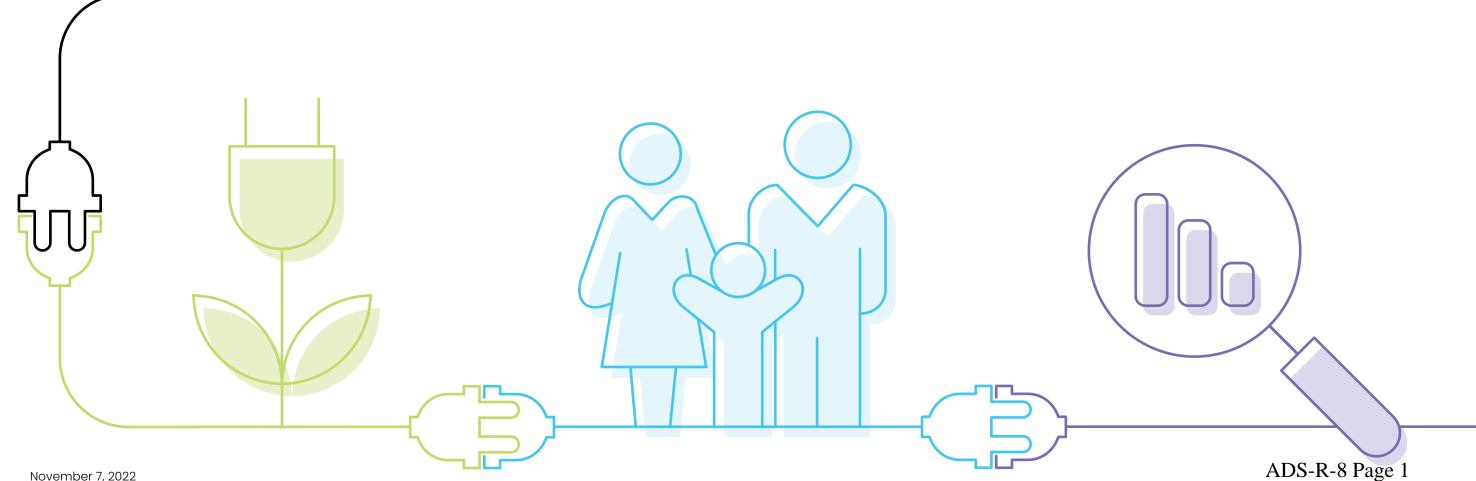


2022 ESG Report

# Building a sustainable future for everyone

Algonquin

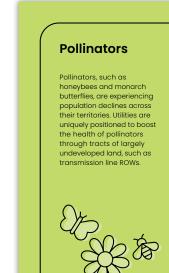




# How to use this report

## Disclosures in this report

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



#### 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 (3,484,800 square feet) of previously maintained and mowed areas into pollinator fields. We have partnered with the 8ee and Butterfly Habitat Fund and Quali Forever to continue developing this program. Expanding our pollinator program converts high maintenance areas to low maintenance areas to low maintenance as we remove turt that must be moved and replace it with pollinator friendly wildflowers and native grasses. This work not only benefits pollinator species, it diso simultaneously minimizes noise pollution, cuts maintenance spending by reducing the need for regular mowing, and reduces our carbon footbrint.

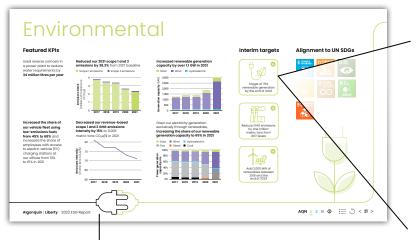
This year, we've made several improvements to further the impacts our pollinator program has on the climate and environment. For example, we are using native plants that have deep, extensive roots, resulting in greater corbon sequestration from the atmosphere when compared to turf grasses with shorter root structures. Should a vilidifier occur, these CO<sub>2</sub>-storing root systems remain untouched under the ground.

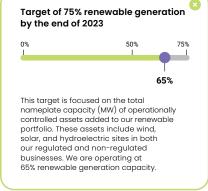


In 2021, the East Region built 92 square feet of pollinator gardens adjacent to heir offices and workplaces. These gardens were planted with local wildflowers and vegetables, and are maintained and harvested by Liberty volunteers. These gardens are expected to expand in 2022.

Learn more about our Power to the Pollinator program





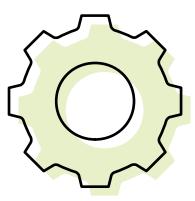


#### Section dashboards

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

## Pop-ups

Click for additional information



### **Additional information**

To view additional information, click on the following:

Additional information within the report

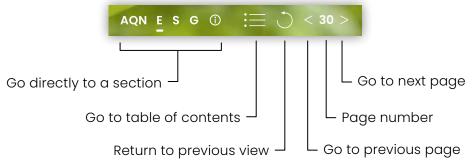


Videos



Additional information on the internet

## Navigating the report



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# Building a sustainable future for everyone

**AQN**<sup>1</sup>

Е

S





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 <u>pg. 61</u> of this report.

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<sup>\*</sup> Unless otherwise indicated herein, the information in this report is provided as at December 31, 2021.

<sup>\*</sup> All dollar references in this report are to U.S. dollars unless otherwise indicated.

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 metrics<sup>1</sup>

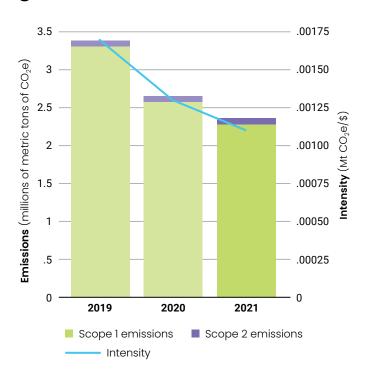




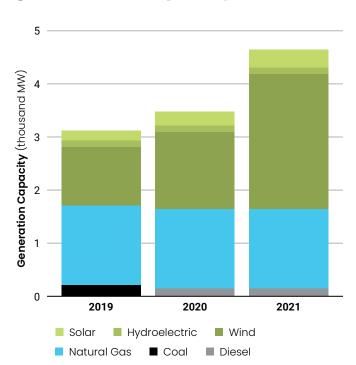




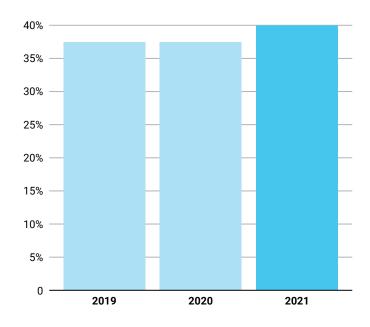
# Algonquin's greenhouse gas emissions



Algonquin's electricity generation capacity

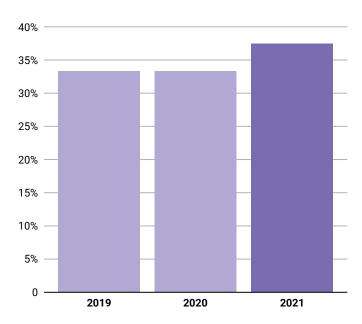


Executive team
Women's representation



## **Board members**

Women's representation



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All metrics as at December 31, 2021.

## **Executive summary**

## Environmental (Click on bold text for more details.)

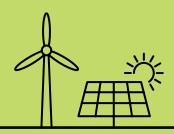
We are expanding our renewables portfolio

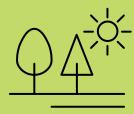
and initiatives intended to transition to renewable energy (i.e., Greening the Fleet)

as we progress towards our **net-zero** 

by 2050 target. We are committed to

transitioning to a low-carbon economy.

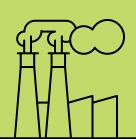




We view effective land use and biodiversity as important components of our environmental stewardship efforts. We are protecting biodiversity by conserving habitats, using

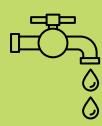
effective operations and maintenance practices,

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.



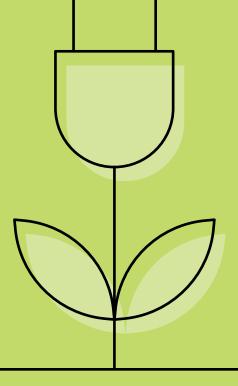


of litres of water annually.



We are continuing with responsible water 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.





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.

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

Algonquin | Liberty 2022 ESG Report

## **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 <u>service</u>
<u>reliability</u> 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 <u>customer</u> <u>experience</u> 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.

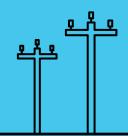
We are committed to **attracting and retaining talent**. We continue to invest in our employees' growth and development through promoting an inclusive energy transition, providing training to our workforce, and hiring locally where possible.

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.









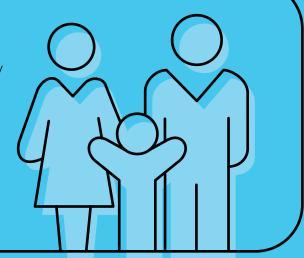
We are actively seeking to enhance the diversity, equity, and inclusion (DEI) of our workplace through our employee resource groups, effective talent management processes, and employee feedback that leads to action. We view DEI in our workforce as a key ingredient to our continued success.

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.



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## 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



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 I 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 of Operational Excellence in the 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

Aun Buskota

formats and uphold our strategic pillar wake of an ongoing

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## About this report<sup>1</sup>

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.



## 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













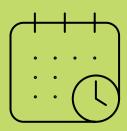








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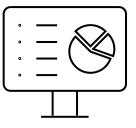


## **Reporting period**

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.



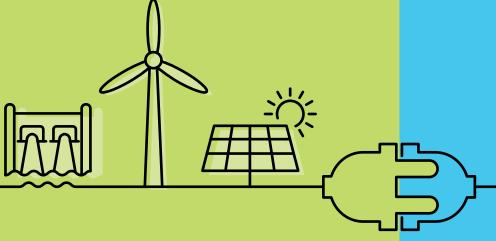
## About us

## 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

# Algonquin by the numbers

(\$ figures in U.S. dollars)

~\$9.7 billion market cap (NYSE)

## **BBB** credit rating

~4 GW

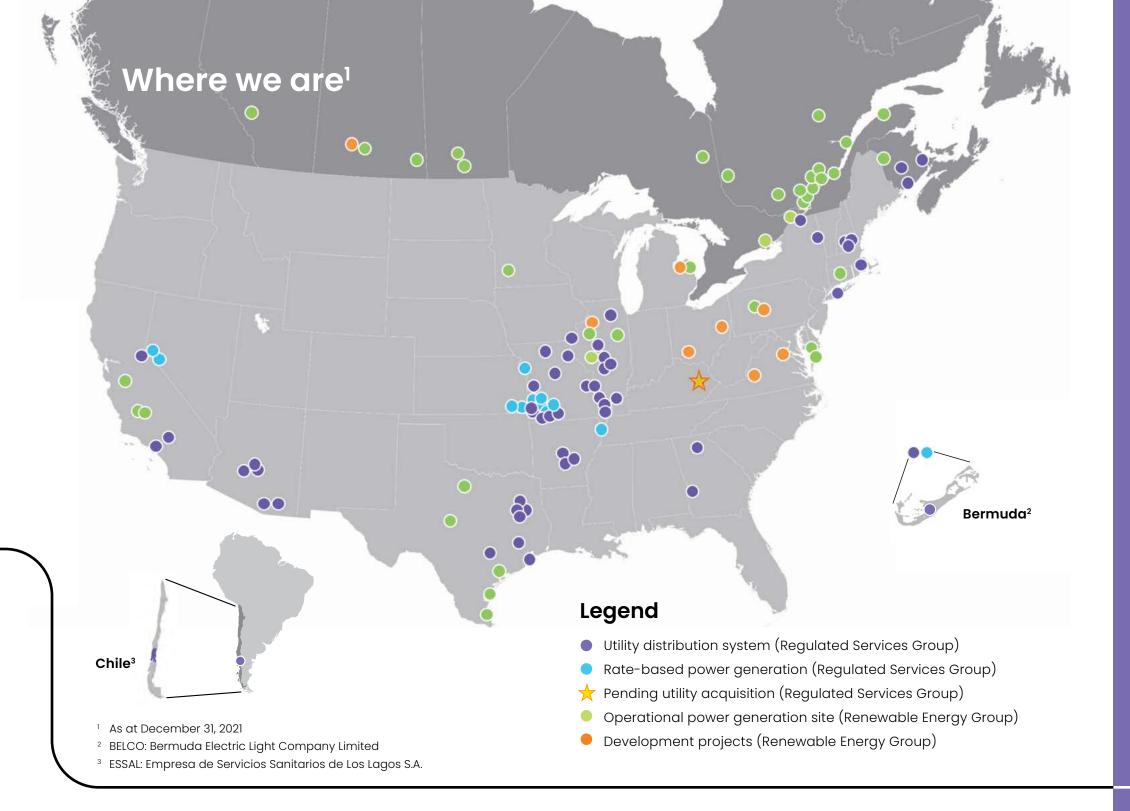
renewables in operation and under construction

**3,400+** employees

1988

company founded



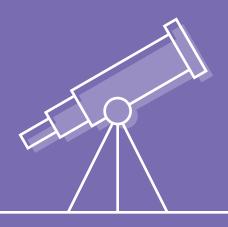


Algonquin | Liberty 2022 ESG Report

## 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.

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## 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.

