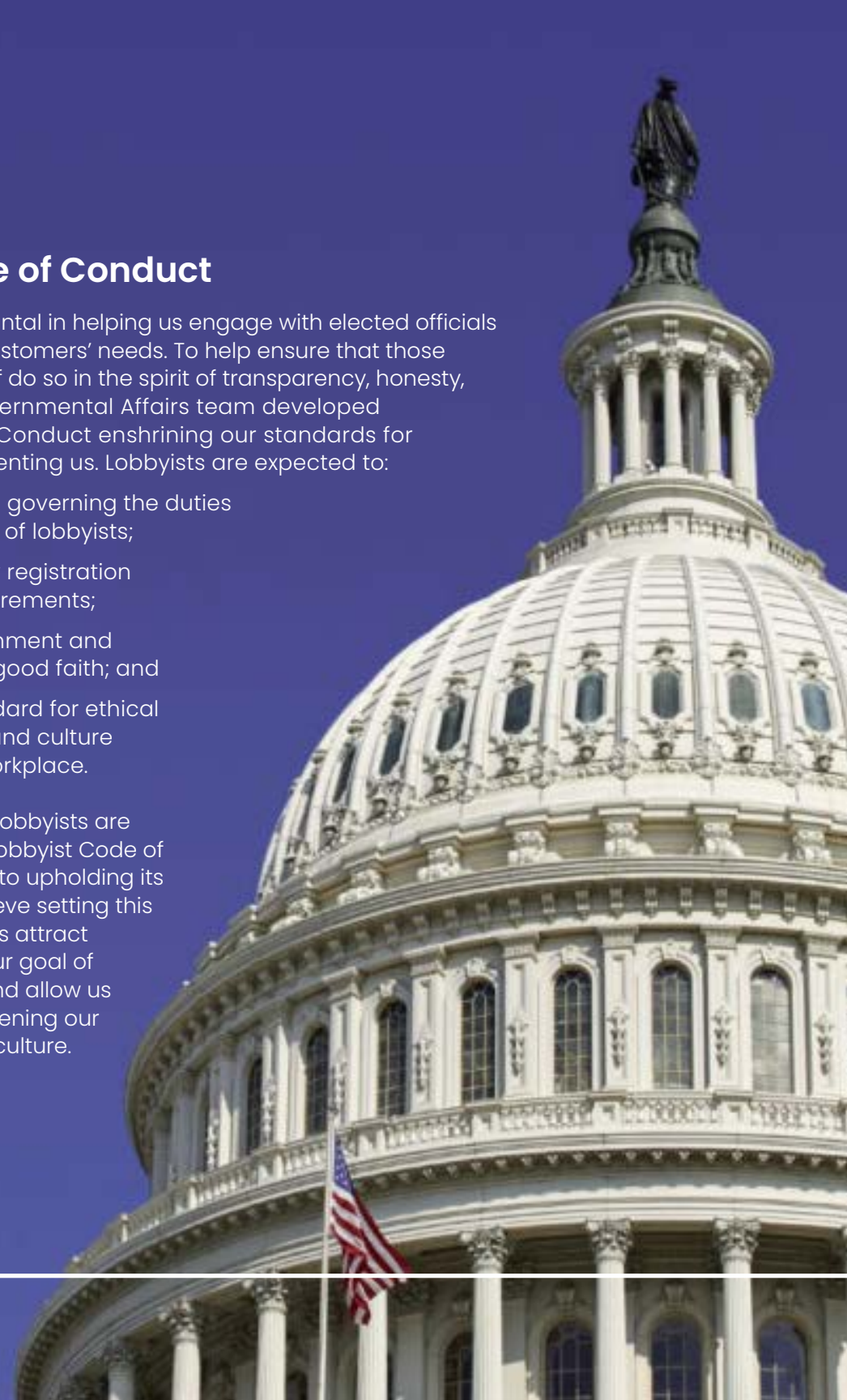


Lobbyist Code of Conduct

Lobbyists are instrumental in helping us engage with elected officials to advocate for our customers' needs. To help ensure that those lobbying on our behalf do so in the spirit of transparency, honesty, and integrity, our Governmental Affairs team developed our Lobbyist Code of Conduct enshrining our standards for the advocates representing us. Lobbyists are expected to:

- Follow all local laws governing the duties and responsibilities of lobbyists;
- Maintain necessary registration and reporting requirements;
- Engage with government and elected officials in good faith; and
- Adhere to our standard for ethical business conduct and culture of respect in the workplace.

As of August 2021, our lobbyists are expected to sign the Lobbyist Code of Conduct and commit to upholding its requirements. We believe setting this expectation will help us attract people aligned with our goal of acting in good faith and allow us to grow while strengthening our compliance-focused culture.



Sandi Hennequin

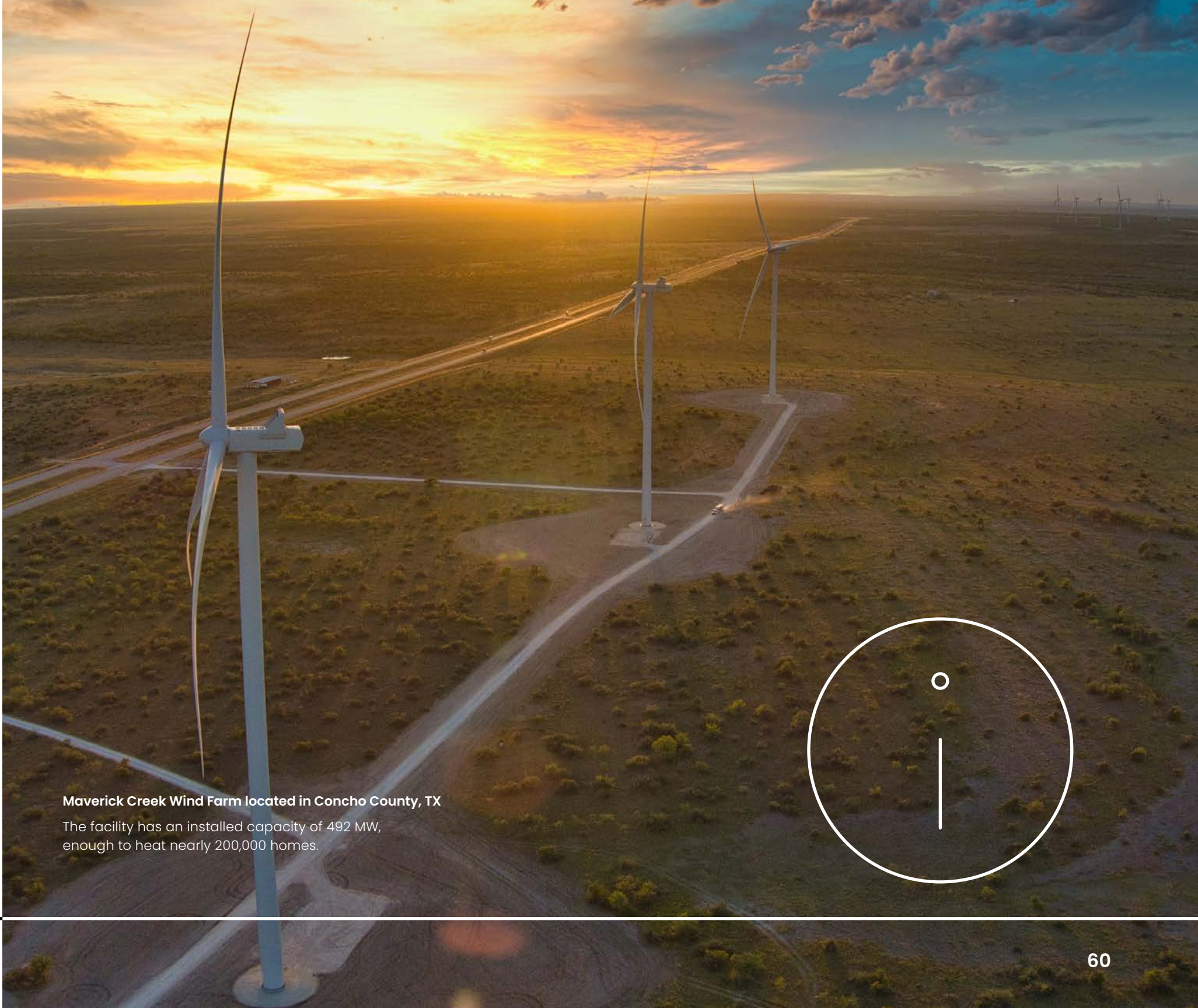
Vice President, Governmental Affairs

“ Our new Lobbyist Code of Conduct helps us engage with regulators and policymakers in a manner consistent with our corporate culture and values. ”

Those lobbying on our behalf are expected to uphold our corporate values and act in good faith. In addition to expecting our lobbyists to sign the code, we also offered comprehensive training to help our lobbyists fully understand the standards they are expected to meet when advocating for our interests. ”

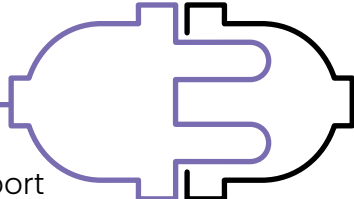
Appendices

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Maverick Creek Wind Farm located in Concho County, TX

The facility has an installed capacity of 492 MW, enough to heat nearly 200,000 homes.



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 and "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 (collectively, "forward-looking information"). The words "anticipates", "believes", "could", "can", "estimates", "expects", "forecasts", "intends", "may", "might", "plans", "targets", "projects", "schedule", "should", "will", "would", "aims" and similar terms (including grammatical variations) 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: expected future growth and results of operations; expectations regarding generation availability, capacity and production; expectations regarding COVID-19, its impact on Algonquin and Algonquin's response measures; 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), renewable natural gas, green hydrogen, battery storage, pipe replacement, and renewable generation, and the expected benefits, outcomes and results thereof; community investment and engagement efforts; customer benefits; integration of ESG-related analysis, insights and opportunities into Algonquin's business processes and strategies; sustainability governance; ongoing and planned acquisitions and projects, including expectations regarding costs, timing, in-service dates, completion dates, generation capacity, job creation and community benefits; "greening the fleet" plans and opportunities, including with respect to Algonquin's intention to deploy renewable energy at Kentucky Power; the expected transfer or retirement of the Mitchell coal plant; regulatory, procurement, employee and governmental policy initiatives and approaches; expected future capital investments, including expected timing and impacts; expected future environmental and social impacts of Algonquin's renewable energy, water, electric and natural

gas projects; biodiversity, vegetation and conservation initiatives; employee engagement initiatives; expectations regarding DEI and gender diversity, including expectations for women in leadership roles; and the potential impacts of climate change. 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 significant operational, financial or supply chain disruptions or liability due to natural disasters, diseases or other force majeure events; 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 and 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 the same; the absence of significant counterparty defaults; the continuation of observed 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; the ability to obtain and maintain licenses and permits; the absence of a material

decrease in market energy prices; maintenance of information technology infrastructure and the absence of a material breach of cybersecurity; the Mitchell plant being transferred or retired in accordance with Algonquin's expectations; favourable relations with external stakeholders; 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; and the availability of diverse suppliers and qualified personnel to satisfy continued diversity and inclusion efforts.

