Sustainability Report 2022

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The Micoua-Saguenay line near Forestville

Note: All amounts are expressed in Canadian dollars, unless otherwise indicated.

Units of measure

V	volt (a unit for measuring voltage)
kV	kilovolt (one thousand volts)
W	watt (a unit for measuring power)
kW	kilowatt (one thousand watts)
MW	megawatt (one million watts)
Wh	watthour (quantity of energy used over a period of time)
kWh	kilowatthour (one thousand watthours)
MWh	megawatthour (one million watthours)
GWh	gigawatthour (one million kilowatthours)
TWh	terawatthour (one billion kilowatthours)

1 kWh: Energy used by a refrigerator in 5 h, 42 min

1 MWh: Energy used by a mid-sized house in one month

1 TWh: Energy used by all households in Victoriaville (population: over 48,000) in one year

$M	millions of dollars
$B	billions of dollars
t	tonne (metric ton)
t CO_2 eq.	tonne of CO_2 equivalent
Mt CO_2 eq.	millions of tonnes of CO_2 equivalent

Understanding Electricity

Message from the President and Chief Executive Officer

Pierre Despars
Acting President and Chief Executive Officer

This report reflects the importance of sustainable development in Hydro-Québec's corporate values and our entire team's firm commitment to achieve it.

Sustainability is a core concern for Hydro-Québec. We uphold the Ten Principles of the United Nations Global Compact—a voluntary pact that covers the areas of human rights, labor standards, environmental protection and the fight against corruption—by making these principles intrinsic to our strategies, practices and management processes.

The times we live in, perhaps more than any other era, are marked by the need for one and all to adapt and act. Urgent action is needed on many fronts: climate change; the carbon footprint produced by human activity; the threat to biodiversity; and growing inequality.

Looking back, we can measure the efforts Hydro-Québec has made to date. Shortly after the nationalization of electricity, Hydro-Québec adopted procurement policies that favored Québec engineering firms when the company undertook major hydropower projects. More than 50 years down the road, Québec's consulting engineering expertise is recognized around the world.

Hydro-Québec has also worked for over 30 years to develop electric vehicles and batteries. Today, we run the Electric Circuit, the most extensive EV public charging network in the entire country, while actively supporting the government's strategy to develop a strong battery industry here in Québec.

Based on an energy supply that's nearly 100% renewable and helping to reduce North American GHG emissions through its export contracts, Hydro-Québec annually pays the Québec government a dividend of several billion dollars that makes it possible to fund the government's social projects and several major collective initiatives.

As I write these lines, we are finishing up repairs to the damage caused by a severe ice storm in southern Québec. Nature has reminded us yet again that a reliable electricity service should not be taken for granted and that climate-related risk is something we will have to deal with more often. Indeed, this issue features ever more prominently in our risk management strategies.

The challenges facing us are colossal. Once again, Hydro-Québec must demonstrate courage and an innovative spirit in order to fulfil its mission in keeping with the principles of sustainable development. This report shows that we are already hard at work on these various fronts, and I have every confidence that we will pursue our efforts in the coming years.

Pierre Despars
Acting President and Chief Executive Officer

GRI 2-22

Our mission, vision and values

MISSION

We deliver reliable electric power and high-quality services tailored to our customers' needs at competitive prices.

By developing clean, renewable energy sources, we contribute to Québec's collective prosperity and play a central role in the emergence of a green, sustainable economy.

As recognized leaders in hydropower and large transmission systems, we help neighboring markets reduce their carbon footprint by leveraging the attributes of our renewable energy.

We are firm believers in the power of innovation. We develop state-of-the-art solutions and share our expertise to help decarbonize the economy and optimize energy use.

VISION

Mobilizing the collective strength of Quebecers to accelerate the energy transition, stimulate the local economy and build a sustainable future.

VALUES

The common good
Putting people and the community first.

Inclusion
Being a unifying force and a model of openness.

Courage
Believing in our ideals and acting on them.

Innovation
Making positive changes, day after day.

GRI 2-1

Our *Sustainable Development Plan 2020–2024*

Hydro-Québec's *Sustainable Development Plan 2020–2024* establishes an operational framework structured around three pillars of sustainability: Governance, Community and the Environment. For each pillar, the Plan identifies four strategies, each of which comes with improvement targets and performance indicators. The progress achieved is outlined in the tables found at the end of each section of this report.

The *Plan* also takes account of the Québec government's major priorities and actions. Some of the strategies it puts forward support implementation of Québec's *Government Sustainable Development Strategy 2015–2020*, while others support its *Agenda 21 for culture* (both in French only). The *Plan* will be updated to reflect the new government strategy expected to be released in spring 2023.

Governance

1 

Make sustainability principles integral to our governance, operations and projects

2 

Do business with responsible suppliers

3 

Significantly improve our occupational health and safety performance while fostering employee wellness

4 

Offer an inclusive work environment that reflects Québec's diversity and rally our employees around sustainable development

Community

5 

Foster Québec's development as a society through our financial contribution

6 

Build and operate sustainable, resilient infrastructure while adapting our activities to climate change

7 

Generate more sustainable value in the community

8 

Take steps to include Indigenous peoples and encourage their input into our development

Environment

9 

Work toward decarbonizing all of our business activities and markets

10 

Equip Quebecers to lower their energy consumption through better electricity use

11 

Enhance and protect biodiversity

12 

Reduce resource use by applying the principles of the circular economy

United Nations Development Programme

The United Nations Development Programme has identified 17 sustainable development goals (SDGs), whose realization requires close cooperation between governments, businesses, civil society and the general public. Hydro-Québec is actively working toward the following seven goals, which are especially relevant to its field of activity. In this report, our contributions are indicated by icons in the *Sustainable Development Plan* progress summaries, which are found at the end of each section.

Affordable and clean energy

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.

7.3 By 2030, double the global rate of improvement in energy efficiency.

Decent work and economic growth

8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7% gross domestic product growth per annum in the least developed countries.

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

Reduced inequalities

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.

Responsible consumption and production

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

Climate action

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

Life on land

15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

Peace, justice and strong institutions

16.6 Develop effective, accountable and transparent institutions at all levels.

SUSTAINABLE DEVELOPMENT GOALS

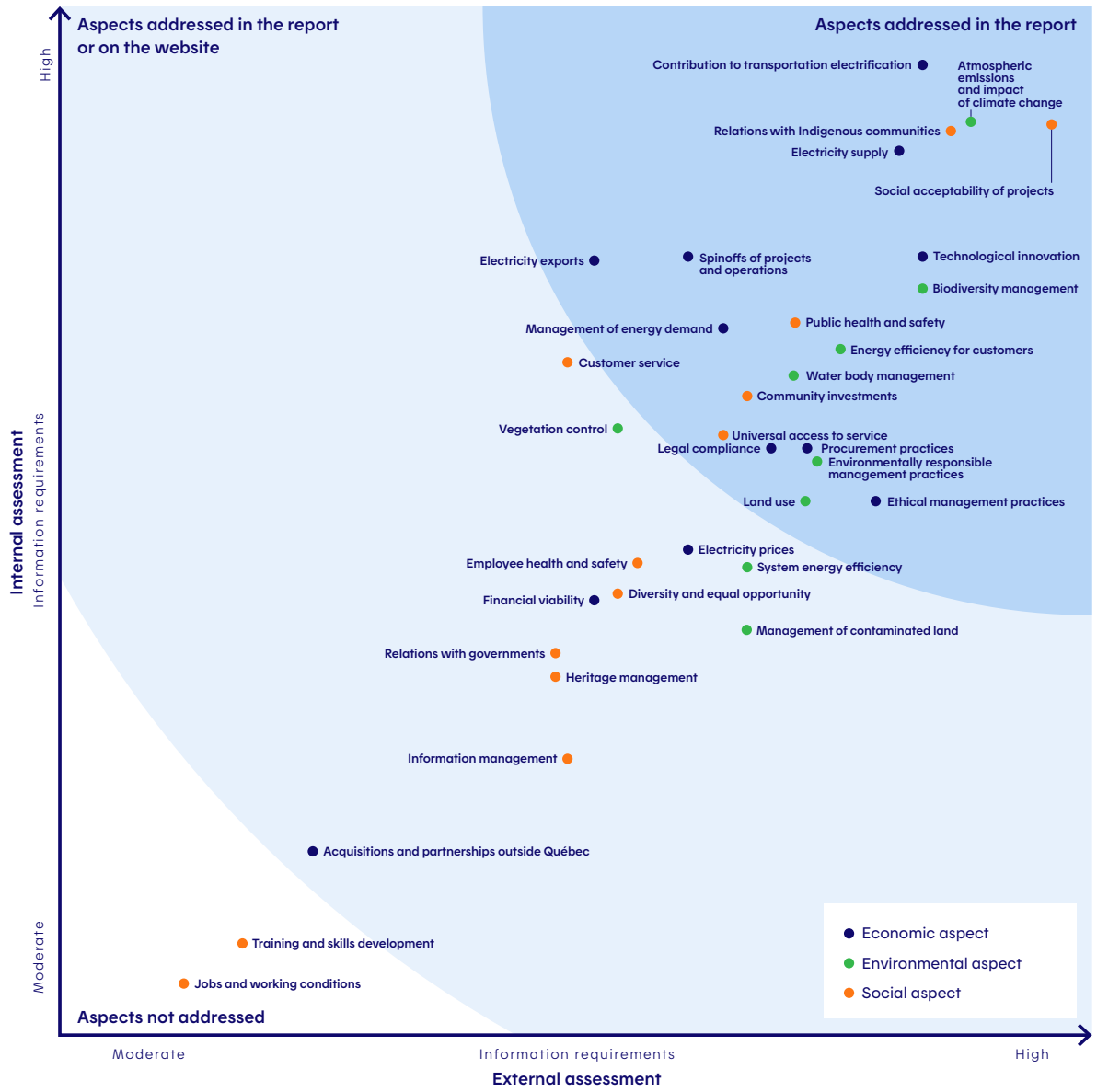
Materiality analysis

The *Sustainability Report* addresses the nature and impact of our activities. The priority levels assigned to the subjects covered are determined using a materiality analysis carried out every three years in consultation with internal and external stakeholders.

As part of the most recent consultation, completed in January 2021, a survey was sent out to 192 external organizations; 52 of which agreed to take part. Their responses were rounded out by those of 82 Hydro-Québec staff members (out of 278 invited to take part). The survey results are shown in the materiality matrix. The next survey will be conducted in 2023.

In spring 2022, we consulted a number of young adults to find ways to improve the *Sustainability Report*. Certain improvements concerning the report's structure and presentation—including the addition of a table of contents and definitions for certain units of measurement—have been incorporated into this report. Other suggestions pertaining to the method of dissemination, including expanded use of the newsletter and social media, will also be put into effect.

Materiality Matrix



Discussions and collaboration with stakeholders

Hydro-Québec is present throughout the province and has ongoing relationships with numerous stakeholders. The company strives to ensure those relationships are built on trust by being attentive to stakeholders' concerns and expectations involving its projects and activities.

Hydro-Québec's stakeholders generally share the same concerns regarding issues such as transparency, ethics, environmental stewardship and adapting to climate change. As a result, some of the platforms we use to communicate with them are relevant to all parties: They include the *Annual Report*, the *Sustainability Report* and various publications, websites and other means of communication.

We also use more targeted channels to address issues that are specific to certain stakeholders.

Stakeholders	Specific concerns and expectations	Means used
Customers	• Quality, accessibility and speed of service • Reliability of electricity supply • Competitive rates • Fairness for customers • Tailored collection services for low-income customers • Energy savings • Communications with allophone communities	• Customer satisfaction survey • Handling of complaints and claims • Translation services for the collections process • Energy efficiency partnerships • Collections working group
Employees and unions	• Safe and healthy work environment • Harmonious labor relations • Competent succession • Training and skills development	• Occupational health and safety committees • Training programs provided by the company and unions • Employee engagement survey • International partnerships
General public	• Public health and safety • Project acceptability • Social and economic development	• Public consultations • Regional economic spinoffs committees • Customer satisfaction survey • Public health and safety studies

With operations spanning the province, Hydro-Québec's activities have an impact on all of Québec's 17 administrative regions. Please refer to the fact sheets (in French only) for the data specific to each region.

GRI 2-29, 302-4, 416-1

Stakeholders	Specific concerns and expectations	Means used
Suppliers and investors	• Sustainable procurement practices • Economic spinoffs in Québec • Ethical behavior • Good governance • Risk management	• Participation in the Espace québécois de concertation sur les pratiques d'approvisionnement responsable (ECPAR), a group promoting sustainable procurement practices • Regional economic spinoffs committees • Code of conduct and rules • Mandatory disclosure of conflict of interest • Meeting with investors
Educational institutions	• Advancement of knowledge • Development of a skilled workforce • Education on key issues related to electricity	• Internships • Knowledge sharing • Presentations at universities • Support for universities • Educational kits • Research and innovation partnerships
Nongovernmental organizations	• Project acceptability • Tailored collection services for low-income customers	• Working group with consumer associations • Various partnerships • Community investments • Liaison committee with the Union des producteurs agricoles (UPA) • Dedicated team for relations with principal NGOs
Local and Indigenous communities	• Project acceptability • Harmonious integration of facilities into the environment • Respect for and preservation of local values and culture • Social and economic development	• Teams in charge of community and Indigenous relations • Joint committees and liaison committees • Support for local initiatives • Regional economic spinoffs committees • Agreements and other forms of collaboration
Government authorities	• Company profitability • Economic spinoffs in Québec • Contribution to government strategies • Application of sustainability principles	• Partnerships and participation in joint committees • Team responsible for government relations

GRI 2-29, 413-1

About this report

The 21st edition of the *Sustainability Report* outlines the progress made in 2022 with respect to Hydro-Québec's *Sustainable Development Plan 2020-2024*. Like the Plan itself, this report is divided into three sections corresponding to the main pillars of our sustainability efforts: Governance, Community and the Environment.

This report is posted on our website and adheres to the Web accessibility standard (in French only) adopted by the Québec government. Anyone should be able to understand the report, browse through it and interact with it, regardless of any disabilities. Web accessibility is an important principle that allows for the social integration of all Quebecers and their active involvement in society.

This report was prepared in accordance with the GRI standards. All the information it contains was collected and validated internally. In addition, an outside firm conducted an independent evaluation of a large amount of quantitative data and verified our compliance with Accountability AA1000 standards. The data verified are presented in the Audited Performance Metrics section, on page 81, and in the external assurance statement, on page 94. This data verification method complies with the GRI Sustainability Reporting Standards.

In addition to this document, we use an array of communication platforms to report on our sustainability performance, including a specialized website, corporate plans and reports, videos, presentations and lectures.

How to use this report

INTERACTIVITY

This report has interactive features made possible by Adobe Acrobat software.

FEATURES


Hyperlink to additional online information

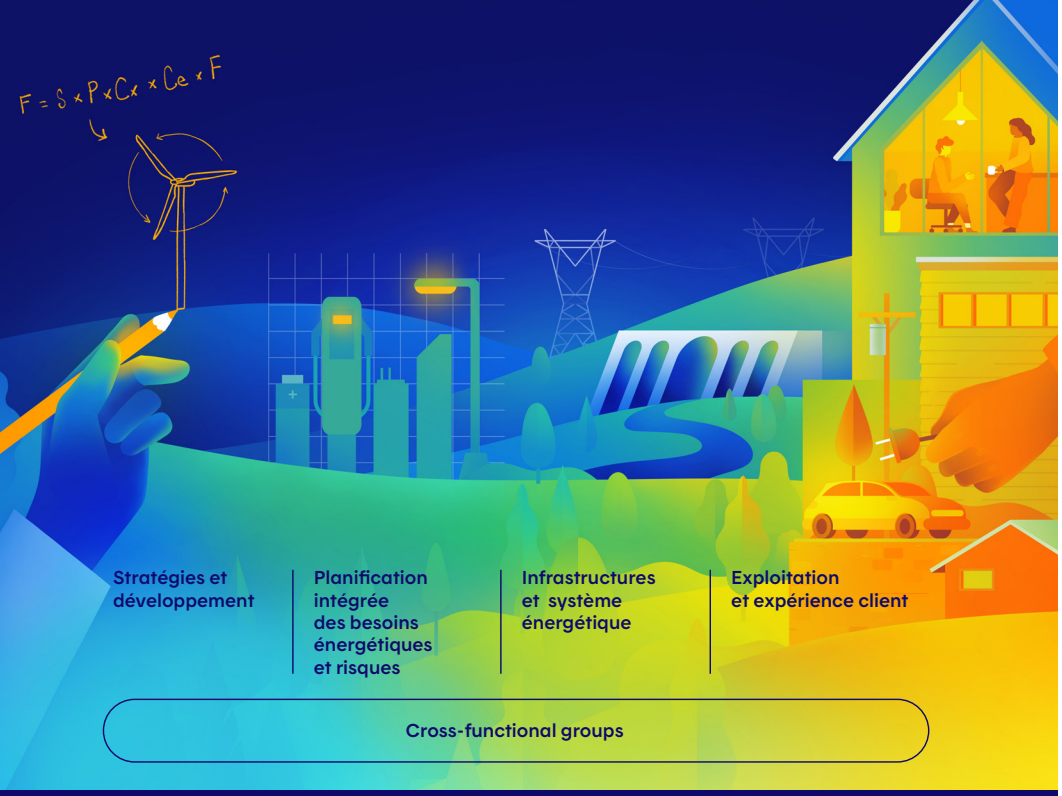

Hyperlink to an online video

Text Hyperlink

GRI

References to GRI Standards are shown in the bottom left corner of the page.

GRI 2-2, 2-3, 2-23, 2-29, 3-1



To meet the challenges of the energy transition and our obligations to our customers, Hydro-Québec embarked on an ambitious undertaking that has led to significant changes to our value chain.

Value chain

Here are the activities of the four groups that make up our value chain:

Groupe – Stratégies et développement is in charge of corporate strategies, the company's ongoing evolution and business development, along with acquisitions, investments, exports, innovation and R&D.

Groupe – Planification intégrée des besoins énergétiques et risques is assesses our energy needs and conduct the analyses required to optimally allocate financial resources to our various projects while carefully weighing all the risks and opportunities involved.

Groupe – Infrastructures et système énergétique oversees energy system design and development, asset management, technical expertise and support, construction and refurbishment projects, and strategic procurement. It will also be responsible for environment-related activities.

Groupe – Exploitation et expérience client manages electricity supply, technical services, the operation and management of generation, transmission and distribution assets and all customer interactions.

These four groups are supported by our cross-functional groups—**Technologies numériques, Talents et culture, Direction financière, Développement durable, relations avec les communautés et communications, Affaires corporatives, juridiques et réglementaires et gouvernance,** and **Audit interne**—which drive us in the pursuit of our goals and enable us to fulfill our core mission.

GRI 2-1, 2-2, 2-6, 3-3, 201-1, 203-2, EU1

Governance

Be a leader of sustainable development by adhering to the highest sustainability standards, both internally and with our partners

Hydro-Québec's governance model is based on the common good. Its organizational structure, policies and guidelines offer its employees, most of whom are unionized, a fair and inclusive workplace. The company cares about the health and safety of its employees, its partners and the public, ensures that its suppliers behave responsibly, and integrates sustainability principles into its operations.

Key themes

- Governance structure
- Human resources
- Equity, diversity and inclusion
- Occupational health and safety
- Fighting corruption
- Responsible procurement
- Technological innovation

GRI 3-2, 3-3

Organizational evolution

The changing energy industry in Québec and the magnitude of the task facing us in the coming decade have forced us to rethink our organizational practices. For this reason, after launching our *Strategic Plan 2022–2026*, we began, in 2022, implementing a new corporate structure in line with our ambitions. Grounded in our value chain, the new structure is based on a comprehensive vision of our operations and assets, from the drop of water entering our turbines to the behind-the-meter technologies marketed by our subsidiary Hilo. This organizational evolution, which will take place over several years, will encourage the cross-functional integration of sustainability principles.

Structure and oversight

The major priorities adopted by the Québec government—mainly through its Energy Policy and Sustainable Development Strategy—have a direct impact on the planning of all Hydro-Québec activities. Hydro-Québec also answers to the Régie de l'énergie du Québec, which approves its planning tools, its rate practices for distribution and transmission operations, and its transmission system investments.

Board of Directors

In late 2022, Hydro-Québec's Board of Directors consisted of nine women and eight men appointed by the Québec government. During the year, they attended presentations on a number of topics, including the situation in Ukraine and its impact on the supply chain, cybersecurity governance, decarbonization and privacy protection.

Main sustainability governance actions

Board of Directors

- Three committees, as required under the *Hydro-Québec Act:* Governance and Social Responsibility, Audit, and Human Resources. In addition to these mandatory committees, the Act authorizes the Board of Directors to create other committees to examine particular issues and ensure sound management of the company. Two committees have been established for these purposes: the Investments and Financial Affairs Committee and the Digital Technologies Committee. All committees report to the Board, sharing advice and recommendations.
- Approval or review of documents, including corporate policies and the *Code of Ethics and Rules of Professional Conduct for Directors and Executives of Hydro-Québec and Its Wholly Owned Subsidiaries*, *Code of Ethics* for employees, Strategic Plan, Business Plan, Annual Report and Sustainability Report.

Accountability reporting — Responsibility

President and Chief Executive Officer

- Approval of internal guidelines, the Sustainable Development Plan and the *Supplier Code of Conduct*
- Annual management reviews pertaining to the environment and the fight against corruption

Accountability reporting — Responsibility

Structural units

- Various internal networks for discussing issues such as the environment and occupational health and safety
- Maintenance of certified management systems
- Environmental and sustainability training and awareness
- Annual management reviews pertaining to the environment and occupational health and safety

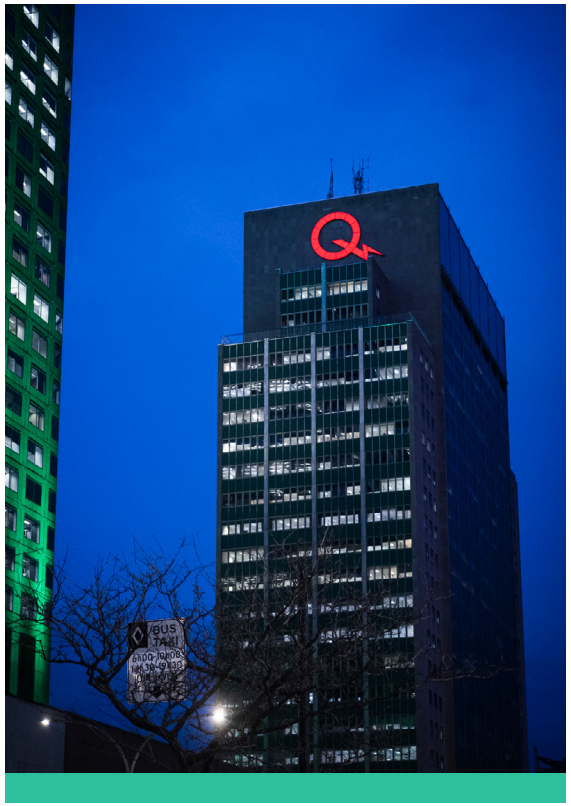
Committees supporting the Board of Directors

Board of Directors expertise and experience profiles (in French only)

GRI 2-9, 2-10, 2-11, 2-12, 2-13, 2-14, 2-15, 2-17, 2-23, 205-2

Governance and Social Responsibility Committee

The Governance and Social Responsibility Committee makes recommendations on the approval of the Annual Report and company policies, the establishment of delegations of authority and the adoption of measures to assess Hydro-Québec's efficiency and performance. It is composed solely of members from outside the company, with the President and Chief Executive Officer attending committee meetings as a guest.



Hydro-Québec's head office is shown with its logo in red to mark Remembrance Day, which honors the 1918 armistice that put an end to World War II.