## 2010

• Submitted first CDP Climate Change Questionnaire

#### 2019

- Deep review of scope 1 and 2 emissions inventory
- Performed the first ESG materiality assessment
- Published first ESG report
- Held inaugural Sustainability Day

#### 2021

- Announced Net-Zero by 2050 target and pathway
- Linked sustainability goals to leadership compensation model
- Launched the ESG Data Hub on AQN's company website
- Achieved GRI Comprehensive reporting requirements
- Updated ESG materiality assessment
- Updated SDG alignment to include new goals and sub-targets
- Expanded scope 3 reporting

### 1998

• Started run-of-river projects

#### 2018

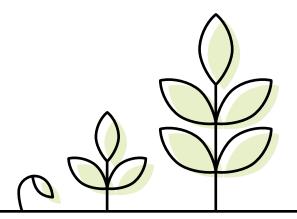
 Created the Office of Sustainability, led by the Chief Governance Officer (CGO) and began reporting to the Corporate Governance Committee

#### 2020

- Enhanced sustainability integration with strategy
- Developed Regional Sustainability Plans
- Published first Task Force on Climate-Related Financial Disclosures (TCFD) aligned report
- Achieved GRI Core reporting requirements
- Aligned with SASB metrics
- Obtained third-party limited assurance on scope 1 and 2 emissions
- Achieved 1 million metric tons of emissions reductions goals

## 2022

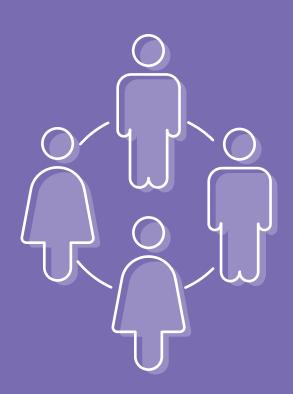
- Internally launched a cloud-based ESG software tool
- Further collaborations with Regional Sustainability Councils
- Sustainability team fully integrated with Strategy team
- Three of nine interim targets achieved
- Ongoing enhancements to ESG
- Furthered operationalizing net-zero across AQN and Liberty
- Progressed internal TCFD scenario planning
- Enhanced data quality processes



Algonquin | Liberty 2022 ESG Report

# Stakeholder engagement

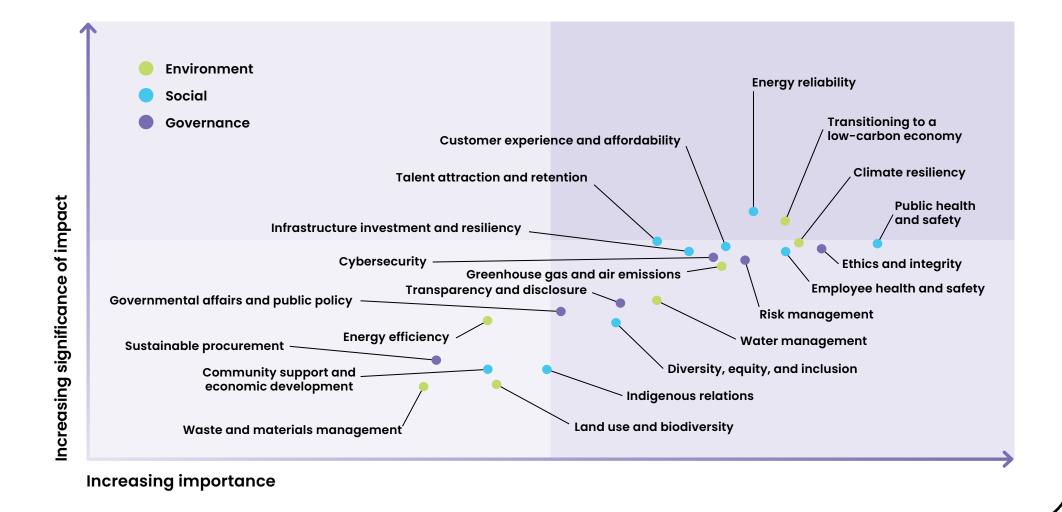
Ongoing engagement with our customers, employees, investors, communities, and regulators both informs our core operations and reflects the premium we place on strong communication with our stakeholders.



## 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.



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## Progress toward our 2023 ESG interim targets

(as at August 31, 2022)

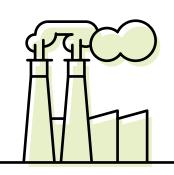
This section highlights the KPIs and ESG metrics used to measure our sustainability progress.

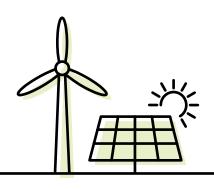
While there are regional-based ESG metrics that work towards local sustainability improvements, these corporate-level interim targets apply more broadly across the organization.

We expect to announce additional interim targets as our work progresses on the transition to net-zero.

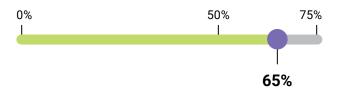
## **Environmental**





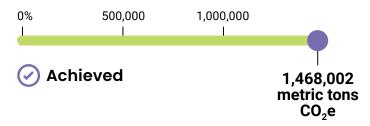


Target of 75% renewable generation by the end of 2023



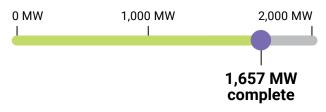
This target is focused on the total nameplate capacity (MW) of operationally controlled assets added to our renewable portfolio. These assets include wind, solar, and hydroelectric sites in both our regulated and non-regulated businesses. We are operating at 65% renewable generation capacity.

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 CO<sub>2</sub>e from our operations.

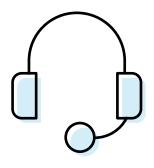
Add 2,000 MW of renewables between 2019 and the end of 2023



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.

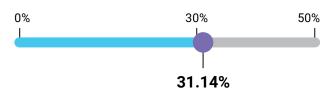
## Social





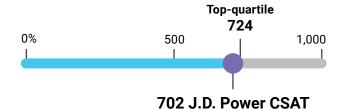


## Exceed 30% women in leadership roles



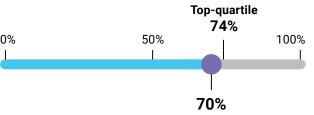
This target is based on the number of women versus the total number of employees at the level of Senior Manager or above. We continued to exceed this target, reporting 31.14% women in leadership roles. Although we are proud of our progress so far, we intend to continue to create opportunities for women 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.

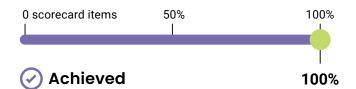
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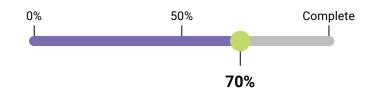
## Governance

## Embedding sustainability into our compensation model



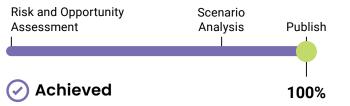
Our compensation model includes an annual corporate scorecard which is used to broadly measure success against our overall business goals. The results of the scorecard underpin the annual Short-term Incentive Plan provided to eligible employees. We successfully embedded ESG metrics in our 2020 Corporate 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

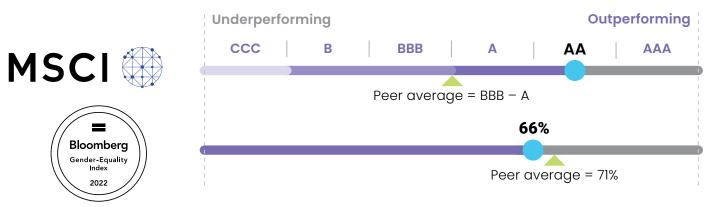


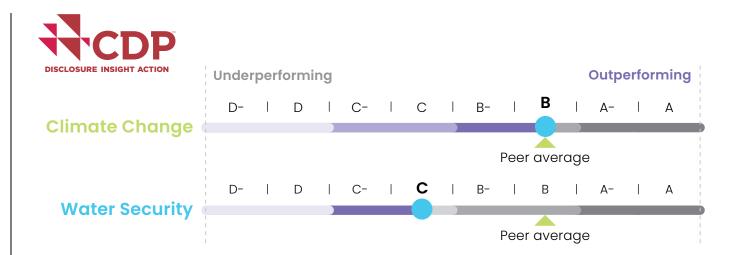
Our commitment to publish a TCFD-aligned disclosure came to fruition ahead of schedule with the publishing of our 2020 Climate Change Assessment report. The report sets the groundwork for analysis on the risks and opportunities presented in our portfolio under various climate scenarios, and the team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

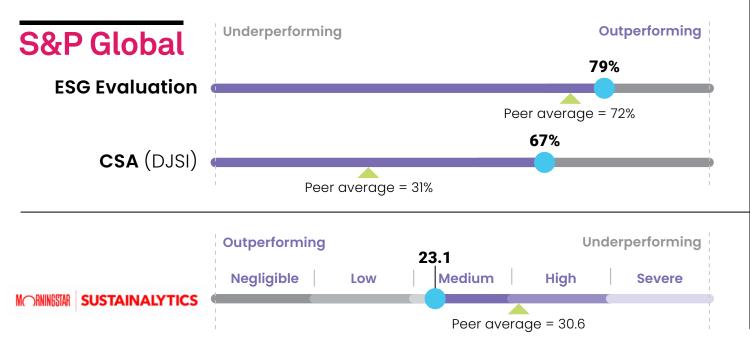
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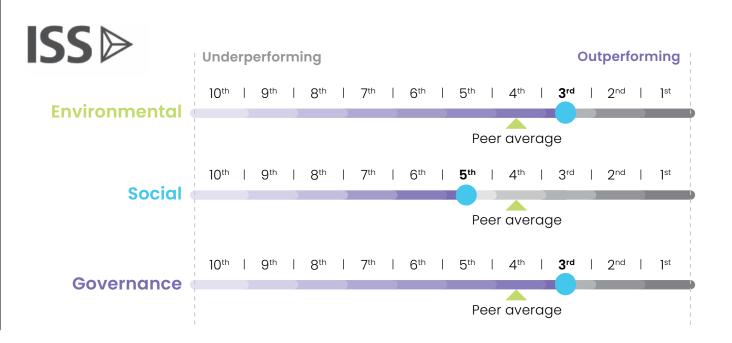
## Sustainability reporting recognition (as at August 31, 2022)

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.









<sup>1</sup> 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.

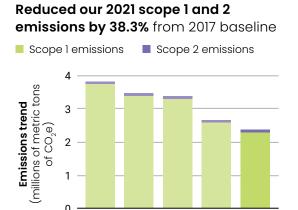
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<sup>&</sup>lt;sup>2</sup> Peer averages are based on the following peer groups: MSCI – Utilities; Sustainalytics – Multi-Utilities; Bloomberg GEI – Participating companies; CDP – Renewable Power Generation; and ISS – Multi-Utilities.

# Environmental

## **Featured KPIs**

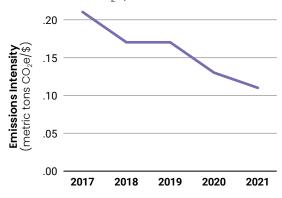
Used reverse osmosis in a power plant to reduce water requirements by **34 million litres per year** 



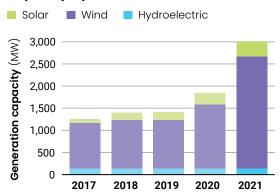
2018 2019 2020 2021

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

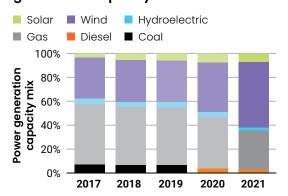
## Decreased our revenue-based scope 1 and 2 GHG emissions intensity by 15% to 0.0011 metric tons CO<sub>2</sub>e/\$ in 2021



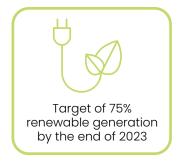
## Increased renewable generation capacity by over 1.1 GW in 2021

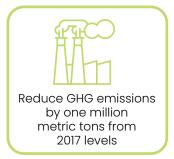


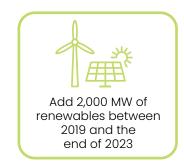
Grew our electricity generation exclusively through renewables, increasing the share of our renewable generation capacity to 65% in 2021



## Interim targets







## Alignment to UN SDGs















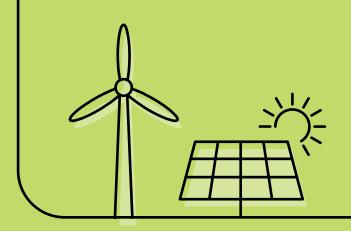




## **Transitioning** to a low-carbon economy

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 lowcarbon 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

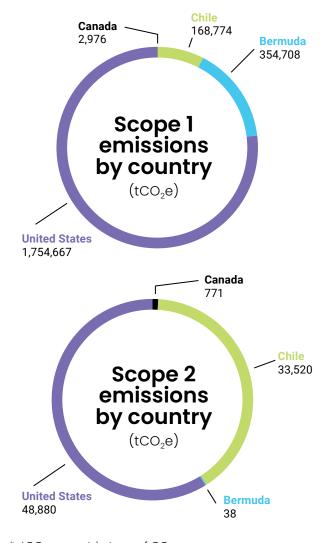
We took a collaborative approach to drafting our roadmap to net-zero by 2050. Our plan benefitted from know-how in fields ranging from engineering and operations to finance and law, receiving input from across our business modalities and perspectives from across our geographies. Through efforts in data 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



\* tCO<sub>2</sub>e = metric tons of CO<sub>2</sub>e

Val Eo / EBR

24 MW



## **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 CO<sub>2</sub>e emissions while supporting important growth and sustainability priorities for Algonquin.
- Decreased our annual GHG emissions by over 900,000 metric tons of CO<sub>2</sub>e 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.