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; global climate change; advancements in environmental science; the development of new sustainable technologies; the incurrence of environmental liabilities; natural disasters, diseases, pandemics and other force majeure events; critical equipment breakdown or failure; supply chain disruptions; the failure of information technology infrastructure and cybersecurity; physical security breach; the loss of key personnel and/or labour disruptions; reductions in demand for electricity, gas or water; fluctuations in commodity prices; an increase in financing costs or limits on access to credit and capital markets; failure to maintain required regulatory authorizations; failure to comply with and/or changes to health and safety, environmental and other applicable laws, regulations and standards; failure of compliance programs; failure to identify attractive acquisition or development candidates necessary to pursue Algonquin's growth strategy; delays and cost overruns

in the design and construction of projects, including as a result of COVID-19; facilities being condemned or otherwise taken by governmental entities; Kentucky Power's failure to receive regulatory approval for the construction of new renewable generation facilities; and the loss of key customers. 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 law. All forward-looking information contained herein is qualified by these cautionary statements.

Appendix II: SASB Index¹

Electric Utilities and Power Generators

Legend (click titles found in tables)

A	2022 Annual Information Form	I	Internal
AR	2021 Annual Report	M	2022 Management Information Circular
CC	2020 CDP Climate Change Survey	S	2022 ESG Report
CW	2020 CDP Water Security Survey	T	2020 TCFD Climate Change Assessment Report
E	ESG Performance Index	W	External report

No.	Disclosure		2021	2020	2019
GHGs and energy resource planning					
EU-110a.1	Gross global Scope 1 emissions (Mt CO ₂ e) ²		2,281,126	2,580,834	3,306,596
	Percentage covered under emission-limiting regulations		99.70%	99.70%	99.70%
	Percentage covered under emission-reporting regulations		97.60%	97.60%	99.70%
EU-110a.2	Greenhouse gas (GHG) emissions associated with power deliveries	Owned power	1,984,603	2,297,508	3,038,917
		Purchased power	353,434	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 8 S 22-24 S 34-37 W	Letter from the President and Chief Executive Officer Transitioning to a low-carbon economy Greenhouse gas and air emissions Net-Zero 2050		
EU-110a.4	Number of customers served in markets subject to renewable portfolio standards (RPS)		94,596	95,277	93,482
	Percentage fulfillment of RPS target		100%	100%	100%
Air quality³					
EU-120a.1	NO _x (Mt)		483	493	1,162
	SO _x (Mt)		11	10	734
	PM ₁₀ (Mt)		79	100	139
	Lead (Mt)		0	0.00007	0.00007
	Mercury (Mt)		0	0.00003	0.0008

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 explicitly noted, all relevant metrics include ESSAL in Chile and Ascendant (BELCO) in Bermuda. 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 2019 and 2020 GHG emissions have been recalculated following Algonquin's GHG Base Year Recalculation Policy, to include full-year emissions from BELCO, ESSAL, St. Lawrence Gas, and New Brunswick Gas. Consequently, previously published emission figures (2017-2019) will differ. See ESG Performance Index below for details.

³ 100% of NO_x, SO_x, PM₁₀, lead, and mercury emissions are near population centers.

No.	Disclosure	2021	2020	2019
Water management				
EU-140a.1	Total water withdrawn (ML)	11,098	12,232	8,273
	Percentage of water withdrawn in regions with high or extremely high baseline water stress	5.84%	24.70%	1.10%
EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	1	3	-
EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	S 32-33 S 56 AR 49	Water management Risk management Enterprise Risk Management	
Coal ash management				
EU-150a.1	Amount of coal combustion residuals (CCR) generated (Mt CO ₂ e)	0	0	30,375
	Percentage of CCR recycled	0.0%	0.0%	45.6%
	Total CCR impoundments by hazard			
	High Hazard Potential	0	0	0
	Significant Hazard Potential	0	0	1
	Low Hazard Potential	0	1	2
	Less Than Low Hazard Potential	0	0	0
	Incised	0	0	0
EU-150a.2	Total CCR impoundments by structural integrity assessment			
	Satisfactory	0	1	3
	Fair	0	0	0
	Poor	0	0	0
	Unsatisfactory	0	0	0
	Not Applicable	0	0	0

No.	Disclosure		2021	2020	2019
Energy affordability					
EU-240a.1	Average retail electric rate by customer type (\$/kWh)	Residential	0.13	0.14	0.14
		Commercial and Industrial	0.11	0.12	0.12
EU-240a.3	Number of residential customer electric disconnections for non-payment		4,320	2,412	6,366
	Percentage reconnected within 30 days		60%	58%	57%
EU-240a.4	Discussion of the impact of external factors on customer affordability of electricity, including the economic conditions of the service territory		S 40 S 51 AR 49 T 16	Customer experience and affordability Infrastructure investment and resiliency Enterprise Risk Management Climate change risk control and mitigation	
Workforce Health & Safety					
EU-320a.1	Total recordable incident rate (TRIR)				
	Total recordable fatality rate (TRFR)		E 7	Health and safety	
	Total recordable near miss frequency rate (NMFR)				
End-Use Efficiency & Demand					
EU-420a.1	Percentage of electric utility revenues from rate structures	Decoupled	46.6%	42.0%	24.0%
		Lost revenue adjustment mechanism (LRAM)	0%	0%	0%
EU-420a.2	Percentage of electric load served by smart grid technology (%/MWh)		100%	63%	-
EU-420a.3	Customer electricity savings from efficiency measures by market (MWh)		24,290	19,042	20,338

No.	Disclosure		2021	2020	2019
Grid Resiliency					
EU-550a.1	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations		-	1	2
EU-550a.2	System Average Interruption Duration Index (SAIDI)		187.4	115.9	219.0
	System Average Interruption Frequency Index (SAIFI)		1.3	1.0	1.4
	Customer Average Interruption Duration Index (CAIDI)		143.8	114.8	161.2
Activity Metrics⁵					
EU-000.A	Average active customer connections	Residential	260,600	259,600	227,200
		Commercial and Industrial	42,100	42,200	42,100
EU-000.B	Total electricity delivered (MWh)	Residential	2,769,700	2,485,900	2,488,100
		Commercial and Industrial	3,701,100	3,406,000	3,944,500
EU-000.C	Length of transmission lines (km)		2,021	2,279	2,287
	Length of distribution lines (km)		13,655	12,977	12,337
	Total electricity generated (MWh)		12,837,833	9,499,073	9,477,090
EU-000.D	Percentage by energy source	Coal	0.0%	0.0%	8.7%
		Natural Gas	29.5%	48.8%	43.1%
		Diesel	4.4%	0.9%	0.0%
		Hydropower	4.5%	5.7%	6.0%
		Solar	4.5%	4.3%	3.7%
		Wind	57.1%	40.4%	38.5%
	Percentage in regulated markets		47.3%	49.7%	51.9%
EU-000.E	Total wholesale electricity purchased (MWh)		1,758,986	1,847,869	1,910,416

Gas Utilities and Distributors

No.	Disclosure		2021	2020	2019
Energy affordability					
GU-240a.1	Average retail gas rate by customer type (\$/MMBtu)	Residential	11.49	11.18	12.35
		Commercial and Industrial	6.41	6.41	6.48
		Transportation	0.81	1.01	0.85
GU-240a.3	Number of residential disconnections (non-payment)		12,287	6,228	17,333
	Percentage reconnected within 30 days		63%	55%	53%
GU-240a.4	Discussion of impact of external factors on customer affordability of gas, including the economic conditions of the service territory		S 40 S 32-33 S 51 AR 49 T 16	Customer experience and affordability Water management Infrastructure investment and resiliency Enterprise Risk Management Climate change risk control and mitigation	
End-use efficiency					
GU-420a.1	Percentage of gas utility revenues from rate structures	Decoupled	86%	86%	86%
		Lost revenue adjustment mechanism (LRAM)	0%	0%	0%
GU-420a.2	Customer gas savings – efficiency measures (MMBtu)		197,675	195,890	198,690

No.	Disclosure	2021	2020	2019
Integrity of gas delivery infrastructure				
GU-540a.1	Number of reportable pipeline incidents	11	12	7
	Number of corrective action orders (CAO)	0	1	0
	Number of notices of probable violation (NOPV)	22	13	15
GU-540a.2	Distribution pipeline that is cast/wrought iron (%)	1.40%	1.60%	2.05%
	Distribution pipeline that is unprotected steel (%)	0.90%	0.94%	1.41%
GU-540a.3	Gas transmission pipelines inspected (%)	0.0%	48.7%	23.3%
GU-540a.4	Description of efforts to manage the integrity of gas delivery infrastructure, including risks related to safety and emissions	S 40 S 51 AR 49 T 16	Customer experience and affordability Infrastructure investment and resiliency Enterprise Risk Management Climate change risk control and mitigation	

Activity metrics

GU-000.A	Average active customer connections	Residential	318,600	317,100	303,100
		Commercial and Industrial	38,100	37,700	35,600
GU-000.B	Gas delivered (MMBtu)	Residential	20,703,000	21,214,000	20,213,000
		Commercial and Industrial	18,696,000	18,362,000	15,676,000
GU-000.C	Length of transmission pipelines (km)		16.0	19.8	20.9
	Length of distribution pipelines (km)		13,623.0	13,485.7	12,276.4

Water Utilities and Services

No.	Disclosure		2021	2020	2019
Energy management					
WU-130a.1	Energy consumption	Total energy consumed (GJ)	516,843	292,726	225,430
		Percentage grid electricity	96.0%	93.0%	91.0%
Distribution network efficiency					
WU-140a.1	Water main replacement rate		0.3%	0.5%	0.1%
WU-140a.2	Volume of non-revenue real water losses (megaliters)		29,743	7,600	7,420
Effluent quality management					
WU-140b.1	Number of incidents of non-compliance associated with water effluent quality permits, standards, and regulations		13	9	-
WU-140b.2	Discussion of strategies to manage effluents of emerging concern	While contaminants of emerging concern (CECs) 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 limiting the source of the constituent.			