Sustainability governance

1. Commitment

- Mission
- Company policies
- Codes of ethics
- Corporate values

2. Planning

- Government guidelines
- *Strategic Plan 2022–2026*
- *Sustainable Development Plan 2020–2024*
- Business plans of major structural units

3. Implementation

- Management system containing components certified to international standards (ISO 14001, ISO 37001, ISO 9001, etc.)
- Annual review of the company's portfolio of business risks
- Environmental assessments (including impact statements and internal assessments)
- Research and development
- Stakeholder relations
- Internal discussion networks
- Training

4. Assessment and improvements

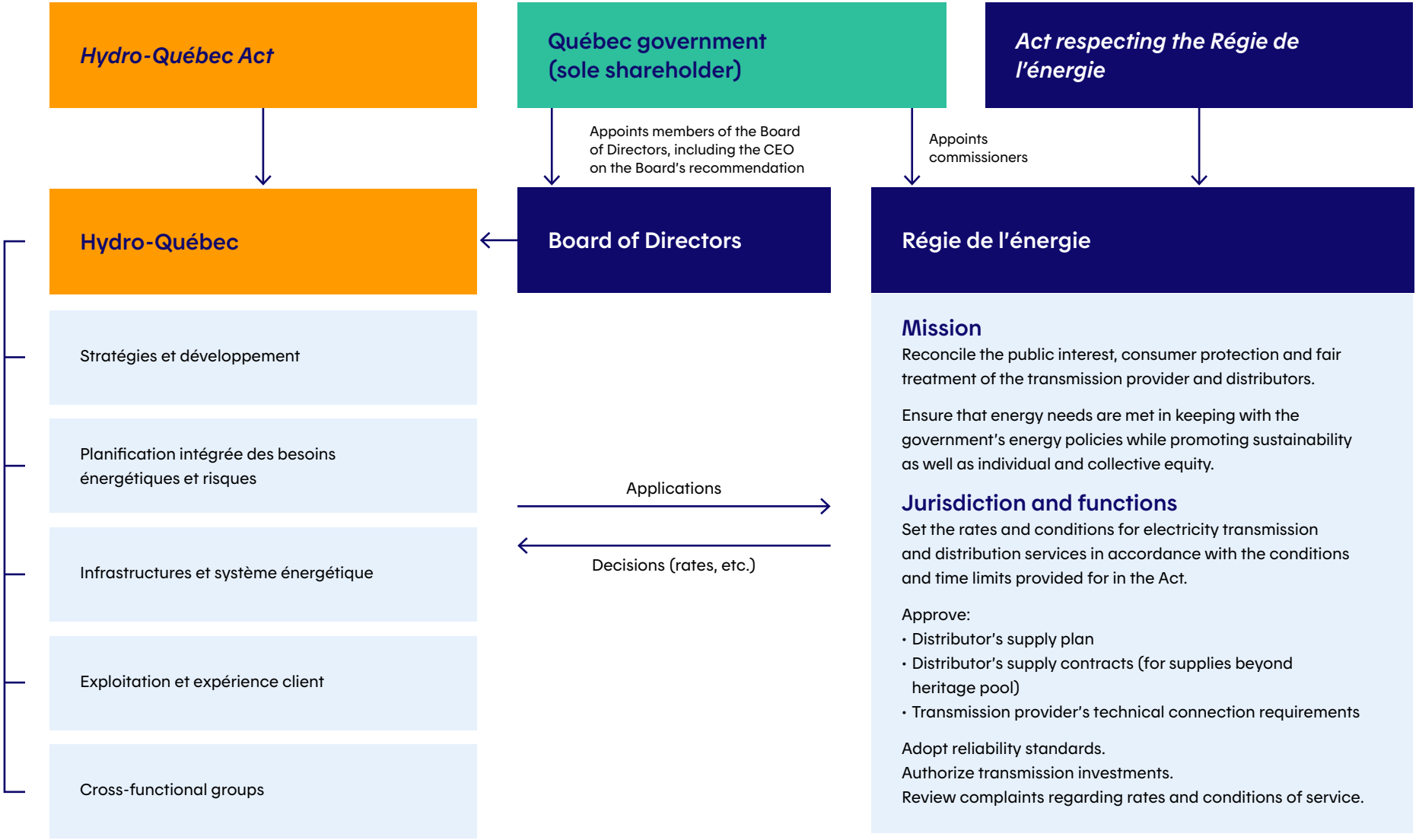
- Application of sustainability principles (in French only)
- Compliance audits
- Indicators

5. Accountability reporting

- Internal (annual reviews of company policies and guidelines, selected business lines and semi-annual compliance reports)
- External (corporate documents)

GRI 2-9, 2-15, 2-23

Electricity regulation in Québec[a]



a) Structure in effect December 31, 2022

MECHANISMS FOR INCORPORATING SUSTAINABILITY

Hydro-Québec has established various guidelines to include sustainability principles in its governance and operations.

These guidelines are updated regularly. In 2022, we reviewed four guidelines with a view to enhancing them or integrating environmental, social and governance criteria. We will pursue this process in the coming years, with priority given to guidelines that are currently being revised or developed.

Guidelines

Environment

In accordance with its environmental policy, Hydro-Québec is committed to remaining at the forefront of environmental protection. By practising diligent and responsible management, we ensure that our operations create value for Québec society, that they are optimized from an environmental perspective and that they are favorably received by local communities.

Human resources

Our human resources policy aims to create a vibrant, healthy, safe, inclusive and respectful workplace that fosters skill development and retention.

Social responsibility

Hydro-Québec's role as a good corporate citizen is governed by a policy and a directive, ensuring that we contribute to the economic, social and cultural vitality of Québec while giving due consideration to the impact of our activities on society and the environment.

Indigenous relations

Hydro-Québec's policy advocates an approach adapted to Indigenous culture and governance structures in order to ensure the acceptability and successful integration of the company's projects and activities in Indigenous communities. We focus on building and maintaining relations based on mutual respect, partnership and the meaningful involvement of Indigenous peoples.

Safety and security

In matters of safety, our guidelines call for risk assessment programs to protect the public and our workforce (permanent employees and contract workers alike), as well as to secure assets and safeguard revenue.

Ethics

Ethical behavior is governed by three codes: the *Code of Ethics and Rules of Professional Conduct for Directors and Executives of Hydro-Québec and Its Wholly Owned Subsidiaries, the Code of Ethics for employees* and *the Supplier Code of Conduct*. We also adopted the *Policy for reporting on Hydro-Québec's activities and requesting support or mediation in the event of a difficult situation in the workplace*, which meets our obligations under the *Act to facilitate the disclosure of wrongdoings relating to public bodies*. Any person who has witnessed or been informed of a wrongdoing or inappropriate situation may report it by telephone or through a secure online form, 24 hours a day.

Two interns and a project manager with the Indigenous student internship program

GRI 2-23, 2-26, 413-1

Human resources

By the end of 2022, Hydro-Québec had 22,051 permanent and temporary employees, 83% of whom were unionized. A total of 822 workers left for retirement in 2022, while the number of new hires (2,338) was up from previous years, with 508 permanent and 1,830 temporary positions filled during the year. In 2022, 3.4% of our total payroll went to skills development.

Number of employees
22,051

Average age
44.2

Strategies for remaining an employer of choice

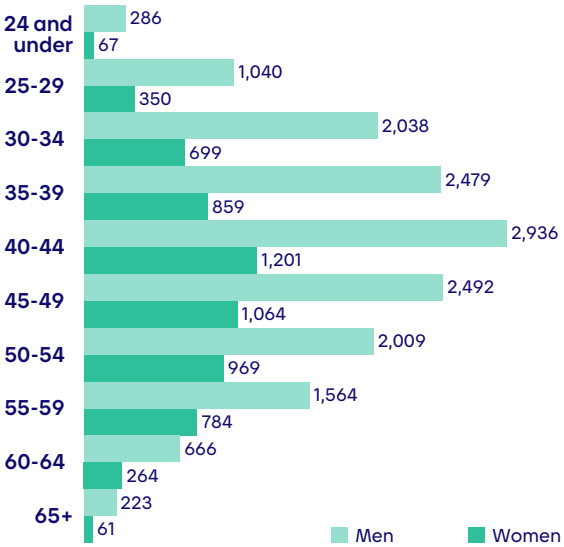
Although Hydro-Québec is known as a top employer, labor shortages and the need for constant upskilling call for new ways of thinking to ensure effective human resources management.

A few examples of these strategies:

- Better identifying our vulnerabilities in terms of workforce planning
- Deploying new training methods based on learning by doing (e.g., remote support, augmented reality glasses) to reduce completion time and minimize errors, particularly in the field of special protection systems
- Improving the promotion of internships for new graduates; partnering with educational institutions and reviewing the selection process for Institute of Electrical Power Engineering (IEPE) scholarships (focusing on presence, visibility and networking required to boost the hiring rate)
- Optimizing job postings with better descriptions of the work environment and simplifying the online application process
- Identifying obstacles to employee attraction and retention in the regions, and targeting available labor pools

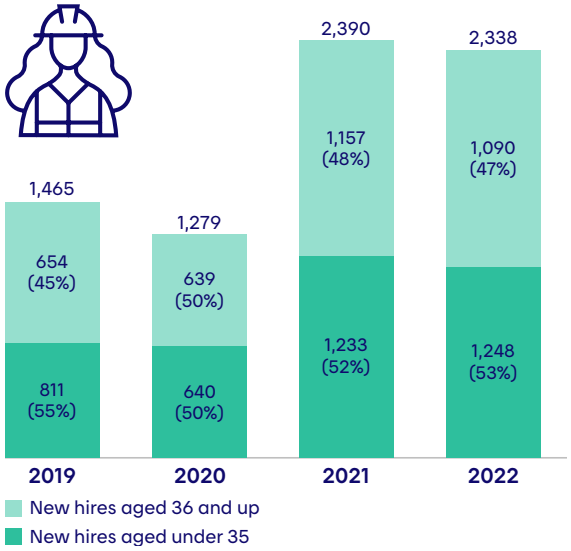
In 2022, we enhanced our employer brand to attract candidates, instill a sense of pride in our workforce and boost employee retention. This involved consulting our employees to determine our strengths and what sets us apart as an employer. Our new employer brand was publicly launched in early 2023.

Employee age pyramid (number)



In 2022, 50% of the workforce was aged 35–49. Among this group, 71.7% were men and 28.3%, women.

New hires



PILOT PROJECT: PROACTIVE RECRUITMENT

To help recruit cable workers, Hydro-Québec toured 12 vocational training centers in 2022 and introduced over 600 students to the trade. Many who apply for these positions do not have a Class 3 driver's licence—a job prerequisite—so we also rolled out an incentive program offering a maximum reimbursement of $2,500 to those who obtained the licence. Of the 50 students who participated in the program, 28 were selected, including 10 from groups targeted under our diversity initiative.

Young jointer entering a duct to perform repair work

Employee engagement

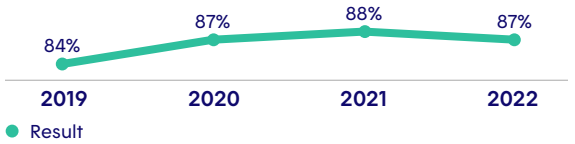
Every year, Hydro-Québec measures its employee engagement index by means of a survey that gives employees an opportunity to express their views on various aspects of their work, their teams, their managers and the company in general. In 2022, the index was 87%, slightly down from 2021 (88%).

We recognize the importance of monitoring employee engagement and we consult regularly with our workforce to better understand their needs and optimize their workplace experience.

Workplace experience: The key to loyalty and engagement

After more than two years of working from home full-time, getting back to the office was a gradual process for some 11,000 Hydro-Québec employees. In April 2022, we implemented a flexible hybrid telework program for a 12-to-18-month test period. To help our employees make the switch, we've also offered support and an array of tech tools adapted to the new working model. We are also taking the opportunity to reorganize our workspaces so as to foster greater teamwork and well-being while optimizing building occupancy.

Employee engagement index



Supporting organizational change

Our organizational development plan pays particular attention to corporate culture and the leadership aspects essential to achieving our strategic ambitions. Accordingly, we identified key behaviors conducive to the desired culture and reviewed our skills profile with a view to recruiting, training and recognizing the desired talent. To support this change, we will place greater emphasis on the expected behaviors by integrating them into different processes, among other means, and celebrate our successes.

We are also providing tools and targeted support for managers so that they can demonstrate leadership that fosters employee engagement in a changing environment.

Equity, diversity and inclusion

Toward a more inclusive culture

Inclusion, one of Hydro-Québec's four core values, is reflected in the growing importance we place on interpersonal (people) skills when hiring and promoting. In 2022, we introduced an inclusion index that will let us measure employee perceptions and reduce the gap between resources from under-represented groups and those from the majority. This effort is backed by our *Code of Ethics* for employees, which lays out a set of commitments aimed at fostering equity, diversity and inclusion in the workplace.

Improving practices

Our efforts in this regard have included drawing up a quantitative portrait of opportunities for hiring people from under-represented groups. Added to this are the personalized hiring targets established for each business unit and geographic region. Lastly, we've introduced many new initiatives, including an inclusion awareness campaign, hiring a special needs educator to support job candidates and employees with disabilities as well as their managers and teams, internships for Indigenous students and a working group with representation from all the unions to create a model for collaborating and sharing information on inclusion.

A diversity snapshot

Women – In 2022, women made up 38.5% of our workforce in the Montréal area and 28.7% of our workforce overall.

Ethnic and visible minorities – Employees from ethnic and visible minorities accounted for 18.9% of our Montréal area workforce. Last year marked the first time the overall representation of these groups exceeded 10%.

Indigenous peoples – A pilot project gave seven students from four Indigenous nations a chance to complete an internship with us in summer 2022.

People with disabilities – As well as the 22 students with disabilities who interned with us in summer 2022, we welcomed 13 new colleagues with disabilities this year. A special needs educator was also hired to coach these employees, their managers and their teams on inclusive collaboration.

Target group representation (%)

Target group	2019	2020	2021	2022
Women	29.2	28.5	28.5	**28.7**
Indigenous peoples	1.6	1.6	1.6	**1.6**
Ethnic minorities	1.9	1.9	2.0	**2.1**
Visible minorities	6.3	6.7	7.7	**8.0**
People with disabilities	0.6	0.6	0.7	**0.9**

Note that a person can belong to more than one category. In 2022, 304 students were recruited, including 117 from the target groups.

GRI 2-7, 3-3, 405-1

Occupational health and safety

Making overall health part of our corporate culture

In 2022, we set up a peer support network for managers. Over 90 people volunteered, and a cohort of 30 participants was assembled. The training program will continue in 2023. A new information campaign that included lectures and events to promote health and wellness was also launched. Finally, efforts to communicate COVID-19 health measures and the instructions to follow in the event of symptoms are ongoing.

Extreme heat

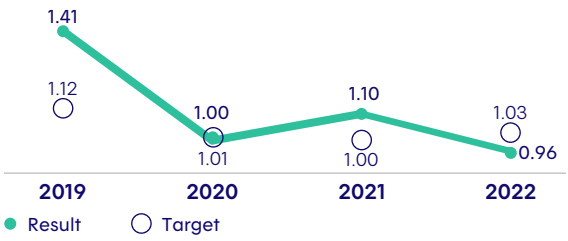
In 2022, Hydro-Québec also looked into the matter of extreme heat. Climate change is making extreme heat conditions increasingly commonplace, even in regions where they are historically rare. Extreme heat can pose health risks for anyone, especially field crews. Following an event on a Hydro-Québec worksite in 2021, we revised our procedures. For example, during weather alerts we now take steps to prevent heat stroke, including a temperature-adapted work plan that covers work organization, hydration measures and the provision of cooling equipment.

Risk control

We have also promoted on-site management of preventive measures designed to control risks associated with the nine critical hazards and to prevent serious accidents and fatalities. All field teams focused on the three hazards most relevant to their activities. With support from occupational health and safety advisors, managers were able to introduce the following tools:

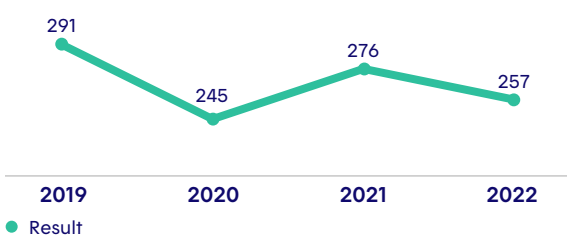
- Inspection forms for critical hazards (6,992 inspections related to critical hazards were conducted in 2022)
- Posters describing the main hazards and the associated prevention measures
- A checklist to help managers lead OHS discussions during daily meetings with workers

Lost time workplace accident frequency rate for Hydro-Québec (per 200,000 hours worked)



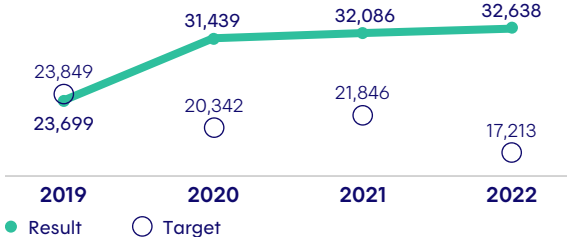
Accident frequency is down from 2021. Hydro-Québec is pursuing its efforts to transform its occupational health and safety culture and improve not just its own performance in this area, but also that of its suppliers of goods and services. The accident rate indicates the number of events resulting in loss of time per 200,000 hours worked.

Potentially serious incidents



This indicator was introduced to encourage reporting of potentially serious incidents (PSIs) and prevent the recurrence of such events.

Field observations



Field observations are conducted by a manager. Such "safety time-outs" give managers and employees an opportunity to discuss health and safety issues related to a specific task. This prevention activity serves to identify any existing hazards, ensure that safe work methods are used, recognize good practices and suggest avenues for improvement. It concludes with a commitment by both parties to take the agreed-upon action.

GRI 403-9

ADAPTING EMERGENCY MEASURES TO THE HYBRID WORK MODEL

All Hydro-Québec employees have a role to play in making the workplace a safe environment. The COVID-19 pandemic and the ensuing hybrid work model prompted us to review the emergency measures applicable in our administrative buildings. Certain measures—for example, evacuation in the event of a fire or providing assistance to someone in need—have been revised to reflect the new work environment. Training on the new measures can be accessed on all company laptops as well as on our internal training platform.

Risk control (cont'd.)

Energy sources

In July 2022, we released the seventh edition of the *Work Safety Code*, which presents the safety rules governing energy sources at our facilities, thereby targeting a major risk related to our core mission. Training was provided to over 20,000 employees as well as to contractors. Standards and work methods were also harmonized and simplified to make them easier to understand and follow for staff, suppliers and managers.

Moving vehicles

Given the scope of our operations across Québec, moving vehicles pose real risks to many of our employees and suppliers. In addition to our defensive driving training, we developed three courses on all-terrain vehicles in 2022.

On the defensive driving front, we underscored the importance of not speeding by affixing a sticker to our vehicles that affirms that the "driver of this vehicle obeys the speed limits."

Lastly, because road sharing and road maintenance are also frequent causes of incidents, we continue to sit on many road management committees.

Helicopter operations

To reduce the risks associated with helicopter operations, we carried out a benchmarking exercise with businesses that have similar activities. We followed up by developing specialized training for helicopter operations personnel to assist in identifying risks and to standardize their level of knowledge. We are also working to improve our computerized charter management and assignment system in order to enhance helicopter flight safety monitoring. Lastly, we revised our bidding process to assign greater importance to qualitative criteria such as pilot experience and safety.

Jobsite safety

From June to November 2022, we worked closely with our partners and government, union and employer associations to launch a major campaign designed to raise health and safety awareness in the Québec construction industry. The campaign was publicized on a range of platforms that included billboards, radio spots, social media posts and online banner ads.

Safety of suppliers' personnel

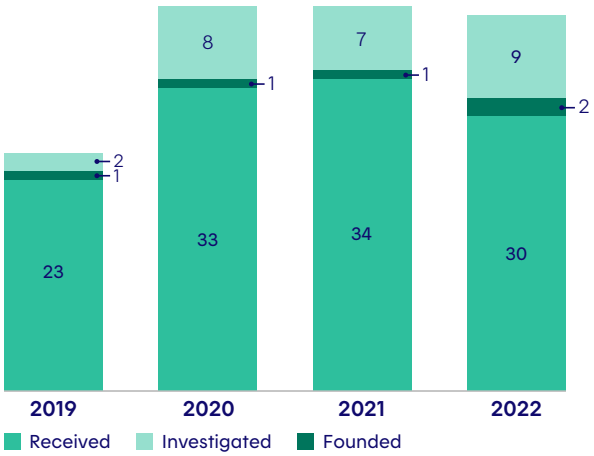
As part of a four-year plan, we incorporated an OHS questionnaire on high-risk work into our service contracts. In addition, we standardized the requirements for the following six critical hazards: moving vehicles, energy sources, unstable or overhead objects, excavation and unstable ground, working near water, and working in confined spaces. Requirements for the remaining three critical hazards will be drafted in 2023.

During the year, we met with our suppliers and major prime contractors. We also carried out various ad hoc activities in keeping with our proactive health and safety leadership role.

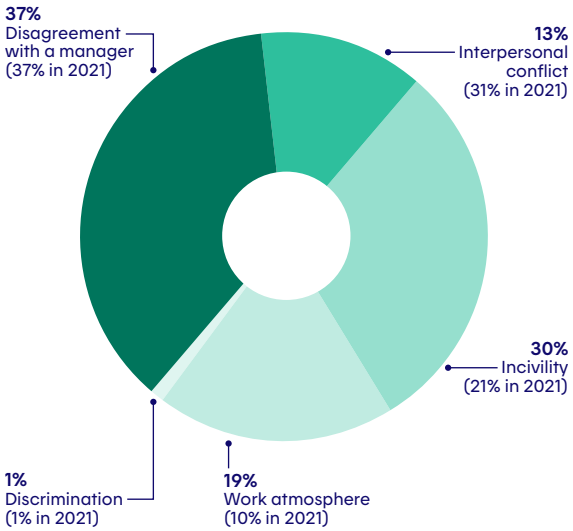
Our zero-tolerance policy

To promote and maintain a healthy, engaging work environment, Hydro-Québec has put in place a procedure allowing anyone who experiences or witnesses discrimination or harassment to report the incident or file a complaint. Once the report or complaint has been reviewed, and irrespective of the outcome, an action plan is put into effect to resolve the conflict and improve the work environment.

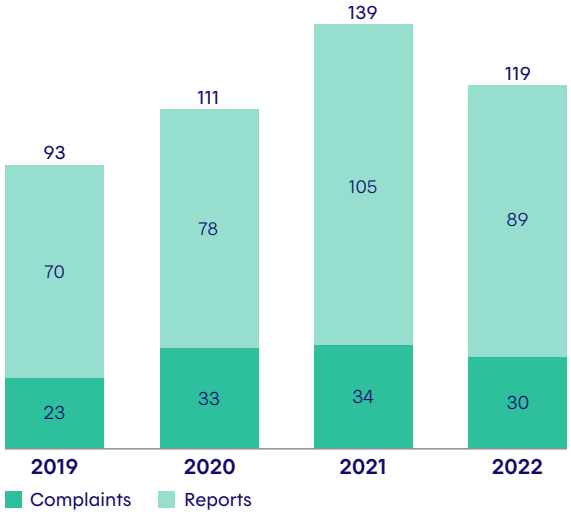
Change in number of complaints, by status (number)



Types of reports received (%)



Change in number of complaints and reports



Ethics, transparency and recognition

A new *Code of Ethics* and Statement of Commitment, which all Hydro-Québec employees are required to sign, came into effect in 2022. The Code now includes a series of commitments in the area of sustainable development, and every employee must pledge to protect the environment and act in a way that provides lasting benefits for the community. Anyone who witnesses behavior that runs counter to these commitments is asked to report it.

A new *Policy for reporting on Hydro-Québec's activities and requesting support or mediation in the event of a difficult situation in the workplace* was also adopted in 2022. With this policy, which encourages the disclosure of irregular situations and ensures protection from reprisal, the company has met its obligations under the *Act to facilitate the disclosure of wrongdoings relating to public bodies*.

Furthermore, Hydro-Québec's reporting procedure was improved by adding a secure Web service to the existing hotline. Anyone can now report misconduct 24 hours a day, seven days a week.

Last year, a total of 35 disclosures of wrongdoings were received, seven of which were founded. Various administrative sanctions and disciplinary measures, including suspensions and dismissals, were imposed accordingly.

Accountability reporting – 2022

Cases covered by Section 25 of the *Act to facilitate the disclosure of wrongdoings relating to public bodies*	**Number**
1. Disclosures received by the designated officer	**35**
2. Disclosures for which processing or examination was ended under paragraph 3 of Section 22	**0**
3. Well-founded disclosures (concluded in 2022)	**7**
4. Disclosures broken down by category of wrongdoing set out in Section 4:	N.A.
• Contravention of a Québec law, of a federal law applicable in Québec or of a regulation made under such a law	**17**
• Serious breach of the standards of ethics and professional conduct	**6**
• Misuse of funds or property belonging to a public body, including the funds or property it manages or holds for others	**7**
• Gross mismanagement within a public body, including an abuse of authority	**3**
• Any act or omission that seriously compromises or may seriously compromise a person's health or safety or the environment	**2**
• Directing or counselling a person to commit any of the wrongdoings described above	**0**
5. Information forwarded under the first paragraph of Section 23	**0**

Fighting corruption

The United Nations Global Compact, which Hydro-Québec joined in 2018, is a cornerstone of sustainable development efforts. One of the Compact's Ten Principles states that "Businesses should work against corruption in all its forms, including extortion and bribery." Hydro-Québec took another step toward that goal in June 2021, when it became one of Québec's first organizations to obtain ISO 37001 certification. This international standard confirms our commitment to adopting best practices in preventing and addressing bribery. The certification's main requirements are as follows:

- Ensure sound governance specific to the fight against corruption.
- Assess the risks associated with certain processes (procurement, managing sensitive information, project management, corporate strategies and business development, etc.).
- Implement mitigation measures to reduce these risks.
- Raise employee awareness and provide training.
- Take every means necessary to safeguard the identity of anyone who reports a matter of ethical concern, barring any waiver from the individual in question or cases where their identity is required to be disclosed by law or a court order.

In spring 2022, the Bureau de normalisation du Québec conducted a first maintenance audit, the outcome of which was positive. We have since launched a number of awareness-raising and integration initiatives, including creating an anti-corruption community of practice and publishing an in-house newsletter listing all data on integrity and ethics activities.

Responsible procurement

Responsible procurement is about making environmental, social and financial criteria part of goods and services purchasing process. For over two years now, a cross-functional committee has been taking steps to ensure our supply chain's sustainability. In 2022, personnel in charge of strategic sourcing received training on responsible procurement.

The procurement team then worked with our environment and sustainable development advisors to develop a questionnaire to assess the sustainability of our suppliers' governance and internal practices. This process encourages the selection of suppliers whose overall approach meets the criteria for responsible procurement. We will continue to use the questionnaire for the next few years.

Hydro-Québec aims to meet the Québec government's responsible procurement target by 2027. We also intend to put our desire to reduce our environmental impact into action by encouraging suppliers to shrink their footprints and ensuring the social and economic sustainability of our partners.