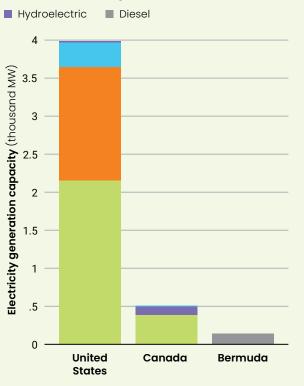
We are proud of the progress we've made in curbing our emissions and are excited about the opportunities ahead as we continue on our net-zero journey.



## 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

Neosho Ridge 300 MW



Altavista 80 MW

Dimension 4 MW

Maverick Creek
492 MW

Algonquin | Liberty 2022 ESG Report



## Renewable natural gas

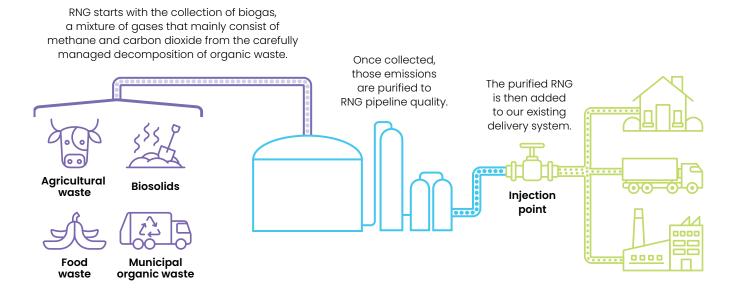
RNG generally has a lower carbon intensity than conventional natural gas, meaning RNG can play an important role in reducing GHG emissions associated with downstream customer gas usage, such as for heating homes.

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.

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.

#### How does RNG work?



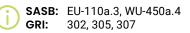


**Jeff Norman** 

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.

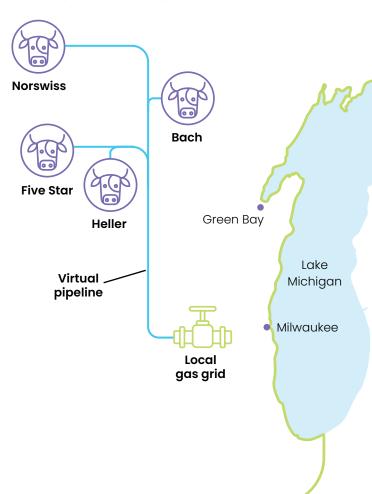
In 2021, we nearly doubled our renewables portfolio by adding over 1,100 MW of renewable energy, bringing four new wind and two new solar facilities to full commercial operation. We've also invested in new energy sources like RNG, giving us an opportunity to apply our expertise in renewable development 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.



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# 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

#### **Regional diversification**

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

## Inherent resilience

Strategic diversification

#### **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.



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).



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.

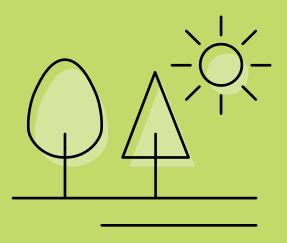


Making important safety information widely accessible in multiple languages to certain communities we serve to help members of language minority groups stay informed and safe during emergency shutoffs. Depending on the area, languages may include English, French, Spanish, German, Mandarin, Vietnamese,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

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## 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,

**Off ROW** 

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 -

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

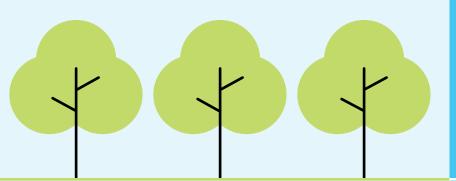


## What is compatible vegetation?

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 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.

Wire Security Zone

GRI: 102-12, 102-21, 102-43, 304

## **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 moved 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 CO<sub>2</sub>-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.



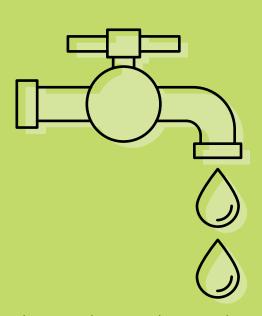
Outlines how training, reporting and emergency response will bolster our efforts to responsibly and safely manage our waste footprint.



## 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

## 

6666666666666678850%

Recycled water delivered<sup>1</sup>

Total 2020: 2,191 million litres



Total 2021: 1,379 million litres



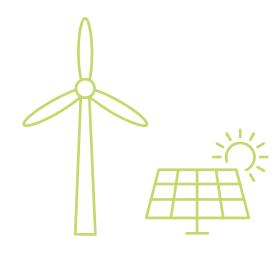


**SASB:** EU-140a.3, WU-240a.4, WU-440a.3, WU-450a.4 **GRI:** 303



## 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.

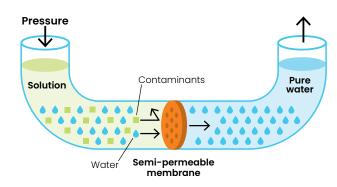


Decrease in 2021 recycled water delivered is in part due to: 1) a large customer served by Liberty's Gold Canyon facility not receiving water for a prolonged period; and 2) a portion of pre-treatment water sent to Liberty's Goodyear treatment facility being below treatable quality to meet irrigation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



## 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.





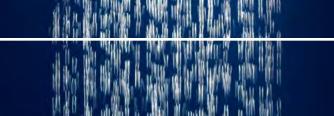
Completed
145 water audits.

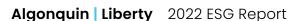


Distributed over 1,750 water efficient devices and issued roughly 3,000 rebates for water efficient devices.



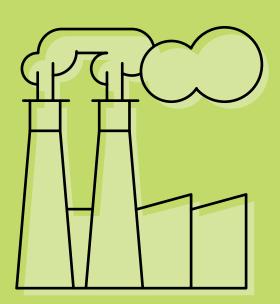
Saved approximately 413 million litres of water through our efficient devices programs.





# 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.



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## **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

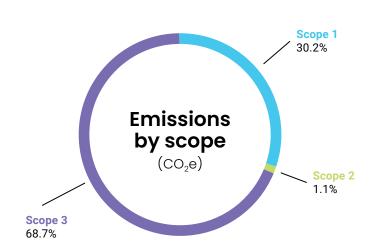
Indirect GHG emissions from the generation of purchased energy consumed by the company.

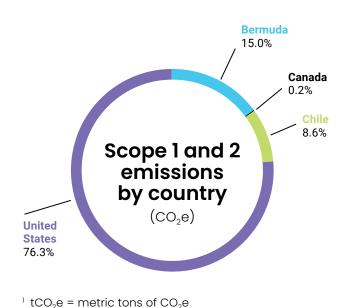
#### Scope 3 emissions

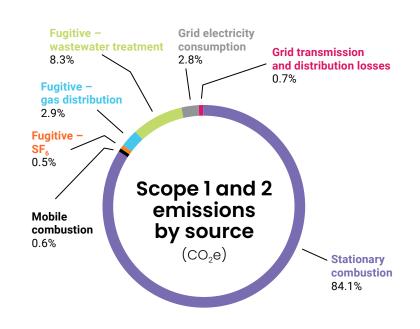
All other indirect emissions that occur in a company's value chain but from sources not owned or controlled by the company.

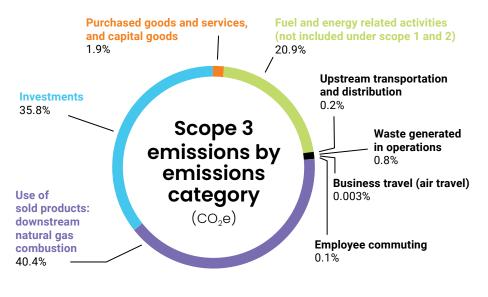


## Our 2021 GHG emissions profile



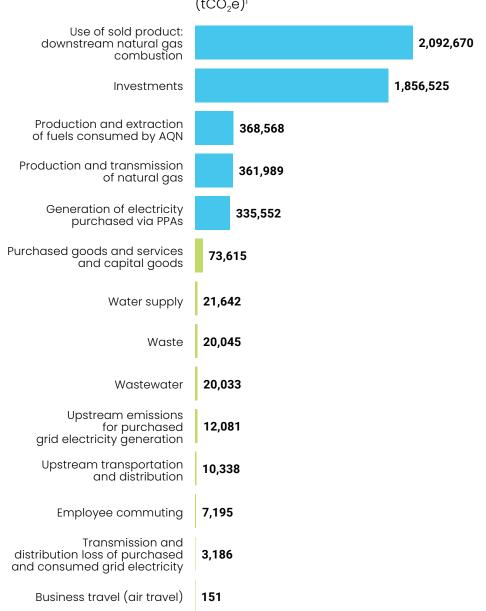












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# Evolution of our GHG inventory

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.



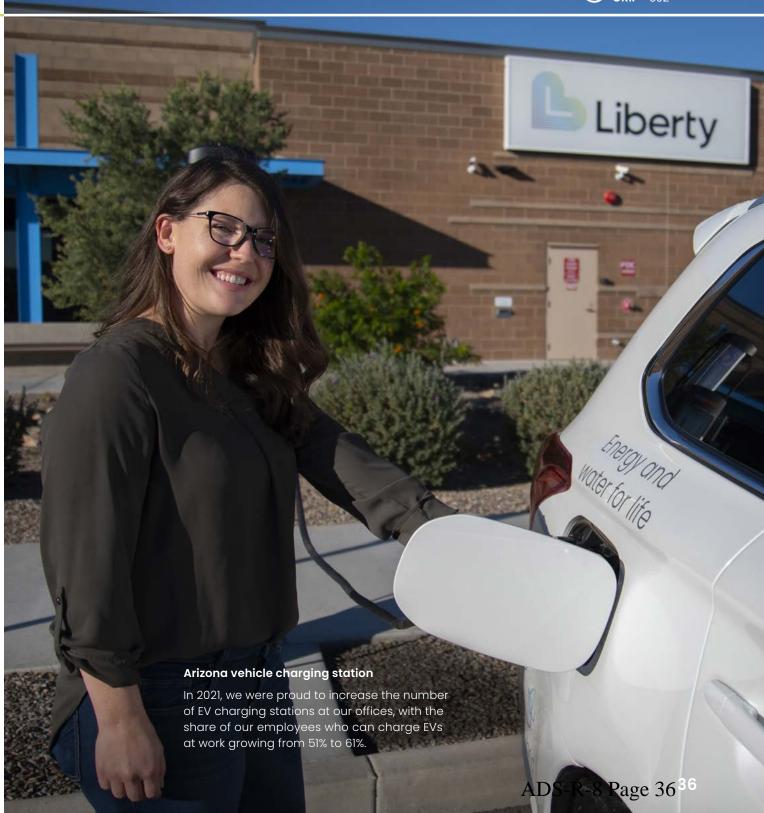


### Improved completeness

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 ( $SF_6$ ) emissions.  $SF_6$  is the most potent greenhouse gas (22,800 times more potent than  $CO_2$ ) 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.





#### **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.

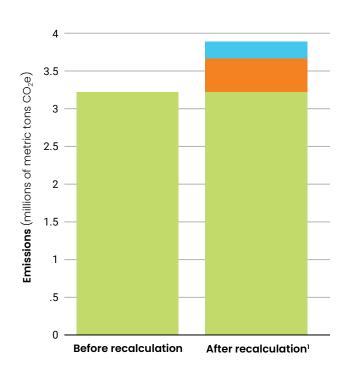
According to our recalculation policy, emissions from acquired facilities should be added to the base year and all previous years' emissions only after one full calendar year of data is available for the facility. Given that the 2021 reporting year is the first calendar year that the full-year data became 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 CO<sub>2</sub>e. 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



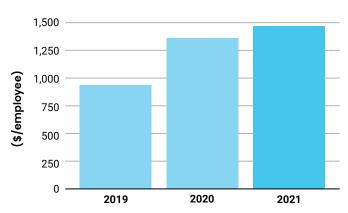
New Brunswick Gas and St. Lawrence Gas contributed 2,847 and 2,389 metric tons of CO<sub>2</sub>e respectively to the recalculated total.



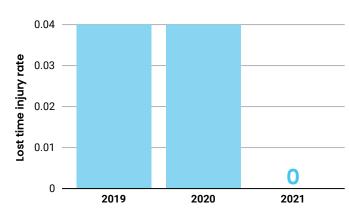
# Social

#### **Featured KPIs**

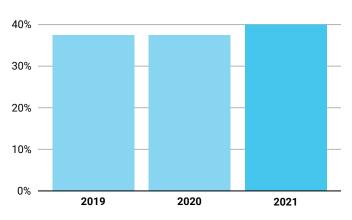
## **Increased average amount** invested per employee on training



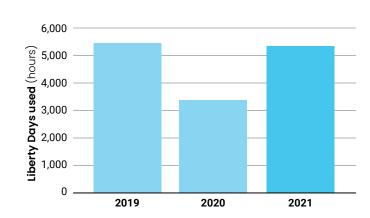
Achieved an industry-leading **0 lost time injury rate**, suffered no fatalities, and decreased our recordable injury rate by 38%



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



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



#### Interim targets





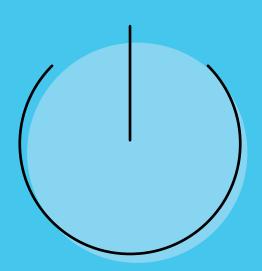


#### Alignment to UN SDGs



# 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.

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

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.

