Renewable Energy for a Sustainable Québec

Sustainability Report
2023

Hydro Québec

Table des matières

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

Message from the President and Chief Executive Officer

In a world where extreme weather events are on the rise, Hydro-Québec has committed to taking a leadership role in the decarbonization of Québec.

This commitment is reflected in our *Action Plan 2035 – Towards a Decarbonized and Prosperous Québec*, whose goals include reducing greenhouse gases, meeting the growth in electricity demand triggered by the energy transition and improving service quality.

Guided by the principles of sustainable development, our plan aims to create a framework where all Quebecers can benefit from the society-wide endeavor that is the energy transition.

The renewable energy sources we will add to our capacity balance will allow us to build an enviably low-carbon economy while ensuring an electricity supply that meets our customers' environmental expectations.

In this context, we will actively help our customers become more energy efficient and render their interactions with Hydro-Québec simpler and more efficient.

The role of our clean and renewable electricity in the creation of Québec's collective prosperity is a source of immense pride to us, as is the collaboration of our customers in this promising endeavor.

Our *Sustainability Report 2023* highlights key aspects of our governance and our relations with local and Indigenous communities. It also presents the means we use to assess, limit or mitigate the impacts of our projects and operations on the environment.

While the report shows that we are making significant progress, it also demonstrates that much work remains to be done, in particular to increase diversity, equity and inclusion within our ranks. We will therefore pursue our efforts to improve our performance in all aspects of sustainable development.

By working together, we can make Hydro-Québec and Québec leaders of the energy transition and build a decarbonized, prosperous Québec that can ensure a sustainable energy future for all Quebecers.

Michael Sabia
President and Chief Executive Officer

About this report

The 22nd edition of the Sustainability Report outlines Hydro-Québec's initiatives in the area of sustainable development in 2023. It 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 adopted by the Québec government. Anyone, regardless of any disabilities, should be able to understand the report, browse through it and interact with it. 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 for sustainability reporting. 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 41, and in the external assurance statement, on page 46. This data verification method complies with the GRI 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.

For more information, visit:
Sustainable Development Plan Progress Summary
GRI Index

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

For more information, visit:
Understanding electricity

Materiality analysis

To select which issues to cover in our sustainability report, Hydro-Québec conducted a comprehensive survey in 2023, exploring the concerns of our internal and external stakeholders and the needs stemming from our evolving business environment.

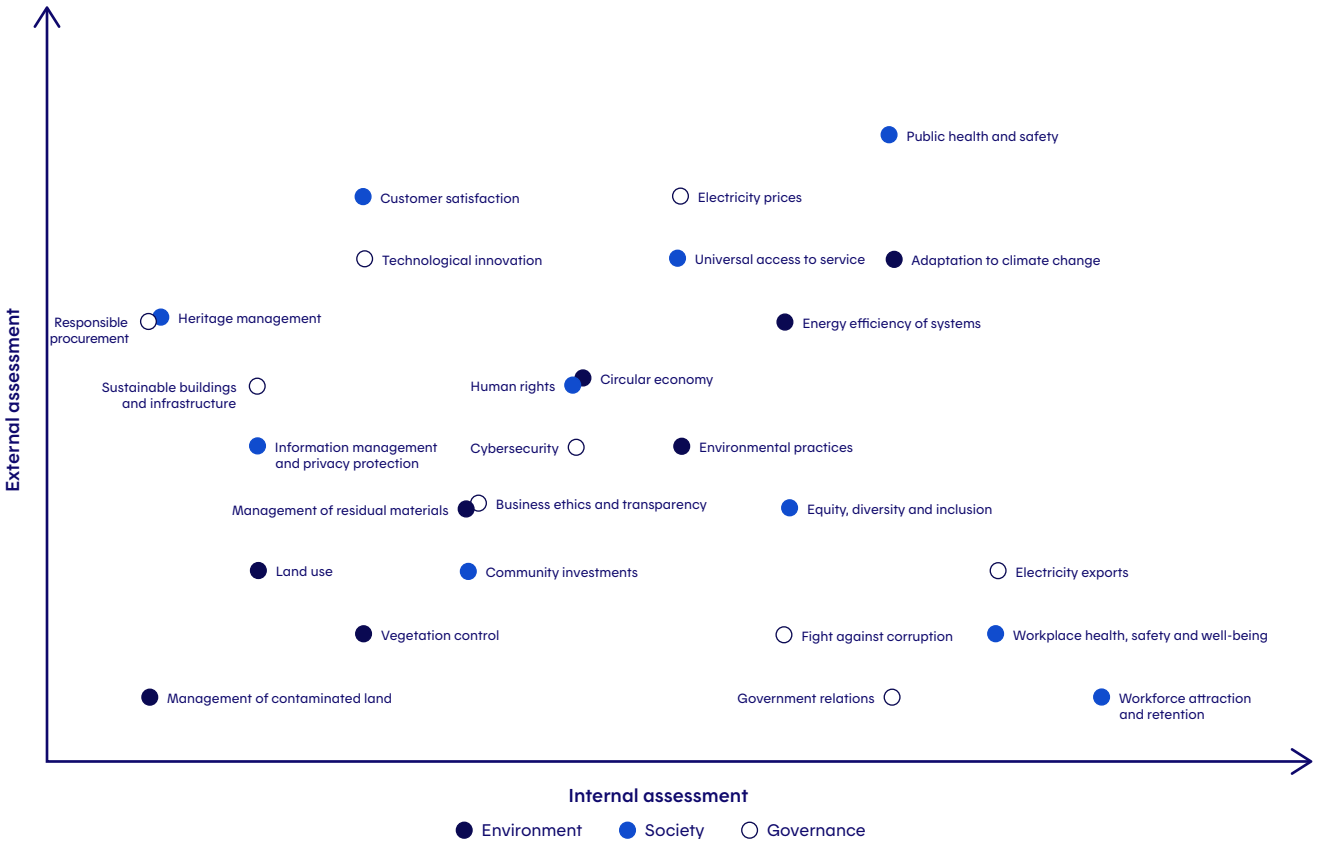
Out of the 37 issues included in our materiality analysis, the following 10 have been at the top of the priorities list since 2010 (in alphabetical order):

- Biodiversity management
- Electricity supply and energy needs management
- Energy efficiency of our customers
- Greenhouse gas (GHG) emissions
- Legal compliance
- Relations with Indigenous communities
- Social acceptability of projects and relations with local communities
- Spinoffs from our projects and operations
- Transportation electrification and sustainable mobility
- Water body management

As for the remaining issues, the survey participants selected the most important in the following categories: environment, society and governance (ESG). These 27 issues are the only ones included in this year's materiality analysis graph.

A comprehensive materiality analysis is carried out every three years, and the results are updated yearly to ensure swift adjustments in response to emerging issues. In 2023, human rights and the fight against corruption were added to our material issues list, based on the concerns expressed by stakeholders.

2023 ESG Materiality Analysis



Governance

Hydro-Québec's 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 teams, its partners and the public, ensures that its suppliers behave responsibly, and integrates sustainability principles into its operations.

Action Plan 2035 – Towards a Decarbonized and Prosperous Québec

In the face of the climate crisis, all Quebecers must rally to accelerate the energy transition and ensure a sustainable future. The need to meet these imperatives while offering a more reliable, streamlined and affordable electricity service led to the development of Hydro-Québec's *Action Plan 2035 – Towards a Decarbonized and Prosperous Québec*, whose clear and ambitious initiatives focus on five priorities:

1. Improve service quality.
2. Help our customers make better use of electricity.
3. Increase our power generation capacity.
4. Partner with Indigenous communities.
5. Become an agile, innovative and transparent organization.

Why the urgency? Consider this: although our hydropower generation gives Québec a head start in the global race towards decarbonization, nearly 50% of local energy still comes from fossil fuels that emit greenhouse gases (GHGs). Achieving the net-zero emissions target that Québec has set itself for 2050 will involve gradually replacing these polluting sources with clean and renewable energy—an objective that implies a major electrification drive, primarily for transportation, buildings and industry. Naturally, this will bring about a significant spike in electricity demand. Indeed, we predict that consumption in Québec will double by 2050.

While 75% of the additional capacity needs, which will reach 8,000 to 9,000 MW by 2035, will be linked to decarbonization, the society-wide endeavor that is the energy transition is also an excellent opportunity to generate wealth, as new industries arising from the transition will stimulate entrepreneurship and create jobs in promising sectors across Québec. In short, three pillars of sustainable development—the environment, the economy and society—are at the very heart of the *Action Plan 2035*.

Governance structure

Hydro-Québec is subject to governance rules established by various national and international authorities. In Québec, these rules govern the company's energy distribution and transmission rate practices, its transmission system investments and its project management procedures. The Québec government also oversees certain company activities and appoints the members of Hydro-Québec's Board of Directors as well as its President and CEO, as it did in 2023.

On an international scale, Hydro-Québec voluntarily adheres to the standards set out by various oversight bodies, including the International Organization for Standardization (ISO), the United Nations Development Programme (UNDP) and AccountAbility.

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. The company 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

Consisting of eight men and eight women as at December 31, 2023, the Board of Directors is the authority acting on behalf of the Québec government, Hydro-Québec's sole shareholder. The Board sees to the company's sound governance by adopting internal guidelines such as policies, plans and programs.

Governance and Social Responsibility Committee

The Board is supported by the Governance and Social Responsibility Committee, which 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 the company'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.

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 set up 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*, the *Code of Ethics* for employees, and the Business Plan, *Annual Report* and *Sustainability Report*.

Accountability reporting — Responsability

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 — Responsability

Structural units

- Various issues such as the environment, occupational health and safety, the fight against corruption and respect for human rights in the supply chain.
- Maintenance of certified management systems.
- Environmental and sustainability training and awareness.
- Annual management reviews pertaining to the environment and occupational health and safety.

The Board of Directors: Reflecting the diversity of our operations
Policies: Company commitments
Hydro-Québec stakeholders

Guidelines

Hydro-Québec has established various guidelines to include sustainability principles in its governance and operations. These guidelines are regularly updated and, in 2023, seven of them were reviewed with a view to enhancing them and integrating environmental, social and governance criteria. The reviewed guidelines included our requirements concerning the prevention and control of pollution and nuisances, our policy on the acquisition of goods and services and contract management, and our equipment management policy. Final approvals should be forthcoming in 2024.

Human resources

Through our human resources policy, we aim to create a vibrant, healthy, safe, unifying, inclusive and respectful workplace that fosters skills development and retention.