No.	Disclosure			2021	2020	2019
Water affordability and access						
WU-240a.1	Average retail water rate (\$/100 CCF)	North America	Residential	0.05	0.05	0.06
			Commercial and Industrial	0.04	0.03	0.04
		Chile	Residential	0.71	-	-
			Commercial and Industrial	0.70	-	-
WU-240a.3	Number of residential disconnections (non-payment)			1,474	1,973	8,280
	Percentage reconnected within 30 days			44%	80%	90%
WU-240a.4	Discussion of impact of external factors on customer affordability of water, including economic conditions of the service territory			S 40 Customer experience and affordability S 32-33 Water management S 51 Infrastructure investment and resiliency AR 49 Enterprise Risk Management T 16 Climate change risk control and mitigation		

No.	Disclosure	2021	2020	2019	
Drinking water quality					
WU-250a.1	Number of drinking water violations	Acute health-based	0	0	-
		Non-acute health-based	3	0	-
		Non-health-based	2	1	-
WU-250a.2	Discussion of strategies to manage drinking water contaminants of emerging concern	<p>Algonquin’s regulated subsidiary, Liberty Utilities, 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 Unregulated Contaminant Monitoring Rule was enacted. 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 strive to act proactively to ensure the health and safety of our customers.</p>			
End-use efficiency					
WU-420a.2	Customer water savings from efficiency measures, by market (m ³)	89,754	75,213	89,732	
Water supply resiliency					
WU-440a.1	Total water sourced from regions with high or extremely high baseline water stress (megaliters)	134,138	69,033	54,046	
	Percentage purchased from third-party	36%	39%	55%	
WU-440a.2	Volume of recycled water delivered to customers (megaliters)	1,379	2,191	1,571	
WU-440a.3	Discussion of strategies to manage risks associated with the quality and availability of water resources	<p>S 32-33 Water management S 51 Infrastructure investment and resiliency AR 49 Enterprise Risk Management T 16 Climate change risk control and mitigation</p>			

No.	Disclosure		2021	2020	2019	
Network resiliency and impacts of climate change						
WU-450a.1	Wastewater treatment capacity located in 100-year flood zones (m ³ /day)		1,345	1,341	829	
WU-450a.2	Number of Sanitary sewer overflows (SSO)		669	21	32	
	Volume of Sanitary sewer overflows (SSO) – (m ³)		3,353	304	505	
	Percentage of volume recovered		0.6%	37.4%	-	
WU-450a.3	Unplanned service disruptions (number of occurrences and number of customer connections affected)	< 4 Hours	Occurrences	707	230	220
			Connections	82,068	3,711	949
		4 – 12 Hours	Occurrences	203	13	33
			Connections	59,696	129	197
		> 12 Hours	Occurrences	9	0	1
			Connections	10,036	0	12
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		S 22-24 S 40 S 32-33 S 51 AR 49 T 16	Transitioning to a low-carbon economy Customer experience and affordability Water management Infrastructure investment and resiliency Enterprise Risk Management Climate change risk control and mitigation		

No.	Disclosure		2021	2020	2019
Activity metrics					
WU-000.A	Average active wastewater connections		46,500	45,300	43,900
	Average active water distribution connections		359,200	355,500	115,500
		Total water sourced (megaliters)	134,138	69,033	54,046
WU-000.B	Percentage of water sourced by source type	Surface Water	15.3%	7.5%	-
		Groundwater	79.6%	78.6%	-
		Third-Party Water	5.2%	13.6%	-
		Other	-	0.2%	-
WU-000.C	Wastewater treated (megaliters)		10,478	9,596	8,850
	Water provided (megaliters)		106,737	73,130	57,553
WU-000.D	Average volume of wastewater treated per day (m ³ /day)	Sanitary sewer	32,510	46,465	-
		Storm water sewer	-	-	-
		Combined sewer	236,453	183,540	-
WU-000.E	Length of water mains (km)		7,181	3,208	3,976
	Length of sewer pipes (km)		3,153	980	1,037

Appendix III:

GRI Content Index¹

Legend (click titles found in tables)

A	2022 Annual Information Form	I	Internal
AR	2021 Annual Report	M	2022 Management Information Circular
CC	2020 CDP Climate Change Survey	S	2022 ESG Report
CW	2020 CDP Water Security Survey	T	2020 TCFD Climate Change Assessment Report
E	ESG Performance Index	W	External report

No.	Disclosure	Source and notes	Priority issue alignment
Organizational Profile			
102-1	Name of the organization	S 12 About us A 1.1 Name, address, and location	
102-2	Activities, brands, products, and services	S 12 About us A 2 General development of the business	
102-3	Location of headquarters	S 127 Stay connected A 2 General development of the business	
102-4	Location of operations	S 12 About us S 13 Where we are	
102-5	Ownership and legal form	A 1.2 Intercorporate relationships	
102-6	Markets served	S 12 About us S 13 Where we are A 3 Description of the business	
102-7	Scale of the organization	S 12 About us S 13 Where we are A 3 Description of the business	
102-8	Information on employees and other workers	S 13 Where we are S 41 Talent attraction and retention E 9 Employee demographics	
102-9	Supply chain	S 58 Sustainable procurement W Policy on Supplier Code of Conduct A 3 Description of the business	

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 explicitly noted, all relevant metrics include ESSAL in Chile and Ascendant (BELCO) in Bermuda. 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 "-".

No.	Disclosure	Source and notes	Priority issue alignment
Organizational Profile (continued)			
102-10	Significant changes to the organization and its supply chain	S 54 ESG oversight AR 7 Regulated services group highlight AR 29 Development of renewable energy assets AR 40 Summary of Property, Plant, and Equipment Expenditures	
102-11	Precautionary Principle or approach	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.	
102-12	External initiatives	S 10 Our commitment to the SDGs S 20 Awards and recognition S 27-28 Land use and biodiversity S 43 Employee health and safety S 47 Indigenous relations S 48-50 Community support and economic development W EPA methane challenge partners	
102-13	Membership of associations	Industry Associations: <ul style="list-style-type: none"> • American Gas Association (AGA) • American Wind Energy Association • Canadian Electricity Association • Edison Electric Institute (EEI) • Global Business Alliance • National Association of Water Companies • Solar Energy Industry Association Governmental Agencies: <ul style="list-style-type: none"> • Department of Energy (DEO) • Environmental Protection Agency (EPA) • Independent Electric Systems Operator (IESO) • National Energy Board (NEB) 	

No.	Disclosure	Source and notes	Priority issue alignment
Strategy			
102-14	Statement from senior decision-maker	S 8-9 Letter from the President and Chief Executive Officer	
102-15	Key impacts, risks, and opportunities	S 8-9 Letter from the President and Chief Executive Officer S 16 Stakeholder engagement T TCFD Climate Change Assessment Report	
Ethics and integrity			
102-16	Values, principles, standards, and norms of behavior	S 12 About us S 14 Our values, purpose, and guiding principles W Who we are M 34 Corporate governance practices	
102-17	Mechanisms for advice and concerns about ethics	S 55 Ethics and integrity W AQN Ethics Reporting Policy M 34 Corporate governance practices	
Governance			
102-18	Governance structure	S 15 Our ESG journey S 53 Sustainability governance S 54 ESG oversight M 34 Corporate governance practices	
102-19	Delegating authority	S 53 Sustainability governance M 41 Committees of the Board of Directors M 46 Position descriptions W Mandate of the Risk Committee W Mandate of the Corporate Governance Committee	

No.	Disclosure	Source and notes	Priority issue alignment
Governance (continued)			
102-20	Executive-level responsibility for economic, environmental, and social topics	S 53 Sustainability governance S 54 ESG oversight M 68 Corporate scorecard and results	
102-21	Consulting stakeholders on economic, environmental, and social topics	S 8-9 Letter from the President and Chief Executive Officer S 16 Stakeholder engagement S 27-30 Biodiversity S 40 Customer experience and affordability S 47 Indigenous relations	
102-22	Composition of the highest governance body and its committees	W Mandate of the Corporate Governance Committee M 34 Corporate governance practices	
102-23	Chair of the highest governance body	M 31 Director Profiles, Kenneth Moore W Position Description for the Chair of the Board	
102-24	Nominating and selecting the highest governance body	M 28 Director nominees	
102-25	Conflicts of interest	W AQN Code of Business Conduct and Ethics M 63 Risk management and compensation	
102-26	Role of highest governance body in setting purpose, values, and strategy	S 53 Sustainability governance M 34 Corporate governance practices	
102-27	Collective knowledge of highest governance body	M 28 Director nominees	
102-28	Evaluating the highest governance body's performance	M 34 Corporate governance practices	
102-29	Identifying and managing economic, environmental, and social impacts	S 8-9 Letter from the President and Chief Executive Officer S 16 Stakeholder engagement	
102-30	Effectiveness of risk management process	W Mandate of the Risk Committee	

No.	Disclosure	Source and notes	Priority issue alignment
Governance (continued)			
102-31	Review of economic, environmental, and social topics	S 53 Sustainability governance A 27 Oversight of sustainability W Mandate of the Corporate Governance Committee	
102-32	Highest governance body's role in sustainability reporting	S 53 Sustainability governance A 27 Oversight of sustainability W Mandate of the Corporate Governance Committee	
102-33	Communicating critical concerns	S 25-26 Climate resiliency and energy efficiency S 55 Ethics and integrity S 56 Risk management	
102-34	Nature and total number of critical concerns	No critical concerns have been identified	
102-35	Remuneration policies	M 55 Executive compensation M 82 Executive compensation information	
102-36	Process for determining remuneration	M 55 Executive compensation	
102-37	Stakeholders' involvement in remuneration	M 55 Executive compensation	
102-38	Annual total compensation ratio	E 13 Employee pay ratios	
102-39	Percentage increase in annual total compensation ratio	E 13 Employee pay ratios	

No.	Disclosure	Source and notes	Priority issue alignment
Stakeholder engagement			
102-40	List of stakeholder groups	S 16	Stakeholder engagement
102-41	Collective bargaining agreements	E 11	Collective bargaining agreement coverage
102-42	Identifying and selecting stakeholders	S 16	Stakeholder engagement
102-43	Approach to stakeholder engagement	S 8-9	Letter from the President and Chief Executive Officer
		S 16	Stakeholder engagement
		S 27-30	Biodiversity
		S 47	Indigenous relations
		S 58	Sustainable procurement
102-44	Key topics and concerns raised	S 16	2021 ESG Materiality Assessment
102-45	Entities included in the consolidated financial statements	A 1.2	Intercorporate Relationships
102-46	Defining report content topic boundaries	S 8-9	Letter from the President and Chief Executive Officer
		S 5-7	Executive summary
		S 10	About this report
		S 16	Stakeholder engagement
102-47	List of material topics	S 8-9	Letter from the President and Chief Executive Officer
		S 16	Stakeholder engagement
102-48	Restatements of information	S 10	About this report
		AR 95	Acquisitions
102-49	Changes in reporting	S 8-9	Letter from the President and Chief Executive Officer
		S 53	Sustainability governance
102-50	Reporting period	S 10-11	About this report
102-51	Date of most recent report	S 1	2022 ESG Report cover page

No.	Disclosure	Source and notes		Priority issue alignment
Stakeholder engagement (continued)				
102-52	Reporting cycle	S 10-11	About this report	
102-53	Contact point for questions regarding the report	S 127	Stay connected	
102-54	Claims of reporting in accordance with the GRI Standards	S 10-11	About this report	
102-55	GRI content index	S 74-94	Appendix: GRI Index	
102-56	External assurance	W	2021 GHG Verification Report	

Economic

Economic Performance

103-1	Explanation of the material topic and its boundary			
103-2	The management approach and its components	AR	MD&A	
103-3	Evaluation of the management approach			
201-1	Direct economic value generated and distributed	E 6	Economic value generated and distributed	
201-2	Financial implications and other risks and opportunities due to climate change	T CC CW	Climate change risk control and mitigation Risks and opportunities Risks and opportunities	<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
201-3	Defined benefit plan obligations and other retirement plans	E 15	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. Financially material assistance from governments is reported in Algonquin's annual filings.	