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.



"...this was the

first program in

**TOU** rates and

of innovation

at Algonquin."

the U.S. that paired

behind-the-meter

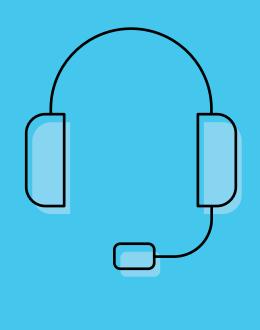
storage along with

is a prime example

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

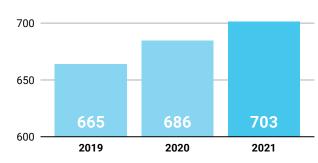
We take pride in our efforts to provide our customers with the best experience possible and this hard work is, reflected in part, through our customer satisfaction scores from J.D. Power, which measure customer satisfaction with utility providers across six factors:

- 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

Water:

89,754 m³ 197,675 MMBtu 24,290 MWh

Gas:

**Electricity:** 



# 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

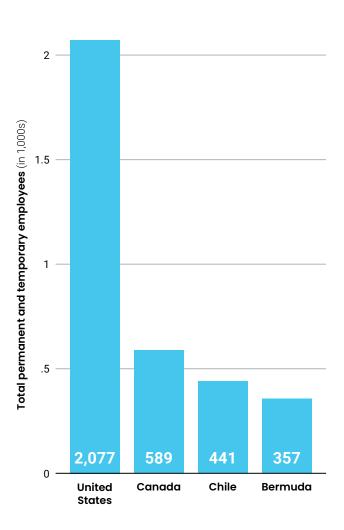
technologies to the communities we serve, create meaningful work, and foster the growth of new industries. However, we also understand that existing carbon-intensive industries play an important role in fueling local economies. This is why, as we transition, we intend to continue offering retraining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

Total amount invested on employee training

Average amount invested per employee





## 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

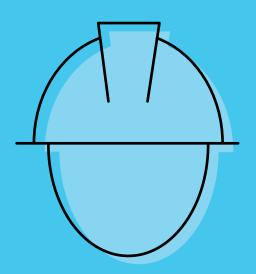
We are dedicated to making Algonquin a great place to work and pursue professional growth.

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.

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# 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.

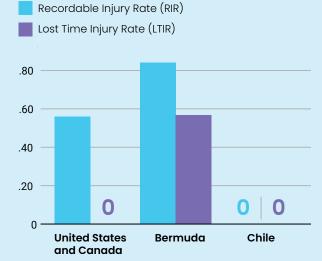




## Recognition for our health and safety performance

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.

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#### **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.

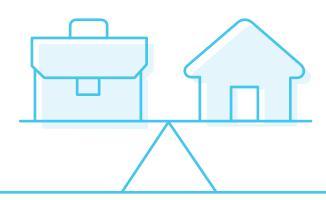


#### **COVID-19 response**

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.





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# 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 DFI 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

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#### 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



**EDGE** 



Women of Liberty



Indigenous Relations



**Angie Custer** 

Co-President, Friends of Liberty



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

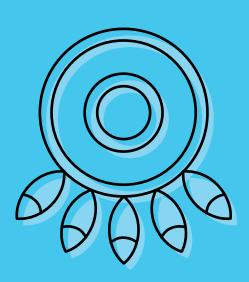
at work and offers an opportunity for support and connection for members of the queer community and allies alike.

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.

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# 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.

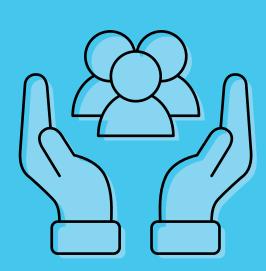


## Training an Indigenous relations group

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.

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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.

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.

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

Coordinating logistics for response and recovery teams during outages.



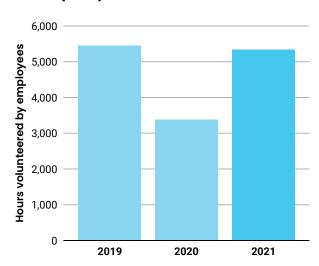




#### **Liberty Days**

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**



#### Algonquin | Liberty 2022 ESG Report

#### **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.

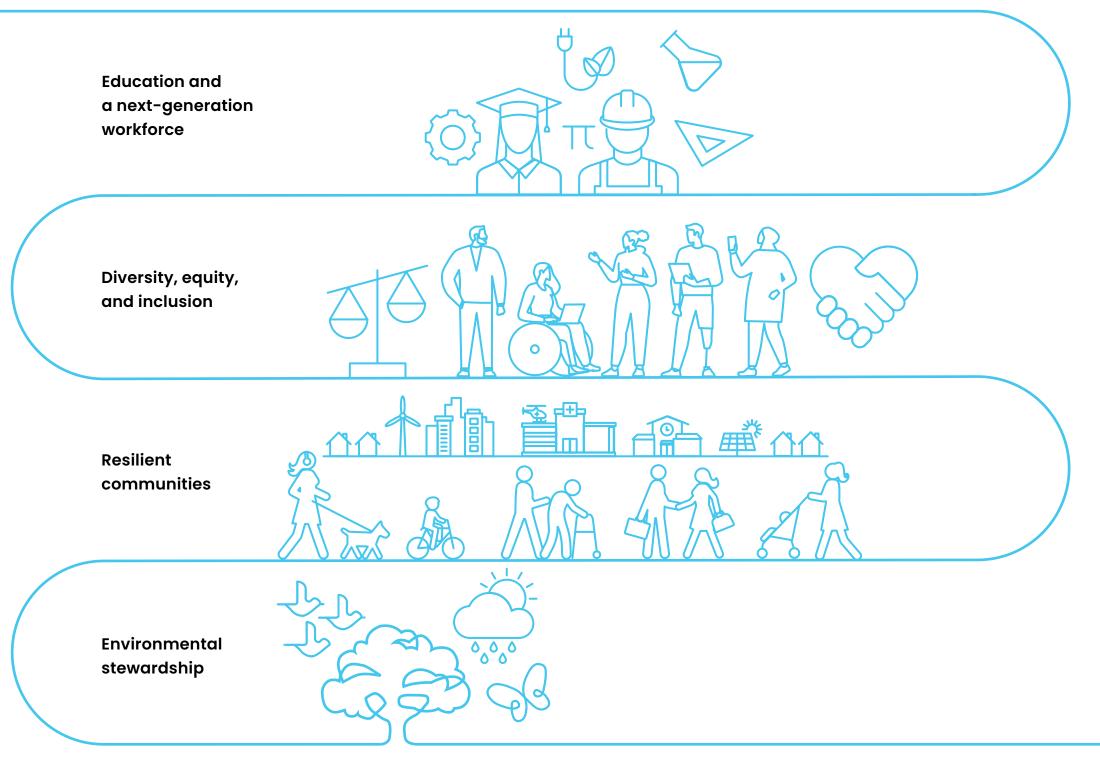


## Community giving strategy

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.

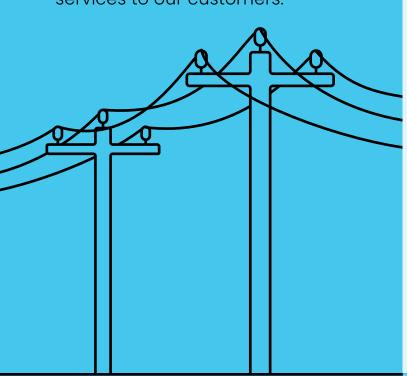
As we look to the future and begin implementing this strategy, we believe these efforts will support enhanced impact in our communities and improved employee engagement.



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# 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.





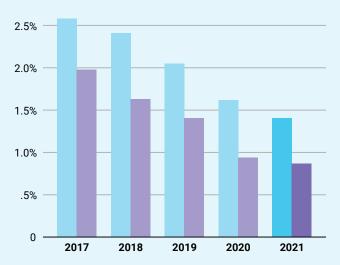
#### Gas pipeline upgrades

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

Cast or wrought iron distribution pipeline

Unprotected 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.

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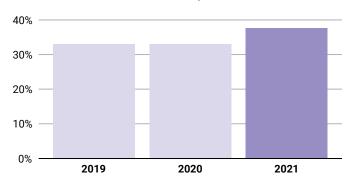
# Governance

#### **Featured KPIs**

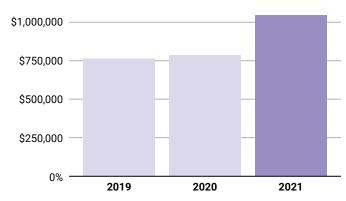
Published and enhanced
policies related to cybersecurity,
human rights, supplier, and
lobbyist codes of conduct

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







#### Alignment to UN SDGs





# Sustainability governance

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

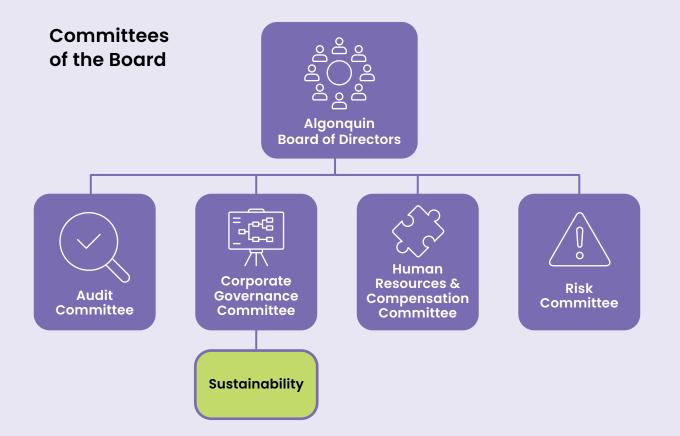




#### Strong corporate governance

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.





#### 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.

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# 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.)





#### **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.

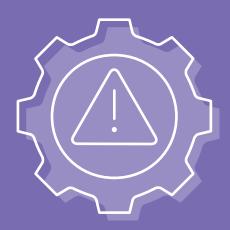
#### **Ethics reporting line**

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

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## 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.

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#### 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

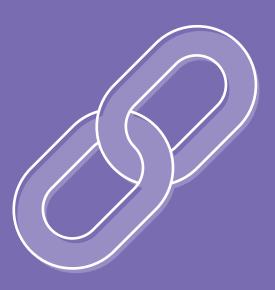
We are committed to providing safe, secure, and reliable services.

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.

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## 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,

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

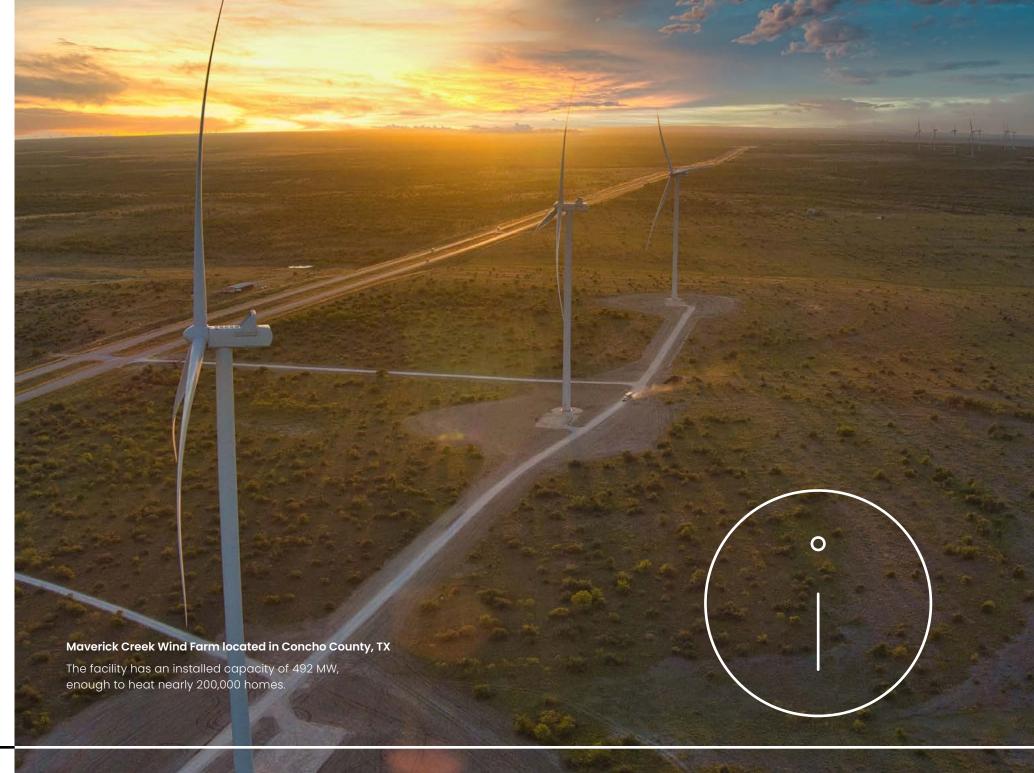
Vice President, Governmental Affairs

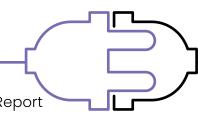
Our new Lobbyist Code of Conduct helps us engage with regulators and policymakers in a manner consistent with our corporate culture and values.