ENVIRONMENTAL COMPLIANCE

Each year, Hydro-Québec invests over $125 million in environmental protection and conducts some 2,100 environmental assessments aimed at minimizing the impact of its projects.

Our operations and projects are informed by our 265 environmental experts, roughly 20 of whom specialize in environmental law. Their role involves training our workforce, obtaining the required government authorizations, determining the applicable legal requirements, developing the tools needed to ensure compliance with environmental regulations and supporting the teams tasked with planning and completing the work.

We've also implemented a host of measures to ensure environmental compliance, including a legislative and regulatory watch, environmental assessments, field monitoring, internal and external audits, environmental follow-ups and compliance assessments.

Lastly, in addition to our ISO 14001:2015-compliant environmental management systems, we've established mechanisms to safeguard biodiversity, natural environments and heritage; prevent contamination; reduce GHGs; and improve our land use planning, dam safety and environmental performance.

Social responsibility

Our role as a good corporate citizen is enshrined in a policy and a directive that, together, ensure we contribute to Québec's economic, social and cultural vitality while carefully considering how our activities impact society and the environment.

Indigenous relations

Guided by our Indigenous relations policy, we adapt our approach to Indigenous culture and governance structures to foster the social acceptability and successful integration of our 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.

Environment

In keeping with our environmental policy, we are committed to remaining at the forefront of environmental protection. Our diligent and responsible management ensures that our operations create value for Québec society, are optimized from an environmental perspective and are favorably received by local communities.

Ethics

Ethical behavior at Hydro-Québec 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 employee *Code of Ethics*; 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.

To consult these documents, go to Ethics: At the heart of corporate culture

Human resources

As at December 31, 2023, Hydro-Québec had 22,806 employees, 82.8% of whom were unionized. Permanent positions were held by 87% of employees and temporary positions by 13% in a variety of fields. There were 2,069 new hires during the year.

In 2023, 51% of our workforce was aged between 35 and 49. Of this age group, 72% identified as men and 28% as women. Workers aged under 35 represented 55% of new hires. The turnover rate of 8.5% is mainly attributable to retirements and the return to studies on the part of several employees and interns.

Our new employer brand: Working together to change the world

To stand out in a job market undergoing profound changes and marked by labor shortages, in 2023, we revamped our employer brand to put the focus firmly on our workforce. We also modernized our recruitment website, launched a visibility campaign and attended many events to highlight the wide variety of career options we offer, our work environment focused on wellness, teamwork and professional development, and the chance to be part of innovative, large-scale projects. Thanks to these initiatives, traffic to the recruitment site has quintupled, and there's been a marked increase to the number of candidates interested in taking on the challenges of the energy transition.

A hiring program entitled *En route vers un nouvel emploi* ("On the road to a new job" in French only) offers $2,500 to holders of a vocational diploma in electricity or automated system electromechanics, to help them obtain a Class-3 driver's license, which is an essential requirement to become a distribution system cable worker at Hydro-Québec. In 2023, 42 people benefited from the support, including 18 people from diversity groups (43% of those selected).

Modernizing skill development

Following our 2022 pilot run with the teams in charge of automatic controls, we continued implementing the skills development modernization (SDM) project in 2023. This five-year project, which aims to make our company more collaborative, agile and results-oriented while improving efficiency and profitability, uses various technological solutions—a learning platform, an intelligent search engine and remote support tools—to promote employee autonomy and productivity.

TECHNOLOGICAL INNOVATION THROUGH THE SDM PROJECT

Thanks to augmented reality glasses, fieldworkers can receive remote assistance from experts, eliminating the need for travel and the associated GHG emissions. A fine example of an innovation resulting from our skills development modernization (SDM) efforts!

Equity, diversity and inclusion

In 2023, initiatives to promote the hiring of resources from underrepresented groups helped raise awareness and increase accountability among Hydro-Québec employees. Hiring rates for underrepresented groups fluctuated slightly between 2022 and 2023, showing a decrease in the hiring of women, stability for ethnocultural minorities and an increase for both Indigenous people and people with disabilities.

A diversity snapshot[a]

Women – While the overall representation of women in our workforce remains stable (28.5% in 2023), the percentage of women in management positions is up, from 23.4% five years ago to 27.3% in 2023. Growth has also been observed in the number of women managers from visible and ethnic minorities, which increased from 2.3% in 2022 to 2.5% in 2023.

Ethnic and visible minorities – There was a slight but perceptible rise in the number of employees from this group who hold management positions, though the group continues to be poorly represented among senior management.

Indigenous people – In 2023, Hydro-Québec hired 43 Indigenous candidates from outside the company. Recruitment processes for certain jobs were also streamlined to allow for the recognition of high school equivalency certificates instead of high school diplomas, which facilitated the hiring of more Indigenous employees.

People with disabilities – In 2023, more than 40 staff members consulted Hydro-Québec's special education advisor, whose role is to help employees with disabilities (including non-visible disabilities) better contribute their talents and knowledge to the workplace.

LGBTQ+ – A first contingent from Hydro-Québec took part in the 2023 Montréal Pride parade, an important step forward for our employees who belong to the LGBTQ+ community. As at December 31, 2023, close to 400 employees in various positions said they identified as LGBTQ+.

Target group representation (%)

Target group	2020	2021	2022	2023
Women	28.5	28.5	28.7	**28.5**
Indigenous peoples	1.6	1.6	1.6	**1.5**
Ethnic minorities	1.9	2.0	2.1	**2.2**
Visible minorities	6.8	7.7	8.0	**8.2**
People with disabilities	0.6	0.7	0.9	**1.0**

Note that a person can belong to more than one category. In 2023, 291 students were recruited, including 110 from the target groups.

In summer 2023, 25 students who were neurodivergent or living with a disability were offered internships lasting several weeks at Hydro-Québec. They came from various fields of study, including administration, accounting, literature, laboratory techniques and criminology. Overall, both the interns and the teams who supervised them reported finding the experience enriching.

a) Findings from a self-identification questionnaire

Occupational health and safety

Risk management process

In 2023, we consolidated our process for managing risks in field operations, launched in 2022, and extended risk control assessment to all preventive measures associated with critical hazards. Paying particular attention to hazardous substances and products, we established the preventive activities to be applied during fieldwork, developed a standardized storage model and launched a mandatory training program for personnel who handle hazardous materials.

Aimed at ensuring consistency across all initiatives, the process uses concrete means to instill best practices among managers, teams and suppliers. These means include:

- Actions based on risk and performance
- Workplace health and safety standards and best practices
- Knowledge of the hazards and preventive measures to apply on the field to give employees the courage to act

9,339

Number of inspections related to critical hazards carried out in 2023[a]

In 2023, we pursued our danger awareness campaign, *Conscience des dangers*, designed to foster a culture of caring. Through communication tools featuring employees and their families, the campaign addressed topics that included how state of mind affects the risk posed by moving vehicles and the waves of shock that a fatal accident can provoke among the victim's family, friends and colleagues. The importance of vigilance and remaining attentive to critical hazards was also pointed up through various educational tools, including a video testimonial and digital posts.

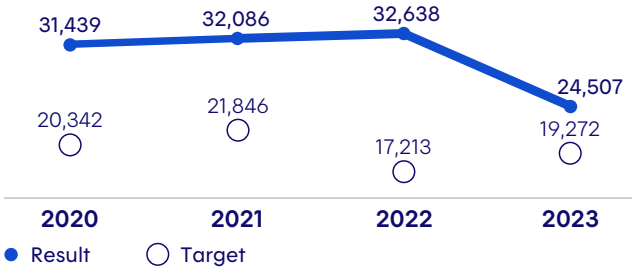
Wildfire repercussions

For 93 days, between May 31 and September 1, 2023, the wildfire response effort required the simultaneous intervention of various teams and seven emergency centers.

Throughout this period, our occupational health and safety teams supported jobsite work and operating activities while keeping workers safe. For example, they developed respiratory protection guidelines, ensured a healthy working environment based on regional realities, supported partners with managing risks to physical and psychological health according to air quality assessments and dispatched a team of responders to treat physical or psychological discomfort.

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

Field observations



a) When inspections carried out on jobsites where Hydro-Québec is the prime contractor are tallied, this figure rises to 32,380.

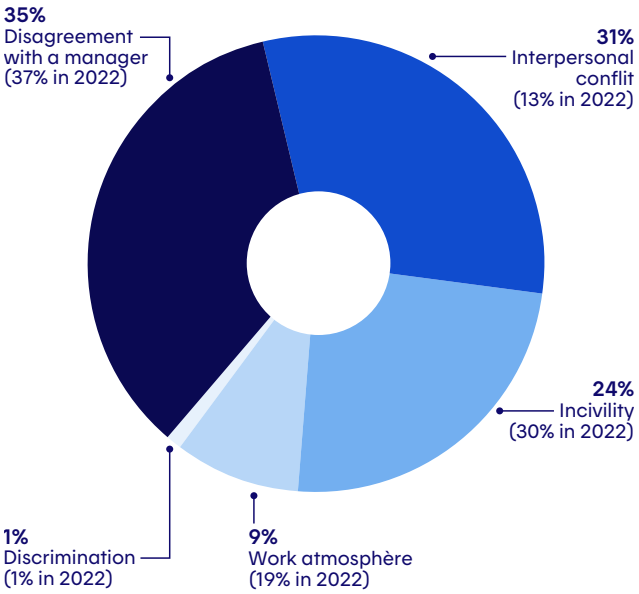
Our zero-tolerance policy

At Hydro-Québec, anyone who experiences discrimination or harassment can make a report, request mediation or file a complaint, knowing that follow-up will be prompt. Each report, request or complaint results in the creation of an action plan to resolve the conflict and maintain a healthy work environment. In 2023, there were 140 complaints or reports, a 15% increase compared to 2022.

Number of complaints and reports

Year	2020	2021	2022	**2023**
Complaints	33	34	30	**46**
Reports	78	104	89	**94**
Total	111	138	119	**140**

Types of reports received



Number of complaints, by status

Year	2020	2021	2022	2023
Received	33	34	30	**46**
Founded	8	7	9	**14**

Each complaint received is studied and, if it is determined to be founded, an investigation is launched.

Ethics and transparency

The commitments set out in our *Code of Ethics* guide our employees as to the conduct to follow and behaviors to avoid on a day-to-day basis.

Honoring these commitments, which is everyone's responsibility, not only promotes harmony in our internal and external collaborations, but also helps us achieve our aims and ambitions in terms of the energy transition.