No.	Disclosure	Source and notes	Priority issue alignment
Market presence			
103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components	AR MD&A	
103-3	Evaluation of the management approach		
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	E 13 Ratios of entry level wage to local minimum wage	<ul style="list-style-type: none"> Talent attraction and retention Community support and economic development Diversity, equity, and inclusion Ethics and integrity
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			
103-1	Explanation of the material topic and its boundary	S 12 About us	
103-2	The management approach and its components	S 14 Our values, purpose, and guiding principles	
103-3	Evaluation of the management approach	S 15 Our ESG journey	
		S 16 Stakeholder engagement	
		S 53 Sustainability governance	
		S 54 ESG oversight	
203-1	Infrastructure investments and services supported	S 12 About us	
		S 13 Where we are	
		S 51 Infrastructure investment and resiliency	
203-2	Significant indirect economic impacts	S 41 Talent attraction and retention	
		S 48-50 Community support and economic development	

No.	Disclosure	Source and notes	Priority issue alignment
Procurement practices			
103-1	Explanation of the material topic and its boundary	S 58 Sustainable procurement	
103-2	The management approach and its components	W Policy on Supplier Code of Conduct	
103-3	Evaluation of the management approach		<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. This data is only collected as per regulatory requirements in Algonquin's California-based operations.	
Anti-corruption			
103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components	W AQN Code of Business Conduct and Ethics	
103-3	Evaluation of the management approach		
205-1	Operations assessed for risks related to corruption	S 59 Government affairs and public policy E 18 Anti-corruption	<ul style="list-style-type: none"> • Ethics and integrity • Transparency and disclosure • Risk management • Cybersecurity
205-2	Communication and training about anti-corruption policies and procedures	S 59 Government affairs and public policy E 18 Anti-corruption	
205-3	Confirmed incidents of corruption and actions taken	E 18 Anti-corruption	
Anti-competitive behavior			
103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components	W AQN Code of Business Conduct and Ethics	
103-3	Evaluation of the management approach		<ul style="list-style-type: none"> • Ethics and integrity • Transparency and disclosure • Risk management
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	E 18 Anti-competitive	

No.	Disclosure	Source and notes	Priority issue alignment
Environment			
Energy			
103-1	Explanation of the material topic and its boundary	W Our Commitment to Sustainability W Our Commitment to the Environment S 22-24 Transitioning to a low-carbon economy	<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
103-2	The management approach and its components	S 25-26 Climate resiliency and energy efficiency S 34-36 Greenhouse gas (GHG) and air emissions	
103-3	Evaluation of the management approach	I 63 Electric Utilities and Power Generators I 67 Gas Utilities and Distributors CC CDP Climate Change Survey	
302-1	Energy consumption within the organization	E 23 Internal energy consumption	
302-2	Energy consumption outside of the organization	Energy consumption outside Algonquin primarily takes place in the form of customers consuming energy delivered by Algonquin's businesses. Across Algonquin's regulated electric and gas utilities, and non-regulated power generation, a total of 24,869 GWh is delivered to customers. Other upstream and downstream sources consume energy. See Scope 3 emissions for more information.	
302-3	Energy intensity	E 23 Internal energy consumption	
302-4	Reduction of energy consumption	E 23 Internal energy consumption	
302-5	Reductions in energy requirements of products and services	E 19 Greenhouse gas emissions E 23 Internal energy consumption	

No.	Disclosure	Source and notes	Priority issue alignment
Water and effluents			
103-1	Explanation of the material topic and its boundary	S 32-33 Water management	
103-2	The management approach and its components	I 69 Water Utilities and Services	
103-3	Evaluation of the management approach	CW CDP Water Security Survey	
303-1	Interactions with water as a shared resource	S 32-33 Water management T 24 Regulated services: Climate-related risks and opportunities CW 1 Current State CW 3 Procedures	<ul style="list-style-type: none"> • Climate resiliency • Land use and biodiversity • Water management • Public health and safety • Customer experience and affordability
303-2	Management of water discharge-related impacts	S 32-33 Water management CW 1 Current State CW 3 Procedure	
303-3	Water withdrawal	E 25 Water withdrawal	
303-4	Water discharge	E 25 Water discharge	
303-5	Water consumption	E 25 Water consumption	

No.	Disclosure	Source and notes	Priority issue alignment
Biodiversity			
103-1	Explanation of the material topic and its boundary	W Our Commitment to Sustainability	
103-2	The management approach and its components	S 27-30 Land use and biodiversity	
103-3	Evaluation of the management approach	S 47 Indigenous relations	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	E 27 Species impact 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. Algonquin will evaluate opportunities to disclose this information publicly in the future.	
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. Algonquin will evaluate opportunities to disclose this information publicly in the future.	<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. Algonquin will evaluate opportunities to disclose this information publicly in the future.	
304-4	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. Algonquin will evaluate opportunities to disclose this information publicly in the future.	

No.	Disclosure	Source and notes	Priority issue alignment
Emissions			
103-1	Explanation of the material topic and its boundary	S 22-24	Transitioning to a low-carbon economy and managing our emissions
103-2	The management approach and its components	T	TCFD Climate Change Assessment Report
103-3	Evaluation of the management approach	W CC	Our Commitment to Sustainability CDP Climate Change Survey
305-1	Direct (Scope 1) GHG emissions	S 35 E 19	Our 2021 GHG emissions profile Scope 1 emissions
305-2	Energy indirect (Scope 2) GHG emissions	S 35 E 19	Our 2021 GHG emissions profile Scope 2 emissions
305-3	Other indirect (Scope 3) GHG emissions	S 35 E 20	Our 2021 GHG emissions profile Scope 3 emissions
305-4	GHG emissions intensity	E 19	Scope 1 and Scope 2 emissions
305-5	Reduction of GHG emissions	S 22-24 S 34-36 E 19	Transitioning to a low-carbon economy and managing our emissions Greenhouse gas (GHG) and air emissions Scope 1 emissions
305-6	Emissions of ozone-depleting substances (ODS)	E 22	Other emissions from electricity generation
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	E 22	Other emissions from electricity generation

- Climate resiliency
- Transitioning to a low-carbon economy
- Greenhouse gas and air emissions
- Public health and safety

No.	Disclosure	Source and notes		Priority issue alignment
Waste				
103-1	Explanation of the material topic and its boundary			
103-2	The management approach and its components	S 31	Waste and materials management	
103-3	Evaluation of the management approach			
306-1	Waste generation and significant waste-related impacts	S 31	Waste and materials management	<ul style="list-style-type: none"> • Climate resiliency • Land use and biodiversity • Waste and materials management
306-2	Management of significant waste-related impacts	S 31	Waste and materials management	
306-3	Waste generated	E 26	Waste generation	
306-4	Waste diverted from disposal	E 26	Waste diverted	
306-5	Waste directed to disposal	E 26	Waste directed to disposal	
Environmental compliance				
103-1	Explanation of the material topic and its boundary	S 22-24	Transitioning to a low-carbon economy and managing our emissions	<ul style="list-style-type: none"> • Climate resiliency • Transitioning to a low-carbon economy • Ethics and integrity • Transparency and disclosure • Risk management
103-2	The management approach and its components	S 54	ESG oversight	
103-3	Evaluation of the management approach	W	Our Commitment to the Environment	
		W	CCR Compliance	
307-1	Non-compliance with environmental laws and regulations	E 27	Compliance with environmental laws and regulations	

No.	Disclosure	Source and notes	Priority issue alignment
Supplier environmental assessment			
103-1	Explanation of the material topic and its boundary	S 58	Sustainable procurement
103-2	The management approach and its components	W	Policy on Supplier Code of Conduct
103-3	Evaluation of the management approach		
308-1	New suppliers that were screened using environmental criteria	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.	<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. Algonquin's Policy on Supplier Code of Conduct seeks to hold suppliers to a high degree of compliance with relevant environmental regulations.	

Social

Employment

103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components	S 41-42	Talent attraction and retention
103-3	Evaluation of the management approach		
401-1	New employee hires and employee turnover	S 41-42 E 14 E 14	Talent attraction and retention Hiring rates Turnover rates
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.	<ul style="list-style-type: none"> • Talent attraction and retention • Employee health and safety • Ethics and integrity
401-3	Parental leave	E 15	Parental leave

No.	Disclosure	Source and notes	Priority issue alignment
Labour/management relations			
103-1	Explanation of the material topic and its boundary	S 43-44 Employee health and safety	<ul style="list-style-type: none"> • Public health and safety • Talent attraction and retention • Employee health and safety • Ethics and integrity
103-2	The management approach and its components	W AQN Code of Business Conduct and Ethics	
103-3	Evaluation of the management approach		
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			
103-1	Explanation of the material topic and its boundary	S 43-44 Employee health and safety	<ul style="list-style-type: none"> • Talent attraction and retention • Employee health and safety • Ethics and integrity
103-2	The management approach and its components	A 27 Environmental, health and safety	
103-3	Evaluation of the management approach	A 46 Health and safety laws and regulations W Our Commitment to Health & Safety	
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).	
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.	
403-5	Worker training on occupational health and safety	Worker training on occupational health and safety is facilitated by following site annual safety plans.	