Managing supplier ethics

Every year, we deal with close to 9,000 goods and services suppliers. In 2022, thanks to greater stakeholder vigilance, 231 reports were filed about our suppliers, an increase of 11% compared to 2021. These reports, over 50% of which came from external sources, were then rigorously verified or investigated. They concerned potential irregularities involving corruption, collusion, fraud or malfeasance (30%), non-compliance with a law or regulation (28%), reputational risk management (20%), conflicts of interest (15%) and intimidation or threats (7%).

The reports were assessed on the basis of their nature, the potential value of the information they contained and the risks they represented for the integrity of our operations. Everyone who agreed to provide information did so to effect change, request verifications or launch an investigation. In 2022, 90 of the reports resulted in various administrative sanctions: warnings (13%), notices of corrective measures (9%), restitutions, penalties and other measures (31%), and loss of bidding privileges or contract termination (1%). Preventive measures were also taken in a number of cases (46%).

Processing and responding to these reports helps improve our anti-corruption management system, as required by our ISO 37001 certification. Following the adoption of the *Policy for reporting on Hydro-Québec's activities and requesting support or mediation in the event of a difficult situation in the workplace*, all potential suppliers and bidders were sent a notice informing them of the policy as well as the *Standard for Handling Breaches of Hydro-Québec's Supplier Code of Conduct*.

GRI 2-16, 2-23, 2-26, 3-3, 204-1, 205-02

Access to information, privacy protection and data ethics

Hydro-Québec makes all documents and information whose publication is prescribed by the *Regulation respecting the distribution of information and the Protection of personal information* publicly available on its website. All access-to-information requests received by Hydro-Québec are handled in accordance with the *Act respecting access to documents held by public bodies and the Protection of personal information*. In 2022, we received 463 requests concerning administrative documents or personal information (14 of which were still being processed on December 31, 2022) and processed 473 requests, including 24 from the previous year. Of these, 204 were granted in full, 153 were granted in part and 72 were turned down. The most common reasons for denying requests were the need to protect third-party personal information, or security or commercial concerns that prevented disclosure of the document. As for the 44 remaining requests, they could not be granted either because the company did not have the document in question, the request was withdrawn, or the information concerned another public body. In total, 224 requests for access were processed within 20 days; 183, in 21 to 30 days; and 66, in 31 days or more, for an average processing time of 21 days. In addition, seven review notices were received from the Commission d'accès à l'information.
No requests were the subject of accommodation measures under the government policy on equal access for persons with disabilities to publicly available documents and services.

Training and awareness-raising initiatives were carried out this year under the leadership of the Committee on the Governance of Corporate Data and Technologies. Employees were reminded of the principles of access to information and the protection of privacy, particularly regarding the new provisions of *An Act to modernize legislative provisions as regards the protection of personal information*. The action plan adopted in 2021 to meet new obligations under the Act was also implemented, while guidelines concerning consent in relation to personal information and the processing thereof were established to serve as the basis for Hydro-Québec's privacy protection program.

In total, we diligently handled five privacy incidents involving the personal information of customers. In each case, an analysis was or will be performed to determine what steps must be taken to ensure that the situation does not recur.

For rules of ethics involving data and artificial intelligence systems, we've also begun to develop guiding principles to ensure the appropriate, responsible and sustainable use of our data and unlock their full value.

Access to information requests processed, by type and processing time (number)

Processing time	Requests concerning administrative documents	Requests concerning personal information	Requests for correction
Average processing time: 21 days			
0 to 20 days	59	165	0
21 to 30 days	61	119	3
31 days or more	36	30	0
Total	**156**	**314**	**3**
Decisions rendered			
Granted in full	57	147	0
Granted in part	42	111	0
Denied	35	34	3
Other	22	22	0

Awards

Grand Prix du génie-conseil québécois – Energy category

In 2022, the Association des firmes de génie-conseil du Québec conferred an award in its Energy category to the Lac-Mégantic microgrid. We mandated engineering consulting firms CIMA+ and WSP to take on the project's engineering component, which consisted of integrating some 2,200 solar panels, a large-capacity energy storage system and a centralized control system. As well as contributing to the reconstruction of downtown Lac-Mégantic, the project gives Hydro-Québec a technology showcase and living lab, thanks to the community's engagement. Jointly developed with the town of Lac-Mégantic, the microgrid was officially inaugurated in July 2021.

OCTAS 2022 People's Choice Award – Business solutions category

In June 2022, our integrated vegetation management (IMV) system won an award from Réseau ACTION TI, whose annual competition recognizes Québec's top IT and digital projects. A second Hydro-Québec project, APPRANTI—which uses deep learning techniques to analyze and process images used in distribution system operations—was a finalist in the Digital Solutions category.

Silver Medal – Brandon Hall Group Excellence Awards 2022 – Best Unique or Innovative Learning and Development Program

Our Introduction to Health and Safety project won a Silver Medal from the Brandon Hall Group, whose Excellence Awards go to organizations that successfully deploy effective programs, strategies or tools for training, human resources or talent management. The winners are selected from among hundreds of nominations from around the world. Developing this cross-functional training initiative involved nearly 200 Hydro-Québec employees, and it has been dispensed to roughly 17,000 employees since its launch in 2020.

Canada's best corporate citizen according to *Corporate Knights magazine*

In June 2022 and for the second year running, *Corporate Knights* magazine ranked Hydro-Québec as its top corporate citizen in Canada. The annual ranking to promote responsible business practices is based on public data regarding organizational governance and social and environmental performance.

Technological innovation

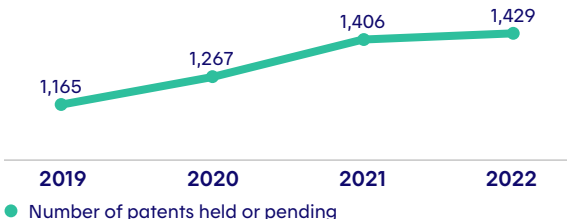
Given our position as one of the Canadian energy industry's top R&D spenders, we can justifiably claim that innovation is part of our DNA. Our research institute, IREQ, has a $187-million budget and boasts a team of 420 employees who advance our innovation projects. We've also forged strategic partnerships with universities, research organizations and industrial businesses.

Our portfolio has 184 patent families, of which 54 are associated with our research center (CRHQ) and 130, with the Center of Excellence in Transportation Electrification and Energy Storage (CEETSE). Helping to make our operations more efficient, these technologies let us chart new paths to achieving the energy transition, including hydrogen and transport electrification. Currently, patent applications have been filed and are pending for 482 technologies (56 for the CRHQ and 426 for the CEETSE).

In 2022, our income from patents and commercialized innovations totaled $8.8 million, compared to $9.3 million in 2021.

Hydro-Québec obtained a number of patents this year, particularly in the areas of asset management and batteries. With respect to the distribution system, we obtained a patent for a portable technology that pinpoints the location of partial electrical discharges in real time. We also secured patents on various methods, including a computerized system to automatically correct smart grid topology, online calibration for electrical meters, and automated detection of facilities liable to present electrical non-compliances. Other patents obtained were in the field of transmission system inspection technologies: a drone equipped with a monitoring device and movement assembly, a tool for measuring line component resistance, and a portable X-ray scanner. A procedure for determining the severity of the effects of geomagnetic disturbances on the power system was also patented.

Number of patents held or pending



Designed to inspect transmission substations, the robotic vehicle known as RIAUPEL is one of our many technological solutions. The robot was featured in the December 2022 edition of HydroPresse.

Sustainable Development Plan: Progress summary

Strategy	Target	Status	Explanation
1. Make sustainability principles integral to our governance, operations and projects. **Sustainable development goal**  	**1.1 Integrate sustainability principles into our corporate guidelines.** **Indicator** Percentage and number of policies and directives incorporating sustainability principles	**Sustainability principles integrated into 45% of our policies and directives (13/29)**	As part of the review of our corporate policies and directives, sustainability principles were incorporated into two new policies in 2022, bringing the total to 13 policies and directives out of 29 (45%). Improvements were also made to one policy and one directive that already incorporated sustainability principles.
	1.2 Earn public recognition for our leadership in responsible governance. **Indicator** Number of new recognitions for our leadership in responsible governance	**Three new recognitions obtained**	Hydro-Québec obtained three new recognitions in 2022: • Prix du génie-conseil québécois – Energy category • OCTAS 2022 People's Choice Award – Business Solutions category • Silver Medal – Brandon Hall Group Excellence Awards 2022 – Best Unique or Innovative Learning and Development Program category Repeat recognition • Canada's Top Corporate Citizen – *Corporate Knights* magazine

GRI 2-15, 2-24

Strategy	Target	Status	Explanation
2. Do business with responsible suppliers. Sustainable development goal  	**2.1** Identify and apply occupational health and safety requirements to risk-sensitive work categories. **Indicator** Categorize suppliers based on the health and safety risk level of their activities and establish a qualification strategy (2020) Begin integrating requirements for risk-sensitive work categories (2021–2024)	**OHS questionnaire integrated into the external evaluation tool (Cognibox)**	The occupational health and safety (OHS) questionnaire was integrated into the external evaluation tool (Cognibox), which now includes validation criteria for risk-sensitive work. New requirements for three of the main hazards associated with our activities (excavation and unstable ground, working near water and working in confined spaces) were harmonized. In 2023, a roadmap and communication plan will be developed for the purpose of disseminating eligibility criteria and requiring an OHS pass mark from suppliers in the construction and air transportation industries.
3. Significantly improve our occupational health and safety performance while fostering employee wellness. Sustainable development goal  	**3.1** Obtain ISO 45001:2018 health and safety certification by 2023. **Indicator** Progress in the ISO 45001: 2018 certification process	**Progress in the ISO 45001: 2018 certification process: 47%**	We are currently designing and implementing an occupational health and safety management system (OHSMS) that will meet ISO 45001 requirements. The system will provide a framework for our occupational health and safety management practices. The working group in charge of the project pursued its activities in 2022 with the participation and collaboration of numerous stakeholders.

Strategy	Target	Status	Explanation
3. Significantly improve our occupational health and safety performance while fostering employee wellness. Sustainable development goal 	**3.2** Implement or showcase health and wellness initiatives. **Indicator** Number of initiatives implemented or showcased	**35 health and wellness initiatives implemented**	We implemented 35 initiatives that address the physical, psychological, social and financial health and well-being of our employees. Some initiatives were geared to all personnel, while others focused on specific administrative units. Only one of the 36 planned initiatives was not implemented: COVID vaccination. The following initiatives wound up in 2022: the LifeWorks employee and family assistance program mitigation plan, the online cognitive behavioral therapy pilot program, and the integrated health services tender call.
4. Offer an inclusive work environment that reflects Québec's diversity and rally our employees around sustainable development. Sustainable development goal 	**4.1** Continue to improve equal access to employment by raising target group[a] representation. **Indicator** Percentage of target group members in our workforce (%)	**28.7% women (28.5% in 2021), 1.6%Indigenous peoples (1.6% in 2021), 2.1% ethnic minorities (2% in 2021), 8.0% visible minorities (7.7% in 2021), 0.9% people with disabilities (0.7% in 2021)**	In 2022, 45.5% of new hires were from a target group, and the percentage of employees from cultural communities surpassed 10% for the first time. While women's representation within the company remains more or less unchanged from previous years, women are approaching parity in the Montréal region, where they account for 39% of the workforce. A pilot project that gave seven students from four Indigenous nations the chance to intern with us during summer 2022 proved a resounding success. As a result, more such internships will be offered to members of Indigenous communities in 2023.

a) The target groups are women, Indigenous people, ethnic minorities, visible minorities and people with disabilities.

Strategy	Target	Status	Explanation
4. Offer an inclusive work environment that reflects Québec's diversity and rally our employees around sustainable development. Sustainable development goal  	**4.2** Increase target group[b] representation in management positions. **Indicator** Percentage of target group members in management positions (%)	**27.2% women (26.6% in 2021),** **1.1% Indigenous peoples (1.1% in 2021),** **1.4% ethnic minorities (1.2% in 2021),** **4.4% visible minorities (4.4% in 2021),** **0.7% people with disabilities (0.4% in 2021)**	In 2022, women's access to management positions continued to progress, increasing by a full percentage point. Indigenous representation remained stable at 1.1%. Ethnic and visible minority representation in management rose only slightly, despite efforts to align their representation with the number of employees from ethnic and visible-minority groups in the workforce as a whole. (10.1%). As for people with visible or non-visible disabilities, their representation increased slightly; however, the actual percentage may be higher than the available data suggest.
	4.3 Implement a sustainability awareness program that promotes employee engagement. **Indicator** Progress in implementing the sustainable development awareness program (%)	**Sustainability awareness program promoting employee engagement: 100% implemented**	On December 5, 2022, we launched a volunteering initiative to support partner organizations across Québec by creating a platform to match them with employees who want to volunteer outside of working hours. This initiative encourages our employees to volunteer for organizations whose mission reflects the key priorities of our Social Responsibility Directive—namely, the reduction of greenhouse gas emissions, the economic vitality of Québec regions and the fight against poverty.
	4.4 Launch an action plan for people with disabilities. **Indicator** Progress in implementing the action plan for people with disabilities (%)	**Progress on 54 commitments:** **Completed: 40 (74%)** **In progress: 12 (22%)** **Pending: 2 (4%)**	While a lack of resources hindered our ability to fulfill our digital accessibility commitments, we nonetheless took a major step forward in 2022 with the hiring of two specialized resources. As a result, not only will our 2022 commitments be met in 2023, they will also be expanded upon in the 2023–2024 action plan.

b) The five target groups are women, Indigenous peoples, ethnic minorities, visible minorities and people with disabilities.

GRI 2-7, 405-1

Community

Contribute to Québec's social and economic development while improving the social acceptability of our projects and operations

In addition to the annual dividend it pays to the Québec government, Hydro-Québec contributes directly to Québec's social, cultural and economic vitality. We maintain close ties with community representatives, working with them to balance the interests of all parties and help ensure the harmonious development of the land. We also contribute to the collective well-being by providing reliable, accessible and affordable electricity.

Key themes

- Financial contributions
- Donations and sponsorships
- Integrated Enhancement Program
- Public health and safety
- Community relations
- Indigenous relations
- Service accessibility and reliability
- Climate change
- Customer satisfaction

GRI 3-2, 3-3

Creating collective wealth

In 2022, we posted net income of $4.6 billion and paid our shareholder, the Québec government, a dividend of $3.4 billion. A significant part of this income is attributable to electricity exports, which reached a volume of 35.6 TWh, in a context marked by a sharp rise in energy prices on export markets. Together with water-power royalties, the public utilities tax and guarantee fees related to debt securities, our contribution to the Québec government's revenue in 2022 stood at $6.0 billion.

Total electricity sales	2019		2020		2021		2022	
	GWh	M$	GWh	M$	GWh	M$	GWh	M$
Electricity sales in Québec	174,580	12,429	171,446	11,929	175,229	12,319	**180,560**	**13,231**
Electricity sales outside Québec	34,789	1,571	32,397	1,466	36,190	1,826	**35,634**	**2,912**
Total electricity sales	209,369	14,000	203,843	13,395	211,419	14,145	**216,194**	**16,143**

DIRECT FINANCIAL CONTRIBUTIONS IN 2022

$3.4B
Dividend declared

$19.6M
Donations and sponsorships

$330M
Public utilities tax

$5.0M
Integrated Enhancement Program

$774M
Water-power royalties

GRI 201-1, 201-2, 203-2

Economic spinoffs of our operations

Through its projects and operations, Hydro-Québec supports thousands of jobs and, to varying degrees, stimulates economic activity in every region of Québec. In 2022, we contributed $25 billion to Québec's gross domestic product (GDP), an indicator that measures the creation of wealth.

We procured 90% of our goods and services for the year from Québec-based companies, for a total of $3,779 million. We also introduced several initiatives to boost the spinoffs from our purchases in Québec. In cooperation with the Association de l'industrie électrique du Québec, the Ministère de l'Économie, de l'Innovation et de l'Énergie and Investissement Québec, we took action to develop a solid supply chain in the province and to launch PASQUÉ, a platform that promotes strategic procurement from Québec-based companies in the electricity industry. Finally, in line with our commitment to sustainability, we incorporated local purchasing principles into our company guidelines.

Value of contracts awarded to social economy enterprises, by goods and services category

Goods and services category[a]	Breakdown (%)			
	2019	2020	2021	2022
Building operations and maintenance	48.85	49.61	44.43	**52.00**
Equipment – maintenance, repairs and operations	28.51	21.43	28.98	**13.75**
Vehicle fleet management	11.10	13.41	9.90	**10.15**
Vegetation control	-2.21[b]	0.00	3.96	**11.36**
Miscellaneous technical expertise	0.00	0.00	2.77	**4.25**
Corporate services	1.48	3.02	1.35	**3.83**
Electrical equipment	5.52	0.00	3.96	**3.90**
Other[c]	6.76	12.53	4.65	**0.76**
Total ($)	**2,490,008**	**3,049,139**	**3,536,991**	**3,323,248**

a) Excludes the purchase of petroleum products from cooperatives.
b) The negative amount is the result of a 2019 invoicing adjustment.
c) Includes the following categories: building construction, environmental services, power-line hardware, computer equipment, telecommunications and related services.

With respect to investments, Hydro-Québec focused on projects and assets with economic spinoffs in Québec, such as:

- Projects and assets related to the energy transition
- Projects carried out in select geographic areas
- Assets that are a good fit for the company's overall strategy
- Projects that expand or harness the company's expertise
- Projects with proven and demonstrable economic benefits
- Active collaborations with trusted partners

One example is our acquisition of Great River Hydro, which owns the largest hydroelectric fleet in New England. Comprising 13 hydropower generating stations and their reservoirs, GRH's facilities have an installed capacity of 589 MW, a storage capacity of 38 GWh and a long-term average annual output of 1.6 TWh. They supply power to over 213,000 New England homes, and one fifth of their output is covered by long-term supply contracts with companies like Green Mountain Power, guaranteeing a stable revenue stream. In addition to supporting the objectives of our Strategic Plan, this acquisition is an opportunity to expand our operations in a market where we are already present.

QUÉBEC'S BATTERY INDUSTRY

As laid out in the 2030 Plan for a Green Economy, Québec wants to become a world leader in the battery sector and the go-to location for industrial groups looking to decarbonize their operations. This ambitious plan comprises three commitments: reducing GHG emissions by 37.5% by 2030; increasing Québec's resilience to climate change; and electrifying the economy. To actively support the government's strategy for attracting and welcoming groups in this industry, we are working with the Société du parc industriel et portuaire de Bécancour to deploy the necessary infrastructure

Supporting the advancement of knowledge

Every year, Hydro-Québec supports over 30 research collaborations with Québec universities, contributing to the training of nearly 300 students in energy-related fields. Roughly 75% of those students are in master's or doctorate programs. This next generation of skilled personnel will help ensure the continuity of electricity service and advance research and innovation in Québec.

Internships (number)	2019	2020	2021	2022
University internships	213	152	232	**274**
IEPE internships	6	10	7	**3**
College internships	43	32	68	**70**
Total	**262**	**194**	**307**	**347**

In the past four years, Hydro-Québec has arranged 1,110 internships. The company is a founding partner of the Institute of Electrical Power Engineering (IEPE).

Over half of our research collaborations center on the energy transition and climate change, addressing issues such as energy efficiency and electrification, new technologies and renewable energy, the impacts of climate change on the grid, and the energy systems of the future integrating distributed energy resources.

In 2022, Hydro-Québec launched three new research collaborations with universities aimed at improving the energy efficiency of greenhouse production year-round to increase Québec's food self-sufficiency.

Research chair funding and research contracts awarded by IREQ ($)

Educational institution or research group	Amount awarded in 2022
Université de Montréal	**–**
HEC Montréal	**$40,000**
Polytechnique Montréal	**$592,000**
Université du Québec en Abitibi-Témiscamingue	**–**
Université du Québec à Chicoutimi	**$20,000**
Université du Québec à Montréal	**$122,500**
Université du Québec en Outaouais	**–**
Université du Québec à Rimouski	**–**
Université du Québec à Trois-Rivières	**$309,500**
École de technologie supérieure	**$289,300**
McGill University	**$501,759**
Concordia University	**$252,500**
Université Laval	**$331,989**
Université de Sherbrooke	**$398,277**
Bishop's University	**–**
Ouranos	**$140,000**
Mila	**$100,000**
Institutions outside Québec	**$641,662**
Total	**$3,739,488**

Overall total and sum of subtotals may differ due to rounding.

Donations and sponsorships

In accordance with our Social Responsibility Directive, we support activities that create positive and sustainable change throughout the province. We prioritize three social issues: the vitality of Québec's regions, the fight against poverty and the reduction of GHG emissions.

In 2022, Hydro-Québec donated $19.60 million to 514 partner organizations, including a $3.92-million contribution to the Centraide campaign.

Most of the beneficiary organizations were awarded $24,999 or less, and 49% received $9,999 or less. These are local or regional groups that have a positive impact on the community. Our partnerships with these organizations allow us to maintain a presence in every region of Québec.

Finally, 54 organizations received contributions between $25,000 and $49,999, and 68 were granted $50,000 or more. These beneficiaries include 23 health and educational organizations considered to be in transition, as they are funded under multiyear commitments that are ending in the coming years. The remaining beneficiaries are mainly cultural organizations.

Breakdown of donation and sponsorship contributions by issue – 2022

Issue	Percent of total budget (%)	Amount contributed
Reduction of GHG emissions	5.65	$1,107,500
Vitality of Québec's regions	40.21	$7,881,350
Fight against poverty[a]	37.28	$7,307,285
Business development	7.47	$1,463,269
Transition[b]	9.39	$1,841,000
Total	**100**	**$19,600,404**

a) The amount for the fight against poverty includes $3,920,785 donated to the Centraide campaign. Hydro-Québec's total contribution to the Centraide campaign was $4,342,785.
b) This amount includes multiyear commitments through 2026 to organizations that are no longer eligible based on the new criteria of Hydro-Québec's Social Responsibility Directive.

Breakdown of contribution amounts

Amount contributed	Number of organizations
$0 to $4,999	**115**
$5,000 to $9,999	**135**
$10,000 to $24,999	**142**
$25,000 to $49,999	**54**
$50,000 and more	**68**
Total	**514**

Heart symbol logo used for donations and sponsorships

Watch Steve share his touching journey of re-entering the job market thanks to the support of SOS Vélo (in French only).

GRI 201-1, 203-1

Integrated Enhancement Program

Since 1985, our Integrated Enhancement Program (IEP) has been improving quality of life in communities where new power transmission lines or substations are built. The funding granted by Hydro-Québec depends on the length and voltage of the lines or the surface area of the substations. In 2022, 12 initiatives were carried out thanks to a contribution of $5 million, bringing our total investment since the beginning of the program to $143 million.

In addition to the sums contributed under existing agreements, Hydro-Québec signed five new agreements with municipalities or regional county municipalities (MRCs), which will receive $2,003,389 when they launch their projects. These sums are earmarked for 14 new initiatives, which may receive additional funding from the government and local communities.

Funding and financial commitments – Integrated Enhancement Program

	2022
Number of active initiatives	12
Hydro-Québec funding ($M)	5

$143M

Amount granted since 1985

The new Place du Village Dionis-Chaput, in Mascouche, made possible by the IEP

A few of the initiatives carried out in 2022

Mascouche's town square

Following the construction of the 735-kV Chamouchouane–Bout-de-l'Île line, the city of Mascouche received $335,000 to build a new town square at the corner of Montée Masson and Chemin Sainte-Marie. Named Place du Village Dionis-Chaput after a family that is an integral part of Mascouche history, the square offers space for events that will enliven the Vieux-Mascouche area.

Parc Pierre-Le Gardeur and Urbanova trail in Terrebonne

In connection with the construction of the 735/120/25-kV Judith-Jasmin substation, the city of Terrebonne received more than $2 million for the redevelopment of Parc Pierre-Le Gardeur, located in the Lachenaie sector, and the creation of a new trail in the Urbanova district.

Outdoor exercise area in Dollard-des-Ormeaux

The city of Dollard-des-Ormeaux received $364,180 to build a new exercise area in Parc du Centenaire, following the reconstruction of the 315/25-kV Saint-Jean substation and associated 315-kV tap line. The site includes exercise equipment suitable for all fitness levels, picnic tables and a grassy area.

View of the river in Rivière-des-Prairies–Pointe-aux-Trembles

Following the construction of two overhead transmission lines, the borough of Rivière-des-Prairies–Pointe-aux-Trembles received $327,790 for its project entitled *Fenêtre sur la rivière*. The project involved the creation of Parc Ernest-Rouleau, which includes a gazebo, street furniture, exercise equipment and interpretation panels.

Parc Armand-Bombardier in Rivière-des-Prairies–Pointe-aux-Trembles

Following the construction of the line connecting the Jean-R.-Marcotte water treatment plant to the 315-kV power system, the borough of Rivière-des-Prairies–Pointe-aux-Trembles received $69,800. The funds were used to plant 120 trees and 50 bushes of various species in the wooded section of Parc Armand-Bombardier to make up for the felling carried out in 2021 due to the presence of the emerald ash borer.

Art collection

Hydro-Québec owns one of the oldest and largest corporate art collections in Québec. Consisting of over 1,000 works, the collection helps preserve Québec's artistic heritage, supports professional artists and contributes to inspiring workspaces. Works in the collection serve to promote empathy and openness and can act as a springboard for raising awareness about different cultures, challenging preconceived ideas and establishing dialogue.