A team of ethics specialists is available to support and inform employees in their thinking and decision-making. This team, which also oversees updates to the Code, is involved in various committees and working groups that support the implementation of projects in keeping with ethical principles. In 2023, it responded to 498 employee requests. It also provided personalized training and disseminated information on topics such as conflict-of-interest management and the ISO 37001 standard. Other company teams also released information throughout the year related to the Code's values and commitments.

We use frequent monitoring and comparative analyses to ensure that we're applying the most recognized and effective practices in terms of organizational ethics, which helps us limit risks in this regard.

Policy for reporting on Hydro-Québec's activities

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

FIGHTING CORRUPTION

Hydro-Québec, which earned ISO-37001:2016 certification in 2021, has committed to adopting best practices to maintain a sustainable business culture that combines integrity and ethics. In 2023, it improved practices related to construction management, digital project management, management of research and innovation projects and relations with its various customers. In spring 2023, the Bureau de normalisation du Québec carried out a second maintenance audit, which was a success.

Managing supplier ethics

Every year, we deal with close to 9,000 goods and services suppliers; in 2023, their total billing came to $5 billion. Over the year, thanks to stakeholder vigilance, 77 reports were filed about our suppliers, representing a decrease of 14% compared to 2022. These reports concerned potential irregularities involving corruption, collusion, fraud or malfeasance (8%), non-compliance with a law or regulation (23%), non-compliant behavior in relation to procurement procedures (26%), reputational risk management (17%), conflicts of interest (14%), information security or other incidents (3%) and intimidation or threats (9%). 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 2023, 34 of the reports resulted in the following administrative sanctions: warnings (15%), notices of corrective measures (17%), restitutions, penalties and other measures (41%), and loss of bidding privileges, disqualification of the bid or contract termination (27%). Preventive measures were also taken with regard to the 13 reports that were ruled not to have constituted ethical violations.

Strengthening the supply chain

In 2023, we pursued the implementation of innovative strategies to secure our strategic goods and services supply chain and thus avoid any project delays. For example, a contractual approach based on participative collaboration with contractors was adopted for certain projects.

Hydro-Québec generally seeks to optimize local economic spinoffs and takes Québec content into account in sourcing its suppliers. In 2023, investments made in Québec totaled $4.9 billion.

As regards human rights, we put a number of initiatives from our action plan into effect in our supply chain. We also released our first public report on human rights, in keeping with our obligations under the federal *Fighting Against Forced Labour and Child Labour in Supply Chains Act.*

Initiative to promote local sourcing

In July 2023, a first call for expressions of interest was successfully completed under the PASQUÉ initiative, a platform that promotes strategic procurement from Québec-based companies in the electricity industry. Launched by the Association de l'industrie électrique du Québec in conjunction with Hydro-Québec, PASQUÉ will perpetuate the local supply chain by helping Québec firms position themselves favorably as suppliers to major electricity sector contractors.

Last July, we received certification from the organization *Aliments du Québec au menu* in recognition of our promotion of local food products in our menu and our commitment to Québec suppliers. Indeed, our food supply currently consists of 43% local products, rate we intend to increase to 50% over the coming year. What a great way to encourage Québec businesses while considerably reducing supply-related transportation costs!

Improving supplier OHS

In 2023, we finalized a general occupational health and safety (OHS) clause that is to become part of our service contracts in 2024 through technical appendices categorized according to the main hazards.

Our collaborative leadership committee on OHS also set up three meetings to discuss best practices with our suppliers and promote hazard management.

Access to information, privacy protection and data ethics

All requests for access to information 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 2023, we received 528 requests for access to administrative documents or personal information and processed 509 of these requests. Of these, 169 were granted in full, 229 were granted in part and 68 were turned down because the documents may contain either confidential personal information or sensitive information that, if shared, could impact the company's commercial interests, public safety or administrative decisions. As for the remaining 43 requests, they could not be granted, either because they were inadmissible or inapplicable, the information concerned another public body or bodies, the request was withdrawn, or the company did not have the documents in question.

In total, 215 requests for access were processed within 20 days, 171, in 21 to 30 days, and 123 in 31 days or more, for an average processing time of 24 days. In addition, 23 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. Decisions on access requests and the report on requests processed in 2023 are available on our website, as are all documents and information whose publication is prescribed by the *Regulation respecting the distribution of information and the protection of personal information.*

In terms of employee training and education, introductory videos on the life cycle of personal information were shared with all employees, and advanced training was provided to target groups on the topics of access to information and privacy protection. As part of our efforts to ensure compliance with the new requirements set out in the *Act to modernize legislative provisions as regards the protection of personal information*, the Data and Information Governance Committee adopted the company's governance rules, including a complaint-handling process. In addition, to improve our privacy protection program and bring it in line with the new legal requirements, the Committee adopted new guidelines addressing matters such as biometrics and the assessment of privacy-related factors.

Technological innovation

Hydro-Québec is one of the Canadian energy industry's top R&D spenders. Our research center (CRHQ) and Center of Excellence in Transportation Electrification and Energy Storage (CEETSE) have a combined budget of $187 million and boast a team of 502 employees. We've also forged strategic partnerships with universities, research organizations and industrial businesses.

Our portfolio has 181 patent families, of which 52 are associated with the CRHQ and 129 with the 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 465 technologies (55 for the CRHQ and 410 for the CEETSE). In 2023, our income from patents and commercialized innovations totaled $14.6 million, compared to $8.8 million in 2022.

Patents obtained by the CEETSE in the past year include innovations related to battery components (electrolytes, cathodes, anodes, separators, collectors) and battery recycling.

The CRHQ secured patents for devices, systems and processes related to electricity generation, transmission and distribution asset management and to the energy system, as well as applications for customers who use carbon-neutral fuels, hydrogen and energy.

LOGIC: HYDRO-QUÉBEC'S NEW LAB

Last year marked the opening of LOGIC, our new lab to test out 5G-enabled technologies with critical infrastructure. The new facility provides a controlled environment in which to analyze app performance and experiment with disruptions that would be impossible to reproduce on demand on existing, active cellular networks. The lab's work will help improve the robustness, reliability and security of current and future applications that use cellular technology. It will also support our corporate technology roadmaps and help us influence the market to obtain products and services adapted to the power industry.

Assessing the impact of new technologies

Tomorrow's energy system will combine artificial intelligence, connectivity, advanced features and distributed energy resources. To fully understand these changes, we've developed a simulation and decision-support tool, SCENARIO, that will help us gauge how the mass adoption of new technologies by our customers will affect the grid.

In December 2023, we reached an important milestone when we integrated the impact of electric vehicle (EV) home charging into a business simulation tool. In parallel, a laboratory simulation prototype was used to analyze the impacts of various other factors—outage recovery management, EV public charging, Hilo services, etc.—on the distribution system, in view of their eventual incorporation into the simulation tool.

Promising microgrid technologies

Inaugurated in Lac-Mégantic in July 2021, Québec's first islandable microgrid consists of 2,200 solar panels for local energy generation along with energy storage units and tools to manage buildings' energy use.

In 2023, the microgrid was expanded to include a new fire station featuring solar panels and storage batteries. Construction also continued on a new building that will be used to test a unique combination of technologies adapted to the realities of low-cost housing. Lastly, the microgrid was islanded—disconnected from the main grid—several times during the summer, operating solely on solar generation and battery power for up to six hours at a time.

Awards

Gold-level Hydropower Sustainability certification and Blue Planet Prize

The scope of our environmental practices and the quality of our exchanges with Indigenous communities earned the Eastmain-1 development the 2023 International Hydropower Association (IHA) Blue Planet Prize. The award is given out every two years to a company that has demonstrated excellence in sustainable development.

Located in the territory of the Eeyou Istchee James Bay Regional Government, the development comprises Eastmain-1 and Bernard-Landry generating stations and the structures that divert the Rivière Rupert.

Earlier in the year, the development had obtained the highest level of certification (Gold) under the Hydropower Sustainability Standard, an initiative launched by the Hydropower Sustainability Alliance. Independent assessors reviewed hundreds of reports, toured the facilities, and conducted some 50 interviews with local stakeholders, including members of the Wemindji and Waskaganish Cree communities who live near the infrastructure and participate in environmental monitoring.

For Hydro-Québec, the Eastmain-1 development stands as a model of a collaborative approach. Through the cooperation of Cree communities and visionary specialists in the fields of anthropology, biology, engineering and archaeology, the project has laid the groundwork for sustainable development practices for decades to come.

Watch the video on the Eastmain-1 development.

Archéo-Québec award

Archéo-Québec honored us with its 2023 Excellence award for our website on the archaeology along the Rivière Romaine, and our popular science monograph entitled *Les peuples de la rivière : recherches archéologiques menées par Hydro-Québec dans le cadre de la construction du complexe de la Romaine.* The award goes to organizations that show exceptional involvement and dedication in the protection and enhancement of archaeological heritage. The findings from the archaeological research we conducted confirmed a significant human presence in the vast territory of Minganie throughout prehistory, ancient history and more recent historical periods.

Leadership in sound energy management

In 2023, we took home four BOMA Québec Building Energy Challenge (BEC) awards. Along with the Leadership in Sound Energy Management award, which recognizes the efforts of organizations that have demonstrated exemplary energy and operations management, we received three awards for the improved energy performance of our buildings in Valleyfield, Lévis and Sept-Îles.

Partners in Humanity Award

The Canadian Red Cross awarded Hydro-Québec its highest distinction for the support we've provided the organization during its numerous emergency operations, whether through donations, the loan of aircraft and specialized personnel, equipment storage or the contributions made by volunteers from the Association provinciale des retraités d'Hydro-Québec (in French only).

Beyond the annual dividend it pays out to the Québec government, Hydro-Québec contributes directly to the province's economic, social and cultural development. We work closely with Indigenous and other communities 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.

High-quality, reliable electricity service

Hydro-Québec's main mission is to provide all Quebecers with a reliable, high-quality supply of electricity at stable and affordable prices.