No.	Disclosure	Source and notes	Priority issue alignment
Occupational health and safety (continued)			
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 8 Workers covered by an EHS management system	
403-9	Work-related injuries	E 7 Work-related injury	
403-10	Work-related ill health	E 8 Work-related ill health	
Training and education			
103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components	S 41-42 Talent attraction and retention	
103-3	Evaluation of the management approach		
404-1	Average hours of training per year per employee	E 16 Training	
404-2	Programs for upgrading employee skills and transition assistance programs	S 41-42 Talent attraction and retention 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. Transition assistance programs: Led through the Employee Assistance Program. This program provides pre-retirement planning and services such as counselling and training for adjusting to post-work changes.	<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	Programs for upgrading employee skills and transition assistance programs	E 16 Performance reviews	

No.	Disclosure	Source and notes	Priority issue alignment
Diversity and equal opportunity			
103-1	Explanation of the material topic and its boundary	S 45-46 Diversity, equity, and inclusion	<ul style="list-style-type: none"> • Talent attraction and retention • Diversity, equity, and inclusion • Ethics and integrity • Transparency and disclosure
103-2	The management approach and its components	S 58 Sustainable procurement	
103-3	Evaluation of the management approach	W AQN Board and Executive Diversity Policy	
405-1	Diversity of governance bodies and employees	M 26 Director skills matrix E 9 Employee demographics E 17 Board of directors	
405-2	Ratio of basic salary and remuneration of women to men	E 13 Employee compensation by gender and level	
Non-discrimination			
103-1	Explanation of the material topic and its boundary	W AQN Code of Business Conduct and Ethics	<ul style="list-style-type: none"> • Talent attraction and retention • Employee health and safety • Diversity, equity, and inclusion • Ethics and integrity • Transparency and disclosure • Risk management
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
406-1	Incidents of discrimination and corrective actions taken	E 16 Discrimination incidents	
Rights of Indigenous peoples			
103-1	Explanation of the material topic and its boundary	S 47 Indigenous relations	<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
103-2	The management approach and its components		
103-3	Evaluation of the management approach		
411-1	Incidents of violations involving rights of Indigenous peoples	E 17 Indigenous relations	

No.	Disclosure	Source and notes	Priority issue alignment	
Human rights assessment				
103-1	Explanation of the material topic and its boundary	W AQN Human Rights Policy	<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 	
103-2	The management approach and its components	W AQN Code of Business Conduct and Ethics		
103-3	Evaluation of the management approach	W Policy on Supplier Code of Conduct		
		S 55 Ethics and integrity		
412-1	Operations that have been subject to human rights reviews or impact assessments	E 17 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. Algonquin's Policy on Supplier Code of Conduct seeks to hold suppliers to a high degree of compliance with relevant human rights regulations.		
Local communities				
103-1	Explanation of the material topic and its boundary	S 41 Talent attraction and retention		
103-2	The management approach and its components	S 48-50 Community support and economic development		
103-3	Evaluation of the management approach	W Liberty economic development		
413-1	Operations with local community engagement, impact assessments, and development programs	S 49 Community support and economic development E 6 Community engagement		
413-2	Operations with significant actual and potential negative impacts on local communities	Socio-economic violations and non-compliance events, when financially material, are disclosed in Algonquin's annual filings.		

No.	Disclosure	Source and notes	Priority issue alignment
Supplier social assessment			
103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components	S 58 Sustainable procurement	
103-3	Evaluation of the management approach		
414-1	New suppliers that were screened using social criteria	Algonquin seeks to integrate 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.	<ul style="list-style-type: none"> • Public health and safety • Community support and economic development • Diversity, equity, and inclusion • Ethics and integrity • Transparency and disclosure • Risk management • Sustainable procurement
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. Algonquin's Policy on Supplier Code of Conduct seeks to hold suppliers to a high degree of compliance with relevant social regulations.	
Public policy			
103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components	S 59 Governmental affairs and public policy	
103-3	Evaluation of the management approach	W Policy on Lobbyist Code of Conduct	
415-1	Political contributions	As per Algonquin's corporate policy governing political contributions, no political contributions were made in 2021. Information on political contributions made by Algonquin's employee-led political action committee is available at www.fec.gov .	<ul style="list-style-type: none"> • Ethics and integrity • Transparency and disclosure • Risk management • Governmental affairs and public policy

No.	Disclosure	Source and notes	Priority issue alignment
Customer health and safety			
103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components	S 25-26 Climate resiliency and energy efficiency	
103-3	Evaluation of the management approach		
416-1	Assessment of the health and safety impacts of product and service categories	Algonquin strives to comply with all relevant regulations governing the health and safety of its customers.	<ul style="list-style-type: none"> • Public health and safety • Customer experience and affordability • Energy reliability • Employee health and safety • Ethics and integrity • Transparency and disclosure • Risk management
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Non-compliance events concerning the health and safety of customers, when financially material, are disclosed in Algonquin's annual filings.	
Customer privacy			
103-1	Explanation of the material topic and its boundary	W AQN Code of Business Conduct and Ethics	
103-2	The management approach and its components	W Privacy policy	
103-3	Evaluation of the management approach	S 56 Risk management	
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	E 6 Cybersecurity	<ul style="list-style-type: none"> • Public health and safety • Customer experience and affordability • Ethics and integrity • Risk management • Cybersecurity • Sustainable procurement
Socioeconomic compliance			
103-1	Explanation of the material topic and its boundary		
103-2	The management approach and its components	S 55 Ethics and integrity	
103-3	Evaluation of the management approach		
419-1	Non-compliance with laws and regulations in the social and economic area	E 18 Social and economic compliance	<ul style="list-style-type: none"> • Public health and safety • Ethics and integrity • Transparency and disclosure • 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 new 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 emission 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 in a manner that safeguards 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 meet or exceed the needs and preferences of our customers.

Energy reliability

Consistently 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

Continually 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 the highest standards of ethics and integrity throughout all levels of our business, and in our working relationships with all stakeholders, while ensuring 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 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 ensure we 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
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
GIS	Geographic information system
IVM	Integrated Vegetation Management
ISO	Independent system operator
KPI	Key performance indicator
LGBTQIA+	Lesbian, gay, bisexual, transgender, queer, intersex, and asexual
NPS	Net Promoter Score
PSPS	Public Safety Power Shutoffs
PPA	Power Purchase Agreement
RNG	Renewable natural gas
ROW	Right-of-way
RSC	Regional Sustainability Council
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

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

ESG Performance Index

2021

Sustaining energy and
water for life



ESG Performance Index published on June 29, 2022.

* Has been noted on select metrics where numbers
have been updated or corrected since first publication.



Algonquin

2021 Algonquin ESG performance index ¹

Summary

		2021	2020	2019
Environment				
Greenhouse Gas (GHG) emissions (Mt CO ₂ e) ²	Scope 1	2,281,126	2,580,834	3,306,596
	Scope 2	83,210	72,831	77,736
	Intensity (Mt CO ₂ e/\$USD revenue)	0.0011	0.0013	0.0017
Energy consumption intensity	Power generation assets: MWh consumed/MWh generated	0.88	1.13	1.29
	Algonquin/Liberty: MWh consumed/\$USD revenue	0.0047	0.0066	0.0076
	Regulated business: MWh consumed/Customer connections	8.65	11.56	14.54
Water Usage (thousand m ³)	Water Delivered	106,737	73,130	57,553
	Withdrawal	145,250	69,033	54,046
	Discharge	73,642	26,188	-
Social				
Total number of employees		3,464	3,429	2,467
Female Representation	Board	37.5%*	33.3%	33.3%
	Executive Team	40.0%	37.5%	37.5%
	Leadership Roles ³	30.0%	32.2%	32.7%
	Workforce	32.9%	32.8%	31.5%
Health & Safety	AQN Fatalities	0	0	0
	United States and Canada Lost Time Injury Rate (LTIR)	0.00	0.04	0.04
	United States and Canada Recordable Injury Rate (RIR)	0.56	0.90	1.27
Service delivery and reliability	System Average Interruption Duration Index (SAIDI)	187.36	115.92	218.96
	System Average Interruption Frequency Index (SAIFI)	1.30	1.01	1.36
Community Investment (\$USD millions)		34.9	18.1	19.0
Governance				
Incidents of corruption		0	0	0
Legal actions for anti-competitive practices		0	1	0
Violations involving rights of indigenous peoples		0	0	0
Substantiated complaints received regarding customer privacy		0	0	0

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 explicitly noted, all relevant metrics include ESSAL in Chile and Ascendant (BELCO) in Bermuda. 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 2019 and 2020 GHG emissions have been recalculated following Algonquin's GHG Base Year Recalculation Policy, to include full-year emissions from BELCO, ESSAL, St. Lawrence Gas, and New Brunswick Gas. Consequently, previously published emission figures (2017-2019) will differ. See footnotes 21 and 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

2021

2020

2019

Utility connections

Electricity		307,000	306,000	267,000
Natural gas		373,000	371,000	369,000
Water and wastewater		413,000	410,000	168,000
	Total	1,093,000	1,087,000	804,000

Energy delivered to our customers

Electricity (GWh) - Regulated (retail)		6,471	5,892	6,433
Electricity (GWh) - Unregulated (contractual agreements)		6,851	5,046	4,749
	Total electricity (GWh)	13,322	10,937	11,182
	Total electricity (PJ)	48.0	39.4	40.3
Natural gas (PJ)		41.6	41.8	37.9
	Total (PJ)	89.5	81.1	78.1

Water and wastewater services provided to our customers

Water provided (thousand m3)		106,737	73,130	57,553
Wastewater treated (thousand m3)		10,478	9,596	8,850

Operational metrics (continued)

2021

2020

2019

Electricity generation capacity (MW) ^{4,*}

Coal ⁵	0	0	213
Natural gas ⁶	1,496	1,496	1,496
Diesel ⁷	140	140	0
Wind	2,537	1,452	1,100
Hydroelectric	134	134	134
Solar	329	258	175
Total	4,636	3,479	3,117
Renewable energy total	3,000	1,843	1,409
Renewable energy portfolio (%)	65%	53%	45%

Net electricity generated (GWh)

Coal	0	0	823
Natural gas	3,784	4,635	4,086
Diesel	563	85	0
Wind	7,332	3,833	3,652
Hydroelectric	583	543	567
Solar	575	404	349
Total	12,838	9,499	9,477
Renewable energy total	8,490	4,779	4,568
Renewable energy portfolio (%)	66%	50%	48%

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

⁵ Algonquin's Asbury coal power plant facility was retired in March 2020.

⁶ Includes 100% nameplate capacity of the State Line natural gas facility.

⁷ The diesel-powered generation is attributed to the 2020 acquisition of Ascendant.