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**

Appendix I: 61 Forward-looking statements and forward-looking information Appendix II: 63 SASB index **Appendix III:** 74 GRI content index **Appendix IV:** 95 Our stakeholders' "ESG materiality" issues defined **Appendix V:** 96 Glossary **Appendix VI:** E1 ESG performance index **Appendix VII:** V1 2021 GHG verification report





#### **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

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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.

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#### Appendix II:

### SASB Index

#### **Electric Utilities and Power Generators**

#### **Legend** (click titles found in tables)

2022 Annual Information Form

AR 2021 Annual Report

CC 2020 CDP Climate Change SurveyCW 2020 CDP Water Security Survey

E ESG Performance Index

I Internal

M 2022 Management Information Circular

S 2022 ESG Report

T 2020 TCFD Climate Change Assessment Report

W External report

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

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 "-".

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<sup>&</sup>lt;sup>2</sup> 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.

 $<sup>^{3}</sup>$  100% of NO  $_{\!\scriptscriptstyle M}$  SO  $_{\!\scriptscriptstyle M}$  PM  $_{\!\scriptscriptstyle 10^{\prime}}$  lead, and mercury emissions are near population centers.

No.	Disclosure		2021	2020	2019
Water managem	nent				
FIL 140 a 1	Total water withdrawn (ML)		11,098	12,232	8,273
EU-140a.1	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	у	1	3	-
EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	S 32-33 Water manager S 56 Risk manager AR 49 Enterprise Risk	nent		
Coal ash manag	ement				
EU-150a.1	Amount of coal combustion residuals (CCR) generated (Mt CO <sub>2</sub> e)		0	0	30,375
	Percentage of CCR recycled		0.0%	0.0%	45.6%
		High Hazard Potential	0	0	0
		Significant Hazard Potential	0	0	1
	Total CCR impoundments by hazard	Low Hazard Potential	0	1	2
		Less Than Low Hazard Potential	0	0	0
FU 150 m 0		Incised	0	0	0
EU-150a.2		Satisfactory	0	1	3
		Fair	0	0	0
	Total CCR impoundments by structural integrity assessment	Poor	0	0	0
		Unsatisfactory	0	0	0
		Not Applicable	0	0	0

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No.	Disclosure		2021	2020	2019	
Energy afforda	bility					
EU-240a.1	Average retail electric rate by customer type (\$/kWh)	Residential	0.13	0.14	0.14	
LO 2400.1	Average retail electric rate by castorner type (\$7,0001)	Commercial and Industrial	0.11	0.12	0.12	
EU-240a.3	Number of residential customer electric disconnections for non-pay	ment	4,320	2,412	6,366	
:0-240d.3	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 51 Infrastructure AR 49 Enterprise Risk	Customer experience and affordability Infrastructure investment and resiliency Enterprise Risk Management Climate change risk control and mitigation		
Workforce Hea	llth & Safety					
EU-320a.1	Total recordable incident rate (TRIR) Total recordable fatality rate (TRFR) Total recordable near miss frequency rate (NMFR)		E 7 Health and sa	fety		
End-Use Efficie	ency & Demand					
-II. 400 -: 1	Percentage of electric utility revenues	Decoupled	46.6%	42.0%	24.0%	
EU-420a.1	from rate structures Lost	revenue adjustment mechanism (LRAM)	0%	0%	0%	
:U-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 (N	ıwh)	24,290	19,042	20,338	

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No.	Disclosure		2021	2020	2019
Frid Resiliency					
EU-550a.1	Number of incidents of non-compliance with physi	ical and/or cybersecurity standards or regulations	-	1	2
	System Average Interruption Duration Index (SAIDI)		187.4	115.9	219.0
U-550a.2	System Average Interruption Frequency Index (SAIF	FI)	1.3	1.0	2 219.0 1.4 161.2  227,200 42,100  2,488,100 3,944,500  2,287 12,337  9,477,090  8.7% 43.1% 0.0% 6.0%
		Customer Average Interruption Duration Index (CAIDI)		114.8	161.2
Activity Metrics <sup>®</sup>	5				
-		Residential	260,600	259,600	227,200
EU-000.A	Average active customer connections  Commercial and Indus		42,100	42,200	42,100
EU-000.B	Total electricity delivered (MWh)  Commercial and Industrial		2,769,700	2,485,900	2,488,100
			3,701,100	3,406,000	3,944,500
	Length of transmission lines (km)		2,021	2,279	2,287
:0-000.C	Length of distribution lines (km)		13,655	12,977	12,337
	Total electricity generated (MWh)		12,837,833	9,499,073	9,477,090
		Coal	0.0%	0.0%	8.7%
		Natural Gas	29.5%	48.8%	43.1%
		Diesel	4.4%	0.9%	0.0%
U-000.D	Percentage by energy source	Hydropower	4.5%	5.7%	
	J . J.	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 Commercial and Industrial Transportation	11.49 6.41 0.81	11.18 6.41 1.01	12.35 6.48 0.85
GU-240a.3	Number of residential disconnections (non-payment) Percentage reconnected within 30 days		12,287 63%	6,228 55%	17,333 53%
GU-240a.4	Discussion of impact of external factors on customer afforda including the economic conditions of the service territory	ability of gas,	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		
End-use efficiency					
GU-420a.1	Percentage of gas utility revenues from rate structures	Decoupled Lost revenue adjustment mechanism (LRAM)	86% 0%	86% 0%	86% 0%
GU-420a.2	Customer gas savings – efficiency measures (MMBtu)		197,675	195,890	198,690

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No.	Disclosure		2021	2020	2019
Integrity of age	delivery infrastructure				
Three grity or gus			11	10	7
GU-540a.1	Number of reportable pipeline incidents  Number of corrective action orders (CAO)		11 0	12 1	0
0 0 0 10 0	Number of notices of probable violation (NOPV)		22	13	15
CIL 540a 2	Distribution pipeline that is cast/wrought iron (%)		1.40%	1.60%	2.05%
GU-540a.2  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 Customer experience and affordability S 51 Infrastructure investment and resiliency AR 49 Enterprise Risk Management T 16 Climate change risk control and mitigation		
Activity metrics					
GU-000.A	Average active customer connections	Residential Commercial and Industrial	318,600 38,100	317,100 37,700	303,100 35,600
GU-000.B	Gas delivered (MMBtu)	Residential Commercial and Industrial	20,703,000 18,696,000	21,214,000 18,362,000	20,213,000 15,676,000
	Length of transmission pipelines (km)		16.0	19.8	20.9
GU-000.C	Length of distribution pipelines (km)		13,623.0	13,485.7	12,276.4

#### **Water Utilities and Services**

No.	Disclosure		2021	2020	2019
Energy manage	ement				
WU-130a.1	Energy consumption	Total energy consumed (GJ)	516,843	292,726	225,430
WO 1300.1	Energy consumption	Percentage grid electricity	96.0%	93.0%	91.0%
Distribution net	twork 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	v management				
WU-140b.1	Number of incidents of non-compliance associated		13	9	-
	with water effluent quality permits, standards, and regulations				
			While contaminants of e		
WU-140b.2	Discussion of strategies to manage effluents of emerging concern		not regulated, Algonquin effluents on a case-by-c	case basis through educe	ation, recycling,
			new technologies, and lir	miting the source of the c	constituent.

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No.	Disclosure		2021	2020	2019
Water affordab	pility and access				
WU-240a.1	North America	Residential Commercial and Industrial	0.05 0.04	0.05 0.03	0.06 0.04
	Average retail water rate (\$/100 CCF) — Chile	Residential Commercial and Industrial	0.71 0.70	-	-
WU-240a.3	Number of residential disconnections (non-payment)		1,474	1,973	8,280
WU-2400.3	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 32-33 Water manage S 51 Infrastructure i AR 49 Enterprise Risk	ner experience and affordability management ructure investment and resiliency rise Risk Management e change risk control and mitigation	

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No.	Disclosure		2021	2020	2019	
Drinking water o	quality					
		Acute health-based	0	0	-	
WU-250a.1	Number of drinking water violations	Non-acute health-based	3	0	-	
		Non-health-based	2	1	-	
WU-250a.2  End-use efficier	Discussion of strategies to manage drinking water contaminants of emerging concern	surpasses all state and federal health standards for tap water in the communities where it does busines. 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.				
WU-420a.2	Customer water savings from efficiency measures, by market (r	n³)	89,754	75,213	89,732	
Water supply re	siliency					
WU-440a.1	Total water sourced from regions with high or extremely high ba	seline 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		AR 49 Enterprise Risk I	nvestment and resiliency		

No. Disclosure 2021 2020 2019

#### Network resiliency and impacts of climate change

WU-450a.1	Wastewater treatment capacity located in 100-year flood zones (m³/day)		1,345	1,341	829	
WU-450a.2	Number of Sanitary sewer overflows (SSO) Volume of Sanitary sewer overflows (SSO) – (m³) Percentage of volume recovered			669 3,353 0.6%	21 304 37.4%	32 505 -
WU-450a.3	Unplanned service disruptions (number of occurrences and number of customer connections affected)	< 4 Hours	Occurrences Connections	707 82,068	230 3,711	220 949
		4 – 12 Hours	Occurrences Connections	203 59,696	13 129	33 197
		> 12 Hours	Occurrences Connections	9 10,036	0 0	1 12
WU-450a.4	· · · · · · · · · · · · · · · · · · ·	escription of efforts to identify and manage risks and opportunities related to ne impact of climate change on distribution and wastewater infrastructure		S 40 Customer expensions S 32-33 Water manage S 51 Infrastructure i AR 49 Enterprise Risk	nvestment and resiliency	,

No.	Disclosure		2021	2020	2019
<b>Activity metrics</b>					
WU-000.A	Average active wastewater connections		46,500	45,300	43,900
WU-000.A	Average active water distribution connections		359,200	355,500	115,500
		Total water sourced (megaliters)	134,138	69,033	54046
		Surface Water	15.3%	7.5%	-
WU-000.B	Percentage of water sourced by source type	Groundwater	79.6%	78.6%	-
		Third-Party Water	5.2%	13.6%	-
		Other	-	0.2%	-
	Wastewater treated (megaliters)		10,478	9,596	8,850
WU-000.C	Water provided (megaliters)		106,737	73,130	57,553
		Sanitary sewer	32,510	46,465	-
WU-000.D	Average volume of wastewater treated per day (m³/day)	Storm water sewer	-	-	-
		Combined sewer	236,453	183,540	-
W. L. 000 F	Length of water mains (km)		7,181	3,208	3,976
WU-000.E	Length of sewer pipes (km)		3,153	980	1,037

## Appendix III:

## **GRI Content Index**<sup>1</sup>

**Legend** (click titles found in tables)

2022 Annual Information Form

2021 Annual Report

CC 2020 CDP Climate Change Survey

CW 2020 CDP Water Security Survey

ESG Performance Index

I Internal

M 2022 Management Information Circular

S 2022 ESG Report

T 2020 TCFD Climate Change Assessment Report

W External report

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

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 "-".

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No.	Disclosure	Source and notes	Priority issue alignment
Organizație	onal 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:  • 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:  • Department of Energy (DEO)  • Environmental Protection Agency (EPA)  • Independent Electric Systems Operator (IESO)  • National Energy Board (NEB)	

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No.	Disclosure		and notes	Priority issue alignment
Strategy				
102-14	Statement from senior decision-maker	S 8-9	Letter from the President and Chief Executive Officer	
		S 8-9	Letter from the President and Chief Executive Officer	
102-15	Key impacts, risks, and opportunities	S 16	Stakeholder engagement	
		T	TCFD Climate Change Assessment Report	
Ethics and	integrity			
		S 12	About us	
102-16	Values, principles, standards, and norms of behavior	S 14	Our values, purpose, and guiding principles	
102 10	values, principles, standards, and norms of behavior	W	Who we are	
		М 34	Corporate governance practices	
		S 55	Ethics and integrity	
102-17	Mechanisms for advice and concerns about ethics	W	AQN Ethics Reporting Policy	
		M 34	Corporate governance practices	
Governand	ce			
		S 15	Our ESG journey	
102-18	Governance structure	S 53	Sustainability governance	
102-16	Governance structure	S 54	ESG oversight	
		М 34	Corporate governance practices	
		S 53	Sustainability governance	
		M 41	Committees of the Board of Directors	
102-19	Delegating authority	M 46	Position descriptions	
		W	Mandate of the Risk Committee	
		W	Mandate of the Corporate Governance Committee	

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

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No.	Disclosure	Source	and notes	Priority issue alignment
Governance	ce (continued)			
		S 53	Sustainability governance	
102-31	Review of economic, environmental, and social topics	A 27	Oversight of sustainability	
		W	Mandate of the Corporate Governance Committee	
		S 53	Sustainability governance	
102-32	Highest governance body's role in sustainability reporting	A 27	Oversight of sustainability	
	W	Mandate of the Corporate Governance Committee		
		S 25-2	6 Climate resiliency and energy efficiency	
102-33	Communicating critical concerns	S 55	Ethics and integrity	
		S 56	Risk management	
102-34	Nature and total number of critical concerns	No crit	ical concerns have been identified	
102-35	Demunaration policies	М 55	Executive compensation	
102-35	Remuneration policies	M 82	Executive compensation information	
102-36	Process for determining remuneration	M 55	Executive compensation	
102-37	Stakeholders' involvement in remuneration	М 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	