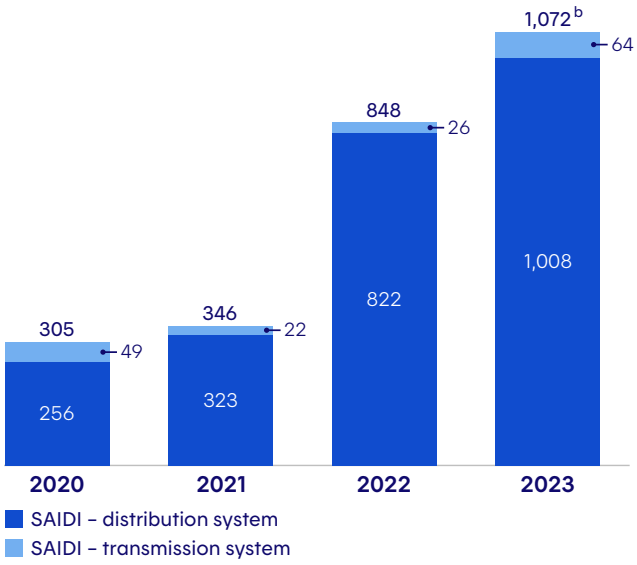
Service reliability and quality

The year 2023 was marked by extreme weather events—ice storms, thunderstorms and violent winds—and wildfires on an unprecedented scale. The frequency and intensification of these events, which undermine service reliability, call for us to step up our efforts in terms of climate change adaptation and vegetation control.

The measures we are taking to lower outage risks and improve grid resilience and performance include: increasing our investments and maintenance work; proactively managing our assets through a rigorous inspection and maintenance program for power lines, devices and equipment; enhancing the resistance of the overhead distribution system; intensifying vegetation control operations, such as felling trees that present a risk; and assessing the advisability of putting lines underground.

We are also working closely with local communities to secure the power supply for priority services and other critical locations. A number of emergency power backup solutions are being considered, from generators and mobile charging trailers to partnering with the communities and municipalities to implement microgrids.

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



a) Totals were calculated from non-rounded figures.
b) The system average interruption duration index (SAIDI) now includes outages reported by independent producers, which also impact service reliability. In 2023, five major weather events accounted for 80% of the overall SAIDI.

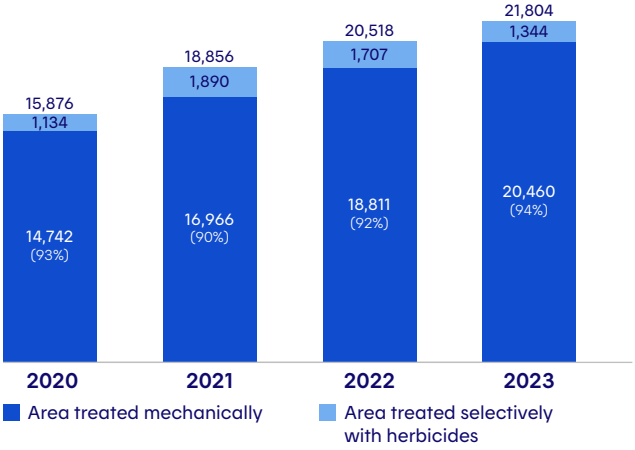
Vegetation control

Properly managing the vegetation that grows near power lines is essential to reducing the number of climate-related service interruptions linked to falling trees and branches. Generally speaking, 40% of distribution system outages are due to vegetation, though this proportion can be much higher during major weather events.

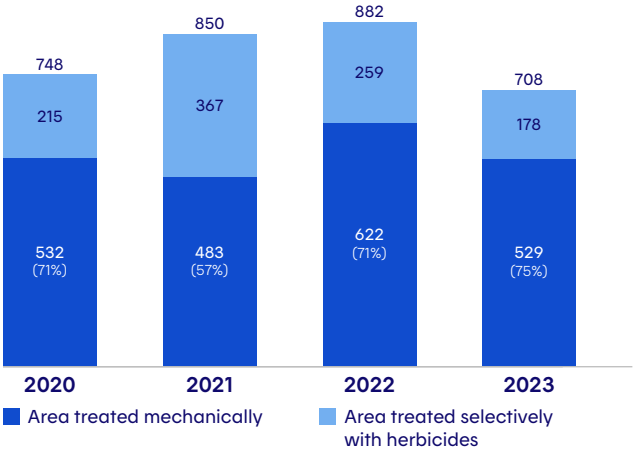
In 2023, inspections and vegetation control operations (pruning, clearing and brush cutting) were carried out in 208,000 spans.

In addition, close to a thousand arborists and forestry experts were involved in managing the vegetation on dikes and dams, in transmission line rights-of-way, around transformer substations and near distribution lines.

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



Vegetation control on dikes and dams (ha)[a]



a) Totals were calculated from non-rounded figures

A rapid response

When maintenance work was needed on the transmission line that supplies Provost substation, electricity service to the Saint-Zénon and Saint-Michel-des-Saints municipalities and the Manawan community had to be interrupted to perform tasks that cannot be carried out on live lines. On August 23, 2023, some 60 line workers from different Québec regions joined forces and completed the highly complex undertaking in record time, limiting the service interruption to 18 hours.

Researching weather hazards

By improving our knowledge of the risks associated with precipitation, flooding and high winds in a climate change context, the ongoing research project on weather hazards conducted with Ouranos will help us predict how these events will affect our operations. The project will use very high resolution (2.5-km) climate models to simulate the convective processes at the basis of storms and extreme weather events.

Inspections using drones

The wildfires that tore through Québec in summer 2023 made it challenging to access some of our facilities. To counter the difficulty, we used drones to inspect our distribution lines, assess the condition of the wooden poles that carry them and identify those that were the most damaged.

Assessing our generators

The advanced generator diagnostics project achieved a major milestone in 2023, with the integration of 10 diagnostic tools into our systems. By allowing us to assess the condition of generator stators and rotors, the new tools will help lower the number of scheduled and forced shutdowns of generating units and determine the type of rehabilitation work needed.

Electricity supply

Every three years, Hydro-Québec publishes an Electricity Supply Plan that sets out the anticipated electricity needs of Québec customers for the next 10 years and how those needs will be met. The plan is revised annually to update the balance between supply and demand for power and energy.

To meet the growth in demand anticipated for the coming years, we will focus on energy efficiency and on adding facilities that generate electricity from renewable sources, mainly wind and hydraulic.

In 2023, we also integrated a first artificial intelligence (AI) model for demand forecasting into our processes.

Renewable energy certificates

In 2023, Hydro-Québec launched a pilot project on marketing Renewable Energy Certificates (RECs). The project was created in response to the growing number of Québec companies asking to obtain proof, personalized to their service address, of their use of 100% renewable energy. By purchasing an REC, participating firms were able to satisfy their internal policy requirements, comply with a market standard or enhance their brand image. The pilot project offered discounts on RECs to encourage businesses to sign up for energy efficiency programs or take advantage of demand response rate options.

Electricity supply and demand management

To meet the growing demand for electricity, Hydro-Québec's approach focuses on energy efficiency—including efforts to help its customers become more energy wise—and wind power. We must also ensure adequate supply and put together an energy portfolio in the event that energy efficiency initiatives are not sufficient.

In addition to means like the dynamic pricing offers open to residential, farming and business customers, and the demand response option available to business customers, Hydro-Québec integrated its subsidiary Hilo to its activities in 2023. This means that we now offer a portfolio of solutions that contribute to demand management, and can also carry out initiatives to boost grid resilience. The shift also simplifies things for customers seeking the offer that's best suited to their needs. Thanks to this initiative, the number of customers benefiting from Hilo's solutions has increased by 70%.

In the context of the energy transition, we have also harnessed advances in AI and Big Data to improve our demand forecasting methods. The AI tool we integrated into the energy trading floor, which is operational in real time, was optimized in 2023 following tests that were carried out using several hundred processors. Over 11,000 models were assessed with a view to selecting the ones that would improve demand forecasting for winter 2023–2024.

Electricity generated and purchased by Hydro-Québec (GWh)

Type of energy	Generation	Purchases	RECs
Hydropower	160,567	36,708	16,631
Solar power	12	-	–
Wind power	–	10,154	9,904
Biomass and waste reclamation power (biogas)	–	2,201	457
Thermal energy and other sources	308	3,955	–
Total	**160,887**	**53,018**	**26,992**

Totals were calculated from non-rounded figures.

Energy efficiency and responsible energy use

As clean electricity becomes an increasingly valuable commodity in the face of rising demand, avoiding waste takes on prime importance. Better consumption habits are key: they allow customers to save on their energy bills, while also helping us limit the number of new assets we will need to deploy. In 2023, we pursued a number of projects that promote responsible energy use.

Campaign on winter peaks

To promote offers like dynamic pricing and the Hilo smart home service aimed at leveling out winter peaks, we launched a major campaign in 2023 comprising TV ads, Web banners, posts, articles and a dedicated Web page.

We also brought back the *This winter, I'm changing my habits!* contest as part of our efforts to encourage customers served by off-grid systems to adopt better consumption habits during cold snaps and winter peaks.

Efficient Farming Products Program

Our Efficient Farming Products Program, which has been running since 2006, provides financial assistance for the purchase and installation of lighting products, piglet warmers, ventilation systems and milking equipment. In June 2023, new energy efficiency measures were added to the program, such as heat pumps, air compressors, thermal accumulators, solar walls and ENERGY STAR® certified air conditioning units. The financial assistance available for horticultural LED lighting fixtures was also increased and is now established separately based on the natural lighting in buildings and greenhouses. The program now includes over 200 measures for the agricultural market.

Energy use among industrial SMEs

In 2023, we released the first version of a cloud-based application to analyze the energy performance of small-to-medium sized industrial companies. The app was developed to educate industrial customers on how their operations impact energy availability and on their options for improvements, anomaly detection, progress measurement and cost reduction.

Commercial and institutional dual energy

Together with Énergir and the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP), in 2023, we launched a new rate offer for commercial and institutional customers to promote dual-energy systems (using both electricity and natural gas). The offer is designed to encourage customers to electrify the heating of their buildings, without increasing electricity demand on the grid during peak periods, since the dual-energy system switches to natural gas during cold spells. Companies that choose this option obtain financial assistance covering a significant portion of purchase and installation costs for a dual-energy system, along with an advantageous rate.

This partnership between Québec's two main power distributors aims to lower the natural gas consumption of participating customers by over 70%, thereby reducing GHG emissions from the heating of residential, commercial and institutional buildings.

Megapac project

Developed by Hydro-Québec's research center (CRHQ) and climate technologies firm Copeland, the Megapac is an industrial-grade heat pump equipped with reliable and innovative compressor technology. The device harnesses CO2—a natural refrigerant with low global warming potential—in a high-capacity system to provide an efficient and affordable thermal storage solution. Having successfully crossed the 15,000-hour testing threshold, the Megapac heat pump received the Best in Sector/Industrial award at the ATMOsphere America Summit in Washington, in June 2023.