Operational metrics (continued)
2021
2020
2019
Customer satisfaction

JD Power CSAT Score ⁸	703	686	665
Percentage of customers interviewed	25%	25%	25%

Energy reliability

SAIDI - System Average Interruption Duration Index (minutes)	187.36	115.92	218.96
SAIFI - System Average Interruption Frequency Index (rate)	1.30	1.01	1.36
CAIDI - Customer Average Interruption Duration Index (minutes)	143.81	114.77	161.24

Electricity transmission and distribution

Length of transmission lines (km)	2,021	2,279	2,287
Length of distribution lines (km)	13,780	13,616	13,383
Transmission losses in %	2.90%	2.90%	2.87%
Technical distribution losses in %	4.20%	4.20%	4.43%

Natural gas transmission and distribution

Length of transmission lines (km)	16	20	21
Length of distribution lines (km)	13,623	13,486	12,276
Leakage rate in distribution infrastructure	0.0100	0.0146	0.0098

Water utility water mains and sewer pipes ⁹

Length of water mains (km)	7,181	3,208	3,976
Length of sewer pipes (km)	3,153	980	1,037

⁸ Algonquin's JD Power Customer Satisfaction (CSAT) score is calculated internally based on JD Power CSAT scores for each of Algonquin's individual utilities. Scores are consolidated into an enterprise-wide value based on a customer connection weighting.

⁹ The increase in the length of water mains and sewer pipes in 2021 was due to the inclusion of ESSAL.

Operational metrics (continued)
2021
2020
2019
Cybersecurity

Substantiated complaints received concerning breaches of customer privacy	0	0	0
Identified leaks, thefts, or losses of customer data	0	0	1

Economic value generated and distributed (\$USD millions)

Economic value generated (EVG) - Revenue	2,561.5	1,849.9	1,806.2
Economic value distributed (EVD)			
Operation Costs	1,174.2	740.6	667.9
Employee wages and benefits	352.8	294.7	259.9
Payments to providers of capital	535.1	453.1	376.4
Payments to government (US and Canada)	5.0	5.6	14.5
Community Investments	1.4	0.8	1.0
Economic value retained (regulated)	391.9	241.9	199.1
Economic value retained (unregulated)	101.0	113.1	106.5
Total economic value retained	492.9	355.1	305.7

Community engagement

Operations with local community engagement	100%	100%	100%
Payments under community contribution agreements, land rentals, or municipal taxes (\$USD millions)	34.9	18.1	19.0
Cash contributions	1,185,000	1,672,000	-
Management overheads	188,961	158,471	-
Liberty days used - hours volunteered by employees	5,334	3,375	5,499

Workforce and social indicators

Health and safety ^{10,11}		2021	2020	2019
Work-related injury				
Fatalities from work-related injury	Employees	0	0	0
	Non-employees	0	0	0
Recordable injuries	Employees	19	21	31
	Non-employees	2	2	3
Recordable Injury Rate (RIR)	United States and Canada	0.56	0.90	1.27
	Bermuda	0.84	-	-
	Chile	0.00	-	-
Work-related injuries included:		The primary work-related injuries identified for employees in 2021 are muscle strains, cuts, and abrasions. The primary work-related injuries identified for non-employees in 2021 are arc flash burns and broken bones.		
High-consequence work-related injuries (number)	Employees	0	1	1
	Non-employees	2	2	3
Lost Time Injury Rate (LTIR)	United States and Canada	0.00	0.04	0.04
	Bermuda	0.56	-	-
	Chile	0.00	-	-
Near Miss Frequency Rate (NMFR)		30.00	32.97	27.75
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.		
Injury elimination/mitigation strategy:		Algonquin's injury elimination/mitigation strategy follows local action plans and a 5-year occupational health and safety plan following the hierarchy of controls methodology.		
Total hours worked (employees)		7,368,526	5,204,161	4,886,529

¹⁰ Only 2021 Health and Safety metrics include Bermuda and Chile operations.

¹¹ 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.

Work-related ill health

Fatalities from work-related ill health	Employees	0	0	0
	Non-employees	0	0	0
Recordable work-related ill health cases	Employees	0	0	1
	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 2021.

Injury elimination/mitigation strategy: Algonquin's injury elimination/mitigation strategy follows local action plans and a 5-year occupational health and safety plan following the hierarchy of controls methodology.

Workers covered by an EHS management system

Workers covered by EHS system		100%	100%	100%
Workers covered by internally audited EHS system (United States and Canada)	Employees	40%	35%	30%
	Non-employees	100%	100%	100%
Employees covered by externally audited EHS system ¹²	United States and Canada	5%	5%	5%
	Bermuda	100%	-	-
	Chile	100%	-	-

¹² Our Chile operation is ISO 45001 certified while our United States, Canada and Bermuda operations have internal management systems in place.

Employee demographics

2021

2020

2019

Number and geographic location of employees

Canada	Permanent	564	500	339
	Temporary	25	21	17
United States	Permanent	2,064	2,113	2,103
	Temporary	13	15	8
Bermuda	Permanent	345	341	-
	Temporary	12	-	-
Chile	Permanent	422	439	-
	Temporary	19	-	-
Total Algonquin/Liberty workers		3,464	3,429	2,467
Algonquin/Liberty employees		67.5%	72.6%	87.4%
Non-employees		32.5%	27.4%	12.6%

By age group

Age ranges	< 30 years	11.0%	11.5%	-
	30-50 years	55.3%	52.4%	-
	> 50 years	33.8%	36.1%	-

Average age (years)

Female employees	45	45	46
Male employees	44	45	46
All employees	44	45	46

Employee demographics (continued)

2021

2020

2019

Gender and employment categories

			2021	2020	2019
Employee function by gender	Office	Female	40.5%	42.7%	42.2%
		Male	59.5%	57.3%	57.8%
	Field	Female	3.1%	3.3%	6.7%
		Male	96.9%	96.7%	93.3%
Employee level by gender	Senior managers and above ¹³	Female	30.4%	32.2%	32.7%
		Male	69.6%	67.8%	67.3%
	Junior managers ¹⁴	Female	31.3%	35.8%	31.3%
		Male	68.8%	64.2%	68.7%

Age and employment categories

			2021	2020	2019
Employee function by age	Office	< 30 years	11.2%	11.2%	10.2%
		30-50 years	55.2%	52.5%	48.5%
		> 50 years	33.7%	36.2%	41.3%
	Field	< 30 years	10.0%	12.3%	10.1%
		30-50 years	55.9%	52.0%	48.1%
		> 50 years	34.1%	35.7%	41.8%
Employee level by age	Senior managers and above	< 30 years	0.0%	0.0%	0.0%
		30-50 years	37.7%	49.7%	41.4%
		> 50 years	62.3%	50.3%	58.6%
	Junior managers	< 30 years	0.0%	2.8%	2.7%
		30-50 years	51.4%	59.9%	51.1%
		> 50 years	48.6%	37.3%	46.2%

¹³ "Senior managers and above" refers to employees in the following job levels: executive, senior vice president, vice president, president, senior director, director, and senior manager.

¹⁴ "Junior managers" refer to employees in the following job level: manager.

Collective bargaining agreement coverage

Percentage of employees who are salaried		73%	73%	71%
Percentage of employees covered by collective bargaining agreements		27%	27%	29%

Gender and self-identification

Women		32.9%	32.8%	31.5%
Men		67.1%	67.2%	68.5%
Self-identified minorities		13.7%	9.8%	8.3%
Self-identified veterans		3.1%	2.0%	1.7%
Self-identified employees with disability		0.3%	0.5%	-

By employment contract

Permanent employees	Female	860	857	778
	Male	1,768	1,756	1,664
Temporary employees	Female	18	13	7
	Male	20	23	18

By employment type

Full-time employees	Female	869	865	779
	Male	1,777	1,766	1,669
Part-time employees	Female	8	5	6
	Male	6	8	5
Casual employees	Female	1	0	0
	Male	5	5	8

Employee demographics (continued)

	2021	2020	2019
Female representation			
All management positions	33.2%	34.3%	-
Junior manager positions	35.9%	35.8%	31.3%
Senior manager and above	30.4%	32.2%	32.7%
Revenue-generating positions	31.3%	31.9%	-
STEM-related positions	25.5%	26.3%	-
Leadership roles (senior manager and above)			
Women	30.0%	32.2%	32.7%
Men	70.0%	67.8%	67.3%
Self-identified minorities	10.7%	8.6%	4.4%
Executive team			
Members	10	8	8
Women	40.0%	37.5%	37.5%
Men	60.0%	62.5%	62.5%
Self-identified minorities	10.0%	12.5%	-
Self-identification of employees working in the United States¹⁵			
Percentage of employees working in the United States	60.0%	80.3%	-
Share of racial, ethnic, and indigenous self-identifications	Asian	1.8%	1.5%
	Black or African American	4.0%	2.1%
	Hispanic or Latino	6.8%	4.7%
	Caucasian	83.7%	62.5%
	Indigenous or Native	1.1%	1.1%
	Other	2.6%	28.2%

¹⁵ Self-identification declarations are voluntary in Canada.

Employee demographics (continued)

2021

2020

2019

Employee pay ratios

Pay ratio of CEO total compensation to median employee compensation		54.15	45.17	34.72
Base pay ratio (highest paid to median) by region	Canada	9.23	9.50	9.67
	United States	3.56	3.62	3.68
Salary growth ratio (highest paid to median) by region	Canada	(0.23)	0.73	-
	United States	0.63	0.61	-

Employee compensation by gender and level

Equal pay ratio (female/male) by level	Executive (base pay only)	0.94	0.85	-
	Executive (base pay + other)	-	0.61	-
	All managers and above (base pay only)	0.93	0.92	-
	All managers and above (base pay + other)	0.92	0.91	-
	Non-managers (base pay only)	0.75	0.75	-
Equal pay ratio (female/male) by function	Office	0.77	0.77	0.77
	Field	0.91	0.89	0.76
Equal pay ratio (female/male) by region	Canada	0.90	0.88	0.77
	United States	0.80	0.80	0.78
Women in top 10% of salaries		27.0%	28.7%	29.7%

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

Canada	Female	1.80	1.76	1.67
	Male	1.53	1.46	1.62
United States	Female	1.18	1.26	1.90
	Male	1.83	2.52	2.47

Employee attraction and retention

2021

2020

2019

Hiring rates

Percentage of open positions filled by internal candidates		26.0%	20.0%	20.0%
Total number of employee hires		443	458	320
Employees hired by age	< 30 years	0.29	0.32	0.31
	30-50 years	0.56	0.49	0.54
	> 50 years	0.15	0.19	0.15
Employees hired by gender	Female	0.39	0.39	0.38
	Male	0.61	0.61	0.62
Employees hired by region	Canada	0.44	0.32	0.30
	United States	0.56	0.68	0.70