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No.	Disclosure	Source a	and notes	Priority issue alignment
Stakehold	er 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	
		S 8-9	Letter from the President and Chief Executive Officer	
		S 16	Stakeholder engagement	
102-43	Approach to stakeholder engagement	S 27-30	,	
		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	
		S 8-9	Letter from the President and Chief Executive Officer	
100 40		S 5-7	Executive summary	
102-46	Defining report content topic boundaries	S 10	About this report	
		S 16	Stakeholder engagement	
		S 8-9	Letter from the President and Chief Executive Officer	
102-47	List of material topics	S 16	Stakeholder engagement	
100 40	Doubleton and of information	S 10	About this report	
102-48	Restatements of information	AR 95	Acquisitions	
100, 40		S 8-9	Letter from the President and Chief Executive Officer	
102-49	Changes in reporting	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	

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No.	Disclosure	Source a	and notes Priority issue alignment
Stakeholder	r 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	4 Appendix: GRI Index
102-56	External assurance	W	2021 GHG Verification Report

## **Economic**

#### **Economic Performance**

103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	AR	MD&A	
201-1	Direct economic value generated and distributed	E 6	Economic value generated and distributed	Climate resiliency
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> <li>Transitioning to a low-carbon economy</li> <li>Talent attraction and retention</li> <li>Infrastructure investment and resiliency</li> <li>Employee health and safety</li> </ul>
201-3	Defined benefit plan obligations and other retirement plans	E 15	Defined benefit plan	<ul><li> Ethics and integrity</li><li> Transparency and disclosure</li></ul>
201-4	Financial assistance received from government	from v Algon Financ	quin receives various forms of financial assistance various levels of government in the regions it operates. quin does not currently track this information centrally. cially material assistance from governments is reported onquin's annual filings.	Risk management

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No.	Disclosure	Source and notes	Priority issue alignment
Market pre	esence		
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		Talent attraction and retention
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> <li>Community support and economic development</li> <li>Diversity, equity, and inclusion</li> <li>Ethics and integrity</li> </ul>
202-2	Proportion of senior management hired from the local community	Algonquin does not document the location of employees prior to employment.	
Indirect ed	conomic impacts		
Indirect ed	conomic impacts	S 12 About us	
	Explanation of the material topic and its boundary	S 14 Our values, purpose, and guiding principles	Climate resiliency
03-1	·	S 14 Our values, purpose, and guiding principles S 15 Our ESG journey	<ul> <li>Transitioning to a low-carbon economy</li> </ul>
03-1  03-2	Explanation of the material topic and its boundary	<ul><li>S 14 Our values, purpose, and guiding principles</li><li>S 15 Our ESG journey</li><li>S 16 Stakeholder engagement</li></ul>	<ul> <li>Transitioning to a low-carbon economy</li> <li>Greenhouse gas and air emissions</li> </ul>
03-1 03-2	Explanation of the material topic and its boundary The management approach and its components	S 14 Our values, purpose, and guiding principles S 15 Our ESG journey	<ul> <li>Transitioning to a low-carbon economy</li> </ul>
103-1 103-2	Explanation of the material topic and its boundary The management approach and its components	S 14 Our values, purpose, and guiding principles S 15 Our ESG journey S 16 Stakeholder engagement S 53 Sustainability governance S 54 ESG oversight	<ul> <li>Transitioning to a low-carbon economy</li> <li>Greenhouse gas and air emissions</li> <li>Customer experience and affordability</li> </ul>
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 14 Our values, purpose, and guiding principles S 15 Our ESG journey S 16 Stakeholder engagement S 53 Sustainability governance S 54 ESG oversight  S 12 About us	<ul> <li>Transitioning to a low-carbon economy</li> <li>Greenhouse gas and air emissions</li> <li>Customer experience and affordability</li> <li>Energy reliability</li> <li>Talent attraction and retention</li> <li>Community support and economic development</li> </ul>
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components	S 14 Our values, purpose, and guiding principles S 15 Our ESG journey S 16 Stakeholder engagement S 53 Sustainability governance S 54 ESG oversight  S 12 About us S 13 Where we are	<ul> <li>Transitioning to a low-carbon economy</li> <li>Greenhouse gas and air emissions</li> <li>Customer experience and affordability</li> <li>Energy reliability</li> <li>Talent attraction and retention</li> <li>Community support and economic development</li> <li>Infrastructure investment and resiliency</li> </ul>
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 14 Our values, purpose, and guiding principles S 15 Our ESG journey S 16 Stakeholder engagement S 53 Sustainability governance S 54 ESG oversight  S 12 About us	<ul> <li>Transitioning to a low-carbon economy</li> <li>Greenhouse gas and air emissions</li> <li>Customer experience and affordability</li> <li>Energy reliability</li> <li>Talent attraction and retention</li> <li>Community support and economic development</li> <li>Infrastructure investment and resiliency</li> <li>Cybersecurity</li> </ul>
103-1 103-2 103-3 203-1	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 14 Our values, purpose, and guiding principles S 15 Our ESG journey S 16 Stakeholder engagement S 53 Sustainability governance S 54 ESG oversight  S 12 About us S 13 Where we are	<ul> <li>Transitioning to a low-carbon economy</li> <li>Greenhouse gas and air emissions</li> <li>Customer experience and affordability</li> <li>Energy reliability</li> <li>Talent attraction and retention</li> <li>Community support and economic development</li> <li>Infrastructure investment and resiliency</li> </ul>

No.	Disclosure	Source and notes		Priority issue alignment	
Procureme	ent practices				
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 58 W	Sustainable procurement Policy on Supplier Code of Conduct	Community support and economic development	
204-1	Procurement budget used for local suppliers	procur is only	uin spends approximately 2% of its annual ement budget on local suppliers. This data collected as per regulatory requirements nquin's California-based operations.	Sustainable procurement	
Anti-corru	ption				
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 some untion	S 59 Government affairs and public ons assessed for risks related to corruption	Government affairs and public policy	<ul><li>Ethics and integrity</li><li>Transparency and disclosure</li></ul>	
205-1	Operations assessed for risks related to corruption	E 18	Anti-corruption	Risk management	
205.0	Communication and training about	S 59	Government affairs and public policy	Cybersecurity	
205-2	anti-corruption policies and procedures	E 18	Anti-corruption		
205-3	Confirmed incidents of corruption and actions taken	E 18	Anti-corruption		
Anti-comp	petitive 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	Ethics and integrity	
103-3	Evaluation of the management approach			Transparency and disclosure	
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	E 18	Anti-competitive	• Risk management	

## **Environment**

### Energy

103-2 103-3 302-1	The management approach and its components  Evaluation of the management approach  Energy consumption within the organization	S 25-26 Climate resiliency and energy efficiency S 34-36 Greenhouse gas (GHG) and air emissions I 63 Electric Utilities and Power Generators I 67 Gas Utilities and Distributors CC CDP Climate Change Survey  E 23 Internal energy consumption	<ul> <li>Transitioning to a low-carbon economy</li> <li>Greenhouse gas and air emissions</li> <li>Energy efficiency</li> </ul>
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.	<ul><li>Land use and biodiversity</li><li>Customer experience and affordability</li><li>Energy reliability</li><li>Risk management</li></ul>
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	

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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	<u> </u>
		S 32-33 Water management	
202.1	Interactions with water as a shared resource	T 24 Regulated services: Climate-related risks and opportunities	
303-1		CW 1 Current State	<ul> <li>Climate resiliency</li> </ul>
		CW 3 Procedures	<ul><li>Land use and biodiversity</li><li>Water management</li></ul>
		S 32-33 Water management	Public health and safety
303-2	Management of water discharge-related impacts	CW1 Current State	<ul> <li>Customer experience and affordability</li> </ul>
		CW 3 Procedure	
303-3	Water withdrawal	E 25 Water withdrawal	<del></del>
303-4	Water discharge	E 25 Water discharge	<del></del>
303-5	Water consumption	E 25 Water consumption	<del></del>
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No.	Disclosure	Source and notes	Priority issue alignment
Biodiversity			
103-1	Explanation of the material topic and its boundary	W Our Commitment to Sustainability	
03-2	The management approach and its components	S 27-30 Land use and biodiversity	
03-3	Evaluation of the management approach	S 47 Indigenous relations	
		E 27 Species impact	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	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><li>Climate resiliency</li><li>Land use and biodiversity</li><li>Ethics and integrity</li><li>Risk management</li></ul>
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.	

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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 Our Commitment to Sustainability CC CDP Climate Change Survey	
305-1	Direct (Scope 1) GHG emissions	S 35 Our 2021 GHG emissions profile E 19 Scope 1 emissions	
305-2	Energy indirect (Scope 2) GHG emissions	S 35 Our 2021 GHG emissions profile E 19 Scope 2 emissions	<ul> <li>Climate resiliency</li> <li>Transitioning to a low-carbon economy</li> <li>Greenhouse gas and air emissions</li> </ul>
305-3	Other indirect (Scope 3) GHG emissions	S 35 Our 2021 GHG emissions profile E 20 Scope 3 emissions	Public health and safety
305-4	GHG emissions intensity	E 19 Scope 1 and Scope 2 emissions	
305-5	Reduction of GHG emissions	S 22-24 Transitioning to a low-carbon economy and managing S 34-36 Greenhouse gas (GHG) and air emissions E 19 Scope 1 emissions	ng our emissions
305-6	Emissions of ozone-depleting substances (ODS)	E 22 Other emissions from electricity generation	
305-7	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	E 22 Other emissions from electricity generation	

No.	Disclosure	Source a	and notes	Priority issue alignment
Waste				
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 31	Waste and materials management	
306-1	Waste generation and significant waste-related impacts	S 31	Waste and materials management	Climate resiliency
306-2	Management of significant waste-related impacts	S 31	Waste and materials management	<ul> <li>Land use and biodiversity</li> </ul>
306-3	Waste generated	E 26	Waste generation	Waste and materials management
306-4	Waste diverted form disposal	E 26	Waste diverted	
306-5	Waste directed to disposal	E 26	Waste directed to disposal	
Environme	ental compliance			
103-1	Explanation of the material topic and its boundary	S 22-24	Transitioning to a low-carbon economy and managing our emissions	Climate resiliency
103-2	The management approach and its components	S 54	ESG oversight	<ul> <li>Transitioning to a low-carbon economy</li> </ul>
103-3	Evaluation of the management approach	W	Our Commitment to the Environment	<ul> <li>Ethics and integrity</li> </ul>
		W	CCR Compliance	<ul><li>Transparency and disclosure</li><li>Risk management</li></ul>
307-1	Non-compliance with environmental laws and regulations	E 27	Compliance with environmental laws and regulations	Makinghagaman

No.	Disclosure	Source and notes	Priority issue alignment
Supplior o	nvironmental assessment		
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 58 Sustainable procurement W Policy on Supplier Code of Conduct	
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><li>Climate resiliency</li><li>Ethics and integrity</li><li>Sustainable procurement</li></ul>
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			
Employme	ent		
103-1	Explanation of the material topic and its boundary		
103-2 103-3	The management approach and its components Evaluation of the management approach	S 41-42 Talent attraction and retention	
401-1	New employee hires and employee turnover	S 41-42 Talent attraction and retention E 14 Hiring rates E 14 Turnover rates	<ul> <li>Talent attraction and retention</li> <li>Employee health and safety</li> <li>Ethics and integrity</li> </ul>
		Algonquin's full-time employees are eligible for the following benefits:	. Lunos and integrity
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	life insurance, health care, disability and invalidity coverage, parental leave, retirement provision, and stock ownership.	