Energy efficiency for residential customers

In 2023, Hydro-Québec put the final touches on its LogisVert Efficient Homes Program in the run-up to its launch in January 2024. Offering financial incentives, the program is designed to encourage better home electricity use by promoting energy-saving measures like efficient heat pumps, induction ranges, heat-pump dryers and central heating systems.

In February 2023, we launched a new refrigerator replacement program for low-income households that will be rolled out gradually across Québec. One of our aims is to carry out the program in a way that supports local economic vitality. The first phase of the program was implemented in partnership with the Association coopérative d'économie familiale (ACEF) in Montérégie-Est.

Lastly, in June 2023, we released an ad campaign promoting responsible energy use at home and work. Already by September 30, over 500,000 customers across Québec were using the Energy Performance Indicator introduced in the campaign, which helps them track their electricity use and provides recommendations for improving it.

Energy efficiency for business customers

A pilot project on cost-effective ways to improve building energy efficiency was launched in April 2023. The project offers business owners financial support from Hydro-Québec and expert advice for implementing energy efficiency measures.

To encourage energy-wise practices among our business customers, we also released a major ad campaign featuring three companies—Bell, Métro and Desjardins—who have gotten on board the energy shift. The campaign aimed to showcase how some businesses are already contributing to the decarbonization of Québec.

Finally, to meet the challenges associated with the energy transition, growing energy needs and dwindling surpluses, we established a department to design and develop energy efficiency and demand response programs. The new department conducted numerous pilot projects to assess the approaches best suited to business customers.

Bill 2 for efficient electrification

In the face of tightened energy balances and the increasing electrification of the economy, the new act, which came into effect on February 16, 2023, aims mainly to cap the indexation rate for Hydro-Québec domestic distribution rate prices and to further regulate the public utility's obligation to distribute electricity. Accordingly, for any request with a minimum power demand of 5,000 kW, whether a new request, additional load request or request from a customer with a special contract, Hydro-Québec must obtain authorization from the Québec Minister of Economy, Innovation and Energy, barring certain exceptions. Before granting authorization, the Minister takes into account Hydro-Québec's technical capacity for the connection, as well as the economic spinoffs and the social and environmental impacts of the use of the electricity requested.

In August 2023, the Minister announced that he was authorizing 11 projects for a total of 956 MW. As at November 7, 2023, the Minister had also authorized various public interest projects with a power demand of 5,000 kW or more—hospitals, residential development and public transit, for example—for a total power demand of close to 450 MW.

Integrating distributed energy resources

The integration of distributed energy resources (DERs) and smart digital technologies will transform the power grid, which is currently unidirectional, into a more interactive system. We are currently using a test platform to help us transition to a transactional system able to incorporate DERs. As part of these efforts, we developed an energy exchange simulator that was validated in 2023.

The simulator takes into account the intermittent nature of renewables like wind and solar, the ways that two-way energy transfers affect the grid and the possibilities offered by controlling and managing DERs.

Creating collective wealth

In 2023, we posted net income of $3.3 billion and paid our shareholder, the Québec government, a dividend of $2.5 billion. A significant part of this income is attributable to electricity exports, which reached a volume of 21.4 TWh, in a context marked by a drop in prices on the energy markets that was more than offset by the positive impact of our risk management strategy. Together with water-power royalties, the public utilities tax and guarantee fees related to debt securities, our contribution to Québec government revenue stood at $4.7 billion.

Economic spinoffs from our operations

Hydro-Québec's operations support thousands of jobs and, to varying degrees, stimulate economic activity in all regions of Québec. In 2023, we contributed $24 billion to Québec's gross domestic product (GDP), an indicator that measures the creation of wealth.

Our investments in Québec over the year totaled $4.9 billion, and we introduced various initiatives to boost the resulting spinoffs. For example, we incorporated local purchasing principles into our company guidelines, which is also in line with our commitment to sustainability.

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

Goods and services category[a]	Breakdown (%)			
	2020	2021	2022	2023
Building operations and maintenance	49.61	44.43	52.00	**45.23**
Equipment – Maintenance, repairs and operations	21.43	28.98	13.75	**7.36**
Vehicle fleet management	13.41	9.90	10.15	**10.33**
Vegetation control	0.00	3.96	11.36	**15.21**
Miscellaneous technical expertise	0.00	2.77	4.25	**8.97**
Corporate services	3.02	1.35	3.83	**6.88**
Electrical equipment	0.00	3.96	3.90	**0.11**
Other[b]	12.53	4.65	0.76	**5.91**
Total ($)	**3,049,139**	**3,536,991**	**3,323,248**	**3,959,663**

a) Excludes the purchase of petroleum products from cooperatives.
b) Includes the following categories: building construction, environmental services, power-line hardware, computer equipment, telecommunications and related services.

Total electricity sales

Category	2020		2021		2022		2023	
	GWh	$M	GWh	$M	GWh	$M	GWh	$M
Electricity sales in Québec	171,446	11,929	179,500	12,319	180,560	13,231	**177,329**	**13,515**
Electricity sales outside Québec	32,397	1,395	31,300	1,919	35,634	2,912	**21,400**	**2,365**
Total electricity sales	203,843	13,324	210,800	14,238	216,194	16,143	**198,729**	**15,880**

SPINOFFS RELATED TO BERNARD-LANDRY AND SARCELLE GENERATING STATIONS AND THE RUPERT DIVERSION

In 2023, Hydro-Québec assessed the economic spinoffs from these facilities between 2007 and 2021. Construction of Bernard-Landry and Sarcelle generating stations, including the Rupert diversion, in the Eeyou Istchee Baie-James territory, was undertaken to generate 8.5 TWh of electricity per year. Work began in 2007 and the facilities were operational as of 2012.

Spinoffs related to the contracts awarded largely exceeded the initial commitments. Close to $998.3 million went to Cree-owned businesses and $195.3 million to Jamesian companies. In total, nearly $3,568 million in contracts were awarded across Québec.

On average, Cree workers represented 9% of the monthly workforce hired to build the facilities (approximately 100 people), a percentage that rose to 13% (approximately 17 people) with the start of operations.

In addition, the measures to optimize economic spinoffs in Eeyou Istchee Baie-James, both in terms of contracts and job creation, have given rise to a diversified expertise that is helping support economic development in the region's growing Cree communities.

Supporting the advancement of knowledge

Hydro-Québec supports over 30 research partnerships with Québec universities each year, thus helping to train some 300 students in energy-related fields, roughly 75% of whom are in master's or PhD programs. In addition to ensuring the continuity of electricity service, these skilled workers of tomorrow will help advance research and innovation in Québec.

Internships (number)

Category	2020	2021	2022	2023
University internships	149	232	274	**248**
IEPE internships	10	7	3	**9**
College internships	32	68	70	**74**
Total	**191**	**307**	**347**	**331**

In the past four years, Hydro-Québec has arranged 1,176 internships. The company is a founding partner of the Institute of Electrical Power Engineering (IEPE).

Research chair funding and research contracts awarded by Hydro-Québec's Research Center (CRHQ)

Educational institution or research group	Amount awarded in 2023 (k$)
Université de Montréal and HEC Montréal	**40**
Polytechnique Montréal	**617**
Université du Québec à Chicoutimi	**20**
Université du Québec à Montréal	**86**
Université du Québec à Trois-Rivières	**132**
École de technologie supérieure	**357**
McGill University	**261**
Université Laval	**427**
Université de Sherbrooke	**202**
Ouranos	**223**
Mila	**113**
Institutions outside Québec	**284**
Total	**2,762**

Totals were calculated from non-rounded figures.

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 2023, 18 initiatives were made possible thanks to a contribution of $4.3 million, bringing our total investment since the beginning of the program to $147 million.

A few of the initiatives carried out in 2023

Micoua-Saguenay line (Saguenay–Côte-Nord)

A total of $5.8 million went to the Saguenay–Lac-Saint-Jean and Côte-Nord communities that are hosting the new 735-kV Micoua-Saguenay line, commissioned in 2023. The resulting 25 initiatives, carried out with various partners, included developing two ball fields in Saint-Honoré, constructing a research and innovation pavilion at the Baie-Comeau CEGEP and building a bike path between Manic-1 and Baie-Comeau.

Achigan substation and tie line

The grant of $439,999 received by the municipality of Saint-Hippolyte went into developing an outdoor stage at the Centre de plein air Roger-Cabana, installing lighting along the ice trail, adding playground structures to Parc du Grand Héron and building a new visitor center at Mont Tyrol.

Donations and sponsorships

In keeping with our Social Responsibility Directive, we support organizations in all Québec regions through our donations and sponsorships, and strive to maximize the social benefits for Quebecers.

In 2023, we donated $20.6 million to 577 organizations, including $8.1 million to the Centraide campaign. The breakdown of those contributions is as follows: 48% for regional vitality, which includes culture, science and entrepreneurship; 24% for the fight against poverty; 6% for reducing GHG emissions; 16% for the energy transition; and 6% for business development.

Heart symbol logo used for donations and sponsorships

For more information consult the sites:
Integrated Enhancement Program
Donations and sponsorships

Breakdown of donation and sponsorship contributions by issue – 2023

Issue	Percent of total budget (%)	Amount contributed
Reduction of GHG emissions	6	$1,242 640
Vitality of Québec's regions	48	$9,948 760
Fight against poverty[a]	24	$4,851 597
Business development	6	$1,166 432
Transition[b]	16	$3,365 000
Total	**100**	**$20,574 429**

a) The amount for the fight against poverty includes $3,925,097 donated to the Centraide campaign. In addition to this amount, $3,729,530 was donated by employees and received from other corporate initiatives, bringing Hydro-Québec's total contribution to the Centraide campaign to $8,089,62
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.

Relations with Indigenous communities

More than ever, our relations with Indigenous communities are marked by collaboration, consultation, exchange and sharing. As a member of the Canadian Council for Aboriginal Business (CCAB), we encourage our employees to take part in Indigenous community events and to create networking opportunities between members of the Indigenous community and managers.

In 2023, Hydro-Québec's CEO met with chiefs from several First Nations communities. And some of our staff and senior managers visited a number of Inuit communities and took part in various cultural and economic events, including the fourth First Nations and Québec Regional Economic Circle.

We also set up meetings with the community of Akwesasne, which experienced numerous outages in 2023, to discuss possible solutions and explain the work under way to improve service quality.

New partnerships with Indigenous communities

With the launch of our Indigenous Procurement Strategy in 2023, we implemented concrete measures to sensitize employees and encourage Indigenous companies to do business with us.