Turnover rates

Total employee turnover rate		0.15	0.07	0.10
Volunteer employee turnover rate		0.13	0.05	0.07
Employee turnover rate by age	< 30 years	0.23	0.08	0.27
	30-50 years	0.11	0.07	0.09
	> 50 years	0.20	0.08	0.10
Employee turnover rate by gender	Female	0.18	0.08	0.15
	Male	0.14	0.07	0.10
Employee turnover rate by region	Canada	0.16	0.05	0.12
	United States	0.15	0.08	0.11
	Bermuda	-	-	-
	Chile	0.10	-	-

Employee attraction and retention

2021

2020

2019

Parental leave

Employees entitled to parental leave	Female	990	842	773
	Male	2,046	1,720	1,663
Employees that took parental leave	Female	32	13	6
	Male	15	4	4
Employees that took parental leave and returned	Female	18	7	3
	Male	14	4	2
Return to work rate	Female	0.56	0.54	0.50
	Male	0.93	1.00	0.50
Employees that took parental leave and were retained	Female	18	7	3
	Male	14	4	2
Parental leave retention rate	Female	0.50	0.46	0.50
	Male	0.80	1.00	0.50

Defined benefit plan

Salary contributed by employee/employer	Employee	0%	0%	0%
	Employer	4% - 8%	4% - 8%	4% - 8%
Level of participation in retirement plans		100%	100%	100%

Defined benefits plan and other retirement plans:

- 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

Employee engagement score	62%	73%	68%
Percentage of employees covered	83%	88%	87%

Training

Average training hours by gender	Female	18.0	13.6	12.3
	Male	17.0	14.6	15.0
Average training hours by level	Senior managers and above	21.0	13.5	26.5
	Junior managers	26.0	17.3	18.5
Average training hours by job function	Office	18.0	13.1	13.5
	Field	16.0	17.8	15.8
Average training hours per employee		15.0	14.0	15.0
Average amount spent per employee on training (\$USD/employee)		1,469	1,361	938
Amount invested in employee training (\$USD) ¹⁶		2,792,187	2,047,115	2,798,632

Performance reviews

Percentage of employees who received performance review	100%	100%	100%
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Non-Discrimination

Discrimination incidents

Number of incidents of discrimination	3	8	-
Number of incidents reviewed by Algonquin	3	8	-
Number of incidents no longer subject to action	3	8	-

Remediation plans implemented and/or being implemented:

Recommendations in response to the incidents included additional workplace civility training, mediation sessions, coaching and workplace assessments. All actions that were recommended were completed.

¹⁶ Investments in employee training only include hard costs (costs directly related to the production, development, and administration of training initiatives).

Governance and policy

Board of directors	2021	2020	2019
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Experience and background

Independent directors	8	8	7
Average tenure (years)	5.3	7	8.2
Directors with utility/energy experience	7	9	8
Directors with governance and risk management experience	9	9	8
Directors with senior executive experience	8	7	6
Total Board members	9	10	9

Demographics

By gender	Female*	37.5%	33.3%	33.3%
	Male*	62.5%	66.7%	66.7%
By age	< 30 years	0%	0%	0%
	30-50 years	0%	0%	0%
	> 50 years	100%	100%	100%

Compliance

Indigenous relations

Violations involving rights of indigenous peoples	0	0	0
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Human rights

Operations subject to human rights reviews and impact assessments	Canada	100%	100%	100%
	United States	100%	100%	100%

Anti-corruption

Operations assessed for corruption related risks (government relations, conflicts of interest, and foreign interests)	100%	100%	100%
Board of directors and employees who received anti-corruption communications and received anti-corruption policy training	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	23	10	5
Number of times Ombudsperson was contacted	23	9	12

Anti-competitive behaviour

Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	0	1	0
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Social and economic compliance

Total monetary value of significant fines (\$USD millions)	3.7	1	0
Number of non-monetary sanctions	0	0	0

Political spending

Amount spent on Lobbying (\$USD)	745,000	807,397	511,200
Amount spent on local, regional, national campaigns (\$USD)	-	-	20,500
Amount spent on trade associations (\$USD)	1,042,000	785,000	762,441

¹⁷ The metric on 'contractors who have received anti-corruption communications' included in Algonquin's 2020 ESG Performance Index has been omitted from this 2021 ESG Performance Index due to ongoing internal review and data gathering.

Environment

Greenhouse gas (GHG) emissions ¹⁸⁻²²	2021	2020	2019
Scope 1 emissions (Mt CO₂e)			
Power generation - thermal ²³⁻²⁵	1,984,603	2,297,508	3,038,917
Power generation - hydroelectric	88	101	63
Power generation - solar	20	44	34
Power generation - wind	364	376	159
Utilities - electric, gas, and water/wastewater ²⁶	296,050	282,806	267,424
Total Scope 1 emissions	2,281,126	2,580,834	3,306,596
Scope 2 emissions (Mt CO₂e)			
Power generation - thermal	392	278	422
Power generation - hydroelectric	446	397	423
Power generation - solar	827	596	540
Power generation - wind	1,644	910	953
Utilities - electric, gas, and water/wastewater	79,900	70,650	75,398
Total Scope 2 emissions	83,210	72,831	77,736
Scope 1 and Scope 2 emissions			
Total Scope 1 + 2 emissions	2,364,335	2,653,666	3,384,332
Total emissions from power generation (Mt CO ₂ e)	1,988,386	2,300,210	3,041,511
Emission intensity - power generation (Mt CO ₂ e from power generation/MWh power generation)	0.1997	0.2091	0.2798
Emission intensity - revenue (Mt CO ₂ e/\$USD revenue)	0.0011	0.0013	0.0017
GHG reduction below 2017 baseline (%)	-38.3%	-30.8%	-11.7%

Previous Page Footnotes

¹⁸ 2021 Greenhouse gases included in calculations: CO₂ (2,083,379 Mt CO₂e), CH₄ (266,348 Mt CO₂e), N₂O (3,056 Mt CO₂e), and SF₆ (11,551 Mt CO₂e).

¹⁹ GHG emissions are calculated following the Greenhouse Gas (GHG) Protocol Corporate Standard. Emission factors are sourced from recognized references such as the Canadian National Inventory Report (NIR, published in 2021), USEPA's GHG Emission Factors Hub (published in 2021), and IEA's Emissions Factors Database (published in 2021). Regarding emission factors for grid electricity, US facilities use 2019 eGRID factors published by USEPA in 2021, Chile facilities use 2019 factors published by IEA in 2021, and Canadian facilities use 2018 factors published in the 2021 NIR.

²⁰ GHG emissions are consolidated through an operational-control approach. Scope 2 emission figures are location-based.

²¹ Historical emissions have been recalculated to include full-year emissions from BELCO, ESSAL, St. Lawrence Gas, and New Brunswick Gas. For BELCO, emissions were calculated using real historical fuel consumption data. For ESSAL, fugitive emissions from wastewater treatment plants were calculated based on the real historical customer connection values; emissions from fuel combustion and grid electricity consumption were estimated using the annual 2021 activity data. For St. Lawrence Gas and New Brunswick Gas, 2019 emissions remain the same, while base year emissions were recalculated. Fugitive emissions were calculated using real historical information for distribution mains and distribution services that were reported to the US Department of Transportation and the Canadian Energy Partnership for Environmental Innovation. Emissions from fuel combustion and grid electricity consumption were estimated using the annual 2021 activity data. Note that historical year emission intensities were not recalculated and remain the same.

²² Base year identification: 2017. The recalculated Scope 1 and 2 emissions in 2017 are 3,757,781 Mt CO₂e and 74,555 Mt CO₂e, respectively. The recalculated Scope 1 and 2 emissions in 2018 are 3,402,869 Mt CO₂e and 76,637 Mt CO₂e, respectively.

²³ This category includes Windsor Locks, Sanger, State Line, Riverton, Energy Center, and BELCO.

²⁴ The State Line natural gas facility was off for approximately two months in 2021 due to maintenance/energy efficiency upgrade, which resulted in lower emissions than in 2020.

²⁵ The Sanger natural gas facility operated at its maximum capacity due to forest fires in California, which resulted in higher emissions in 2021.

²⁶ This category includes Liberty Utilities' electric, gas, and water/wastewater utilities and ESSAL.

Scope 3 emissions (Mt CO2e)

		2021	2020	2019
Upstream	Purchased goods and services ²⁷	33,123	54,970	-
	Capital goods	62,134	170,544	-
	Upstream fuel production and extraction	368,568	371,413	373,872
	Generation of distributed electricity	335,552	353,434	-
	Production & transmission of distributed natural gas ²⁸	361,989	363,616	329,740
	Transmission & Distribution Losses for purchased grid electricity	3,186	1,710	1,369
	Upstream Emissions for purchased grid electricity ²⁹	12,081	-	-
	Upstream transportation and distribution ³⁰	10,338	-	5,897
	Waste generated in operations ³¹	40,078	-	-
	Business travel	151	-	-
Employee commuting ³²	7,195	2,936	2,678	
Downstream	Downstream natural gas combustion ³³	2,092,670	2,102,071	1,906,237
	Investments ³⁴	1,856,525	1,698,910	1,201,220
Total Scope 3 emissions		5,183,591	5,119,605	3,821,013

²⁷ Water withdrawal is a new Scope 3 emission source captured in 2021, and is included under the category of purchased goods and services.

²⁸ This only includes natural gas that was delivered to industrial, commercial, and residential customers (i.e. transportation customers have been excluded). The 2019 and 2020 emissions have been updated following the same methodology.

²⁹ This includes upstream emissions for the generation of purchased grid electricity.

³⁰ This includes emissions associated with the transportation of fuel oils consumed by BELCO's (Bermuda) operations.

³¹ This includes emissions associated with the treatment of waste generated by our operations.

³² The 2021 emissions have included employee commuting in Canada, US, Bermuda, and Chile.

³³ See footnote 28.

³⁴ This includes emissions from a 7.5% and 12% ownership in the Plum Point and Iatan coal power plants respectively, and an approximately 44% ownership interest in Atlantica Sustainable Infrastructure PLC. 2019 emissions from investments do not include Atlantica Sustainable Infrastructure PLC.