Working with an annual budget of $300,000, the company acquired 27 works in 2022, including *Vessels* by Sylvia Safdie, an artist of Lebanese origin. In this piece, Safdie has gathered pods and seeds and set them in conversation with bronze molded or electroplated copies. The work carries a message of peace: despite the uniqueness of each element in terms of its form and place of origin, they all come together in a harmonious whole. The artist draws our attention to what unites us: the Earth.

Hydro-Québec donated a total of 20 works from the collection to non-profit socio-community organizations to ensure that these works are made accessible to the public.

Sylvia Safdie
Vessels
Various materials, 2000–2022
87 x 153.7 x 72.4 cm

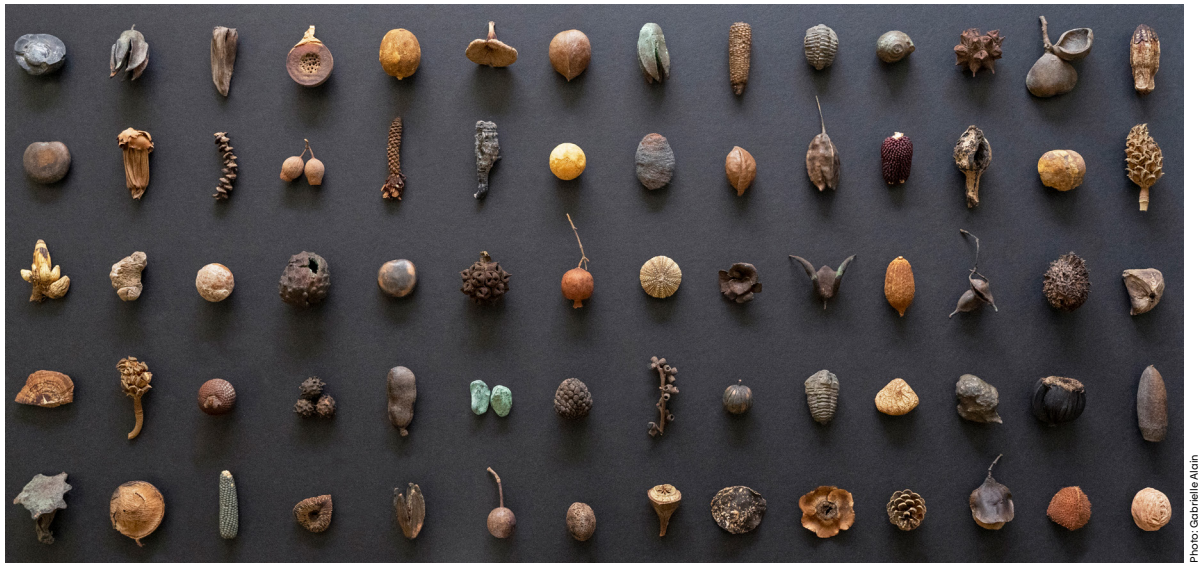


Photo: Gabrielle Alain

Vessels by Sylvia Safdie, an artwork in which pods and seeds enter into conversation with bronze molded or electroplated copies

Our role as a good corporate citizen

The sustainable value we bring to Québec society isn't limited to the direct and indirect economic spinoffs from our activities: it also lies in our commitment to being a caring, empathetic and responsible corporate citizen.

Public health and safety

Public health and safety is our number-one responsibility as a corporate citizen, and we take care to ensure that our facilities and the electricity we supply are safe. We take all necessary steps to prevent accidents, from installing protective devices, markers and barriers to educating workers and the public about risks.

Electrical accidents – 2022[a]

Group affected	Events	Deaths
Public – Hydro-Québec facilities	3	0
Public – Use of electricity	1	0
Skilled workers – Hydro-Québec facilities	12	2
Skilled workers – Use of electricity	2	0
Hydro-Québec employees	34	0
Total	**52**	**2**

a) Reported accidents only.

Hydro-Québec makes considerable efforts to raise awareness about the dangers of electricity as widely as possible. Our educational approach is geared to four target audiences: the general public, workers exposed to electrical hazards, young children and emergency services personnel. Every year, we distribute hundreds of fun, educational kits to preschool and elementary school students and carry out a campaign to raise awareness about electrical hazards.

In 2022, we launched a campaign designed for the construction industry and a second, more extensive campaign about public safety near our facilities. The latter consisted of educational videos posted on Facebook, along with 3,000 preventive patrols carried out near our hydropower facilities between May and October, leading to the expulsion of 2,748 people. However, despite all our efforts, accidents still occur. Sadly, a man died this year when a seaplane crashed into the Rivière Saint-Maurice after coming into contact with power lines.

In the area of human health, we monitor potential risks related to the temporary rise in fish mercury levels in our hydroelectric reservoirs. We make use of numerous communication tools and initiatives to keep the public informed of our findings. In 2022, we published a special edition (in French only) of the *Nui Uapaten* newsletter, created for the Innu of Minganie, to answer their mercury-related questions. The special edition was produced in collaboration with the members of the Comité technique et environmental Romaine (CTER), as part of the Romaine project in the Côte-Nord region.

We also run a yearly educational campaign for our personnel and suppliers to promote vigilance, safe behaviors and the reporting of any event that may pose a risk to the safety and integrity of people or company assets. Our Ouvrons l'œil reporting hotline is available to personnel 24/7. In 2022, we received 2,490 calls, compared to 2,550 in 2021 and 3,716 in 2020. Since 2012, the hotline has responded to an average of 2,000 calls per year, demonstrating our personnel's outstanding level of collaboration with Hydro-Québec's safety efforts.

RAISING AWARENESS ABOUT ELECTRICITY THEFT

For the past several years, Hydro-Québec has organized information sessions on electricity theft to educate our internal and external business partners, personnel who work directly on the distribution system or with metering equipment, and police and fire departments. In 2022, to increase the effectiveness of the initiative, we produced posters and stickers encouraging people to report electricity theft and handed them out during the sessions.

GRI EU25, 416-1

YOUNG PEOPLES' VOICES

In 2022, we created the Voix des jeunes panel to ensure our business strategies reflect the needs and expectations of our 18-to-34-year-old customers. Meeting the irreversible challenges of the energy transition will require the participation of all Quebecers. Our goal is to work upstream so that we may inspire today's young consumers to train tomorrow's empowered customers.

We have implemented a number of tools and partnerships to survey young people's opinions on various initiatives. They include:

- The young pathfinders issue table, made up of employees from all company divisions
- Ongoing focus groups with young Quebecers
- Partnerships with universities and organizations like HEC Montréal, UQAM's School of Management, Academos and Place aux jeunes en région

Community relations

Hydro-Québec seeks to ensure that its projects unfold as harmoniously as possible in their host communities. Constantly looking to improve our practices, we implemented a new framework in 2022 to enhance the social acceptability of our transmission line projects. In 2023, we will develop a similar framework for our generating facility refurbishment projects.

Whenever we develop new projects, we strive to balance the three pillars of sustainable development: environmental, economic and social sustainability. A public participation plan is put in place in order to establish a dialogue with the host community throughout the study phase, so that we can take into account the concerns and expectations expressed by the general public and key stakeholders in order to adapt the project to local realities. We have a range of communication means at our disposal for fostering constructive discussions with host communities throughout the project development process. Based on need, those means can include public meetings, announcements in local and social media, project-specific websites, radio coverage, electronic and print newsletters, a dedicated phone line and online consultations. In 2022, nearly 30 such activities were organized in connection with the main projects under way in Québec.

Hydro-Québec also maintains close working relations with civic institutions and bodies across Québec, including municipal authorities. We have an ongoing dialogue with Québec's two main municipal associations, the Fédération québécoise des municipalités (FQM) and the Union des municipalités du Québec (UMQ). This year, we worked in tandem with these groups on wind power generation, adaptation to climate change, the social acceptability of our operations, and energy efficiency. We also initiated discussions on enhancing our agreement with municipalities regarding specific interventions we perform in municipal rights-of-way (agreement in French only). These discussions should come to a close in 2023.

Finally, Hydro-Québec maintains regular contact with agricultural sector stakeholders, including the Union des producteurs agricoles (UPA), exchanging information on an ad hoc basis or at the regular meetings of the Hydro-Québec–UPA liaison committee. The liaison committee met three times in 2022.

Every year, Hydro-Québec gauges the satisfaction of its municipal partners through a survey. In 2022, the average overall satisfaction score was 7.9 out of 10, with 86% of respondents reporting they were satisfied or very satisfied. To obtain a more complete picture of partner satisfaction with the role played by Hydro-Québec in their region, we invited representatives from regional socioeconomic organizations to participate in focus groups this year. Our findings showed that these stakeholders would like even more opportunities to work with us on promoting our programs and that Hydro-Québec is a major economic player across Québec.

Working with communities: A few examples

Open house on priority maintenance work in Brossard

After repeated outages led to complaints, we held an open house in Brossard to answer the public's questions on electricity service quality, distribution system operations, outage response procedures, vegetation control standards, system performance monitoring activities, maintenance activities and communication channels with customers.

Open house at Coteau-4 dam

To ensure the long-term operability of Coteau-4 dam, we will be sealing its foundations in 2023. On October 12, 2022, a team met with local residents to explain the nature and impact of the work and the mitigation measures that will be implemented. The public uses the dam, as it has a bike path.

Open house at Structure 1

On June 21, we met with some 25 residents living near Structure 1, located in Parc régional des Îles-de-Saint-Timothée. We listened to their concerns and suggestions about the work planned to transform this dike into a spillway in 2024. Structure 1 is part of the park's bike loop.

Boisé Steinberg and Hochelaga substation

Together with the Ville de Montréal, we acquired a paved plot of land in the Mercier–Hochelaga-Maisonneuve borough where we will build a new transformer substation. The purchase allows us to preserve the section of Boisé Steinberg that was initially going to be impacted by this project. The agreement was made official at a press conference held on October 24, 2022, with representatives from Hydro-Québec and the Ville de Montréal in attendance.

Mural at Jeanne-d'Arc substation created by ASHOP Productions

Mural at Jeanne-d'Arc substation

In consultation with the Mercier–Hochelaga-Maisonneuve borough and local organizations, we selected ASHOP Productions to create a mural at Jeanne-d'Arc substation. Specializing in urban art and located in the borough, ASHOP was chosen for the quality of its projects, its support for local artists and its community-focused approach.

Solution for Simon-Sicard dam

After many exchanges with the public over the last two years, a new solution was proposed in September for refurbishing the remaining sections of the wall upstream of Simon-Sicard dam. The choice of a tiered embankment was favorably received by residents.

Flood management

Every spring, Hydro-Québec educates communities about how its facilities can help reduce the impact of spring flooding. Our communications approach includes virtual meetings, regular follow-up with municipal partners and public safety authorities, and a web page on flood management. In July 2022, a team of experts held a public meeting to discuss the impact of the exceptionally late flooding on the Rivière Saint-Maurice and the safety instructions to be followed.

Pallets of first aid kits ready to be shipped to Ukraine

GREEN AND HUMANITARIAN: FIRST AID KITS GET A SECOND LIFE

In 2022, 1,500 first aid kits that did not comply with the new standard set by the Canadian Standards Association (CSA) were removed from our facilities. Hydro-Québec donated the kits to Collaboration Santé Internationale along with financial assistance to cover their shipment to local NGOs offering first aid in Ukraine. Thanks to this green and humanitarian initiative, we were able to avoid wasting kits that were still in good condition and contained enough supplies to treat at least four people.

Project-based commitments

735-kV Micoua–Saguenay line – Work paused for the moose hunt

In spring 2022, we met with local outfitters to review the work for the line project and our commitments. Our commitment to pause work during the fall 2022 moose hunt was fulfilled.

735-kV Micoua–Saguenay line – Regional economic spinoffs committee

We held a meeting to present the local economic spinoffs of the project in the Saguenay–Lac-Saint-Jean region, which stood at $62 million on January 1, 2022. A total of 228 local companies were awarded subcontracts, and close to 40% of the jobsite workforce is from the region. A site visit was also organized for the committee members and local elected officials.

Ecocenter project in Radisson

To help the village of Radisson with its project to revamp and improve its ecocenter, we joined the committee in charge of the project and will be sharing our best practices for waste recovery, recycling and composting in remote, northern regions. We will also be collaborating on restoring Radisson's trench landfill site.

Regional consultations at the transmission system planning phase

We initiated a series of consultations with elected officials and land-use experts in Estrie, Montérégie, Outaouais, Lanaudière and Mirabel to come up with a shared vision of the energy needs and valued ecosystem components in these areas. Further consultations will be held in the rest of Québec's regions over the next few years.

Indigenous relations

En September 2021, Hydro-Québec obtained Silver-level certification from the Canadian Council for Aboriginal Business's PAR program, which recognizes the progress made with regard to relations with Indigenous communities, strategic procurement and the Indigenous workforce. Our current action plan includes targets for each of these three components.

In the wake of the adoption of the *Declaration of Commitment to the First Nations and the Inuit Nation* by the Board of Directors in 2019 and of the *Strategic Plan 2022–2026*, we intend to strengthen our relations with Indigenous nations and communities over the coming years through the following means:

- Continue our efforts to maintain an ongoing dialogue and deepen our involvement with Indigenous communities.
- Proactively enter into socioeconomic partnership agreements with Indigenous communities.
- Work with Indigenous partners to develop job offers and key skill-building opportunities adapted to the needs of the First Nations and the Inuit Nation.

Innu contractors at a Romaine project jobsite

Every year, Hydro-Québec participates in events organized by Indigenous groups (e.g., forums and cultural activities) and visits Indigenous communities. In 2022, members of our personnel and company executives took part in over 50 visits and events.

For the past 20 years, we have been training our personnel on Indigenous issues. In January 2022, a video posted on our intranet featuring the realities of First Nations and Inuit peoples was viewed by 86% of employees.

Procurement strategy

Hydro-Québec believes that Indigenous businesses are a major driver of economic development, not just for Indigenous communities and nations but for Québec as a whole. Our Indigenous procurement strategy aims to strengthen our business relations with these companies. The strategy, which is aligned with the reconciliation initiatives we are pursuing, will contribute to the economic prosperity of Indigenous nations and communities, in keeping with the principles of responsible procurement and sustainable development.

Concretely, the strategy is built around four main lines of action to support Indigenous entrepreneurship:

1. Be proactive and creative in designing and implementing our business models.
2. Work in collaboration with economic development stakeholders and companies within Indigenous communities.
3. Provide additional support to our internal teams at every stage of the procurement process.
4. Provide additional support to Indigenous companies at every stage of the procurement process.

In 2022, business dealings with 73 Indigenous companies amounted to $228 million, or 5.5% of the total value of Hydro-Québec's contracts.

Reconstruction and conversion of the distribution system in Unamen Shipu and La Romaine

In 2022, we rebuilt and converted the distribution system in the communities of Unamen Shipu and La Romaine. This project, which was needed to connect the communities to the new Pointe-Parent–La Romaine transmission line commissioned in 2021, was also an opportunity to rebuild an aging system and to secure the power supply. The reconstruction strategy aimed to limit the impact on customers, for example by minimizing service interruptions and keeping the community of Unamen Shipu updated on the work's progress and planned interruptions.

Connecting the community of Kitcisakik

On May 2, 2022, together with the Conseil des Anicinapek de Kitcisakik, we announced the launch of an electrification project for the village of Kitcisakik, located on the shore of the Dozois reservoir. Working with Kitcisakik, we set up a technical committee to identify the best solutions and ensure the success of the project, which calls for the construction of a 25-kV transmission line between Louvicourt substation and the village, as well as a local low-voltage distribution system. Québec's Secrétariat aux relations avec les Premières Nations and les Inuit will help community members adapt their homes to the new power system, while Indigenous Services Canada will help connect community buildings to the new system. The project will improve quality of life for Kitcisakik's residents and have positive repercussions on both the environment and the village's economic development.

Our Indigenous Relations

Highlighting our heritage

In 2022, Hydro-Québec updated its guideline on the preservation and showcasing of its corporate heritage. In addition to our built, technological, archaeological and documentary heritage, the guideline now covers our intangible heritage, such as our knowledge and know-how, as well as historical events and people. It also sets out mechanisms for managing the annual budget, provides for an annual report of activities and identifies the resources needed to continue the work of inventorying, protecting and showcasing our heritage.

Heritage runner from LG-2

Photo: Ædifica/Stéphane Brügger Photographe

Atrium of the Station N° 1 housing cooperative

Over 77,000 people explored our industrial and technological heritage this year by visiting one of our many facilities, including our newest addition, the Lac-Mégantic microgrid.

Conversion of heritage industrial buildings

In addition to promoting the conservation of our built heritage, the adaptive reuse of existing buildings is another step toward sustainability. Repurposing older buildings not only helps avoid GHG emissions related to new constructions, it also leaves a legacy of heritage buildings for future generations.

In 2022, we surveyed best practices in converting heritage industrial buildings. The cases we studied, both within Québec and elsewhere, offer inspiring ideas for extending the life cycle of a building while showcasing its heritage components, whether these are architectural or involve the machinery housed in the structure or the know-how it exhibits.

Some of the best practices gleaned from these case studies involved the use of green technologies, the participation of local organizations and the preservation of technological components and architectural elements of interest. The Station N° 1 housing cooperative, built inside a former substation of the Shawinigan Water and Power Company in Montréal, is a good example of a successful conversion project. An important relic of the history of electricity in Québec, the substation was converted into a building with 74 affordable, LEED-certified units. This community-based project, led by Bâtir son quartier and Aedifica, focuses on preserving heritage elements and reusing original materials.

A few heritage enhancement initiatives in 2022

Route Billy-Diamond

We worked with the city of Matagami on the Route Billy-Diamond permanent outdoor exhibition, which retraces the history of the road built between Matagami and the La Grande complex during the hydroelectric development of the Baie-James region. In addition to showcasing the history of the work carried out in Baie-James, the exhibition plays a key role in revitalizing Matagami's downtown area.

Exhibition at Cité de l'énergie

As a founding partner in Shawinigan's Cité de l'énergie, we created an outdoor exhibition to celebrate the complex's 25th anniversary. The exhibition retraces the history of the construction of the underwater Grondines-Lotbinière line and sheds light on the origins of the Cité's famous observation tower, whose main structure was once a transmission line tower.

IREQ open house

On September 25, 2022, the Institut de recherche d'Hydro-Québec (IREQ) opened its doors to the public as part of the festivities surrounding the 350th anniversary of the city of Varennes. This fun, family-friendly event attracted over 800 people. Visitors young and old discovered a number of innovations, including IREQ's inspection and maintenance robots, its power system simulator and the battery of the future.

Blue Muse Fun Tour

In spring 2022, the city of Sutton inaugurated its Blue Muse Fun Tour, a cultural walking tour designed to highlight Sutton's artistic and historical points of interest as well as its archives. To maximize the tour's visual appeal, the city contacted us about using photos from its archives to cover the pad-mounted equipment in our distribution system. We suggested some pictures from our own archives to showcase the region's electrification history. Ultimately, four pieces of equipment were covered with adhesive film decked out in photos from the archives of both Sutton and Hydro-Québec.

Archaeological research at Saint-Narcisse generating station

In December 2020, we began the draft-design phase of our project to dismantle the dam and retire our facilities in Saint-Narcisse, in the Mauricie region. Though the work was interrupted in October 2022, several heritage- and archaeology-related studies continued. They trace the history of the hydroelectric development of Saint-Narcisse, with a focus on the growth in electricity consumption that occurred in the 1920s. Now a part of the area's heritage, the Saint-Narcisse facilities are located within Parc de la Rivière-Batiscan, which is visited by thousands of people every year.

The hydraulic power of the Rivière Batiscan falls was first harnessed over a hundred years ago when, in 1897, the North Shore Power Company built a generating station and dam. In 1904, an annex was added to house an additional generating unit, and in 1926, a second generating station, a line, substation and a new dam were built. The Saint-Narcisse site was then bought by the Shawinigan Water and Power Company in 1930. The first generating station, shut down in 1928, was demolished in 1950. The annex was designated a heritage site in 1963, during the second phase of the nationalization of electricity. It was restored in 1985 and the old dam, in 2011.

Stone remains of the first generating station's headrace canal in Saint-Narcisse

Hydro-Québec carried out digs to survey and document the archaeological heritage of the Saint-Narcisse site. We also conducted a survey of archaeological potential and inventories to minimize the work's impact on heritage assets in the areas considered sensitive. In October 2022, we excavated, surveyed and appraised the remains of the first generating station to find out what condition they were in and start thinking about how best to preserve this vestige of Hydro-Québec history. We also documented the construction method used for the headrace canal and identified the remains of all ancillary buildings.

An essential community service

Access to service

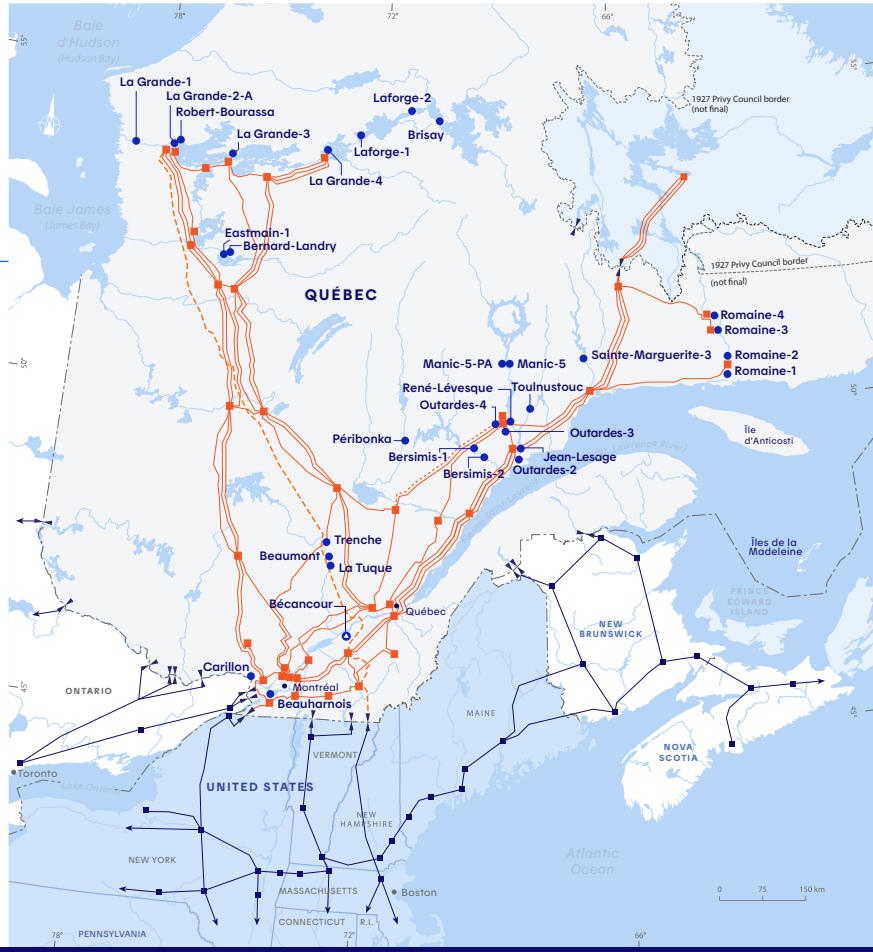
Hydro-Québec was created to make electricity available across Québec. Even remote regions that are not connected to the main grid are served through our 23 off-grid systems.

In addition, to contribute to Québec's social and economic development, we make our grid infrastructure available to certain partners. We also participate in the rollout of high-speed Internet services across the province by sharing our infrastructure with other partners.

In the coming years, we intend to make our buildings and infrastructure projects more sustainable by creating a framework specifying various points for improvement. We have identified the areas where we need to find new ways of doing things and made progress in incorporating sustainability principles into our projects.

Map of major facilities

Generating stations rated 245 MW or more
Hydroelectric generating station
Thermal generating station
Other facilities
735-kV substation
Interconnection
Neighboring systems (simplified)
735-kV line
735-kV line under construction
450-kV direct-current line



24
Number of thermal generating stations

62
Number of hydroelectric generating stations

2
Number of photovoltaic generating stations

1
Number of microgrids

227,796 km
Length of the medium-voltage distribution system

GRI 2-1, 2-6, EU1, EU4

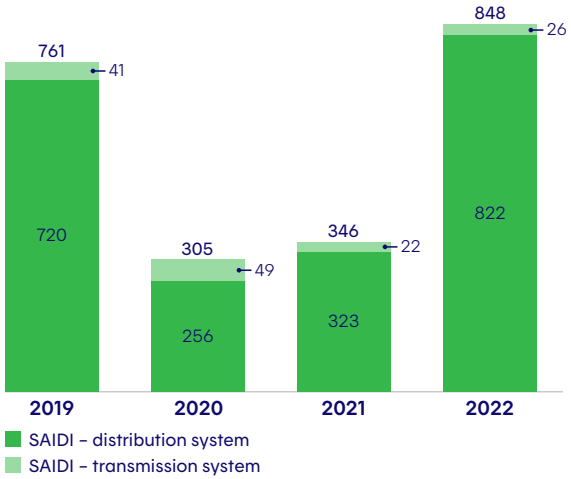
Service reliability

To measure electricity service reliability, Hydro-Québec uses the system average interruption duration index (SAIDI), which reflects the average service interruption time per customer over the course of a year. Some interruptions are scheduled and required for system maintenance, while unscheduled outages are caused by bad weather, invasive vegetation or equipment failure. Since the SAIDI includes all interruptions, it is largely influenced by the frequency and intensity of weather events. In 2022, two major events led to a significant jump in the SAIDI:

- The May 21, 2022, derecho, which caused a service interruption of 306 minutes
- The December 23, 2022, snow storm, which caused a service interruption of 204 minutes

Because natural water inflows are notoriously hard to predict, we maintain a sufficient energy reserve at all times to offset any potential deficit. To build up this reserve, which is equivalent to 64 TWh over two consecutive years and 98 TWh over four consecutive years, we manage reservoir storage on a multiyear basis and maintain an adequate margin between our generating capacity and our commitments. This margin allows us to compensate for variations in runoff, replenish our reserves or take advantage of business opportunities.