In 2023, business dealings with 114 Indigenous companies amounted to $246 million, or 5.5% of the total value of Hydro-Québec's contracts. Furthermore, to maximize the spinoffs in Indigenous communities, we worked with Indigenous economic organizations to draw up a guide on the contractual clauses to be included in our requests for proposals.

Biomass cogeneration in Opitciwan

A historic agreement to build a forest biomass cogeneration plant was forged with the Atikamekw community of Opitciwan. With an installed capacity of 4.8 MW, the plant will strengthen the local power grid, promote the community's development and make it possible to build new homes for families.

The plant, which is to be powered by forest biomass (sawdust, wood chips and scrap wood) from the local sawmill, will generate not only electricity, but also heat to power the sawmill dryer. Besides creating jobs, it will help lower emissions linked to transporting the sawmill's by-products. Optimizing the use of forest resources will cut oil consumption by 85% in addition to lowering the associated noise and odor pollution. GHG emissions are expected to be reduced by 13,000 t CO_2 eq. per year. The new plant is slated for commissioning in July 2026.

Contribution to a major Indigenous event

The First Nations Expedition, a 4,200-km snowmobile adventure in northern Québec, brought together some 60 Indigenous and non-Indigenous participants. Hydro-Québec offered them room and board at the Montagnais substation workcamp in March 2023.

ECONOMIC RECONCILIATION

Partnering with First Nations and Inuit communities to develop an economic reconciliation plan that includes opportunities to build partnerships from Hydro-Québec energy projects and other means through which First Nations and Inuit communities can derive independent income that they can allocate to their own priorities.

Community relations

With operations spanning the province, our activities have an impact on all of Québec's 17 administrative regions. That's why we make a concerted effort to work with local communities in view of ensuring a harmonious coexistence. The data specific to each region are presented in the fact sheets on our website.

Working with communities: A few examples

Relations with the agricultural sector

Hydro-Québec maintains regular contact with the Union des producteurs agricoles (UPA), exchanging information on an ad hoc basis or during the regular meetings of the Hydro-Québec–UPA liaison committee. These meetings provide a platform for addressing questions related to farming and forestry and discussing issues linked to our operations. The committee met formally on one occasion in 2023 in addition to holding a number of impromptu meetings to discuss specific topics, such as rate options and energy efficiency measures.

Meeting with the residents of Saint-Hyacinthe

During fire prevention week, we attended the first-ever Rencontre ta ville ("Meet Your City") forum, held in Saint-Hyacinthe. The event was attended by some 5,000 residents, who met with 150 representatives from the municipal government, emergency services and Hydro-Québec. The HydroMobile was also on hand to discuss key issues related to electricity.

Public consultations

In 2023, we implemented a new framework to enhance the social acceptability of our transmission line projects. Entitled *Nouvel élan en acceptabilité sociale*, the document (available in French only) sets out an approach to better reconcile community aspirations and the increasing demand for electricity.

We held information sessions on more than 60 power generation and transmission projects, along with preliminary consultations on various power transmission projects. The latter included the projects for a 735/315-kV substation in Saguenay–Lac-Saint-Jean, a similar substation in the Bersimis region in Côte-Nord, the 315-kV Manic-3–Outardes line and the conversion of Cleveland substation and related tap line (MRC of Brome-Missisquoi).

MUNICIPAL PARTNERS SATISFACTION SURVEY

Every fall, Hydro-Québec assesses the satisfaction of municipalities through a survey. The survey asks over 1,000 respondents to rate their general experience with the company and how easy it was to do business with us. In 2023, the average overall satisfaction score was 7.7 out of 10, slightly down from the previous year (7.9).

Some of the consultations we held in 2023

Hydro & Me Panel

Through the Hydro & Me Panel, launched in 2021, Hydro-Québec regularly consults a group of Quebecers on various issues, generally through online questionnaires. Panelists thus have a say in the company decisions and policies that will shape Québec's energy future and improve our customer service. The panel, which counted some 17,000 people in December 2023 and reports an excellent participation rate, has held 23 consultations since its launch.

Talks on electricity service reliability

Extreme weather events related to climate change had an impact on service reliability in 2023. To address the issue, we organized numerous activities for communities and the general public.

Webinars

We organized a number of informational webinars for municipalities. Topics covered included handling emergencies near the distribution system for fire service and first responder teams, the energy context in Québec and wind power. Other webinars, aimed at the general public, looked into the management of spring flooding in the Saint-Maurice, Outaouais and Saint-Laurent rivers and Lac Témiscouata. During these presentations, experts explained how our facilities can limit the impacts of flooding and answered questions from participants.

For more information, please visit our microsite.

Rates

Hydro-Québec is required to charge the same electricity rates throughout Québec, except in communities north of the 53rd parallel (barring Schefferville) that are served by off-grid systems. Base rates are established according to the cost of providing service and the consumption profile of each customer category. We also offer various rate options that contribute to efficient demand management during winter peaks.

Hydro-Québec's rates continue to be affordable for Québec households and competitive worldwide for businesses. On April 1, 2023, the average price paid by residential customers with a monthly consumption of 1,000 kWh was 7.81¢/kWh, including generation, transmission and distribution costs. By comparison, the average residential price was 11.62¢/kWh in Vancouver, 13.88¢/kWh in Toronto, 37.39¢/kWh in New York City and 55.63¢/kWh in Boston.

Pursuant to the provisions of the *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, 2024, as follows:

- 3.0% for residential customers
- 5.1% for all other customers, except large-power industrial customers
- 3.3% for large-power industrial customers (equivalent to the 5.1% rate increase multiplied by an adjustment factor of 0.65 set by the Régie de l'énergie)

Since 1963, the price of electricity in Québec has tended to stay in line with inflation, while oil and natural gas prices fluctuate more significantly. According to the available data, the consumer price index in Canada stands at 975, while it is 828 for electricity in Québec, 1,354 for natural gas and 4,109 for oil.

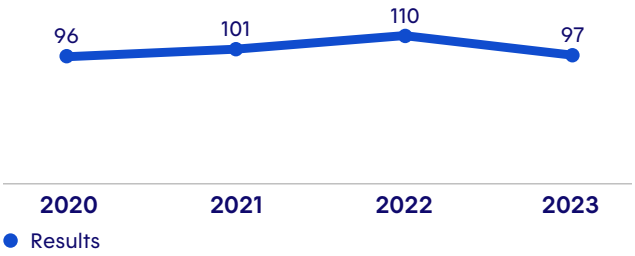
Customer satisfaction

In 2023, 95% of customers reported being "very satisfied" or "quite satisfied," compared with 96% in 2022 and 97% in 2021. The number of complaints has gone from 2,231 in 2019 to 1,640 in 2023, a drop of over 26%.

To better meet the expectations of our customers and the general public in a context of extreme weather events, we're focusing our efforts on the support we provide during outages.

We're also working closely with municipalities and our customers to perform more preventive maintenance work. Some municipalities have adopted resolutions to this effect and encourage residents to cooperate. For example, in spring 2023, we organized a meeting with the residents of Blainville who were dissatisfied with service quality and facility maintenance. Hearing their concerns helped us lay the groundwork for finding solutions to reduce the duration and number of outages.

Average call wait time at customer relations centers (seconds)



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

Our role as a good corporate citizen

Hydro-Québec has a strong presence throughout the province, and our employees interact daily with Quebecers. This is why, in the interest of being a good corporate citizen and neighbor, we are committed to public safety.

In addition, as a responsible manager, we undertake to identify, protect and enhance our own heritage and any elements of Québec heritage that fall under our care.

Public safety

HHydro-Québec makes public safety a top priority. From climate change to projects to develop and ensure the long-term operability of the power system, our operations entail multiple risks that we strive to manage as effectively as possible. We take all necessary steps to prevent accidents, from installing protective devices, signaling tools, markers and barriers to educating workers and the public.

For example, we run campaigns to raise awareness about the dangers of electricity and dangers near hydropower facilities among four target audiences: the general public, workers exposed to electrical hazards, young children, and emergency services personnel. We also organize educational campaigns about vegetation control.

In 2023, we launched one campaign aimed at the construction industry and a second one focused on public safety near hydropower facilities. The latter consisted of educational videos posted on our website and social media and involved 2,569 preventive patrols carried out near our facilities during the summer, leading to the expulsion of 2,019 people.

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 facilities. Our telephone hotline line received 2,678 calls, compared to 2,490 in 2022 and 2,550 in 2021. Since 2012, the hotline has received an average of 2,000 calls a year, showing that our workforce is well on board with safety efforts.

Lastly, to counter the fragility of the ice cover, we built three additional walkways on the Aisley and Romaine rivers and on Romaine 1 reservoir as a preventive measure.

Yet despite all our best efforts, accidents still occur. Sadly, there were two deaths by electrocution in 2023.

Electrical accidents – 2023[a]

Group affected	Events	Deaths
Public – Hydro-Québec facilities	13	1
Public – Use of electricity	1	0
Skilled workers – Hydro-Québec facilities	13	0
Skilled workers – Use of electricity	1	1
Hydro-Québec employees	38	0
Total	**66**	**2**

a) Reported accidents only.

Preserving our collective heritage

In 2023, Hydro-Québec set up an advisory committee tasked with issuing recommendations on how certain projects affect our corporate heritage. Over the year, we carried out 39 studies on our built, technological, archaeological, intangible and documentary heritage. One example was a study of La Romaine thermal generating station, which allowed us to document the history of the electrification of the Basse-Côte-Nord region, along with historical details of the work carried out by operators in remote regions.

We also published a best-practices guide on preserving our technical heritage. The guide traces the development of the technologies used at Hydro-Québec, recommends heritage protection measures and presents examples of how heritage sites can be enhanced.

Showcasing the past

A number of projects aimed at promoting our heritage were carried out in 2023, including:

- A 20-minute documentary on the history of the former Grand-Mère generating station, commissioned in 1916, and its built, technological, documentary and intangible heritage. Watch now on our YouTube channel (in French only).
- A video on the former overhead cranes at Beauharnois generating station, which are nearly a century old, including an account from an employee who used them for several years. Available on our Facebook page (in French only).
- We helped create a museum and cultural space on the site of a former generating station in the municipality of Stanstead-Est. The new space showcases the power plant's original technological components, which date back to 1929.

ARCHAEOLOGICAL WORK

Before starting to build the 70-km line that will run between Louvicourt substation and Kitcisakik (Abitibi-Témiscamingue) to bring power to the local Algonquin community, we conducted a study of the area's archaeological potential. The findings revealed that certain zones may have had previous human occupation. A subsequent archaeological inventory of 49 zones, carried out in collaboration with the community, confirmed that the project would have no impact on artifacts or other heritage or Indigenous assets potentially located in the line route right-of-way.