Other emissions (Mt)

2021

2020

2019

Other emissions from electricity generation (Mt)

NOx emissions	483	493	1,162
SOx emissions	11	10	734
Mercury emissions	-	0.00003	0.00081
Particulate matter emissions	79	100	139
Lead emissions	-	0.0001	0.0001
Persistent organic pollutants	-	-	-
Volatile organic compounds	46	84	93
Hazardous air pollutants	5	5	6
Ozone-depleting substances	-	-	-

Coal Combustion Residuals (CCR)

Percentage of CCRs recovered	0.0%	0.0%	45.6%
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Energy consumption and generation capacity
2021
2020
2019
Internal energy consumption (MWh)

	Gasoline/Petrol	39,163	17,369	24,889
	Diesel	62,123	48,282	28,331
Non-renewable sources	Liquified Petroleum Gas (LPG)	1,850	5,246	6,090
	Coal	-	0	2,758,931
	Natural gas	8,624,164	10,583,263	9,469,790
	Fuel oil	1,488,153	164,138	42,717
Electricity consumption		155,334	91,954	70,805
	Total internal energy consumption (MWh)	10,370,787	10,910,252	12,401,553
Electricity sold		10,269,746	9,499,073	9,477,091
Energy consumption intensity	Power generation assets: MWh consumed/MWh generated	0.88	1.13	1.29
	Algonquin/Liberty: MWh consumed/\$USD revenue	0.0047	0.0066	0.0076
	Regulated business: MWh consumed/Customer connections	8.65	11.56	14.54

Generation capacity

		2021	2020	2019
Nameplate capacity of generation assets by source (MW)*	Coal	0	0	213
	Natural gas	1,496	1,496	1,496
	Diesel	140	140	0
	Hydroelectric	134	134	134
	Solar	329	258	175
	Wind	2,537	1,452	1,100
	Total generation capacity (MW)	4,636	3,479	3,117
Energy capacity mix (%)*	Coal	0%	0%	7%
	Natural gas	32%	43%	48%
	Diesel	3%	4%	0%
	Hydroelectric	3%	4%	4%
	Solar	7%	7%	6%
	Wind	55%	42%	35%
Total renewable generation capacity (%)	65%	53%	45%	

Water and effluents³⁵
2021
2020
2019
Water withdrawal

Water withdrawal by source (thousand m ³)	Surface water	27,860	9,546	-
	Ground water	109,006	79,486	-
	Third-party water	8,380	9,599	-
	Other source	1	164	-
	Total water withdrawal	145,248	98,795	-
Water withdrawal from water stressed regions by source (thousand m ³)	Surface water	-	-	-
	Ground water	13,560	-	-
	Third-party water	7,475	-	-
	Other source	-	-	-

Water discharge

Water discharge by source (m ³)	Surface water	46,574,167	12,967,475	-
	Ground water	136,005	350,048	-
	Seawater ³⁶	25,358,995	7,805,834	-
	Third-party water	1,582,615	5,064,148	-
	Total water discharge	73,651,782	26,187,505	-
Water discharge in water stressed regions by source	Surface water	-	-	-
	Ground water	58	-	-
	Ocean / Sea Water	11	-	-
	Third-party water	935	-	-

Water consumption

Total water consumption (thousand m ³)	50,189	25,665	-
Total water consumption in water stressed regions (thousand m ³)	4,013	-	-

Water Utility energy usage

Water supplied to customers (thousand m ³)	95,061	73,130	57,553
Energy used by water utilities (MWh)	143,567	81,313	63,120
Energy intensity of water supply (MWh/thousand m ³)	1.51	1.11	1.10

³⁵ Water stress areas of operations have been reassessed in 2021. As a result, the 2020 figures have been excluded.

³⁶ Seawater discharge was from ESSAL operations.

Waste		2021	2020	2019
Waste generation (Mt)				
Waste generated	Hazardous waste	51,864	20,797	-
	Non-hazardous waste ³⁷	25,793	312,827	-
	Total waste generated	77,657	333,624	-
Waste diverted (Mt)				
Hazardous waste diverted by recovery type (offsite)	Reuse	-	2	-
	Recycling	6,104	9,678	-
	Other	40,044	-	-
	Total hazardous waste diverted	46,148	9,680	-
Non-hazardous waste diverted by recovery type (offsite)	Reuse	-	1,689	-
	Recycling	7,304	221,672	-
	Other	615	0.003	-
	Total non-hazardous waste diverted	7,918	223,362	-
Waste directed to disposal (Mt)				
Hazardous waste disposed by disposal operation (offsite)	Incineration with energy recovery	2	23	-
	Incineration without energy recovery	-	49	-
	Landfilling	5,714	10,754	-
	Other	-	292	-
	Total hazardous waste disposed	5,716	11,117	-
Non-hazardous waste disposed by disposal operation (offsite)	Incineration with energy recovery	3	549	-
	Incineration without energy recovery	-	0.15	-
	Landfilling	17,872	77,754	-
	Other	-	11,162	-
	Total non-hazardous waste disposed	17,875	89,465	-

³⁷ Construction waste generated by contractors was included in 2019 and 2020 figures, but has been excluded for 2021.

Biodiversity
2021
2020
2019
Species impact

		2021	2020	2019
Land developed for pollinators	Acres	25.0	32.5	25.1
	Square feet	43,144	47,542	38,552
IUCN Red List species and national conservation list species with habitats in areas affected by operations	Critical endangered	4	2	-
	Endangered	36	52	11
	Vulnerable	25	13	8
	Near threatened	9	2	7
	Least concern	14	-	-

Fleet and Compliance
Fleet

Percentage of vehicle fleet using low emission fuel	68%	45%	-
Number of Compressed Natural Gas (CNG) capable vehicles	275	279	266
Volume of CNG gas gallon equivalent used (GGE)	181	385	1,050
Electric chargers installed for employee vehicles	151	97	-
Percentage of employees with access to electric vehicle charging at office	61%	51%	-

Compliance with environmental laws and regulations

Number of violations with environmental laws and regulations	24	7	-
Monetary value of environmental fines (\$USD millions)	3.7	0.7	-
Environmental liability accrued at year end (\$USD millions)	69.2	-	-

Independent Limited Assurance Report to Liberty Utilities (Canada) Corp.

We have been engaged by the management of Liberty Utilities (Canada) Corp. ('Liberty Utilities') to undertake a limited assurance engagement, in respect of the year ended December 31, 2021, on certain quantitative greenhouse gas emissions performance information described below and disclosed on page E19 in the Algonquin 2022 ESG Report Appendix – Environmental Metrics Table (the "Report") as described below.

Subject Matter Information and Applicable Criteria

The scope of our limited assurance engagement, as agreed with management, comprises the following greenhouse gas emissions performance information (the 'Subject Matter Information'):

Subject Matter	Key Performance Indicator	Units
Climate Change	Scope 1 greenhouse gas emissions	2,281,126 tonnes CO ₂ e
	Scope 2 greenhouse gas emissions	83,210 tonnes CO ₂ e

There are no mandatory requirements for the preparation, publication or review of greenhouse gas emissions performance metrics. As such, Liberty Utilities applies 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 internal reporting guidelines and definitions for GHG reporting (Appendix A) (collectively the 'Applicable Criteria').

Management's responsibilities

Management is responsible for the preparation and presentation of the Subject Matter Information in accordance with the Applicable Criteria, current as at the date of our report. Management is also responsible for determining Liberty Utilities' objectives in respect of greenhouse gas emissions performance and reporting and for establishing and maintaining appropriate performance management and internal control systems from which the reported performance information is derived.

Our responsibility and professional requirements

Our responsibility in relation to the Subject Matter Information is to perform a limited assurance engagement and to express a conclusion based on the work performed. We conducted our engagement in accordance with International Standard on Assurance Engagements 3410 *Assurance Engagements on Greenhouse Gas Statements* (ISAE 3410), issued by the International Auditing and Assurance Standards Board. ISAE 3410 requires that we plan and perform our procedures to obtain the stated level of assurance, in accordance with the applicable criteria.

Assurance approach

We planned and performed our work to obtain all the evidence, information and explanations we considered necessary in order to form our conclusion as set out below. A limited assurance engagement consists of making inquiries, primarily of persons responsible for the preparation of the Subject Matter Information and applying analytical and other evidence gathering procedures to the Subject Matter Information, as appropriate. 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 in respect of the Subject Matter Information
- 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 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.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than, those applied in 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.

Independence, quality control and competence

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 International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

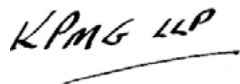
The engagement was conducted by a multidisciplinary team which included professionals with suitable skills and experience in both assurance and in the applicable subject matters.

Inherent limitations

Non-financial information, such as that supporting the Subject Matter Information, is subject to more inherent limitations than financial information, given the characteristics of significant elements of the underlying subject matter and the availability and relative precision of methods used for determining quantitative greenhouse gas emissions information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable measurement techniques, which can result in materially different measurements and can impact comparability. The nature and methods used to determine such information, as well as the measurement criteria, may change over time.

Our conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that, for the year ended December 31, 2021, the Subject Matter Information, as described above and disclosed on page E19 in the Algonquin 2022 ESG Report Appendix – Environmental Metrics, has not been prepared and presented, in all material respects, in accordance with the Applicable Criteria, current as at the date of our report.



Chartered Professional Accountants, Licensed Public Accountants

June 15, 2022

Vancouver, Canada

Appendix A

Liberty Utilities (Canada) Corp. Greenhouse Gas (GHG) reporting Evaluation Criteria for Scope 1 (direct) and Scope 2 (energy indirect) emissions.

- The Company has selected the Operational Control approach to define its organizational boundaries and includes all material sources and sinks associated with its facilities and operations that it exercises direct operational control over.
- The Company has identified 2017 as its base year. 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.
- Scope 1 emissions are calculated using activity data (e.g. fuel consumption) and emission factors sourced from Greenhouse Gas Inventories, by USEPA (2021), the Canadian National Inventory Report (NIR) and emission factors published by International Energy Agency (IEA).
- Scope 2 emissions are calculated using activity data (e.g. electricity consumption) and emission factors sourced from Greenhouse Gas Inventories, by USEPA (2021), the Canadian National Inventory Report (NIR) and International Energy Agency (IEA).
- The Company applies the GHG protocol Scope 2 Guidance and report our scope 2 emissions using both market-based and location based-methods. Based on current operations, the results for the location-based and market-based methods are equivalent.
- The greenhouse gases included within the Company's inventory are CO₂, CH₄, N₂O, and SF₆.
- Immaterial sources include fugitive emissions – leakage of refrigerants used in buildings and release of CO₂ from fire extinguishers.

Corporate info

Canadian Transfer Agent:

TSX Trust Company (Canada)
300-100 Adelaide Street West
Toronto, Ontario,
Canada M5H 1S3

U.S. Transfer Agent:

AST American Stock Transfer
& Trust Company, LLC
6201 15th Avenue
Brooklyn, New York 11219

Auditors:

Ernst & Young LLP
Toronto, Ontario

The Toronto Stock Exchange:

AQN, AQN.PR.A, AQN.PR.D

The New York Stock Exchange:

AQN, AQNA, AQNB, AQNU

Stay connected!



Greater Toronto Headquarters:
354 Davis Road, Oakville, Ontario, Canada L6J 2X1



905-465-4500



905-465-4514



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www.linkedin.com/company/algonquin-power-&-utilities-corp



www.algonquinpower.com