No.	Disclosure	Source and notes	Priority issue alignment
Labour/ma	anagement relations		
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 43-44 Employee health and safety W AQN Code of Business Conduct and Ethics	<ul><li>Public health and safety</li><li>Talent attraction and retention</li></ul>
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.	<ul><li>Employee health and safety</li><li>Ethics and integrity</li></ul>
Occupation	nal health and safety		
103-1 103-2 103-3	Explanation of the material topic and its boundary  The management approach and its components  Evaluation of the management approach	S 43-44 Employee health and safety A 27 Environmental, health and safety 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.	<ul> <li>Talent attraction and retention</li> <li>Employee health and safety</li> </ul>
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).	Ethics and integrity
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
Occupatio	nal 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 ar	nd education		
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 41-42 Talent attraction and retention	
404-1	Average hours of training per year per employee	E 16 Training	Transitioning to a law carbon accords
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> <li>Transitioning to a low-carbon econom</li> <li>Talent attraction and retention</li> <li>Employee health and safety</li> <li>Diversity, equity, and inclusion</li> <li>Risk management</li> </ul>
404-3	Programs for upgrading employee skills and transition assistance programs	E 16 Performance reviews	

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Disclosure	Source	and notes	Priority issue alignment
nd equal opportunity			
Explanation of the material topic and its boundary	S 45-46	6 Diversity, equity, and inclusion	
The management approach and its components	S 58	Sustainable procurement	
Evaluation of the management approach	W	AQN Board and Executive Diversity Policy	<ul><li>Talent attraction and retention</li><li>Diversity, equity, and inclusion</li></ul>
	M 26	Director skills matrix	<ul> <li>Ethics and integrity</li> </ul>
Diversity of governance bodies and employees	E 9	Employee demographics	<ul> <li>Transparency and disclosure</li> </ul>
	E 17	Board of directors	
Ratio of basic salary and remuneration of women to men	E 13	Employee compensation by gender and level	
mination			
Explanation of the material topic and its boundary			<ul> <li>Talent attraction and retention</li> </ul>
The management approach and its components	W	AQN Code of Business Conduct and Ethics	Employee health and safety
Evaluation of the management approach			<ul><li>Diversity, equity, and inclusion</li><li>Ethics and integrity</li></ul>
			Transparency and disclosure
Incidents of discrimination and corrective actions taken	E 16	Discrimination incidents	<ul> <li>Risk management</li> </ul>
digenous peoples			
Explanation of the material topic and its boundary			<ul> <li>Public health and safety</li> </ul>
The management approach and its components	S 47	Indigenous relations	<ul> <li>Indigenous relations</li> </ul>
Evaluation of the management approach			<ul><li>Employee health and safety</li><li>Diversity, equity, and inclusion</li></ul>
			Ethics and integrity
Incidents of violations involving	F 17	Indiaenous relations	<ul> <li>Risk management</li> </ul>
rights of Indigenous peoples	L 1/	margeneds relations	<ul><li>Governmental affairs and public policy</li><li>Sustainable procurement</li></ul>
	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach  Diversity of governance bodies and employees  Ratio of basic salary and remuneration of women to men  mination  Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach  Incidents of discrimination and corrective actions taken  digenous peoples  Explanation of the material topic and its boundary The management approach and its components Evaluation of the material topic and its boundary The management approach and its components Evaluation of the management approach Incidents of violations involving	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach  M 26 Diversity of governance bodies and employees E 9 E 17  Ratio of basic salary and remuneration of women to men Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach  Incidents of discrimination and corrective actions taken  Explanation of the material topic and its boundary S 47  Explanation of the management approach  Explanation of the material topic and its boundary The management approach and its components Explanation of the material topic and its boundary The management approach and its components Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach  Diversity of governance bodies and employees  Ratio of basic salary and remuneration of women to men  Explanation of the material topic and its boundary The management approach  M 26 Director skills matrix E 9 Employee demographics E 17 Board of directors  Ratio of basic salary and remuneration of women to men  E 13 Employee compensation by gender and level  mination  Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach  Incidents of discrimination and corrective actions taken  E 16 Discrimination incidents  digenous peoples  Explanation of the material topic and its boundary The management approach and its components Evaluation of the material topic and its boundary The management approach and its components Evaluation of the material topic and its boundary The management approach and its components Evaluation of the material topic and its boundary The management approach and its components Evaluation of the management approach  E 17 Indigenous relations

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No.	Disclosure	Source and notes	Priority issue alignment	
Human rig	ghts assessment			
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	W AQN Human Rights Policy W AQN Code of Business Conduct and Ethics W Policy on Supplier Code of Conduct S 55 Ethics and integrity	<ul> <li>Public health and safety</li> </ul>	
412-1	Operations that have been subject to human rights reviews or impact assessments	E 17 Human rights	<ul> <li>Talent attraction and retention</li> <li>Employee health and safety</li> <li>Ethics and integrity</li> </ul>	
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.	<ul> <li>Risk management</li> <li>Sustainable procurement</li> </ul>	
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 com	ımunities			
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 41 Talent attraction and retention S 48-50 Community support and economic development W Liberty economic development	<ul> <li>Public health and safety</li> <li>Community support and economic development</li> <li>Indigenous relations</li> </ul>	
413-1	Operations with local community engagement, impact assessments, and development programs	S 49 Community support and economic development E 6 Community engagement	<ul><li>Ethics and integrity</li><li>Transparency and disclosure</li><li>Risk management</li></ul>	
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.	Sustainable procurement	

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No.	Disclosure	Source and notes	Priority issue alignment	
- "				
Supplier soci	al 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		<ul><li>Public health and safety</li><li>Community support and</li></ul>	
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.	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.	Sastaniasis productions	
Public policy				
03-1	Explanation of the material topic and its boundary			
03-2	The management approach and its components	S 59 Governmental affairs and public policy W Policy on Lobbyist Code of Conduct	Ethics and integrity	
103-3	Evaluation of the management approach	vv Tolicy of Lobbyist Code of Conduct	<ul> <li>Transparency and disclosure</li> </ul>	
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><li>Risk management</li><li>Governmental affairs and public policy</li></ul>	

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No.	Disclosure	Source and notes	Priority issue alignment
Customer	health and safety		
103-1 103-2 103-3	Explanation of the material topic and its boundary The management approach and its components Evaluation of the management approach	S 25-26 Climate resiliency and energy efficiency	<ul><li>Public health and safety</li><li>Customer experience and affordability</li><li>Energy reliability</li></ul>
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><li>Employee health and safety</li><li>Ethics and integrity</li><li>Transparency and disclosure</li></ul>
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.	Risk management
Customer	privacy		
103-1	Explanation of the material topic and its boundary	W AQN Code of Business Conduct and Ethics	<ul> <li>Public health and safety</li> </ul>
103-2	The management approach and its components	W Privacy policy	Customer experience and affordability
103-3	Evaluation of the management approach	S 56 Risk management	<ul><li>Ethics and integrity</li><li>Risk management</li></ul>
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	E 6 Cybersecurity	<ul><li>Cybersecurity</li><li>Sustainable procurement</li></ul>
Socioecor	nomic compliance		
103-1	Explanation of the material topic and its boundary		<ul> <li>Public health and safety</li> </ul>
103-2	The management approach and its components	S 55 Ethics and integrity	Ethics and integrity
103-3	Evaluation of the management approach		Transparency and disclosure
	Non-compliance with laws and regulations	E 18 Social and economic compliance	<ul> <li>Risk management</li> <li>Governmental affairs and public policy</li> </ul>

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## **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

AQN Algonquin Power & Utilities Corp.

AMI Advanced metering infrastructure

BELCO Bermuda Electric Light Company Limited

American Gas Association

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<sub>6</sub> Sulfur hexafluoride

TCFD Task Force on Climate-Related Financial Disclosures

TOU Time-of-use

#### Measurements

CO<sub>2</sub>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<sub>2</sub>e Metric tons of CO<sub>2</sub>e

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# 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.



## 2021 Algonquin ESG performance index <sup>1</sup>

Summary		2021	2020	2019
Environment				
	Scope 1	2,281,126	2,580,834	3,306,596
Greenhouse Gas (GHG) emissions (Mt	CO <sub>2</sub> e) <sup>2</sup> Scope 2	83,210	72,831	77,736
	Intensity (Mt CO <sub>2</sub> e/\$USD revenue)	0.0011	0.0013	0.0017
	Power generation assets: MWh consumed/MWh generated	0.88	1.13	1.29
Energy consumption intensity	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 Delivered	106,737	73,130	57,553
Water Usage (thousand m³)	Withdrawal	145,250	69,033	54,046
	Discharge	73,642	26,188	-
Social				
Total number of employees		3,464	3,429	2,467
	Board	37.5%*	33.3%	33.3%
Female Representation	Executive Team	40.0%	37.5%	37.5%
remale Representation	Leadership Roles <sup>3</sup>	30.0%	32.2%	32.7%
	Workforce	32.9%	32.8%	31.5%
	AQN Fatalities	0	0	0
Health & Safety	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
	System Average Interruption Duration Index (SAIDI)	187.36	115.92	218.96
Service delivery and reliability	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 pra	ctices	0	1	0
Violations involving rights of indigenou	us peoples	0	0	0
Substantiated complaints received re	garding customer privacy	0	0	0

<sup>&</sup>lt;sup>1</sup> 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 "-".

<sup>&</sup>lt;sup>2</sup> 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.

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
Т	otal 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 (G	Wh) 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

perational metrics (continued)		2021	2020	2019
Electricity generation capacity (MW) 4,*				
Coal <sup>5</sup>		0	0	213
Natural gas <sup>6</sup>		1,496	1,496	1,496
Diesel <sup>7</sup>		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%
let electricity generated (GWh)		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%

<sup>&</sup>lt;sup>4</sup> MW capacity is based on installed generator nameplate capacity. Facilities that are not operationally controlled by Algonquin are excluded.

 $<sup>^{5}</sup>$  Algonquin's Asbury coal power plant facility was retired in March 2020.

<sup>&</sup>lt;sup>6</sup> Includes 100% nameplate capacity of the State Line natural gas facility.

 $<sup>^{\,7}\,\</sup>mbox{The diesel-powered generation}$  is attributed to the 2020 acquisition of Ascendant.

Operational metrics (continued)	2021	2020	2019
Customer satisfaction			
JD Power CSAT Score <sup>8</sup>	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 <sup>9</sup>			
Length of water mains (km)	7,181	3,208	3,976
Length of sewer pipes (km)	3,153	980	1,037

<sup>&</sup>lt;sup>8</sup> 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.

<sup>&</sup>lt;sup>9</sup> 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

lealth and safety <sup>10,11</sup>		2021	2020	2019
Work-related injury				
	Employees	0	0	0
Fatalities from work-related injury	Non-employees	0	0	0
De conduite la injustra	Employees	19	21	31
Recordable injuries	Non-employees	2	2	3
	United States and Canada	0.56	0.90	1.27
Recordable Injury Rate (RIR)	Bermuda	0.84	-	-
	Chile	0.00	-	-
		The primary work-relat	ed injuries identified for e	mployees in 2021
	Manta and the distribution in the standard of	are muscle strains, cut	s, and abrasions. The prin	nary work-related
Work-related injuries included:		a: injuries identified for non-employees in 2021 are arc flash burns and		
		broken bones.		
	Employees	0	1	1
High-consequence work-related injuries (number)	Non-employees	2	2	3
	United States and Canada	0.00	0.04	0.04
Lost Time Injury Rate (LTIR)	Bermuda	0.56	-	-
	Chile	0.00	-	-
Near Miss Frequency Rate (NMFR)		30.00	32.97	27.75
		Identified through job	safety analysis and pre-jo	bb inspections,
		primary high-consequ	ence work-related injurie	s include electrical
Work role	ited hazards posing high-consequence injury risk	shocks, falls from heights, and struck against injuries. High-		
Work-reic	ited nazaras posing nign-consequence injury risk	consequence work-related injuries included in this reporting period		
		are potential for electric shock or burn and manual work with		
ergonomic stressors.				
		Algonquin's injury elimi	nation/mitigation strateg	y follows local
	Injury elimination/mitigation strategy:	action plans and a 5-y	ear occupational health	and safety plan
		following the hierarchy	of controls methodology	<i>'</i> .
Total hours worked (employees)		7,368,526	5,204,161	4,886,529

 $<sup>^{\</sup>rm 10}$  Only 2021 Health and Safety metrics include Bermuda and Chile operations.

<sup>10</sup> 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.

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Health and safety (continued)		2021	2020	2019
Work-related ill health				
Fatalities from work-related ill health	Employees	0	0	0
rataililes ITOTT WORK-TEIGLEG III NEGILTI	Non-employees	0	0	0
Recordable work-related ill health cases	Employees	0	0	1
Recordable work-related III Nealth Cases	Non-employees	0	0	0
		Identified through job safety	analysis and pre-job insp	oections,
	Manda and barbandah ana anada an alima alika and kanadaha atahan	primary work-related hazard	ls posing ill-health risks in	nclude soft
	Work-related hazards posing ill health risks:	: muscle injury and chemical	exposure. Zero work-relat	ed ill health
		injuries were reported in 202	l.	
		Algonquin's injury elimination	n/mitigation strategy follo	ows local
	Injury elimination/mitigation strategy:	: action plans and a 5-year o	ccupational health and s	afety plan
		following the hierarchy of co	ntrols methodology.	

#### Workers covered by an EHS management system

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

<sup>&</sup>lt;sup>12</sup> Our Chile operation is ISO 45001 certified while our United States, Canada and Bermuda operations have internal management systems in place.

mployee demographics		2021	2020	2019
Number and geographic location of employees				
Open profes	Permanent	564	500	339
Canada	Temporary	25	21	17
United States	Permanent	2,064	2,113	2,103
onited states	Temporary	13	15	8
Bermuda	Permanent	345	341	-
Bermudd	Temporary	12	-	-
Chile	Permanent	422	439	-
Chile	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				
	< 30 years	11.0%	11.5%	-
Age ranges	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

nployee demographi	ics (continued)			2021	2020	2019
Gender and employn	nent categories					
		Office	Female	40.5%	42.7%	42.2%
Employee function I		Jilice	Male	59.5%	57.3%	57.8%
Employee function	by gender	Field	Female	3.1%	3.3%	6.7%
		rieid	Male	96.9%	96.7%	93.3%
	Senior managers and abo	ava <sup>13</sup>	Female	30.4%	32.2%	32.7%
Employee level by	seriioi managers ana abi	ove	Male	69.6%	67.8%	67.3%
gender	Junior manag	noro <sup>14</sup>	Female	31.3%	35.8%	31.3%
	Junior manag	gers	Male	68.8%	64.2%	68.7%
		Office	< 30 years	11.2%	11.2%	10.2%
	(	Office	30-50 years	55.2%	52.5%	48.5%
Employee function I	by ago		> 50 years	33.7%	36.2%	41.3%
employee function i	by age		< 30 years	10.0%	12.3%	10.1%
		Field	30-50 years	55.9%	52.0%	48.1%
			> 50 years	34.1%	35.7%	41.8%
			< 30 years	0.0%	0.0%	0.0%
	Senior managers and a	above	30-50 years	37.7%	49.7%	41.4%
Employee level by			> 50 years	62.3%	50.3%	58.6%
age			< 30 years	0.0%	2.8%	2.7%
	Junior mana	agers	30-50 years	51.4%	59.9%	51.1%
			> 50 years	48.6%	37.3%	46.2%

<sup>13 &</sup>quot;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.