Archaeological finds at our head office

From June to November 2023, a team of archaeologists conducted excavations at the parking lot of Hydro-Québec's head office to document the use of the site that predated the building's construction.

The digs yielded several objects from the 18th century, along with a wealth of artifacts from the 19th and 20th centuries. The team also uncovered the foundations of a large stone residence dating back to the early 19th century that would have belonged to François-Xavier Beaudry, a wealthy Montréal businessman.

Finally, the findings also included a number of wooden remains from the Bulmer & McLennan sawmill, in operation from the late 19th century until the head office's construction. The results from the digs and the objects retrieved will be showcased in 2024.

Our historical collection

In 2023, we added 75 artifacts to our historical collection, some of which came from the former Grand-Mère generating station and the Gentilly-2 facilities. Two objects from our collection were lent to the Musée de la civilisation for the exhibition *René et Lévesque* marking the 100th anniversary of the birth of the former Québec premier.

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 taking proactive steps to counter the two greatest environmental threats: loss of biodiversity and climate change.

The energy transition

In the context of the energy transition, the decarbonization of the economy, the increase in electrification, the rising production of renewable energy and the growing impact of climate change have led to substantial changes in power system design. As a result, Hydro-Québec is preparing the grid to integrate distributed energy resources, additional intermittent energy sources and equipment enabling greater customer participation in efforts to reduce peak demand.

Wind power projects

Hydro-Québec is increasingly turning to wind power to meet Québec's electricity needs. In collaboration with Indigenous and local communities, we are actively developing this energy source, which can be rolled out quickly and generally responds well to the needs of the Québec market. It is in this perspective that we launched a call for tenders to purchase 1,500 MW of wind power. Hydro-Québec currently owns two wind farms.

Solar power development

Although solar power is highly variable and cannot contribute to our capacity balance, it plays an important role in Québec's energy balance, as a complement to hydropower and wind power. Hydro-Québec is studying the best solutions for integrating solar power into the grid, including the connection of small solar fleets to the distribution system. We plan to facilitate the installation of solar panels in the homes of certain customers interested in self-generation, which could allow them to meet up to 45% of their electricity needs.

See Label for more information.

99.9%

of the electricity distributed to customers in Québec connected to the main grid comes from renewable sources.

Decarbonization

A pillar of the energy transition, electrification will secure Québec's economic growth and play an essential role in reducing GHG emissions. In 2023, Hydro-Québec adopted the *Action Plan 2035 – Towards a Decarbonized and Prosperous Québec*, which establishes the priorities and results needed to achieve Québec society's collective ambitions in terms of decarbonization.

Decarbonizing our operations

We are continuing our initiatives to decrease our GHG emissions. Given that the conversion of Îles-de-la-Madeleine generating station has been suspended indefinitely, the GHG reduction objective set out in the *Sustainable Development Plan 2020–2024* has been reduced.

In addition, our GHG accounting considers several factors, including scientific and international standards that are currently under review. Hydro-Québec is following the development of these parameters and, once the final changes are announced, we will be in a position to determine a new pathway to carbon neutrality.

Transportation electrification

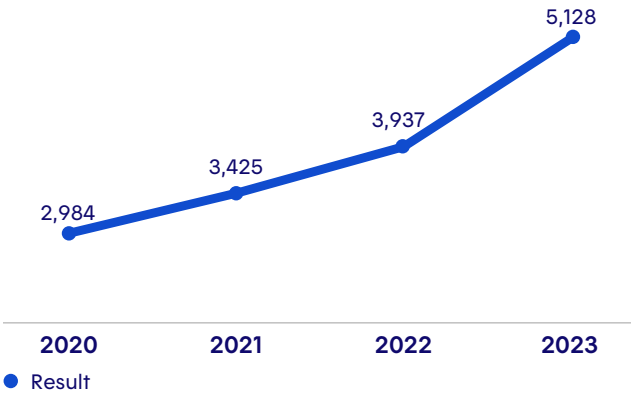
LTransportation electrification is a promising green sector in which Hydro-Québec intends to play a leading role. We continued to expand the Electric Circuit, which comprises almost 5,000 EV charging stations, including 900 fast-charge stations. Our goal is to help increase the number of electric vehicles by offering drivers high-quality service and a network that covers all of Québec's regions.

In accordance with the Québec government's *Electric Vehicle Charging Strategy* (summary available in English), Hydro-Québec plans to install 2,530 fast-charge stations and 4,500 standard stations by 2030. We will also begin the rollout of public fast-charge stations for heavy vehicles along major roadways. The Electric Circuit will therefore be central to the strategy to accelerate transportation electrification.

Interoperability among charging networks is essential to avoid the need for multiple accounts and digital wallets, and ensure a smooth charging experience. In 2023, five new charging networks became interoperable with the Electric Circuit, which now has a dozen partner networks, including some of the most extensive in North America.

To encourage the rollout of fast-charge stations in the private sector, Hydro-Québec offers companies the opportunity to operate their charging stations under the Electric Circuit banner. This type of affiliation will help simplify the operation of charging stations and reduce costs. In 2023, the Electric Circuit integrated approximately 30 charging stations operated by various suppliers into its network.

Number of public chargers operated by the Electric Circuit



Decarbonizing our vehicle fleet

When acquiring new vehicles, we continue to replace light-duty vehicles, bucket trucks and underground vans with zero- and low-emission models. To reach our objectives, we must continue to install charging stations in the parking lots of our administrative buildings, substations and generating stations. In 2023, we added over 1,100 zero- or low-emission vehicles to our fleet.

We own two all-electric Lion8 bucket trucks and have partnered with Québec companies Lion, Posi+ and Xander, and with motor manufacturer Dana TM4, to develop these vehicles. We also acquired 11 new all-electric straight trucks.

Hydro-Québec continues to operate a shuttle service for its personnel between Montréal and the city of Québec to reduce the number of single-occupant cars on the road. Employees also have access to a car-sharing system allowing them to reserve a zero- or low-emission vehicle instead of using their own car for business travel.

Converting off-grid systems

We are gradually converting off-grid systems to cleaner, less expensive energy sources. Our approach is to work with Indigenous and local communities on promising initiatives, while meeting our financial and environmental objectives. We also consider the specific characteristics of each system and the needs of the Indigenous and local communities when deciding on optimal technological solutions from social, environmental and economic perspectives.

Following the announcement in April 2023 that the connection of Îles-de-la-Madeleine to the main grid was being postponed, we reinstated the Efficient Energy Use Program for customers using fossil fuels for heating. We also extended the pilot project on heat pumps until 2025.

Monitoring GHG emissions from hydropower reservoirs

Impoundment of hydropower reservoirs leads to the decomposition of part of the flooded soils and vegetation, which in turn increases GHG emissions. After about 15 years, emission levels generally return to those found in the natural environment. To monitor GHG emissions from reservoirs and understand the impact of climate change on the carbon footprint of hydropower, Hydro-Québec carries out a range of activities, including collecting approximately 30,000 measurements in field surveys.

In 2023, we produced several videos aimed at the general public to present the reliable and rigorous studies we carry out in partnership with experts and universities. The goal of these studies is to document the amount of GHGs released by reservoir impoundment.

To learn more about GHG emissions from reservoirs:

Quebec's electricity has a low carbon footprint

Specialized documentation on GHG emissions from reservoirs

GHG emissions and Québec hydropower: Where do they come from?

Measuring GHG emissions in aquatic environments

Decarbonizing economies outside Québec

Our electricity export projects are a major factor in the decarbonization of neighboring economies in the United States and Canada. In 2023, we continued discussions with our partners concerning various decarbonization projects. Our exports in 2023 totaled 21.4 TWh.

New England Clean Energy Connect project

In 2023, we continued construction and development work for Appalaches substation and the Appalaches–Maine interconnection line. The new interconnection will enable us to export 9.45 TWh of clean, renewable hydropower to the New England grid for a period of 20 years.

Champlain Hudson Power Express project

Construction of the substation and underground line for the Hertel–New York interconnection began in fall 2023. The new interconnection, which is scheduled for commissioning in spring 2026, will make it possible to deliver up to 10.4 TWh of clean energy to New York City every year. This historic project has received all major authorizations required to go ahead.

Agreement with the Ontario Independent Electricity System Operator

In August 2023, we reached a preliminary agreement with the Ontario Independent Electricity System Operator (IESO), under which the IESO will supply Hydro-Québec with 600 MW of capacity free of charge in the winter, in exchange for receiving 600 MW from Hydro-Québec in the summer. This arrangement allows each party to make use of guaranteed capacity supplies at strategic times. Once signed, the final agreement will come into effect on November 1, 2024, for a period of seven years, with an option to extend it for three years. Hydro-Québec and the IESO are currently considering other opportunities to optimize their power exchange capabilities.

GHG emissions avoided by exports of electricity

	2020	2021	2022	2023
GHG emissions avoided (kt CO_2 eq.)	6,611	6,849	6,386	**3,168**
Exports (TWh)	32.4	36.2	35.6	**21.4**

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

Interconnection capacity

	2020	2021	2022	2023
Import capacity (MW)	6,025	6,015	6,015	**6,010**
Export capacity (MW)	8,145	8,190	8,202	**8,177**

Electricity purchases outside Québec (%)[a]

Markets	2020	2021	2022	2023
New England	0.001	0.006	0.049	**0.130**
New York	0.006	0.014	2.151	**3.503**
Ontario	3.967	2.095	5.297	**7.958**
New Brunswick	0.003	0.011	0.013	**0.034**
Newfoundland and Labrador	95.994	97.869	92.490	**88.375**
Total	**100 (29,154 GWh)**	**100 (31,648 GWh)**	**100 (32,240 GWh)**	**100 (34,832 GWh)**

a) Totals were calculated from non-rounded figures.

Biodiversity

Hydro-Québec's facilities cover over 31,000 km² and are found in most of Québec's ecosystems. That is why we have been incorporating biodiversity protection into our actions and decisions since 2006. Also, in accordance with our biodiversity strategy, we now measure the impacts of our initiatives to assess their effectiveness and make any necessary adjustments.

Hydro-Québec's biodiversity strategy and initiatives

Monitoring eels in Carillon

The American eel hatches in the sea and travels up the Fleuve Saint-Laurent (St. Lawrence River) to Lake Ontario, migrating toward its freshwater feeding habitats. Some eels swim toward the Rivière des Outaouais (Ottawa River) downstream of Carillon generating station.