System average interruption duration index (SAIDI)[a] (average number of minutes of interruption per customer)



a) Overall total and sums of subtotals may differ due to rounding.

Repair work after a storm

848
min/customer
System average interruption duration index (SAIDI)

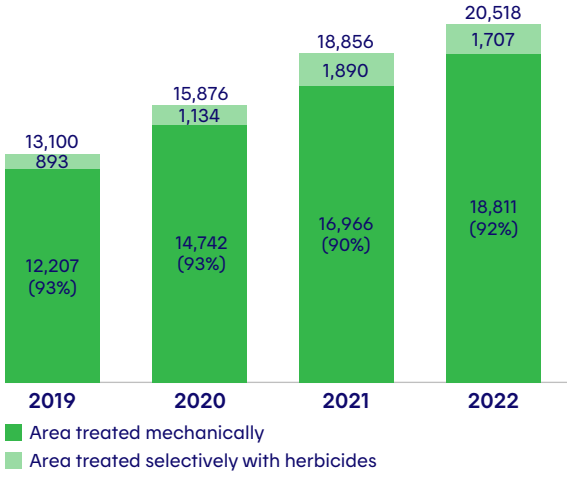
Maintaining service reliability

At Hydro-Québec, over 6,000 people ensure the proper operation of our power generation, transmission and distribution facilities. To streamline our practices and consolidate our personnel's expertise, we put a single division in charge of all vegetation control activities for our transmission, distribution and telecommunications systems and our generating facilities. This major change has several advantages, including effective knowledge sharing, optimization of human resources and more streamlined communication processes.

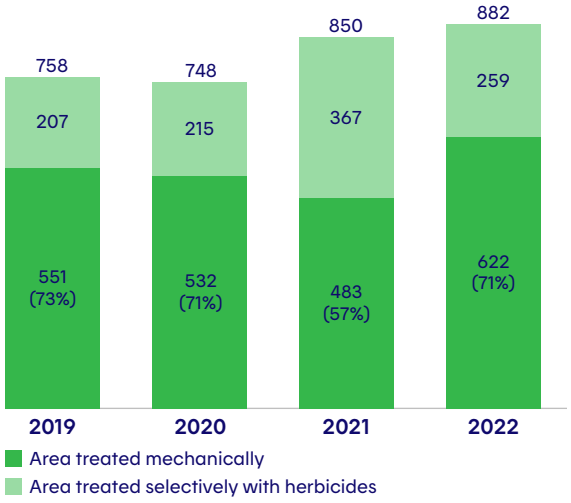
In general, 40% of distribution system outages are due to vegetation, but this proportion can be much higher during major weather events. As a result, vegetation control has a significant impact on service continuity and customer satisfaction. That's why we stepped up our efforts to manage vegetation and improve clearing cycles, primarily through operations such as pruning, clearing and felling high-risk trees.

We also undertook to reduce the number of power outages by improving power system performance and reliability through increased maintenance. We plan to revamp 60% of our overhead lines, upgrade 400,000 overhead transformers and rebuild 2,600 km of distribution lines.

Vegetation control in transmission line rights-of-way (ha)



Vegetation control on dikes and dams (ha)



Adapting to climate change

In 2022, several major weather events affected power systems in Québec and elsewhere. After the May 21 derecho, Hurricane Fiona hit eastern Canada in September, causing extensive damage and accelerating coastal erosion in the Îles-de-la-Madeleine. Events like these highlight the importance of adapting our power grid infrastructure to reflect the impacts of climate change.

In the spring, Hydro-Québec presented its *Climate Change Adaptation Plan* to various partners from government departments, municipalities, environmental groups, the scientific community and the farming sector. They all commended our meticulous work and expressed interest in collaborating with us. The plan was made public in the fall to raise awareness, inspire other energy sector players in their own adaptation efforts and promote collaboration among stakeholders.

Since then, we have started work on nearly 80% of the planned actions. For example, we obtained key data from our research center, which we will use to create an atlas of climate data relevant to our activities and produce training modules to teach our personnel how to take climate change into account.

Ongoing development of our energy system

To meet changing and growing energy needs and respond to climate change, emerging risks and technological advances, we are changing the way we design and manage our power system. We are also modifying our practices in response to new issues related to grid reliability and resilience while striving to better understand climate change and its potential repercussions, implementing priority mitigation measures in the areas most at risk and addressing climate change throughout our operations, projects and value chain.

For example, we are modifying our power grid to allow customers to participate in energy exchanges. Ultimately, we are moving toward a diversified smart system consisting of many interconnected, flexible and bidirectional energy sources. This digital shift will give us access to new technologies for optimizing energy consumption and power system operation.

Thanks to our research facilities, we are able to test and validate many promising innovations. These research and development activities help us prepare for changes in the energy market and in grid management.

Discover our *Climate Change Adaptation Plan*

THE MAY 2022 DERECHO

On May 21, 2022, a storm front accompanied by gusts of over 150 km/hour swept through a 300-km corridor, causing significant damage to the power grid that required the replacement of 1,125 utility poles and 400 transformers at an estimated cost of nearly $80 million. At the outages' peak, 554,000 customers were without power, mainly in the Laurentides, Lanaudière, Mauricie, Capitale-Nationale and Outaouais regions. The main cause of the outages was trees coming into contact with distribution lines as a result of the strong winds. More than 2,000 Hydro-Québec employees were mobilized for 11 days to restore service.

Service affordability

Hydro-Québec is required to charge the same electricity rates throughout Québec, except in certain communities north of the 53rd parallel served by off-grid systems. Rates are based on the cost of providing service and the consumption profile of each customer category. We also offer various rate options, such as dynamic pricing and interruptible electricity options, which contribute to efficient demand management during winter peaks.

For several decades, electricity prices in Québec have stayed in line with inflation, whereas the prices of oil and gas have fluctuated more widely. According to the available data, the consumer price index in Canada stands at 939, while it is 792 for electricity, 1,287 for natural gas and 4,411 for oil.

Cross-subsidization

Customer category	Cross-subsidization index
Residential customers	**86.3**
Small-power business customers (e.g., convenience stores and hair salons) – Rate G	**118.2**
Medium-power business customers (e.g., SMEs, small industrial companies and shopping centers) – Rate M	**128.0**
Large-power business customers not engaged in an industrial activity (e.g., hospitals, universities and office buildings) – Rate LG	**99.8**
Large industrial companies – Rate L	**112.8**

The real cross-subsidization indexes for 2021 are the most recent available at the time of publication. An index below 100 means the customer pays less than the actual service cost, while an index above 100 means the customer pays more, thereby helping to finance the shortfall in other categories.

Hydro-Québec's electricity rates are among the lowest in North America. On April 1, 2022, the average rate for residential customers with a monthly consumption of 1,000 kWh was 7.59¢/kWh, including generation, transmission and distribution costs. By comparison, the average residential rate was 13.88¢/kWh in Toronto, 36.03¢/kWh in New York City and 37.73¢/kWh in Boston.

Pursuant to the provisions of *An Act mainly to cap the indexation rate for Hydro-Québec domestic distribution rate prices and to further regulate the obligation to distribute electricity*, electricity distribution rates were increased on April 1, 2023 as follows:

- 3% for residential customers
- 6.5% for all other customers, except large-power industrial customers
- 4.2% for large-power industrial customers (equivalent to the 6.5% increase multiplied by an adjustment factor of 0.65, set by the Régie de l'énergie)

While electricity is inexpensive in Québec, it still represents a significant outlay for some households. That's why we provide respectful and caring support to low-income households experiencing payment difficulties in a variety of ways. In 2022, we signed 343,050 payment arrangements with residential customers (compared to 305,048 in 2021), representing $836.4 million gross, including 55,422 arrangements with low-income customers for $218.2 million gross. Of these, 44,008 arrangements totaling $114.7 million provided assistance for payment of arrears and, in certain cases, partial payment for current electricity use.

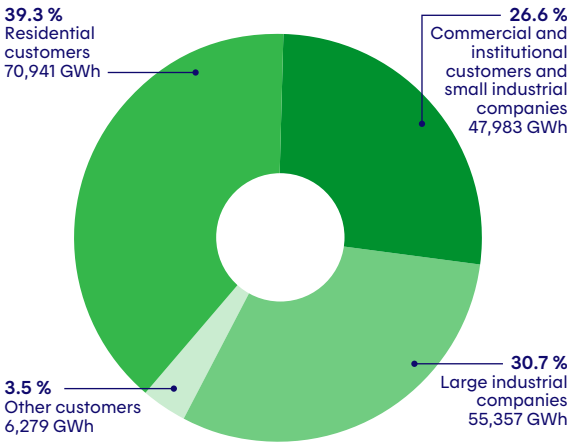
Since 2003, the basic training provided to our collection personnel has included a workshop on doing business in a context of financial insecurity. In 2022, 212 employees received this training.

Energy efficiency

The major shift underway in the energy sector is affecting our customers' consumption patterns. To better understand these changes, we carried out several studies as part of our project on Québec's energy culture. Our investigations looked at energy use by young families, factors promoting or hindering efficiency routines, and energy flexibility in Québec households. We also studied the energy maturity of Québec's SMEs, and more specifically their ability to factor energy efficiency—or the optimal use of available energy—into their operations management and strategic planning practices.

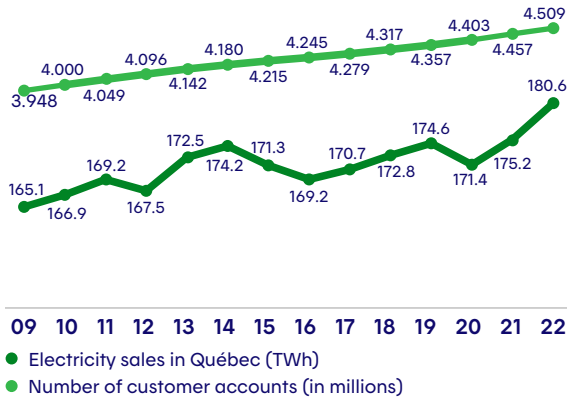
Hydro-Québec is stepping up its energy efficiency efforts. By combining our existing programs with new ones, we intend to achieve energy savings of 4 TWh between 2021 and 2025, and 8.2 TWh by 2029. We will focus on three types of incentives to encourage our customers to adopt energy-efficient behaviors and technologies: financial assistance for installing efficient equipment; support with managing energy consumption; and a range of activities to raise awareness and promote responsible consumption habits, especially by focusing on the environmental and financial benefits of energy efficiency.

Electricity sales in Québec by customer category



Overall total and sums of subtotals may differ due to rounding.

Electricity sales and number of customer accounts in Québec – 2009-2022



New annual energy savings – Energy efficiency initiatives (GWh)

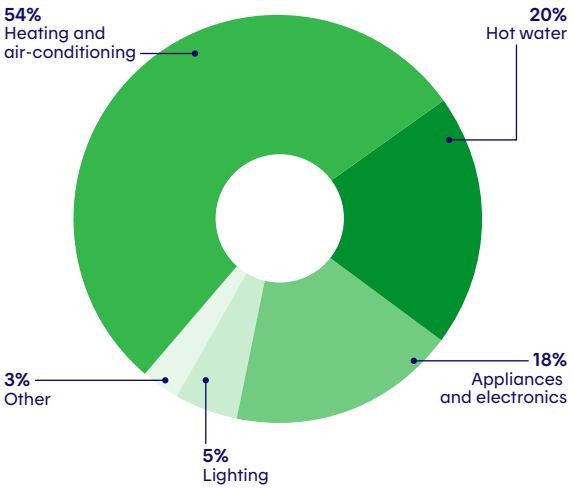
Customer category	2019	2020	2021	2022
Residential customers	214	225	312	**410**
Business customers	257	218	420	**411**
Off-grid systems	10	0.3	0.4	**3**
Total	**481**	**443**	**733**	**824**

Overall total and sums of subtotals may differ due to rounding.

GRI 2-6, 2-25, 201-2, 302-4, EU3

Hydro-Québec is revamping its refrigerator replacement program for low-income households. Since February 2022, we have been working with the Association coopérative d'économie familiale de la Montérégie-Est to test a different approach for providing new ENERGY STAR® certified refrigerators. If the results are conclusive, the new version of the program will be rolled out gradually across Québec in partnership with local organizations working with our target clientele.

Average annual energy consumption of Québec households, by type of use (%)



Our customers can contribute to energy efficiency efforts thanks to the Hilo program

We maintained our Efficient Heat Pump Program in 2022. Since the program's launch in 2021, nearly 81,000 people have received financial assistance to purchase eligible heat pumps, leading to energy savings of 233 GWh.

In April 2022, we introduced the energy performance indicator, which enables residential customers to view their electricity use data, use advanced features to better understand the factors that influence their bills, and receive personalized recommendations to help them save. On December 31, 2022, eight months after the launch, 350,000 customers were using the indicator.

In May 2022, we added two components to the Efficient Solutions Program for businesses: Energy Analysis and Small Businesses.

Energy Analysis – This new component offers businesses up to $50,000 in financial assistance to conduct an energy analysis of buildings, equipment or processes, in order to determine the feasibility and cost-effectiveness of energy efficiency measures.

Small Businesses – Small businesses paying Rate G can now receive enhanced financial assistance (covering up to 90% of eligible costs) for their energy efficiency projects.

These two additions complement the program's Medium and Large Businesses Component, which encourages businesses to submit energy efficiency projects to obtain substantial financial assistance. In 2022, our business customers saved 381 GWh through the Efficient Solutions Program.

GRI 302-4

Energy efficiency and off-grid systems

In fall 2022, we launched a pilot project in Nunavik to install condensing dryers (with heat pumps) and high-efficiency spin washers in partnership with the Fédération des coopératives du Nouveau-Québec (FCNQ). Depending on the results, which will be available in late 2023, the FCNQ may roll out the program and potentially add other efficient products.

Following a call for proposals, we hired a consulting engineering firm to perform energy audits of commercial and institutional buildings in Kuujjuaq. The audits will help us assess potential energy savings, and the final report will present the priority energy efficiency measures recommended across Nunavik.

Under another pilot project, launched in partnership with local businesses in Îles-de-la-Madeleine, 100 customers have been offered financial assistance to install low-temperature heat pumps. The data collected will be used to determine the heat pumps' impact on energy consumption and power management in this relatively temperate region.

Dual energy: Electricity and natural gas

Announced in 2021, Hydro-Québec's partnership with Énergir became a reality in June 2022 with the launch of a new dual-energy offer for Énergir's residential customers. Designed to encourage customers to convert their heating systems from natural gas to dual energy (electricity and natural gas), the offer includes a special dual-energy rate and financial assistance for the purchase of efficient central heat pumps.

We also applied to the Régie de l'énergie for its authorization for a new rate offer for commercial and institutional customers.

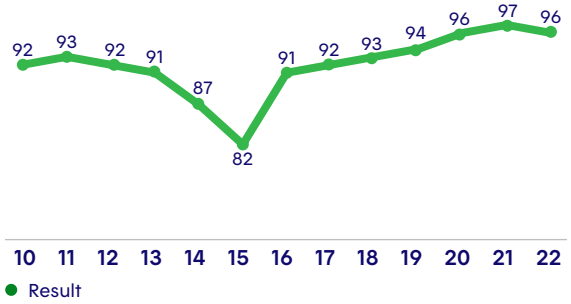
The goal of this unprecedented partnership between Québec's two main power distributors is to reduce natural gas consumption among participating customers by slightly over 70%, thereby reducing the GHG emissions associated with heating residential, commercial and institutional buildings.

Customer satisfaction

For over 25 years, we have been using surveys to determine our customer satisfaction index. Other key indicators, such as call wait times and the number of complaints and claims, help us measure the quality of the services we provide to our residential and business customers. Hydro-Québec's customer relations centers handle over three million customer interactions a year, including phone calls, chats and exchanges on social media.

Every year, a sample of 3,600 people is drawn from our customer database, and approximately 300 interviews are carried out each month. In 2022, 96% of customers reported being "very satisfied" or "quite satisfied" (97% in 2021).

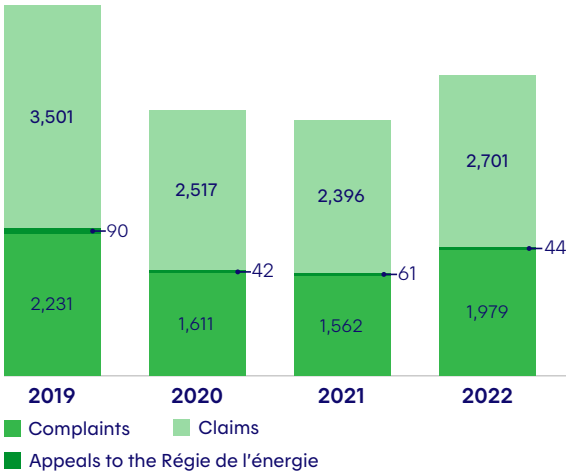
Public satisfaction index – 2010-2022



Employees at work at one of Hydro-Québec's customer relations centers

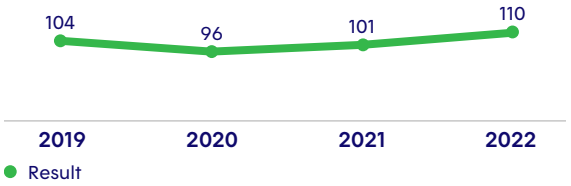
Hydro-Québec logs and analyzes all customer complaints and claims to inform its improvement efforts.

Customer complaints and claims (number)



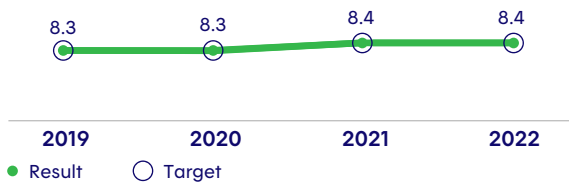
The number of complaints went from 2,231 in 2019 to 1,979 in 2022, dropping by slightly over 11%.

Average call wait time at customer relations centers (seconds)



Our customer relations centers receive an average of 10,000 calls a day. The average wait time depends on call volume, which in turn is affected by seasonal extremes (heating and air conditioning), home moves and outages. While many questions can be resolved using self-service resources, more complex matters are usually handled over the phone. We aim for a maximum wait time of 110 seconds.

Customer satisfaction index – Combined index (scale of 10)



This index shows the level of customer satisfaction (on a scale of 1 to 10) with service quality and continuity, billing, energy efficiency products and services, and customer service. The number of interviews conducted per month for each customer category varies slightly from month to month, averaging 300 interviews per month with residential customers, 150 with commercial customers and 225 with all other business customers.

HYDRO-QUÉBEC'S REPUTATION SCORE

In 2022, Hydro-Québec's reputation score declined from 7.50 to 7.43. It is still the highest among comparable large companies. However, despite efforts to improve our standing in the 18–34 age group, their score was down slightly, from 7.02 to 7.00.

Sustainable Development Plan: Progress summary

Strategy	Target	Status	Explanation
5. Foster Québec's development as a society through our financial contribution. Sustainable development goal 	**5.1** Contribute $23.4 billion to Québec's gross domestic product (GDP) by 2024. **Indicator** Amount contributed to Québec's GDP	**$25.0 billion contributed to Québec's GDP (2021: $22.7 billion)**	Hydro-Québec's contribution to Québec's GDP rose from $22.7 billion in 2021 to $25.0 billion in 2022. This increase is mainly attributable to the company's higher net income and expenses, which led to more spending in Québec's economy.
6. Build and operate sustainable, resilient infrastructure while adapting our activities to climate change. Sustainable development goal 	**6.1** Implement a climate change adaptation plan by 2021. **Indicator** 1) Progress on producing the *Climate Change Adaptation Plan* (%) 2) Progress on key actions identified in the plan (%)	**Implementation of actions in the *Climate Change Adaptation Plan*:** **In progress: 74%** **Completed: 5%** **About to begin: 21%**	In 2022, we focused on promoting and implementing our *Climate Change Adaptation Plan*, which we presented to a number of stakeholders. In just one year, we launched nearly 80% of the plan's actions. The climate change adaptation initiatives carried out to date are the foundation for upcoming measures designed to make both Hydro-Québec and Québec society more resilient.

GRI 201-1, 201-2, 203-2

Strategy	Target	Status	Explanation
6. Build and operate sustainable, resilient infrastructure while adapting our activities to climate change. **Sustainable development goal**  	**6.2** Expand the integration of sustainability principles in infrastructure projects. **Indicator** Number of projects requiring government approval for which planning and construction stages include a comprehensive sustainability assessment	**In-depth analysis grid included in the impact assessment for a major infrastructure project**	An in-depth analysis grid showing our contribution to the application of *Sustainable Development Act* principles was included in the impact assessment for the Hertel–New York interconnection line.
	6.3 Obtain or maintain BOMA BEST certification for targeted administrative buildings and rented office premises of over 1,000 m² in Montréal and Québec. **Indicator** Number of BOMA BEST–certified buildings and level of certification	**BOMA BEST certification achieved for the 21 targeted buildings and office premises (100%)**	BOMA BEST is a program established by the Building Owners and Managers Association of Canada (BOMA Canada) to assess the environmental and energy performance of commercial buildings. In 2022, 21 of the buildings we occupy were BOMA BEST certified: 18 Gold and 3 Silver.

Strategy	Target	Status	Explanation
7. Generate more sustainable value in the community. Sustainable development goal  	**7.1** Develop indicators and optimize certain programs to maximize their social and economic benefits for the community. **Indicator** Number of key programs optimized	**Progress on the two targeted programs (Integrated Enhancement Program [IEP] and Social Responsibility Directive): 75% completed**	For the IEP, new monitoring methods are helping us reframe program rollout and documentation management. The personalized training and follow-up provided to municipalities to ensure the program's success is also helping improve our advisors' skills. For the Social Responsibility Directive, we set budget objectives designed to ensure a more equitable distribution of donations and sponsorships across all regions of Québec. However, we'll only be able to reach our target equity level in 2026, when all our multiyear commitments with organizations that are no longer eligible under the Directive come to an end. Statistical analyses of our donations and sponsorships indicate that we are making progress toward our target allocations: 60% of the budget to regional vitality, 25% to the fight against poverty and 15% to the reduction of GHG emissions. **2022 actual allocations** • Reduction of GHG emissions: 5.65% (2021: 3.93%, 2020: 3.60%) • Fight against poverty: 37.28% (2021: 25.24%, 2020: 23.22%) • Regional vitality: 40.21% (2021: 35.79%, 2020: 35.81%) • Business development: 7.47% (2021: 6.43%, 2020: 5.20%) • Transition: 9.39% (2021: 28.61%, 2020: 32.17%)
8. Take steps to include Indigenous peoples and encourage their input into our development. Sustainable development goal  	**7.1** Obtain Silver-level certification from the Canadian Council for Aboriginal Business's Progressive Aboriginal Relations (PAR) program. **Indicator** Annual progress in the PAR Silver certification process (%)	**Silver-level PAR program certification obtained**	Receiving Silver-level certification is an important affirmation of what we have accomplished through our participation in the Progressive Aboriginal Relations program. The coming year will be dedicated to fully implementing our action plan and setting our next objectives for obtaining Gold-level certification.

Environment

Be an environmental leader through our choices, innovative practices and expertise

Hydro-Québec's ISO 14001:2015-compliant environmental management system was developed to preserve biodiversity, reduce GHG emissions and incorporate environmental impact management into our businesses practices. We are implementing measures to assess, limit or mitigate the environmental impacts of our projects and activities, and we are taking proactive steps to counter the two main environmental threats to our planet: loss of biodiversity and climate change.

Key themes

- Environmental practices
- Electricity supply
- Energy transition
- Decarbonization
- Conversion of off-grid systems
- Biodiversity

GRI 3-2, 3-3

Environmental practices

With the exception of the Gentilly-2 facilities currently being decommissioned, all Hydro-Québec operations are managed using an ISO 14001:2015-certified environmental management system. This certification was renewed in 2022 and confirms that our corporate management system incorporates sound environmental management practices.

We have also adopted a policy affirming our intention to improve our environmental performance. With regard to our operations, our main focuses are:

- Protecting the environment
- Reducing atmospheric emissions
- Preventing contamination
- Harmonizing uses
- Preserving our heritage
- Integrating the life cycle approach

Land-use planning

Hydro-Québec carries out an environmental assessment for all infrastructure projects. That assessment involves surveying and studying all sensitive elements and environments likely to be affected so that we can protect them or mitigate the impact of our operations by applying appropriate measures or opting for solutions with a smaller impact. Where projects involve public land, we consult public land-use plans to include government guidelines in our studies.

Contaminated soil traceability

In accordance with the *Regulation respecting the traceability of excavated contaminated soils*, Hydro-Québec is now required to progressively report the number of metric tonnes of contaminated soil that are excavated and transported off-site. In 2022, we began reporting projects involving over 1,000 metric tonnes, as required by the Regulation. In addition, the transportation of contaminated soil must be tracked for Hydro-Québec's three treatment facilities (the Baie-James facility and the two hazardous waste recovery centers in the cities of Québec and Saint-Hyacinthe).

Since 2021, Hydro-Québec has held training sessions on contaminated soil, developed reference tools, amended contract provisions and clarified internal and external responsibilities. We also sit on advisory committees and share with other stakeholders our environmental management model for contaminated soil, which has become a reference in the field.