<sup>&</sup>lt;sup>14</sup> "Junior managers" refer to employees in the following job level: manager.

Employee demographics (continued)			2020	2019
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
remanent employees	Male	1,768	1,756	1,664
Tomporary omployees	Female	18	13	7
Temporary employees	Male	20	23	18
By employment type				
	Female	869	865	779
Full-time employees	Male	1,777	1,766	1,669
Parit King angelanga	Female	8	5	6
Part-time employees	Male	6	8	5
Canual ampleyees	Female	1	0	0
Casual employees	Male	5	5	8

mployee 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 States <sup>15</sup>				
Percentage of employees working in the United States		60.0%	80.3%	-
	Asian	1.8%	1.5%	-
	Black or African American	4.0%	2.1%	-
Share of racial, ethnic, and indigenous self-identifications	Hispanic or Latino	6.8%	4.7%	-
	Caucasian	83.7%	62.5%	-
	Indigenous or Native	1.1%	1.1%	-
	Other	2.6%	28.2%	-

 $<sup>^{\</sup>rm 15}$  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
base pay ratio (riighest paid to median) by region	United States	3.56	3.62	3.68
Salary growth ratio (highest paid to median) by re	Canada	(0.23)	0.73	-
early growth atto (highest paid to median) by re	United States	0.63	0.61	-
Employee compensation by gender and level				
	Executive (base pay only)	0.94	0.85	-
	Executive (base pay + other)	-	0.61	-
Equal pay ratio (female/male) by level	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
Equal pay ratio (iornalo) maio) by ratiotion	Field	0.91	0.89	0.76
Equal pay ratio (female/male) by region	Canada	0.90	0.88	0.77
Equal pay ratio (iornalo) maio, by region	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
Canada	Male	1.53	1.46	1.62
United States	Female	1.18	1.26	1.90
Cintod diditod	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
	< 30 years	0.29	0.32	0.31
Employees hired by age	30-50 years	0.56	0.49	0.54
	> 50 years	0.15	0.19	0.15
Francisco de la collección de la collecc	Female	0.39	0.39	0.38
Employees hired by gender	Male	0.61	0.61	0.62
- 1 1 11 1	Canada	0.44	0.32	0.30
Employees hired by region	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
	< 30 years	0.23	0.08	0.27
Employee turnover rate by age	30-50 years	0.11	0.07	0.09
	> 50 years	0.20	0.08	0.10
Employee turnover rate by gonder	Female	0.18	0.08	0.15
Employee turnover rate by gender	Male	0.14	0.07	0.10
Employee turnover reta by region	Canada	0.16	0.05	0.12
Employee turnover rate by region	United States	0.15	0.08	0.11
	Bermuda	-	-	-
	Chile	0.10	-	-

nployee attraction and retention		2021	2020	2019
Parental leave				
Employees entitled to parental leave	Female	990	842	773
employees entitled to parental leave	Male	2,046	1,720	1,663
Employees that took parental leave	Female	32	13	6
Employees that took parental leave	Male	15	4	4
Employees that took parental leave and returned	Female	18	7	3
Employees that took parental leave and returned	Male	14	4	2
Return to work rate	Female	0.56	0.54	0.50
Return to work rate	Male	0.93	1.00	0.50
Employees that took parental leave and were retaine	Female	18	7	3
	ea Male	14	4	2
	Female	0.50	0.46	0.50
Parental leave retention rate	Male	0.80	1.00	0.50
Defined benefit plan				
Salary contributed by employee/employer	Employee	0%	0%	0%
Salary contributed by employee/employer	Employer	4% - 8%	4% - 8%	4% - 8%
Level of participation in retirement plans		100%	100%	100%
		- Plan's liabilities are met	: by organization's gene	ral resources
		- Separate fund exists to	pay for the plan's pens	ion liabilities
	Defined benefits plan and other retirement plans:	- Scheme's liabilities are	100% covered, estimate	ed on actuarial basis
		calculated annually		
imployee engagement				
Employee engagement score		62%	73%	68%
211,610,000 0119090111011100010				

E15

Learning and Development		2021	2020	2019
Training				
Accessed Australia In a language Inc.	Female	18.0	13.6	12.3
Average training hours by gender	Male	17.0	14.6	15.0
According to the control of the cont	Senior managers and above	21.0	13.5	26.5
Average training hours by level	Junior managers	26.0	17.3	18.5
Average training because by indefinition	Office	18.0	13.1	13.5
Average training hours by job function	Field	16.0	17.8	15.8
	Average training hours per employee	15.0	14.0	15.0
Average amou	nt 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%
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	-
		Recommendations in r	esponse to the incidents	s included additional

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.

<sup>&</sup>lt;sup>16</sup> 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
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				
Pygandar	Female*	37.5%	33.3%	33.3%
By gender	Male*	62.5%	66.7%	66.7%
	< 30 years	0%	0%	0%
By age	30-50 years	0%	0%	0%
	> 50 years	100%	100%	100%
compliance				
Indigenous relations				
Violations involving rights of indigenous peoples		0	0	0
Human rights				
Operations subject to human rights reviews and	Canada	100%	100%	100%
impact assessments	United States	100%	100%	100%

Compliance 17 (continued)	2021	2020	2019
Anti-corruption			
Operations assessed for corruption related risks  (government relations, conflicts of interest, and foreign interests)  Board of directors and employees who received anti-corruption	100%	100%	100%
communications and received anti-corruption policy training  Incidents of corruption and actions taken	100%	100%	100%
Percentage of employees who completed annual  Code of Business Conduct and Ethics training	100%	100%	100%
Number of times Ethics Reporting Line was used  Number of times Ombudsperson was contacted	23 23	10 9	5 12
Anti-competitive behaviour			
Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	0	1	0
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

<sup>&</sup>lt;sup>17</sup> 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 <sup>18-22</sup>	2021	2020	2019	
Scope I emissions (Mt CO2e)				
Power generation - thermal <sup>23-25</sup>	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 <sup>26</sup>	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 CO2e)	1,988,386	2,300,210	3,041,511	
Emission intensity - power generation (Mt CO2e from power generation/MWh power generation)	0.1997	0.2091	0.2798	
Emission intensity - revenue (Mt CO2e/\$USD revenue)	0.0011	0.0013	0.0017	
GHG reduction below 2017 baseline (%)	-38.3%	-30.8%	-11.7%	

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- 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).
- <sup>19</sup> 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.
- <sup>20</sup> GHG emissions are consolidated through an operational-control approach. Scope 2 emission figures are location-based.
- <sup>21</sup> 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.
- <sup>22</sup> 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.
- <sup>23</sup> This category includes Windsor Locks, Sanger, State Line, Riverton, Energy Center, and BELCO.
- <sup>24</sup> 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.
- <sup>25</sup> The Sanger natural gas facility operated at its maximum capacity due to forest fires in California, which resulted in higher emissions in 2021.
- <sup>26</sup> This category includes Liberty Utilities' electric, gas, and water/wastewater utilities and ESSAL.

OHG emissions (continued)		2021	2020	2019
Scope 3 emissions (Mt CO2e)				
	Purchased goods and services <sup>27</sup>	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 <sup>28</sup>	361,989	363,616	329,740
Upstream	Transmission & Distribution Losses for purchased grid electricity	3,186	1,710	1,369
	Upstream Emissions for purchased grid electricity <sup>29</sup>	12,081	-	-
	Upstream transportation and distribution <sup>30</sup>	10,338	-	5,897
	Waste generated in operations <sup>31</sup>	40,078	-	-
	Business travel	151	-	-
	Employee commuting <sup>32</sup>	7,195	2,936	2,678
D	Downstream natural gas combustion <sup>33</sup>	2,092,670	2,102,071	1,906,237
Downstream	Investments <sup>34</sup>	1,856,525	1,698,910	1,201,220
	Total Scope 3 emissions	5,183,591	5,119,605	3,821,013

<sup>&</sup>lt;sup>27</sup> Water withdrawal is a new Scope 3 emission source captured in 2021, and is included under the category of purchased goods and services.

<sup>&</sup>lt;sup>28</sup> 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.

<sup>&</sup>lt;sup>29</sup> This includes upstream emissions for the generation of purchased grid electricity.

<sup>&</sup>lt;sup>30</sup> This includes emissions associated with the transportation of fuel oils consumed by BELCO's (Bermuda) operations.

<sup>&</sup>lt;sup>31</sup> This includes emissions associated with the treatment of waste generated by our operations.

 $<sup>^{32}</sup>$  The 2021 emissions have included employee commuting in Canada, US, Bermuda, and Chile.

<sup>33</sup> See footnote 28.

This includes emissions from a 7.5% and 12% ownership in the Plum Point and latan 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%	

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	
	Liquified Petroleum Gas (LPG)	1,850	5,246	6,090	
Non-renewable sources	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	
	Power generation assets: MWh consumed/MWh generated	0.88	1.13	1.29	
Energy consumption intensity	Algonquin/Liberty: MWh consumed/\$USD revenue	0.0047	0.0066	0.0076	
	Regulated business: MWh consumed/Customer connections	8.65	11.56	14.54	

Energy consumption and generation capacity (continued)		2021	2020	2019
Generation capacity				
	Coal	0	0	213
	Natural gas	1,496	1,496	1,496
Nameplate capacity of generation assets by source (MW)*	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
	Coal	0%	0%	7%
	Natural gas	32%	43%	48%
Energy capacity mix (%)*	Diesel	3%	4%	0%
Energy capacity mix (%)*	Hydroelectric	3%	4%	4%
	Solar	7%	7%	6%
	Wind	55%	42%	35%
	otal renewable generation capacity (%)	65%	53%	45%

Vater and effluents <sup>35</sup>		2021	2020	2019
Water withdrawal				
	Surface water	27,860	9,546	-
Water withdrawal by source (thousand m³)	Ground water	109,006	79,486	-
	Third-party water	8,380	9,599	-
	Other source	1	164	-
	Total water withdrawal	145,248	98,795	-
	Surface water	-	-	-
Water withdrawal from water stressed regions by	Ground water	13,560	-	-
source (thousand m³)	Third-party water	7,475	-	-
	Other source	-	-	-
Water discharge				
	Surface water	46,574,167	12,967,475	-
Water discharge by source (m³)	Ground water	136,005	350,048	-
	Seawater <sup>36</sup>	25,358,995	7,805,834	-
	Third-party water	1,582,615	5,064,148	-
	Total water discharge	73,651,782	26,187,505	-
	Surface water	-	-	_
	Ground water	58	-	-
Water discharge in water stressed regions by source	Ocean / Sea Water	11	-	-
	Third-party water	935	-	-
Water consumption				
Total water consumption (thousand m³)		50,189	25,665	-
Total water consumption in water stressed regions (thousand m <sup>3</sup> )		4,013	-	-
Water Utility energy usage				
Water supplied to customers (thousand m³)		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 m³)		1.51	1.11	1.10

<sup>&</sup>lt;sup>35</sup> Water stress areas of operations have been reassessed in 2021. As a result, the 2020 figures have been excluded.

<sup>&</sup>lt;sup>36</sup> Seawater discharge was from ESSAL operations.

aste		2021	2020	2019
Waste generation (Mt)				
Wests consented	Hazardous waste	51,864	20,797	-
Waste generated	Non-hazardous waste <sup>37</sup>	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)				
	Incineration with energy recovery	2	23	-
Hazardous waste disposed by disposal operation	Incineration without energy recovery	-	49	-
(offsite)	Landfilling	5,714	10,754	-
	Other	-	292	-
	Total hazardous waste disposed	5,716	11,117	-
	Incineration with energy recovery	3	549	-
Non-hazardous waste disposed by disposal operation (offsite)	Incineration without energy recovery	-	0.15	-
	Landfilling	17,872	77,754	-
	Other	-	11,162	
	Total non-hazardous waste disposed	17,875	89,465	-

<sup>&</sup>lt;sup>37</sup> Construction waste generated by contractors was included in 2019 and 2020 figures, but has been excluded for 2021.

Biodiversity		2021	2020	2019
Species impact				
	Acres	25.0	32.5	25.1
Land developed for pollinators	Square feet	43,144	47,542	38,552
	Critical endangered	4	2	-
IUCN Red List species and national conservation list	Endangered	36	52	11
species with habitats in areas affected by	Vulnerable	25	13	8
operations	Near threatened	9	2	7
	Least concern	14	-	-
Percentage of vehicle fleet using low emission fuel		60%	45%	
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	Scope 1 greenhouse gas emissions	2,281,126 tonnes CO <sub>2</sub> e	
Change	Scope 2 greenhouse gas emissions	83,210 tonnes CO₂e	

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

LPMG LLP

#### 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 CO<sub>2</sub> 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 15<sup>th</sup> 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.algonquinpower.com