PILOT PROJECT ON THE DIRECT BURIAL OF POWER LINES

In 2022, Hydro-Québec conducted a pilot project involving the direct burial of sections of medium-voltage power lines in rural and heavily wooded areas. This technique could allow for the construction of underground lines that are more robust and require fewer resources, and maintenance and inspection operations than overhead lines. Underground lines are better able to withstand the effects of climate change, such as the lengthening of the growing season, changes in wind dynamics in parts of Québec and the increase in outages caused by severe weather events.

Recovery and recycling of insulating oil

Recovered oil is decontaminated, treated and then reused in Hydro-Québec's equipment, meeting all of the company's needs. Some of it is sold to our suppliers, while oil that cannot be treated for reuse is reclaimed as energy. In 2022, the proportion of oil that is reused increased from 75.3% to 88.8%.

Recovery and reuse of insulating oil

Source and use	2022
Collected from equipment (litres)	**4,556,652**
Treated for reuse (litres)	**4,047,383**
Treated for reuse (%)	**88.8**
Designated for recycling (litres)	**503,559**
Designated for energy recovery (litres)	**5,710**
Designated for final disposal (litres)	**–**

Use of herbicides on eskers

Hydro-Québec has undertaken not to use any herbicides on esker aquifers or eskers with a high DRASTIC index in Abitibi-Témiscamingue. This commitment comes in the wake of our modifications to the 315-kV Lebel–Authier transmission line project resulting from our environmental study and public consultation. This process also helped determine the final route of the transmission line.

Treatment of insulating oil at the Saint-Hyacinthe storage facility

Underwater archaeological survey

The Hertel–New York interconnection line project, which aims to supply clean, renewable energy to New York City, involves an underwater interconnection point in the Rivière Richelieu at the Canada–United States border. The river was a preferred travel route throughout prehistory and during the French and British regimes. It has been used for colonial exploration, military manoeuvres, trade, fishing and recreational activities. Its waterpower also played a key role in the industrial and energy development of Montréal's South Shore in the late 19th and early 20th centuries.

Numerous archaeological sites are located both upstream and downstream from the area where the interconnection work will be taking place. For example, paleohistoric sites and shipwrecks have been discovered near Île Ash and Île aux Noix, as well as further upstream, in the northern part of Lake Champlain. An analysis of geophysical data revealed anomalies that could have valuable archaeological potential and require assessment prior to commencing work. In 2022, a team of archaeologists carried out a number of dives, but nothing of heritage value was discovered at the site. The experience will nonetheless be useful for future projects involving underwater connections.

New types of poles may be used for the distribution system

Hydro-Québec's *Climate Change Adaptation Plan* explains how the service life of wooden poles has decreased: climate change has lengthened the period when conditions are favorable for rot and led to changes in the distribution of woodpecker populations. The shorter service life is a priority risk, and we are looking at composite poles as an alternative for the overhead distribution system, which is essentially comprised of wooden poles. Composite poles have a longer service life and could reduce the risk in targeted areas.

Divers performing an underwater survey in the Rivière Richelieu

Soil excavation and treatment at the Chisasibi site in Baie-James

Employees deploying a boom and absorbent socks for a simulation near Robert-Bourassa generating station

Successful environmental rehabilitation in Chisasibi

In 2019, Hydro-Québec completed the rehabilitation of a site formerly used as a fuel depot during Phase 1 of the La Grande complex construction project, between 1973 and 1984. The site included 1.7-million-litre above-ground storage tanks, 50,000-litre above-ground storage tanks, barrel storage areas and a workcamp. Hydro-Québec carried out several studies after the site was dismantled in 1996 and rehabilitated it between 2015 and 2019. Groundwater quality was monitored until 2022 in accordance with the authorizations and rehabilitation objectives determined with the Cree Nation of Chisasibi and the Québec government. The work involved excavating 102,327 m^3 of earth, treating 58,565 m^3 of contaminated soil and managing 31 metric tonnes of metallic debris and some 1,000 barrels.

The water quality results indicate that the rehabilitation objectives for the soil and groundwater were met. What's more, the project was both a technical and social success: the shared objectives were understood and followed, some 40 Cree workers enhanced their skills, and the land was transferred to the Cree Nation of Chisasibi for reappropriation of the site.

Emergency response simulations along shorelines

To improve its ability to respond to environmental emergencies, Hydro-Québec organizes training and awareness activities for its teams. In 2022, we carried out over 25 emergency response simulations at substations and generating stations as well as on watercourses and shorelines.

The aim of these exercises is to prevent the accidental release of contaminants. Employees get a chance to apply their knowledge and experience, assess the effectiveness of existing measures and recommend improvements. Hydro-Québec works with experts in the field, including the Eastern Canada Response Corporation (ECRC)—the only body authorized to provide response services in Québec's navigable waters.

Animal guards for the distribution system

Animal guards facilitate the distribution system's co-existence with wildlife and vegetation while improving service continuity for customers. Since 2020, all new overhead transformers have been equipped with animal guards, which can also be installed on older transformers as needed. Studies performed in 2022 have confirmed the effectiveness of this approach with respect to service interruptions and the frequency of outages caused by wildlife.

Clé Verte® (Green Wrench) certified vehicle repair shops

In 2022, our Shawinigan shop earned its Clé Verte® certification, which recognizes excellence in environmental practices, including the responsible management of equipment, processes and hazardous materials. The Joliette, Baie-Comeau, Beauport, Châteauguay, Chicoutimi, Granby, Mont-Laurier and Sept-Îles shops renewed their Platinum certifications. Twenty-two of Hydro-Québec's vehicle repair shops currently have Clé Verte® certification.

Innovative approach to managing the risk of oil spills

In the last several years, Hydro-Québec has taken steps to decrease the number of accidental oil discharges from its bulk-oil equipment. In 2022, in conjunction with external suppliers who looked at technical improvements to equipment, a working group on technical and environmental expertise partnered with the Hydro-Québec research center (CREQ) to develop a new analytical method. The objective was to gain a better understanding of the behavior of insulating oil recovery systems required for fire prevention and environmental protection. The collaboration led to the development of a digital model for simulating the internal behavior of oil-water separators and gave rise to a number of innovations, including gutter recovery basins. Innovations like this make it easier to manage spills and facilitate the long-term maintenance and operability of our structures. They also provide a frame of reference for studying, designing and inspecting separators based on a non-continuous flow pattern.

Hydro-Québec vehicle repair shop

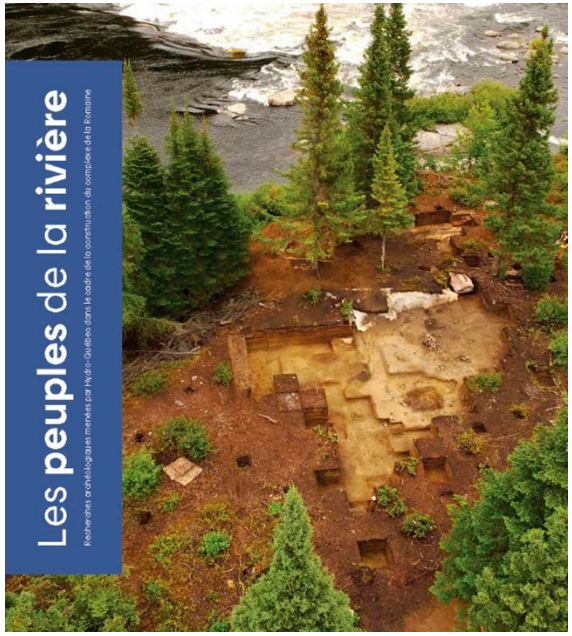
Assessment team for Eastmain-1 and Bernard-Landry generating stations

NEW SUSTAINABLE DEVELOPMENT CERTIFICATION

Hydro-Québec has begun a process to certify its practices according to the new Hydroelectricity Sustainability Standard. Eastmain-1 and Bernard-Landry generating stations were selected for this review conducted by assessors accredited by the Hydropower Sustainability Council. The assessors reviewed hundreds of documents, carried out dozens of interviews and visited the premises in September 2022.
The generating stations were evaluated based on 12 social, environmental and governance criteria, including governance structure and the preservation of biodiversity. At the time of publication, the stakeholders and host communities consulted were making their comments on the assessment report. The Hydropower Sustainability Council's decision is expected in summer 2023.

Publication on archaeological digs at the Romaine complex

The popular science booklet *Les peuples de la rivière* (in French only) was published online in November 2022 and describes the archaeological research carried out in the Romaine watershed between 1999 and 2017, before the hydroelectric complex was built. It presents the main results from the digs and the preferred methodologies for reconstructing the history and traditional activities of the groups that inhabited this vast territory, from prehistory to the 20th century. The studies cover an extensive body of archaeological data from camps, gathering sites, burial grounds, ceremonial sites and portage trails. The wealth of information collected, which deals primarily with humans and their environment, has enriched the ancestral knowledge, writings and collective memory of the Innu and Euro-Canadians who have lived near the banks of the river, either simultaneously or at different times. The booklet is richly illustrated, shows never-before-seen artifacts and spectacular landscapes. It also provides a better understanding of why people have lived near the river and used it for travel for more than 7,000 years.



Responsible use of renewable energy

Every three years, Hydro-Québec publishes an Electricity Supply Plan that presents the anticipated electricity needs of Québec customers for the next 10 years and how those needs will be met. Annual status reports provide updates on the balance between supply and demand for power and energy.

According to the *Electricity Supply Plan 2023-2032* (in French only) filed with the Régie de l'énergie on November 1, 2022, current supply is expected to meet customer needs until 2026. However, new long-term supplies will be required beginning in winter 2026–2027 to meet power demand, and as of 2027 to meet energy demand. Hydro-Québec has already issued two calls for tenders in response to this expected increase: one for 300 MW of wind power and the other for 480 MW of renewable energy. The company also plans to issue a call for tenders in 2023 to secure new supplies. Other calls will follow in the coming years to ensure all of Québec's needs through 2032 are met.

With the creation of an interconnected system between Labrador and the island of Newfoundland, Hydro-Québec and the Newfoundland and Labrador System Operator (NLSO) entered into a first interconnection agreement in 2022, paving the way for a new era of business relations with the province of Newfoundland and Labrador.

Electricity supply

Winter 2021–2022 was much colder than usual, especially in January, when we set a new record for purchases on energy markets to supply the native load (4.5 TWh). Emission allowances had to be acquired for approximately 12% of the purchases on short-term markets in 2022, pursuant to the *Regulation respecting a cap-and-trade system for greenhouse gas emission allowances*. For winter 2022–2023, Hydro-Québec launched a short-term call for tenders to ensure service reliability. The most economically advantageous proposals were accepted, for a total of 1,000 MW in January and February 2023.

Electricity purchases outside Québec – 2019–2022 (%)[a]

Neighboring province or market	2019	2020	2021	2022
New England	0.001	0.001	0.006	**0.049**
New York	0.175	0.006	0.014	**2.151**
Ontario	4.141	3.967	2.095	**5.297**
New Brunswick	0.011	0.003	0.011	**0.013**
Newfoundland and Labrador	95.664	95.994	97.869	**92.490**
Total	**31,600 GWh**	**29,154 GWh**	**31,648 GWh**	**32,240 GWh**

a) Overall total and sums of subtotals may differ due to rounding.

GRI 302-4, EU10

Infrastructure investments

The massive electrification project announced by the Québec government in its *2030 Plan for a Green Economy* will require sizeable investments. In addition to launching new development projects, Hydro-Québec will have to carry out substantial work to refurbish, replace or upgrade its facilities, increase their capacity or make them more robust. The company plans to invest an average of $6.7 billion over the next five years (2023–2027)—up from the $3.8 billion invested between 2018 and 2022.

In 2022, we made major investments in our transmission system. Here are a few examples:

- 735-kV Micoua-Saguenay line – Approximately 650 workers were involved in building this 260-km line. Several towers were constructed this year, involving foundation work, assembly and erection. Commissioning is planned for spring 2023.
- Replacement of approximately 400 measuring instruments (voltage and current transformers) throughout the system after they reached the end of their service life.
- Relocation of a segment of the Forestville–Saint-Paul-du-Nord line in Forestville.
- Major refurbishment or addition of equipment at some 10 substations and Trenche generating station.
- Construction of Le Corbusier substation (315-25 kV) at Laval's Centre industrial park.

Electricity generated and purchased by Hydro-Québec (GWh)

Type of energy	Generation	Purchases	RECs	Net energy	Power delivered to customers from renewable sources
Hydropower	179,730	35,987	8,769	206,948	98.8%
Solar power	14	–	–	14	
Wind power	–	11,911	6,341	5,569	
Biomass and waste reclamation power (biogas)	–	2,239	425	1,814	
Thermal energy and other sources[a]	313	2,273	–	2,586	
Total	**180,057**	**52,409**	**15,535**	**216,931**	

a) "Other sources" refers to imports from neighboring regions and may include renewable energy.
Overall total and sum of subtotals may differ due to rounding.

Micoua–Saguenay line under construction

Renewable electricity

Renewable electricity is a natural driver of Québec's economic development. However, given that it is not an unlimited resource, the Québec government, working in cooperation with Hydro-Québec, introduced a selection process for energy-intensive projects (requiring 5 MW or more of electricity) to prioritize those that are most promising for Québec. The main selection criteria are:

- Advantages compared to direct electrification (exclusively for hydrogen projects)
- Contribution to the energy transition and reduction of GHG emissions
- Required investments and anticipated economic spinoffs
- Structuring effect on the value chain (e.g., stimulation of demand, development of expertise, innovation, consolidation of a local manufacturing base and creation of technological complementarity)
- Technical feasibility, market volume, potential for long-term use and period during which the government's financial support will be required

Green hydrogen and wind power

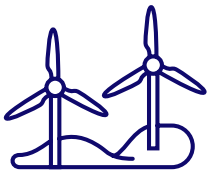
The Québec government has developed a strategy for green hydrogen and bioenergy as part of the province's energy transition, and it will be relying on Hydro-Québec's help. Green hydrogen is one of the keys to decarbonizing activities where direct electrification is not possible, such as certain chemical and industrial processes.

Wind power is now a competitive option that presents interesting synergies with our hydroelectric fleet and Québec's needs. We plan to create a portfolio of wind power projects totaling 3,000 MW in conjunction with local stakeholders by 2026. Our objectives are as follows:

- Assess the impacts on our grid of various wind power capacity increase scenarios.
- Ascertain Québec's wind power potential and build a portfolio of projects that can be implemented based on demand.
- Work with private stakeholders and local and Indigenous communities to optimize wind power development at the lowest possible cost while generating significant economic spinoffs.

Hydro-Québec reiterated its interest in wind power in 2022 by partnering with two developers and the Alliance de l'Est—a municipal and Indigenous organization representing over 200 communities—to submit two projects in response to a call for tenders for 480 MW of renewable energy. If the projects are accepted, they will be carried out by the Alliance de l'Est and project proponents, working in partnership with Hydro-Québec. Each partner will hold a 33.3% stake.

In April 2022, we announced we were teaming up with Boralex and Énergir for the Des Neiges projects, which involve the development of three 400-MW wind farms on the territory of the Seigneurie de Beaupré. The projects will generate significant economic benefits, including the creation of over 1,500 jobs during the construction phase, as well as investments totaling close to $3 billion.



Wind projects totaling
3,000 MV

Data sheets on renewable energy sources

Energy transition

The energy transition poses a number of challenges. Decarbonization, the ramping up of electrification efforts, the growing impact of climate change and the increased production of renewable energy are all shifting paradigms in system design. As we move toward a smarter energy system, Hydro-Québec is preparing the grid to integrate distributed energy resources, a greater number of variable energy sources and equipment enabling customers to play a larger role in energy exchanges. In 2022, we developed our first AI model for demand forecasting and used it during the winter peak to supplement models that have been in place for several years. The new model should be incorporated into the demand forecast process in 2023.

Energy consumption in Québec by sector

Sector	Percentage
Industry	35%
Transportation	24%
Residential	20%
Commercial and institutional	15%
Agriculture	2%
Non-energy uses	4%

Source: *État de l'énergie au Québec, ed. 2023*, HEC Montréal.

SOLID PROGRESS ON THE LA VÉRENDRYE–PARENT LINE

To ensure optimal system reliability for the residents of Parent, in the Haute-Mauricie region, Hydro-Québec replaced 89 wooden H-frames with steel structures on the La Vérendrye–Parent line in 2021 and 2022. We also installed an energy storage system from our subsidiary EVLO in Parent to gain a better understanding of these systems and the increased capacity to incorporate distributed energy sources into our transmission system. This storage system will be able to provide backup in the event of an outage or planned service interruption.

In May 2022, Hydro-Québec took part in the first Montréal Climate Summit, organized jointly by the Montréal Climate Partnership (MCP) and the Ville de Montréal. To accelerate the energy transition, we announced a collaboration with the Ville de Montréal to reduce GHG emissions in the building sector and implement best practices in energy efficiency.

Hydro-Québec's commitments as part of the Montréal Climate Partnership

RESEARCH ON CLIMATE RETROFITS

In Canada, 70% to 80% of buildings that will be occupied in 2040 already exist. That means that they deserve our attention if we are to reach our GHG reduction targets. Improving the energy efficiency of buildings is one of the most cost-effective and quickest ways to reduce emissions. With the creation of the Research Chair in Architecture for mass building climate retrofits, Hydro-Québec has been working closely with McGill University and a number of companies to develop innovative energy management and conversion models. The research focuses on a systematic and scalable approach to retrofitting existing buildings and cutting their GHG emissions.

Decarbonizing our operations

As a responsible company, Hydro-Québec seeks ways to mitigate its emissions and establishes priorities based on several factors. In 2022, we identified five categories of equipment that contribute primarily to SF_6 emissions. Over the next three years, we plan to focus on equipment responsible for the greatest emissions and test various new technologies. In 2023, we will carry out a study to establish a timeline for incorporating these technologies into our processes and procedures by 2030. These steps are in addition to our ongoing decarbonization initiatives, which include converting off-grid systems and electrifying our vehicle fleet.

We did not reach our GHG reduction targets for 2022, primarily due to greater use of the Bécancour and Cap-Aux-Meules thermal power plants. The first saw heavy use during winter peaks, while the second handled increased power demand from Îles-de-la-Madeleine and had to compensate for unavailable output from wind farms. In addition to our decarbonization initiatives, we will be deploying additional efforts in 2023 to establish a carbon offsetting strategy that will enable us to attain the ambitious goal of carbon neutrality by 2030. To offset emissions that Hydro-Québec is unable to reduce or neutralize by 2030, we plan to purchase high-quality carbon credits in accordance with stringent criteria.

GHG emissions related to land-use changes

All forms of electricity generation emit GHGs over the course of their life span, from construction to operation and decommissioning. Since the service life of hydroelectric generating stations and reservoirs is on the order of several decades—and sometimes more than a century—their emissions are spread out over an extended period. Québec hydropower is one of the lowest GHG-emitting sources of energy. Net GHG emissions from Québec's hydroelectric facilities over their entire life cycle are similar to emissions from other renewable sources like wind and solar power, and at least 10 times less than emissions from natural gas- and coal-fired generating stations.

When hydroelectric reservoirs are impounded, the decomposition of the flooded vegetation leads to a temporary spike in GHG emissions. The decomposition rate varies significantly according to the location of the reservoir because it depends on the type and quantity of flooded vegetation as well as water temperature. In northern regions, where the water is colder, the bacteria that break down the organic matter are less active, and GHG emissions are lower. The vegetation is also less dense than in warmer regions, meaning there is less organic matter to decompose. Moreover, the water is well oxygenated, which means that emissions are mostly in the form of carbon dioxide (CO_2) as opposed to methane (CH_4). Methane, which has a planet-warming potential 34 times that of CO_2, accounts for a smaller proportion of emissions from Québec reservoirs.

Hydro-Québec has known about reservoir emissions for several years and studied them in cooperation with universities, research centers and other electricity producers. Data collected over the years reveal that GHG emissions in Québec's northern reservoirs are higher in the years following impoundment and then fall off rapidly. After about 15 years, the emissions level is generally similar to that of natural environments.

GRI 2-25, 302-4, 305-1, 305-5, EU5

Annual quantification of GHG emissions

Over the last several years, Hydro-Québec has been closely following the rising interest in quantifying and disclosing annual GHG emissions stemming from land-use changes. New requirements in the field are expected to apply to several activities, including agriculture, forestry and reservoir impoundment.

Unlike GHG sources for which emissions are based on factors such as the amount of fuel consumed, reservoir emissions are estimated using models and assumptions. We have an in-depth understanding of GHG emission pathways from reservoirs, but determining the annual amounts accurately remains difficult.

We monitor GHG emissions from our reservoirs in various ways in order to gain a thorough understanding of the impact of climate change. In 2022, we measured GHG emissions from several La Grande complex reservoirs. The results confirmed low emission levels after 15 years, consisting mainly of CO_2. They also confirmed the changes in net GHG emissions from Paix des Braves reservoir projected in a study by Teodoru et al. (2012).

In 2022, Hydro-Québec released three popular science publications intended for the general public. They explain the types of emissions we measure and why Québec reservoirs emit low GHG levels compared to reservoirs in warmer regions, where emissions are generally higher and often include more methane (CH_4). We also installed television screens along the La Grande-1 and Robert-Bourassa generating station tour routes, which show real-time GHG concentrations in the water flowing through the turbines.

Working with the Université du Québec à Montréal to sample GHG emissions in the Romaine 2 reservoir

Greenhouse gas emissions from hydroelectric reservoirs

Why are reservoir GHG emissions lower in Québec?

Automated greenhouse gas measuring system (SAGES)

Understanding Québec hydropower: Among the lowest greenhouse gas emissions of all electricity generation options

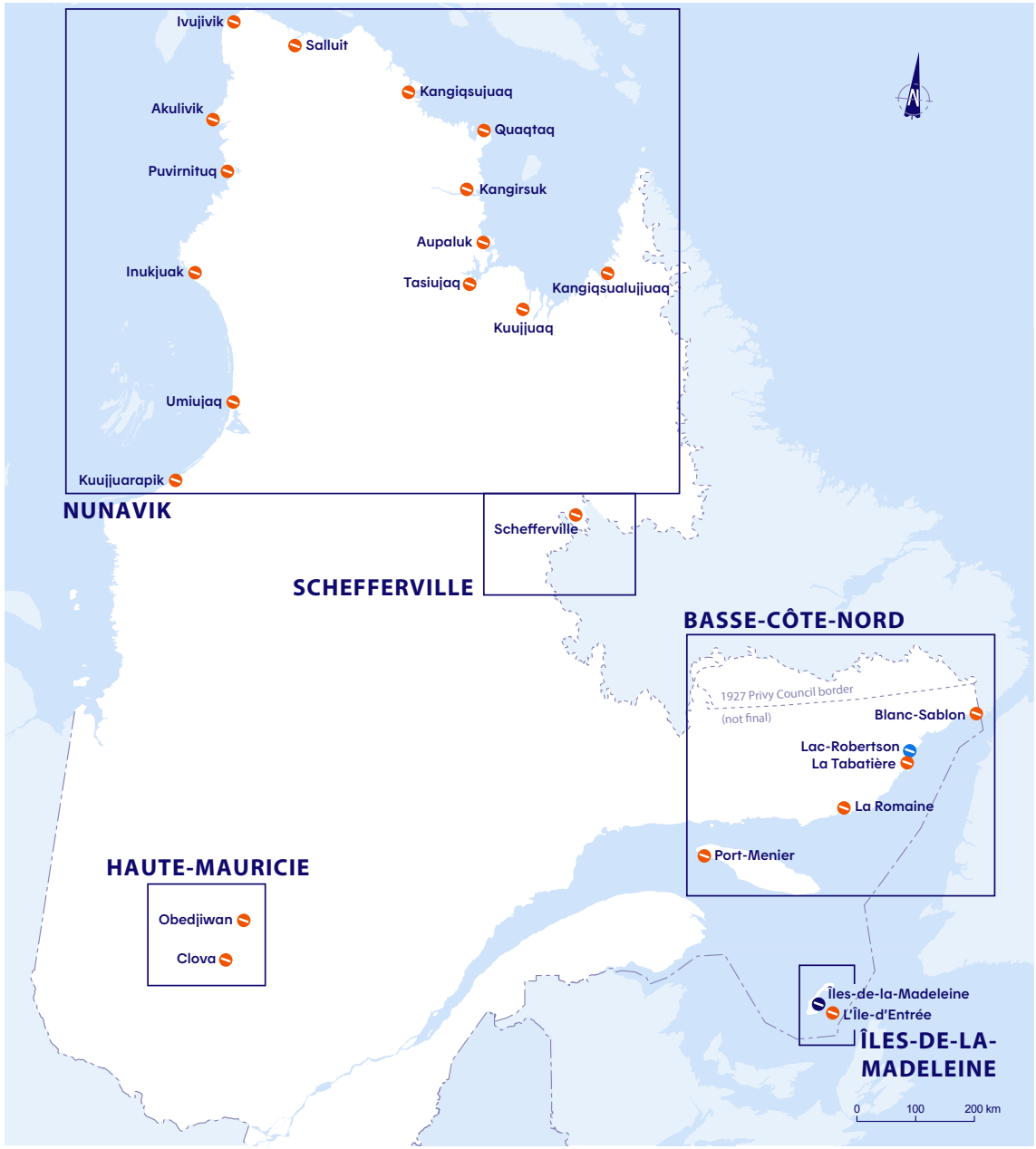
Conversion of off-grid systems

Converting thermal generating stations supplying off-grid systems to renewable energy sources is key to Hydro-Québec's decarbonization strategy.

In 2022, we teamed up with Tarquti Energy Inc. to develop renewable energy projects and ultimately convert 12 Nunavik communities to renewable sources. The project proponent, Inukjuak-based Innavik, continued construction of a run-of-river hydroelectric generating station, while Hydro-Québec converted the distribution system and built a 25-kV substation. Commissioning of the new station was postponed to spring 2023 due to pandemic restrictions limiting travel to Nunavik communities.

We also continued our discussions with the Kuujjuaraapik Whapmagoostui Renewable Energy Corporation, owned in equal shares by the Cree community of Whapmagoostui and the Inuit community of Kuujjuarapik, regarding a wind power project designed to supply the two communities. We plan to submit the electricity supply contract to the Régie de l'énergie for approval in 2023.

Map of off-grid systems



Generating stations

- Thermal, diesel-fired
- Thermal, oil-fired
- Hydroelectric

On October 25, 2022, after 50 years of dependency on diesel fuel, the village of La Romaine and the Innu community of Unamen Shipu began getting their electricity from a 75-km, 34.5-kV line. The new line will cut diesel consumption by nearly four million litres a year and prevent the emission of approximately 10,000 tonnes of GHGs—the amount produced by 2,500 vehicles.

In Îles-de-la-Madeleine, Hydro-Québec continued discussions with the proponent of the Dune-du-Nord wind farm with a view to signing an electricity supply contract for the output of four new wind turbines in the Grosse-Île sector. In regard to the possibility of connecting Îles-de-la-Madeleine to the main grid, we took note of the Régie de l'énergie's request for further studies on various scenarios for converting Îles-de-la-Madeleine generating station to renewable liquified natural gas, as well as on adding wind turbines equipped with a battery storage system.

We also entered into discussions with the community of Opitciwan concerning a biomass project and submitted an electricity supply contract to the Régie de l'énergie for approval in January 2023. We are assessing the possibility of connecting the hamlet of Clova to the integrated system for the 2026–2027 peak.

Decarbonizing Hydro-Québec's vehicle fleet

Hydro-Québec hopes to position itself as a North American leader in the electrification of vehicle fleets. We have rolled out several measures to support our decarbonization strategy, which aims to replace 2,545 light-duty, utility and specialized vehicles with zero- or low-emission models by 2026. These measures are summarized below:

- We replaced most of our light-duty vehicles, bucket trucks and vans with zero- and low-emission models in 2022.
- We have started to adapt our buildings for vehicle charging.
- 769 electric road vehicles in our fleet are helping reduce our carbon footprint.
- We took shipment of the first 55 electric Ford E-Transit vans delivered in Canada.
- We've partnered with the Québec companies Lion, Posi+ and Xander to develop the first all- electric Lion8 bucket truck, which will include a Dana TM4 powertrain.
- All-electric straight trucks manufactured by Lion and International will be gradually integrated into our vehicle fleet.
- We've also added some all-electric snowmobiles from Québec manufacturer Taiga.
- Hydro-Québec employees can now use a shuttle to travel between Montréal and the city of Québec, which reduces the number of cars on the road.
- All-electric buses are available to visitors at Robert-Bourassa and Romaine-1 generating stations.
- All bucket trucks have been replaced by dual-energy trucks equipped with a zero-emission electric bucket.

2,200
Zero- or low-emission light vehicles on the road by 2026

345
Zero- or low-emission specialized vehicles on the road by 2026

Decarbonizing the economy outside Québec

Hydro-Québec continued its discussions with the federal government, the Canada Infrastructure Bank, NB Power and Nova Scotia Power concerning a hydroelectric corridor project designed to decarbonize electricity generation by eliminating the use of coal in the Atlantic provinces by 2030. The aim is to sign a commercial agreement and commission a new interconnection to expand Québec's power exports to the Atlantic provinces.

Two major export projects will help decarbonize neighboring systems in the United States: the Champlain Hudson Power Express (CHPE) and New England Clean Energy Connect (NECEC). The CHPE involves the construction of a direct-current line running some 58 km between Hertel substation in Québec and an interconnection point near the Canada/U.S. border, as well as a 545-km underground/underwater line between that point and Astoria substation in New York, with a 1,250-MW capacity.

For the U.S. portion of the transmission line project, the key permits and authorizations have been obtained, funding has been secured, and some construction work began in fall 2022. Permits and authorizations for the Québec section of the line will be issued as required.

The NECEC project involves the delivery of 9.45 TWh of clean, renewable hydropower to Massachusetts over a 20-year period, as well as 0.5 TWh to Maine. Construction work began in Maine in January 2021 but was suspended following a referendum on the project and the passage of a new law requiring that additional authorizations be obtained retroactively. In August 2022, the Maine Supreme Judicial Court ruled that the new law was partially unconstitutional and ordered the case to be remanded to the trial court (the Maine Superior Court) for a determination as to whether the permits and authorizations had been obtained in accordance with existing laws and regulations and whether the proponent had started work in good faith.

GHG emissions avoided by exports of electricity

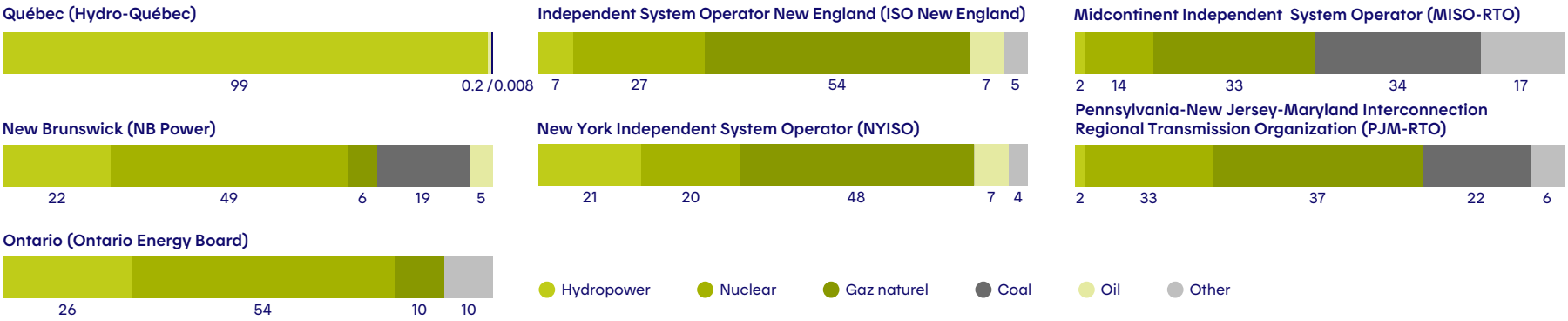
	2019	2020	2021	2022
GHG emissions avoided (kt CO_2 eq.)	6,880	6,611	6,849	**6,386**

The positive differential is gradually waning as the northeastern United Sates turns to new sources of supply with lower GHG emissions.

Interconnection capacity

	2019	2020	2021	2022
Import capacity (MW)	6,025	6,025	6,015	**6,015**
Export capacity (MW)	7,974	8,145	8,190	**8,202**

Main export market energy mixes (%)



Source for ISO New England, NYISO, MISO-RTO and PJM-RTO: U.S. EIA 2022. Source for NB Power: *Annual Report 2021-22*. Source for Ontario Energy Board: *2021-2022 Annual Report*.

Decarbonizing Québec's economy

Heating of non-industrial buildings represented almost 10% of Québec's GHG emissions in 2019, primarily due to the burning of oil and gas. Switching to electricity to meet our heating needs would help reduce these emissions but also put additional pressure on the grid. That's why Hydro-Québec is co-developing and deploying thermal storage technologies able to store heat and release it during peak periods. In 2022, we tested the use of local heat accumulators to replace baseboard and convection heaters.

Energy efficiency – Administrative buildings (kWh/m² gross)

Unit consumption	2019	2020	2021	2022
Average energy consumption	233	222	223	**222**

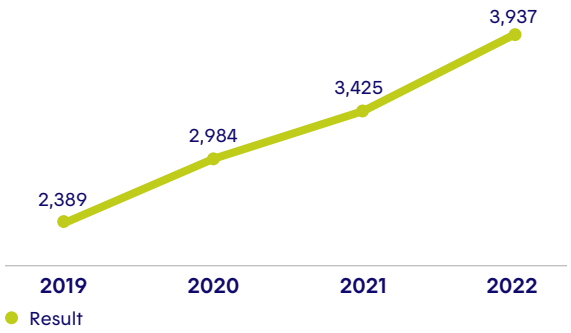
222 kWh/m²

Average energy consumption of administrative buildings

Transportation electrification

Launched in 2012, the Electric Circuit serves all regions of Québec as well as eastern Ontario. It has grown into one of the most reliable and extensive public EV charging networks in North America. In 2022, the network's first 24-kW charging stations were installed, allowing for fast charging while leaving EV drivers time to go about their business. The first multi-vehicle charging stations were also rolled out, with the installation of several fast-charge stations (24 kW, 50 kW and 100 kW) in Montréal.

Number of Electric Circuit public charging stations



To make public charging stations easier to access across North America, the Electric Circuit introduced an interoperability platform enabling members of partner networks to charge their EVs without having to create a new account. Arrangements of this kind have been in place for years between the Electric Circuit, Flo (Canada/U.S.) and New Brunswick's eCharge network. The Electric Circuit now offers simplified access to over 60,000 charging stations thanks to an IT platform allowing for the exchange of data with the ChargePoint, EcoCharge (IGA supermarkets), SemaConnect, Shell Recharge and SWTCH networks.

Level 2 (7-kW standard) charging stations are part of the Electric Circuit network but do not belong to Hydro-Québec. To encourage growth in the number of public charging stations, the Electric Circuit now lets station owners set their own rates, though within certain parameters designed to keep pricing competitive. However, the Québec government sets the rates for fast-charge stations to ensure fairness for the various types of vehicles and improve charging efficiency.

The massive influx of heavy-duty electric vehicles is just around the corner. In 2022, Hydro-Québec launched a first public charging pilot project for commercial vehicles with a view to adapting its network to future demand. Following studies to determine locations and potential partners, the first charging station was commissioned in Laval last October, with more to be rolled out in 2023.

Biodiversity

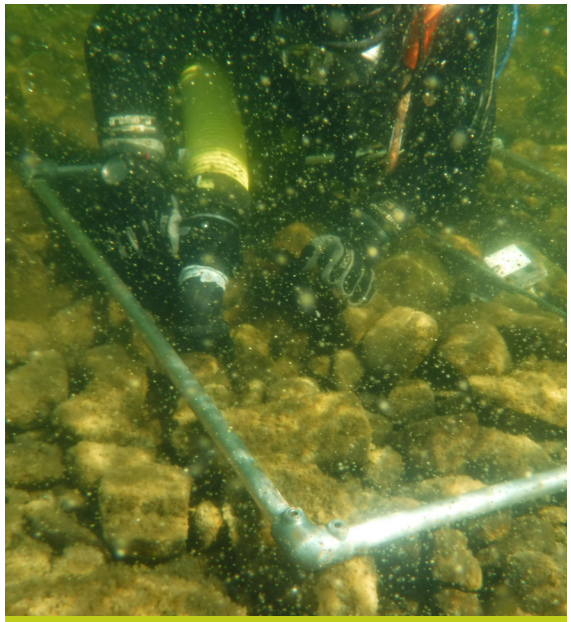
Hydro-Québec's facilities cover over 31,000 km² and are found in most of Québec's ecosystems. As a result, our operations are closely linked to biodiversity and have a direct impact on its quality. That's why we adopted a strategy—the fourth in this area since 2006—to incorporate the protection of biodiversity into our actions and decisions. We intend to exceed the minimum requirements in order to preserve and enhance biodiversity while generating measurable concrete benefits.

Hydro-Québec has also started to develop an action plan based on the priorities established in its strategy for addressing biodiversity issues. The plan is set to come into force in 2023 and will include indicators for measuring the outcomes of the actions taken, assessing their effectiveness and making adjustments as needed. We will also take the necessary governance measures to ensure that our ambitious environmental goals are achieved.

Hydro-Québec's Biodiversity Strategy and Initiatives

Cleaning of spawning grounds

Lac Mitis is home to a large population of lake trout. While conducting work at the lake in 2022, Hydro-Québec tested several innovative methods for cleaning the substrate in the species' spawning grounds in order to improve the existing habitat without the need for major intervention. We obtained the necessary approvals and cleaned over 500 m² of spawning grounds in four areas to encourage their use by lake trout. The grounds will be monitored over the next few years to document the effectiveness of this measure.



Diver cleaning the substrate of lake trout spawning grounds in Lac Mitis

Differentiated vegetation management and habitat enhancement

Differentiated vegetation management has considerable potential to enhance biodiversity near our facilities. This approach varies the frequency at which grassy areas are mowed to encourage more natural green spaces. Native plants are able to grow taller, bloom and attract pollinators and small wildlife. Not only does this technique enrich the diversity of plant and animal species, but it also makes the habitats more resistant to drought and creates richer and more varied landscapes. In 2022, Hydro-Québec carried out several projects of this nature in its transmission line rights-of-way, in cooperation with municipalities, as well as around its administrative buildings.

Seeding on Hydro-Québec land

GRI 2-25, 304-1

We continued the greening of the spaces around our administrative buildings this year, with 21 trees planted at the administration center in Laval, 17 at the Joliette center and 55 at our Saint-Laurent location. This will help reduce heat islands, particularly in parking lots, and enhance biodiversity. The work was carried out with CANOPÉE (Laval), Nature-Action Québec (Joliette) and Soverdi (Montréal). We began preparing the areas by setting up differentiated vegetation management test benches at the administration centers in Laval, Joliette and Saint-Bruno, as well as at the Saint-Laurent service center. Results will be available beginning summer 2023.

We also seeded native plants in a line right-of-way in Montréal to diversify the plant cover and benefit pollinators. We planted over 13,000 shrubs and trees and set up wildlife enhancements such as dead tree trunks, nesting boxes, shelters and snake hibernacula. These measures reduced the number of ragweed plants and increased the diversity and coverage of other plant species. The tree and shrub survival rate is good but varies according to the species. The number of snake and amphibian species rose from 3 to 10, while the number of bird species increased from 36 to 75.

Protecting reptiles

After the dike at Les Cèdres generating station was refurbished in 2022, Hydro-Québec completed its report on the mitigation and habitat enhancement measures taken to minimize the project's impacts on brown snakes—a species likely to be designated as threatened or vulnerable in Québec. We installed exclusion fencing over a 450-m distance to keep the snakes away from the work site and built a hibernaculum and 13 shelters from branches and stones. Snakes that managed to get into the work area were captured and relocated through a surveillance program. Over a span of two years, 108 snakes were captured and relocated, including 68 brown snakes.

Rebuilding of the Rivière-des-Prairies fish pass

The fish pass at Rivière-des-Prairies generating station was originally built when the spillway was replaced in 1985. Between then and June 1991, it underwent several modifications to help American shad make it through. In response to the new priorities set by the Ministère de l'Environment, de la Lutte contre les changements climatiques, de la Faune et des Parcs, we renovated the pass to make it more effective for a wider variety of fish species, including the American eel. We monitored use of the fish pass by camera in summer 2021, as well as in spring and summer 2022. To date, 11 fish species have been observed, including smallmouth bass, channel catfish, tench, common carp, American eel, mooneye, rock bass and a few sucker species.

NEW VEHICLES DESIGNED TO PROTECT NATURAL ENVIRONMENTS

Many wetlands are located in Hydro-Québec's transmission line rights-of-way. They must be protected because they provide diversified habitats for plants and wildlife, in addition to fulfilling a wide range of ecological functions. Several initiatives have helped limit the impacts of our operations, including the testing of a new vehicle that minimizes pressure on the ground. In addition, various measures have been implemented to speed up the restoration of disturbed wetlands.

New vehicle used in transmission line rights-of-way to limit the impact of travel on wetlands

Management of invasive plant species

The objective of Hydro-Québec's action plan on biosecurity and non-native invasive plant species (NNIS) is to prevent their introduction and propagation. As part of the action plan, we produced an educational video for our employees. It provides an overview of the NNIS issue, explains why they are a threat to biodiversity and discusses how some activities (both professional and personal) promote the spread of NNIS.

Though our primary focus is responsible management of NNIS in the course of our operations, we have also partnered with local stakeholders to address the problem. In the Chaudière-Appalaches region, for example, we are taking steps to eradicate giant hogweed to help preserve native ecosystems and protect the public and our workers.

Protection of at-risk species

Hydro-Québec's facilities coexist with many plant and animal species, including some that are at risk. To limit the repercussions of our operations on these species and preserve their habitats, we apply a number of mitigation measures. We also serve on several recovery teams, one of which is responsible for protecting the western chorus frog in Québec. Composed of representatives from various government departments and conservation organizations, this team's mandate involves identifying and prioritizing actions that need to be taken to protect the chorus frog, halt its decline and restore the population. In 2022, Hydro-Québec pleaded guilty to one offence in connection with the *Emergency Order for the Protection of the Western Chorus Frog*. We have since stepped up the effectiveness of our processes to ensure that the circumstances leading to the offence are not repeated.

Observation of eels

During their migration, young eels use eel ladders installed by Hydro-Québec to get past certain generating stations and reach their habitats upstream. There are currently no solutions available for the downstream migration of adult eels, but we have been working with Ontario Power Generation, the New York Power Authority and Canadian and U.S. universities and government departments since 2013 to find one. For example, we are taking part in a research project to confirm whether an illuminated barrier can divert the eels' route. From August to December 2022, the waters of the Fleuve Saint-Laurent (St. Lawrence River) were lit up over a 216-m stretch near Iroquois dam in Ontario. Acoustic telemetry was used to observe the eels' behavior as they approached the dam, which will be compared to their subsequent behavior as they near Beauharnois generating station. Results will be available in 2023.

Photo: Organisme des Bassins Versants

Two employees from a watershed protection organization in Chaudière-Appalaches eradicating colonies of giant hogweed

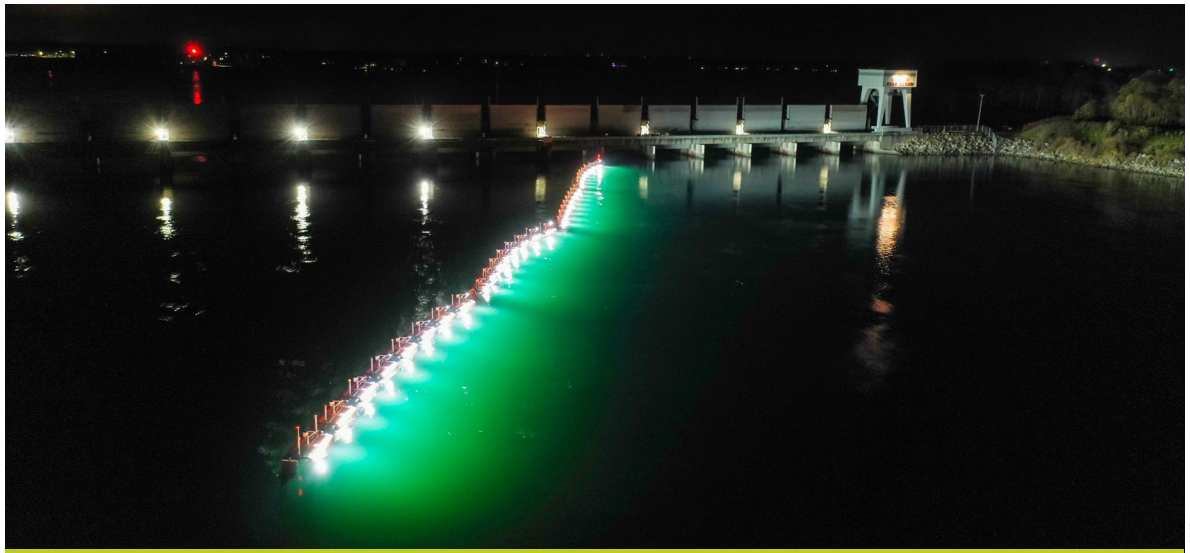


Photo: NYPA

Illuminated boom deployed upstream from Iroquois dam in Ontario to help adult eels navigate the facility, summer 2022

Sustainable Development Plan: Progress summary

Strategy	Target	Status	Explanation
9. Work toward decarbonizing all of our business activities and markets. **Sustainable development goal**  	**9.1** Avoid 4.6 Mt CO_2 eq. of emissions through our long-term export contracts. **Indicator** GHG emissions avoided (Mt CO_2 eq.)	**2.3 Mt CO_2 eq. of GHG avoided (2.5 Mt CO_2 eq. in 2021)**	The export volumes of our long-term contracts allowed us to avoid 2.3 Mt CO_2 eq. of emissions in 2022.
	9.2 Cut direct emissions of our operations by 35% by 2027. **Indicator** Direct GHG emissions reduced compared to 2018 (%)	**6.5% increase**	We intend to cut our GHG emissions as much as possible. The objective set out in the *Sustainable Development Plan 2020-2024* has been increased by 50%. The new target will be integrated into the next Sustainable Development Plan.
	9.3 Aim for carbon neutrality by 2030. **Indicator** Development and progress of a carbon-neutral strategy (%)	**Basis for a compensation strategy established**	Although we fell somewhat short of achieving our GHG reduction targets for 2022, our objective of becoming carbon-neutral by 2030 still holds firm. In 2022, we laid the groundwork for a carbon offset scheme to target emissions that cannot be reduced or eliminated.

Strategy	Target	Status	Explanation
10. Equip Quebecers to lower their consumption through better electricity use. Sustainable development goal 	**10.1** Propose electricity management solutions to our business and residential customers that aim to cut energy use by 2.49 TWh and potentially reduce power demand by 1,523 MW compared to 2019. **Indicator** 1) Reduction in energy use by business and residential customers (TWh) 2) Potential reduction in power demand (MW)	**0.824-TWh reduction in energy use by business and residential customers (0.733 TWh in 2021)** **621-MW potential reduction in power demand (433 MW in 2021)**	The energy use reduction target for business and residential customers now stands at 3.5 TWh within the timeframe of the Sustainable Development Plan. Demand response projects and various rate options are helping to achieve our power reduction target. In 2022, the Hilo smart home service, the Demand Response (DR) Option for business customers, dynamic pricing and special rates applicable to the blockchain industry all played a part in reducing demand from business and residential customers. Note that the result pertaining to Hilo is a preliminary assessment and that the overall result excludes interruptible energy and blockchain processing on municipal systems.
11. Enhance and protect biodiversity. Sustainable development goal 	**11.1** Develop a corporate strategy for enhancing and protecting biodiversity **Indicator** 1) Development of a biodiversity enhancement and protection strategy in 2020 2) Progress on actions identified in the strategy (2021–2024)	**Hydro-Québec's *Biodiversity Strategy 2022–2026* adopted and published**	The ambitious biodiversity protection strategy we adopted in 2022—our fourth since 2006—aims to generate tangible and measurable benefits. The strategy will be accompanied by an action plan built around the key themes identified in the overview of the main biodiversity issues facing Hydro-Québec.

GRI 305-1, 305-05

Strategy	Target	Status	Explanation
12. Reduce resource use by applying the principles of the circular economy. **Sustainable development goal** 	**12.1** Draft and deploy a logistics strategy that applies the best practices of the circular economy. **Indicator** 1) Development of a logistics strategy in 2020 2) Progress on the actions identified in the strategy (2021–2024)	**65% of actions identified in the logistics strategy implemented**	In our 2021 decarbonization strategy, we set ourselves the goal of adding 2,545 zero- or low-emission vehicles to our fleet by 2026. Under this initiative, all our vehicles will gradually be replaced with all-electric or plug-in hybrid models once it is technologically and geographically feasible to do so. In 2022, we acquired 190 zero- or low-emission vehicles, bringing to 769 the number of vehicles in our fleet that help reduce Québec's carbon footprint. Our new online car-sharing platform lets our employees book vehicles from our fleet for business travel. Over 200 vehicles are already available in 17 locations across Québec, and we plan to add three new locations in 2023 along with a fleet of specialized vehicles. Certain initiatives were reviewed in the wake of the logistics strategy prepared in 2020.
	12.2 Use tools to integrate a total cost analysis (TCA) of goods and services at time of procurement into our governance. **Indicator** 1) Development of a logistics strategy in 2020 2) Progress on the actions identified in the strategy (2021–2024)	**Indicator under review**	A new indicator to follow up on projects that include a TCA will be implemented in 2023.

Audited performance metrics

Data for previous years may be subject to changes from their initial publication due to subsequent verifications.

Indicators	2019	2020	2021	2022
Environment				
Power generated – Hydropower (GWh)	175,086	171,162	178,476	**179,730**
Power generated – Solar (GWh)	–	–	8	**14**
Power generated – Thermal (GWh)	318	310	289	**313**
Residual power purchases – Hydropower (GWh)[a]	34,500	32,843	34,856	**33,891**
Residual power purchases – Wind (GWh)[a]	11,827	10,991	4,145	**5,569**
Residual power purchases – Biomass/waste reclamation (GWh)[a]	1,939	1,837	2,121	**1,814**
Residual power purchases – Other (GWh)[a]	1,340	1,152	674	**2,273**
Residual power purchases – Total (GWh)[a]	49,606	46,823	41,796	**43,547**
Total renewables purchased from independent producers (GWh)	16,427	16,410	15,456	**18,056**
Total residual renewables (generated and purchased) (GWh)[a]	223,352	216,833	201,589	**214,345**
Residual renewables delivered to customers (%)[b]	99.6	99.6	99.5	**98.8**
Residual electricity purchased outside Québec (GWh)[a]	31,600	29,154	31,648	**32,240**
Net electricity generated by Hydro-Québec (GWh)[a]	175,404	171,472	178,772	**173,383**
Total net residual electricity generated and purchased (GWh)[a]	225,010	218,296	220,568	**216,931**
Emissions avoided by net residual electricity exports (t CO_2 eq.)	6,880,394	6,611,235	6,848,966	**6,385,760**
Renewable energy certificates sold to third parties (GWh)	649	1,232	11,494	**15,535**
Number of import interconnections	15	15	15	**15**
Interconnection import capacity (MW)	6,025	6,025	6,015	**6,015**
Number of export interconnections	15	15	15	**15**
Interconnection export capacity (MW)	7,974	8,145	8,190	**8,202**
Total number of road vehicles in service on December 31	5,723	5,805	5,702	**5,618**
Number of all-electric, hybrid, plug-in hybrid and dual-energy road vehicles in service on December 31[c]	399	561	683	**769**
Energy efficiency initiatives: Energy saved – Residential customers (GWh)	214	225	312	**410**
Energy efficiency initiatives: Energy saved – Business customers (GWh)	257	218	420	**411**
Energy efficiency initiatives: Energy saved – Off-grid systems (GWh)	10	0.3	0.4	**3**
Energy efficiency initiatives: Total energy saved (GWh)	481	443	733	**824**

a) "Residual" means that the value shown reflects the quantity of gross energy generated or purchased less the sale of renewable energy certificates (RECs). For example, in 2022, the residual wind power purchase is based on a gross purchase of 11,911 GWh less the sale of 6,341 GWh in RECs, for a residual total of 5,569 GWh.
b) Excludes off-grid systems.
c) Since 2021, all-electric, hybrid, plug-in hybrid and dual-energy vehicles have been included in this indicator, which was limited to light vehicles in the past. Previous results can therefore not be compared.

Indicators		2019	2020	2021	2022
Environment					
Energy efficiency results – Administrative buildings (kWh/m² gross)		233	222	223	**222**
Reduction in administrative building power demand during winter peaks (number of buildings)		38	41	41	**41**
Reduction in administrative building power demand during winter peaks (kW)		7,259	10,431	455	**5,464**
Accidental spills reported to the authorities (number)		1,365	1,122	1,379	**1,299**
Environmental non-compliance notices (number)[d]		27	11	18[e]	**6[e]**
Insulating mineral oil recovered from our equipment (thousands of litres)		3,228	2,837	5,014	**4,557**
Insulating mineral oil treated for reuse (%)		95.9	98.7	75.3	**88.8**
Water withdrawn (millions of m³)[f]		2.70	2.70	2.69	**2.70**
Area of transmission line rights-of-way treated mechanically (%)		93	93	90	**92**
Area of dikes and dams treated mechanically (%)		73	71	57	**71**
NO_x emissions from thermal electricity generation (t)		4,154	4,214	3,443	**3,595**
SO_2 emissions from thermal electricity generation (t)		1,169	1,180	1,026	**1,129**
Carbon footprint (t CO_2 eq.)					
Direct sources (Scope 1)					
Generating stations	Thermal power plants	235,855	228,074	215,561	**233,454**
Mobile sources	Vehicle fleet	50,131	43,943	47,989	**48,037**
	Aircraft fleet	12,941	13,605	14,718	**12,783**
	Utility vehicles (e.g., snowmobiles, tractors, snowblowers)	1,068	890	886	**926**
	Propane-fueled lift trucks	88	68	756	**116**
Fuel use	System maintenance generators	14,656	4,699	3,952	**10,459**
	Emergency and jobsite generators	554	710	675	**705**
	Building heating	1,118	966	1,084	**1,068**
Other sources	Equipment containing CF_4 and SF_6	37,527	74,258	80,672	**85,698[g]**
	Aerosols	258	382	262	**517**
	Equipment containing CFCs, HCFCs and halons	459	714	786	**479**
	Synchronous compensators	24	24	47	**42**
Indirect sources (Scope 2)					
Energy losses	Power transmission and distribution system losses	7,415	6,662	8,290	**12,245**

d) Notice of non-compliance issued by a governmental authority, which excludes administrative monetary penalties, orders and criminal offences.
e) New data entry procedures established and applied to standardize the tallying of government notices.
f) In accordance with the *Regulation respecting the declaration of water withdrawals*, which applies to thermal generating stations and some workcamps using more than 75 m³ of water per day (excludes withdrawals for PPG Canada).
g) For reasons beyond our control, the data required for the final calculations were not available at the time of publication. We have therefore provided the maximum historical value of the last three years. The official value for 2022 will be presented in *Sustainability Report 2023*.

Indicators		2019	2020	2021	2022
Environment					
Indirect sources (Scope 3)[h]					
	Electricity purchases	100,365	93,224	105,430	**170,028**
	Business travel – Employee personal vehicles	5,153	2,818	3,190	**3,585**
	Vehicles leased long-term	2,134	1,967	2,612	**2,627**
	Business travel – Trains	15	3	1	**3**
	Business travel – Commercial airlines	1,743	351	365	**955**
	Business travel – Helicopters[i]	5,079	2,620	5,777	**4,070**
	Business travel – Chartered airplanes[i]	4,796	3,878	4,709	**6,947**
	Life cycle of fuel	52,639	48,887	54,232	**59,332**
Total emissions					
	Direct sources (Scope 1)	354,680	368,332	367,388	**394,283**
	Indirect sources (Scope 2)	7,415	6,662	8,290	**12,245**
	Indirect sources (Scope 3)	171,924	153,748	176,315	**247,546**
	Direct and indirect sources	534,019	528,742	551,993	**654,074**

h) The following indirect emission categories were not included in the Annual Report, either because they did not apply or their contribution to total annual GHG emissions was deemed insignificant: purchased goods and services, capital goods, upstream and downstream transportation and distribution, waste generated in operations, business travel, upstream leased assets, processing/use of sold products, end-of-life treatment of sold products, downstream leased assets, franchises and investments.

i) Calculations for 2022 are based on flights taken between October 1, 2021, and September 30, 2022.

Indicators	2019	2020	2021	2022
Social				
Access-to-information requests processed (number)	509	455	393	**473**
Reputation score	7.0	7.4	7.5	**7.4**
Sustainable employee engagement index (%)	84	87	88	**87**
Overall public satisfaction (very and quite satisfied) (%)	94	96	97	**96**
Customer satisfaction index – Combined index (scale of 10)	8.3	8.3	8.4	**8.4**
Average call wait time – Customer relations centers (seconds)	104	96	101	**110**
Call service level (%)	–	85	83	**83**
System average interruption duration index (SAIDI) (min/customer)	761	305	346	**848**
Special payment arrangements for low-income customers (number)	94,924	36,020	38,884	**55,422**
Special payment arrangements for all residential customers (number)	378,836	224,157	305,048	**343,050**
Customer claims (number)	3,501	2,517	2,396	**2,701**
Customer complaints (number)	2,231	1,611	1,562	**1,979**
Complaints appealed to the Régie de l'énergie (number)	90	42	61	**44**
Employee Assistance Program – Cases opened (number)	2,644	2,437	2,817	**2,613**
Potentially serious incidents (number)	291	245	276	**257**
Field observations (number)	23,699	31,439	32,086	**32,638**
Lost time accident frequency rate (per 200,000 hours worked)	1.41	1.00	1.10	**0.96**
Electrical accidents involving an employee – Incidents (number)	–	–	–	**34**
Electrical accidents involving an employee – Deaths (number)	–	–	–	**0**
Percentage of payroll invested in training (%)	2.8	2.4	3.0	**3.4**
Donations and sponsorships ($M)[i]	18.9	19.3	17.4	**19.6**

i) Includes Hydro-Québec's donation to Centraide.

Indicators	2019	2020	2021	2022
Economy				
Patents held (number)	737	812	871	**947**
Patents pending (number)	428	455	535	**482**
Total procurement of goods and services ($M)	3,115	3,022	3,652	**4,184**
Total procurement of goods and services – Québec only (%)	92	90	91	**90**
Revenue from electricity sales inside and outside Québec ($M)[k]	14,000	13,395	14,145	**16,143**
Contribution to Québec's gross domestic product (GDP) ($B)[k, l]	20.7	20.5	22.7	**25.0**
Net income ($M)[k]	2,923	2,303	3,564	**4,557**
Dividend ($M)[k]	2,192	1,727	2,673	**3,418**
Water-power royalties ($M)[k]	720	716	757	**780**
Public utilities tax ($M)[k]	299	304	308	**330**
Funding for educational institutions – Research chair funding and research contracts ($M)	6.8	7.5	8.8	**3.7[m]**

k) Information taken from Hydro-Québec's *Annual Report 2022* and verified in a separate audit.
l) Data based on the most recent information available at the time this report was published.
m) The 2022 figure takes into account only research chair funding and research contracts awarded by IREQ.

Task Force on Climate-Related Financial Disclosures

For a number of years now, Hydro-Québec has been doing the necessary groundwork to incorporate practices for integrating climate-change impacts into its financial reports. Recommended by the Task Force on Climate-Related Financial Disclosures (TCFD), these practices are in keeping with our transparency commitments to our shareholder and financial partners and follow up on the carbon neutrality commitments outlined in our *Annual Report, Sustainability Report*, *Strategic Plan 2022–2026, Sustainable Development Plan 2020–2024* and *Climate Change Adaptation Plan 2022–2024*.

Although the application of TCFD recommendations is currently on a voluntary basis, its prescribed practices could one day become part of international certification requirements. These practices aim to:

- Promote informed decision-making regarding investments, financing and insurance.
- Help stakeholders understand the financial system's degree of exposure to climate-related risks.

In addition to disclosure and transparency requirements, the implementation of a concerted, rigorous and effective process is the most pertinent aspect of the recommended practices. TCFD recommendations are structured around four themes of central importance to the way organizations operate: governance, strategy, risk management, and indicators and objectives.

CLIMATE-RELATED FINANCIAL DISCLOSURES: RECOMMENDED THEMES

Governance

Define the respective roles of the Board of Directors and management team with regard to managing risks and opportunities.

Strategy

Use scenario analysis to assess how climate-related risks and opportunities may evolve over different time horizons and explain how they stand to affect strategic and financial planning.

Risk management

Implement processes for managing the identified risks and include them in the overall risk management framework.

Indicators and objectives

Explain how climate change impacts and risk exposure are measured, set goals and monitor progress.

Hydro-Québec's level of preparedness

Building on the climate change response measures already in place, Hydro-Québec has accumulated considerable data that it used to conduct a gap analysis in 2022. The analysis served to identify the issues involved, determine which elements already met requirements and assess the work needed to produce a first report in keeping with TCFD recommendations.

Experts from various fields, including risk management, the environment, finance, strategic planning, law and sustainable development, were involved in the process, which pinpointed the climate-change data critical to short-term budgeting and long-term capital planning. It also pointed to a clear need to strengthen our climate governance structure (even though various elements are already in place) along with the importance of identifying transition-related risks.

Main observations by theme

Governance

With more than half of the TCFD's recommendations already carried out, the bulk of the work to come involves systematically integrating climate considerations into our processes, budget and capital planning projects. We also need to systematize how we track progress toward achieving our climate change goals.

Strategy

The gap analysis performed this year showed that we currently have over half the data required to implement the TCFD's strategy-related recommendations. Our efforts should therefore focus on assessing climate impacts and transition risks in the short, medium and long term.

Risk management

While we have the expertise to identify and assess risks as per TCFD recommendations, we will have to take a closer look at the transition scenarios (see inset, right). The physical risks we face were outlined in our *Climate Change Adaptation Plan*, adopted in 2022.

Indicators and objectives

Hydro-Québec already has a great many indicators related to climate change. Nonetheless, meeting TCFD requirements in this regard entails establishing systematic internal audit procedures, the results of which must also be evaluated by an external auditor to ensure neutrality. As with most organizations, our accounting processes do not yet allow us to isolate costs related to climate change. Accordingly, over time we will have to update the volume of GHG emissions associated with our reservoirs and clearing operations and include all sources of Scope 3 indirect emissions to ensure our carbon inventory accurately reflects our operations.

Transition scenarios

Wars, pandemics, mass migrations, supply chain disruptions, natural disasters, seditious movements: events we once saw as improbable are becoming all the more frequent. Expanding our use of tools like the scenario analyses recommended by the TFCD is vital to being better prepared.

Hydro-Québec has long carried out planning and modeling exercises—to forecast water inflows and electricity demand, for instance. Typically, these processes are based on rigorously validated historical data and trends. Conversely, transition scenarios are based on a hypothetical reversal of these trends that lets us explore the improbable by questioning certain paradigms. Analyzing these scenarios yields insights into the nature of the risks incurred; it also allows their potential effects to be quantified and our company's degree of vulnerability to such impacts to be assessed. The findings can serve as a starting point for better risk management and more informed investment decision-making, helping to ensure sound climate governance.

Carbon neutrality by 2050 – Scenarios from the Agence de la transition écologique (ADEME)

Beyond the gap analysis

In 2022, Hydro-Québec launched a number of initiatives in order to align with TCFD recommendations.

Governance

- A second climate change workshop for Board members as part of their annual training program
- Continuing work by the cross-functional coordination committee regarding climate change adaptation, taking into account Hydro-Québec's new value chain

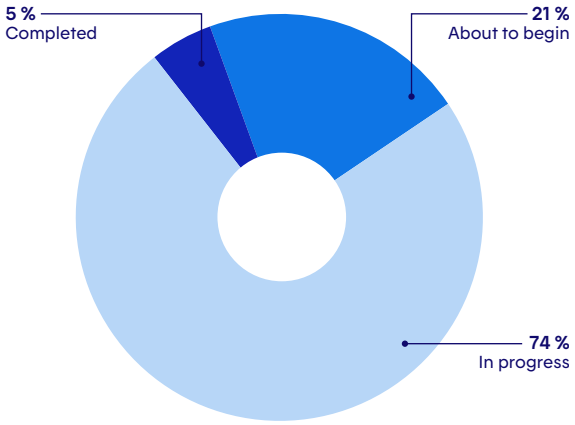
Strategy

- Commitment to carbon neutrality in the *Strategic Plan 2022–2026*
- Québec's commitment to decarbonization, particularly through transportation electrification and the replacement of fossil fuels by low-emission hydroelectricity
- Partnership agreement with Énergir focusing on the use of natural gas by certain customers during winter peaks
- Publication of the *Climate Change Adaptation Plan 2022–2024* (CCAP), which includes four spheres of action and 26 action areas

Risk management

- Alignment of the company's business risk portfolio with CCAP spheres of action
- Implementation and monitoring of CCAP actions: 74% in progress, 5% completed and 21% about to begin

Progress on CCAP actions



Indicators

Progress on most of the actions outlined in the CCAP is measured by means of targets and indicators. These must be integrated into company practices and decision-making processes and continuously monitored.

As a major player in the energy industry, Hydro-Québec stands to be affected by climate change in a number of ways. This is why we intend to follow TCFD recommendations and amend our structure accordingly. Doing so will help us prepare for any regulatory changes, the physical repercussions of climate change and shifts in consumption patterns.

GRI content index
GRI 1: Foundation 2021

Hydro-Québec has disclosed the information specified in this GRI content index for the period between January 1, 2022, and December 31, 2022.

GRI Standard / Other Source	Disclosure	Page	Omission			GRI Sector Standard
			Requirement(s) Omitted	Reason	Explanation	
General disclosures						
GRI 2: General Disclosures 2021	2-1 Organizational details	4, 11, 46				
	2-2 Entities included in the organization's sustainability reporting	10, 11				
	2-3 Reporting period, frequency and contact point	10, 89-90				
	2-4 Restatements of information	82				
	2-5 External assurance	94				
	2-6 Activities, value chain and other business relationships	11, 46, 51, 81, 82, 83-85				
	2-7 Employees	17, 18, 19, 30, 31				
	2-8 Workers who are not employees			Information unavailable / incomplete	Workforce numbers based on contract type are not available. Total numbers of outside workers by employment type, employment contract and region are not available.	
	2-9 Governance structure and composition	13, 14, 15				
	2-10 Nomination and selection of the highest governance body	13				
	2-11 Chair of the highest governance body	13				
	2-12 Role of the highest governance body in overseeing the management of impacts	13				
	2-13 Delegation of responsibility for managing impacts	13				

GRI CONTENT INDEX ESSENTIALS SERVICE 2023

The Content Index – Essentials Service has established that the presentation of the GRI content index is clear and in accordance with the Standard and that the references shown for disclosures 2-1 to 2-5, 3-1 and 3-2 refer to the corresponding sections in the body of this report.

GRI Standard / Other Source	Disclosure	Page	Omission			GRI Sector Standard
			Requirement(s) Omitted	Reason	Explanation	
General disclosures						
GRI 2: General Disclosures 2021 (cont'd.)	2-14 Role of the highest governance body in sustainability reporting	13				
	2-15 Conflicts of interest	13, 14, 23, 28				
	2-16 Communication of critical concerns	7, 24, 25				
	2-17 Collective knowledge of the highest governance body	13, AR p. 103				
	2-18 Evaluation of the performance of the highest governance body	AR p. 106				
	2-19 Remuneration policies	AR p. 106				
	2-20 Process to determine remuneration	AR p. 106				
	2-21 Annual total compensation ratio	AR p. 64–67, 70, 72, 82–87				
	2-22 Statement on sustainable development strategy	3				
	2-23 Policy commitments	10, 13-15, 24				
	2-24 Embedding policy commitments	16, 28				
	2-25 Processes to remediate negative impacts	49, 51, 59, 60, 63, 66, 69, 71, 72, 75-77				
	2-26 Mechanisms for seeking advice and raising concerns	16, 22-24, 39				
	2-27 Compliance with laws and regulations	82				
	2-28 Membership associations	6				
	2-29 Approach to stakeholder engagement	8, 9, 10, 34, 39-43				
	2-30 Collective bargaining agreements	17				

GRI Standard / Other Source	Disclosure	Page	Omission			GRI Sector Standard
			Requirement(s) Omitted	Reason	Explanation	
Material topics						
GRI 3: Material Topics 2021	3-1 Process to determine material topics	7, 10				
	3-2 List of material topics	7, 12, 32, 58				
Spinoffs of projects and operations, financial strength and electricity exports						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 32				
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	8, 9, 11, 33-39, 42, 55, 85			Salaries and employee benefits are considered confidential information and are not released.	EU1, EU4
	201-2 Financial implications and other risks and opportunities due to climate change	33, 49, 51, 55, 58, 73, 86, 88				EU4
Community investments						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 32				EU10
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	36, 37, 66, 72				EU5
	203-2 Significant indirect economic impacts	11, 33, 41, 55, 84				
Sustainable procurement and management approaches						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 11, 12, 32, 58				
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	24, 34, 37, 59, 84				
Ethical management practices						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 11, 12, 24				
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	13, 24				
Energy efficiency for customers, system energy efficiency, electricity supply, management of energy demand and technological innovation						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 11, 32, 58				EU1
GRI 302: Energy 2016	302-4 Reduction of energy consumption	8, 15, 35, 40, 51-53, 65-67, 69, 71, 72, 81				EU2, EU3, EU4, EU5, EU10

GRI Standard / Other Source	Disclosure	Page	Omission			GRI Sector Standard
			Requirement(s) Omitted	Reason	Explanation	
Material topics						
Water body management						
GRI 3: Material Topics 2021	3-3 Management of material topics	7				
GRI 303: Water and Effluents 2018	303-1 Water withdrawal	82				
Biodiversity management						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 58				
GRI 304 Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	75-77				
Atmospheric emissions and impact of climate change, contribution to transportation electrification						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 58				
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	69, 70, 72, 79, 82, 83				EU5
	305-2 Energy indirect (Scope 2) GHG emissions	83				
	305-3 Other indirect (Scope 3) GHG emissions	83				
	305-4 GHG emissions intensity	83				
	305-5 Reduction of GHG emissions	69, 70, 72, 74, 79				EU5
	305-7 Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions	82				
Employee health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 12				
GRI 403: Occupational Health and Safety 2018	403-9 Work-related injuries	20, 39, 84				EU25
Diversity and equal opportunity						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 12				

GRI Standard / Other Source	Disclosure	Page	Omission			GRI Sector Standard
			Requirement(s) Omitted	Reason	Explanation	
Material topics						
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	19, 30, 31				
Social acceptability of projects, relations with Indigenous communities, universal access to service, electricity prices, relations with governments						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 12, 32				
GRI 413:Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	9, 16, 34, 37, 39, 40, 41				
	413-2 Operations with significant actual and potential negative impacts on local communities	39, 41, 42, 44, 47 , 50				EU29
Information management, legal compliance						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 11				
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	81-85				EU29
Public health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 32				
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	8, 39				
Land use, management of contaminated land						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 32, 42, 58, 59, 75				
Customer service						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 32, 53				
Vegetation control						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 32, 48				
Heritage management						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 32, 34, 37, 38				
Acquisitions and partnerships outside Québec						
GRI 3: Material Topics 2021	3-3 Management of material topics	7, 32, 34				

External assurance

Mandate

GHD was engaged to conduct an independent evaluation of Hydro-Québec's *Sustainability Report 2022* (the "Report"), which covers the period from January 1 to December 31, 2022. The evaluation aimed both to ensure the compliance of the Report's quantitative performance data and determine the nature and extent to which the organization adheres to AccountAbility AA1000 principles.

Level of assurance and standards

GHD conducted its evaluation to a moderate level of assurance and as a Type 2 engagement, in accordance with AA1000AS v3 and the Global Reporting Initiative (GRI) standards. The purpose of GHD's evaluation was to demonstrate the reliability of the selected indicators. An engagement performed in accordance with the AccountAbility AA1000 principles sets out to provide stakeholders with assurance on how the organization manages its sustainability performance and on how that performance is presented in its sustainability reports. The Type 2 engagement assesses both the nature and extent to which Hydro-Québec adheres to all four AccountAbility AA1000 principles (Inclusivity, Materiality, Responsiveness and Impact) and verifies the reliability of specific sustainability performance information.

Regarding the GRI reporting principles, the principle of reliability states that the organization must be able to identify the original sources of the information in the Report and provide reliable evidence to support assumptions or complex calculations.

Statement of independence

GHD rigorously applies a conflict-of-interest verification protocol to ensure its independence and that of its staff in the execution of evaluation mandates. This verification was performed by independent, experienced and qualified professionals.

Methodology

The list of the main indicators verified can be found on pages 81 to 85. These were verified using a risk-based approach, defined as the set of elements likely to contain errors or omissions that could have a major impact on the final values.

To assess how stakeholders are taken into account in the company's strategies for dealing with sustainability issues, GHD evaluated the methods by which Hydro-Québec:

1. Identifies stakeholders and enables their participation in identifying sustainability issues (principle of Inclusivity)
2. Identifies and prioritizes the sustainability issues most relevant for the organization and its stakeholders (principle of Materiality)
3. Responds to sustainability issues and their impacts (principle of Responsiveness)
4. Monitors, measures and reports on how its actions affect its broader ecosystem (principle of Impact)

GHD verified the data by conducting interviews and document reviews, validating data collection processes and taking samples of reports, invoices, minutes, emails and documentation supporting the source data in order to verify the traceability and appropriate use of the values presented in the Report. This process aimed to confirm the following:

- The documentation was complete and comprehensible.
- The data collection methods used were justified and appropriate.
- The calculations were appropriate and based on appropriate assumptions.
- Information management systems and their controls were sufficiently robust to minimize the potential for errors, omissions and misinterpretation.

GHD verified the indicators related to greenhouse gases based on the general principles described in the standard ISO 14064-3.

Observations and conclusion

GHD's independent evaluation was performed using the standards and methodology described above. Below are its findings and conclusions.

Inclusivity

Hydro-Québec has demonstrably considered its stakeholders in its governance, strategies and relevant decision-making processes throughout the company. Methods for identifying and understanding its stakeholders have been established, taking into account their capacity to engage as well as their views and expectations. Hydro-Québec uses the information gathered from stakeholders to facilitate understanding, learning and improvement of the organization. Information related to its sustainability performance is conveyed to stakeholders in an appropriate and transparent manner.

Materiality

Hydro-Québec has shown that its methodology is able to identify the most relevant sustainability issues. Detailed criteria are in place for determining and assessing company-wide materiality thresholds and material issues under the guidance of senior management and in compliance with the applicable laws, regulations and internal policies and procedures.

Responsiveness

Hydro-Québec has implemented processes for responding to its stakeholders, particularly government authorities, employees, partners, suppliers and the public. These procedures ensure that stakeholders receive a response that is complete, accurate, timely, accessible and balanced.

Impact

Hydro-Québec has implemented processes to understand, measure, assess and manage its impacts for the indicators established and mentioned in the Report. The company has qualified personnel to implement these processes, which are documented and integrated into the organization's activities.

The evaluation also confirmed that the Report was prepared in accordance with the Global Reporting Initiative (GRI) standards, i.e., taking into account stakeholders, the sustainable development context, materiality and comprehensiveness.

GHD notes that Hydro-Québec has followed up on a number of the recommendations issued by GHD during its verification of the *Sustainability Report 2021*. With a view to continuously improving sustainability performance, GHD also recommends that Hydro-Québec pursue its efforts to improve certain data management processes.

GHD affirms that, based on the assurance performed, the information in the *Sustainability Report 2022* constitutes a reliable account of Hydro-Québec's sustainability performance for the period from January 1 to December 31, 2022.

Montréal, March 15, 2023

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Ce document est également diffusé en français.

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