In 2023, Hydro-Québec conducted an acoustic telemetric survey to document the movement and behavior of eels downstream of the generating station and their use of the nearby Parks Canada lock. To perform the study, we captured eels and implanted acoustic transmitters in their abdomens. A network of acoustic receivers was used throughout the summer downstream of the generating station and near the lock. The preliminary results indicate that all tagged eels have been located.

Mitigation measures for at-risk plant species

Several at-risk plant species, including threatened or vulnerable species, grow in transmission and distribution line rights-of-way. To protect them, Hydro-Québec uses mitigation measures when carrying out vegetation control work, such as ensuring that it doesn't widen rights-of-way. If a herbaceous or shrub species is compatible with the system, we do the work manually using brushcutters and chainsaws, or mechanically without applying herbicides. When machinery is required, the work must be carried out on frozen ground to preserve the specimens. These methods will soon be used by suppliers when performing the work. Hydro-Québec has also developed a mobile app to help identify five trees and shrubs and prevent them from being cut down along rights-of-way.

Landscaping that fosters biodiversity in rights-of-way

Hydro-Québec supports municipalities wishing to carry out landscaping that fosters biodiversity in transmission line rights-of-way. With proper landscaping, rights-of-way create an ecological corridor to reduce habitat fragmentation that can occur with urban development and provide excellent opportunities for enhancing biodiversity. When turned into an open, natural environment, such as grasslands, rights-of-way can help create habitats that attract numerous species, including pollinating insects, birds, small mammals, amphibians and reptiles.

In 2023, we published a guide for municipalities on our website. This initiative was carried out in collaboration with the Union des municipalités du Québec (UMQ) and the Fédération québécoise des municipalités (FQM) to respond to municipal governments' requests to use our rights-of-way. From now on, Hydro-Québec will be available to help municipalities plan their landscaping in rights-of-way and will offer them free leases.

Landscaping that fosters biodiversity in rights-of-way (in French only)

BIODIVERSITY ACTION PLAN

Hydro-Québec is developing a biodiversity action plan to:

- Identify undertakings and establish targets to protect and foster biodiversity.
- Focus on close collaboration with municipalities and external stakeholders to protect areas with high ecological value and vulnerable and threatened species, while maintaining the reliability of the power grid.
- Include protection of biodiversity across all activities provided in the *Action Plan 2035*, from project planning to the operation of assets.
- Actively contribute to Québec's efforts so that the province can reach its biodiversity protection objectives.

Planting aquatic grass beds along Des Cèdres dike

Aquatic grass beds are rich ecosystems that sustain communities of aquatic organisms and are used as spawning grounds and feeding habitats by many fish species. Following the refurbishment of Des Cèdres dike, we revegetated and developed three sites to recreate some of the grass beds lost during the work. Divers transplanted plantlets directly into the riverbed and in substrate rolls. A follow-up will be carried out in the coming years to determine whether regrowth of the grass beds and reestablishment of the ecosystem were successful. If effective, the technique could be used in other projects as well.

Research chair in tree growth control

The Arbrenvil-UQAM research chair carried out tests on 360 trees from six species having different architectural features in Saint-Bruno-de-Montarville. The aim of the research is to try out innovative approaches for controlling tree growth to improve coexistence between trees in urban environments and the overhead distribution system. In 2023, metal stakes were installed to direct branches of young trees to grow a sufficient distance away from power lines, and the dominant stem of trees were capped to encourage lateral as opposed to vertical growth. In addition, directional cuts were made to create a low fork while the trees were still young. The research findings will help municipalities select trees that are compatible with the power system and in line with certain biodiversity principles.

Training on boat cleaning procedures

To avoid the introduction and spread of non-native invasive species, Hydro-Québec has prepared a video for its employees to raise awareness about the following three practices: using clean equipment and materials; avoiding non-native invasive species when carrying out work; and thoroughly cleaning equipment and materials before leaving an area. The video was filmed in Témiscouata, during summer 2023, at one of the new cleaning stations built to prevent the spread of zebra mussels.

Tree planting in the Boisé Steinberg

In September 2023, Hydro-Québec planted almost 300 trees in the Boisé Steinberg, in collaboration with the Mercier–Hochelaga-Maisonneuve borough and the organization SOVERDI, to replace trees that had been cut down to protect a distribution line. When the woodland was sold to the Ville de Montréal in fall 2022, Hydro-Québec undertook to preserve this green space, which is very popular with the area's residents.

Sustainable buildings and infrastructure

In 2023, we completed the construction of a line that will help increase the robustness and reliability of the transmission system, and we inaugurated a hydropower generating complex with an installed capacity of 1,550 MW. We also conducted several studies and projects to ensure the long-term operability of some of our generating equipment and began replacing the generating units with new, more efficient technology. Our goal is to increase the capacity of certain facilities by 2,000 MW by 2035 so that we can meet part of Québec's growing electricity needs.

Inauguration of the Romaine complex

On October 12, 2023, we inaugurated the Romaine complex, our largest hydroelectric complex built in the last 50 years. With its four generating stations, the complex has an installed capacity of 1,550 MW and an annual energy output of 8 TWh—enough to supply 470,000 households. The complex supplies clean, renewable energy available on demand, which contributes directly to the prosperity and decarbonization of Québec.

Preparatory work at Outardes-2 generating station

This project to replace the station's generating units will increase the generating capacity of Outardes-2 by approximately 94 MW. In 2023, Hydro-Québec set up temporary facilities and began refurbishing the generating station's overhead cranes. We also launched tender calls for auxiliary services and conducted several environmental studies.

Draft-design studies at Manic-3

Studies were conducted at René-Lévesque generating station ahead of the replacement of the six generating units, to ensure the station's long-term operability and increase its capacity by about 480 MW. In 2023, we hired engineering firms for several contracts, performed environmental surveys and conducted investigations on site.

Commissioning at Rapide-Blanc

As part of the refurbishment of Rapide-Blanc generating station, the first of six new generating units was installed on March 31, 2023. The project will ensure the long-term operability of the generating station, which was commissioned almost 90 years ago. Once complete, the work will provide additional capacity of approximately 18 MW.

Power system upgrade on the island of Montréal

Made up of about 10,000 km of power lines, the distribution system on the island of Montréal was hard-hit by the April 2023 ice storm. Upgrades to the system are required to meet customer needs related to the energy transition and to manage the increased load on the regional system. Our work to convert the distribution system from 12 kV to 25 kV is expected to last until 2045, in particular by replacing 120/12-kV substations that are at the end of their service life with 315/25-kV substations and converting supply lines.

Environmental practices

Managing the environmental impacts of our projects

Hydro-Québec performs environmental assessments for all its infrastructure projects in order to survey and study sensitive elements and habitats likely to be affected by the work. This allows us to reduce, mitigate and sometimes even prevent adverse impacts of our projects.

Applying public land-use plans

Where projects involve public land, we follow the government guidelines set out in the public land-use plans for the regions concerned. We report on how we applied these guidelines in an environmental impact statements. In 2023, we did not submit any environmental impact statements for projects carried out on public land covered by a public land-use plan pursuant to section 31.1 of the *Environment Quality Act*.

Envision certification for Hochelaga substation

Hydro-Québec wants to obtain Envision certification from the Institute for Sustainable Infrastructure for the 315/25-kV Hochelaga substation project. To qualify for this certification, we must incorporate sustainable development principles in all stages of the substation's life cycle: planning, design, construction, operation, maintenance and dismantling. In 2023, we brought these principles to the attention of the project's partners and accounted for sustainable development in the draft-design studies. We will be working on the design of the future substation in 2024.

THE ENVIRONMENT, AT THE HEART OF HYDRO-QUÉBEC'S PRIORITIES

For 50 years now, several teams with wide-ranging expertise have been working daily to improve Hydro-Québec's environmental performance. Thanks to their skills and know-how, the company is now a world leader in environmental practices.

In 2023, we focused on three major priorities to achieve our environmental objectives:

- Conduct environmental assessments and impact studies to eliminate or mitigate the environmental effects of our projects and promote their social acceptability.
- Prevent the risk of contamination.
- Implement our environmental strategy on biodiversity protection, climate resilience and decarbonization.

Assessing the visual impacts of transmission projects

Given that changes in landscape are an issue for most projects involving the transmission system, we developed new assessment tools in 2023 to help determine how many towers, and which parts of the towers, would be visible from multiple observation points. The tools are used at the project design stage to optimize the location of structures and minimize their impact on the landscape. They are also essential for developing mitigation measures.

For more information, please visit our microsite.

Phytoremediation of soils

During the construction of the Romaine complex, Hydro-Québec took into account regulatory changes affecting quarries and sandpits, and decided on phytoremediation to accelerate the decontamination of lightly contaminated soils from quarries. This technique uses plants to extract, decompose or immobilize organic and inorganic contaminants.

Phytoremediation will be used to decontaminate two quarries, which will avoid the GHG emissions linked to transporting the contaminated soils off-site. To foster biodiversity, reforestation can be carried out afterward using species that are native to Côte-Nord but not abundant in the region.

Traceability of contaminated soils

In accordance with the *Regulation respecting the traceability of excavated contaminated soils*, contaminated soils must be tracked in the Traces Québec system, which keeps records of all movement of excavated contaminated soils to a site other than their site of origin. Hydro-Québec complies with this regulation by reporting all the metric tonnes of contaminated soils that are excavated and transported off-site. We reported over 151,136 metric tonnes of contaminated soils in 2022, and more than 281,455 metric tonnes between January 1 and September 1, 2023.

Management of contaminants (in French only)

Dismantling of thermal generating stations and soil decontamination

The ongoing transition from off-grid systems supplied by fossil fuels to cleaner, more efficient energy sources involves several projects to dismantle thermal generating stations and decontaminate the soil. In line with its commitment to sustainability, Hydro-Québec has opted for the biopile treatment of contaminated soil. With this process, the soil is treated on site, in the communities where it was excavated, thereby avoiding the GHG emissions linked to transportation, reducing the risk of accidental release of contaminants from the multiple handling of bags containing contaminated soils during land and sea transportation over thousands of kilometres, and preventing the waste of thousands of single-use bags. In addition, using the treated soil to fill the original excavation allows local natural resources to be preserved by reducing the operation of borrow pits.

ENVIRONMENTAL MONITORING

After an environmental assessment, we select measures to reduce, mitigate and compensate for a project's environmental impacts. We then conduct follow-ups to measure the relevance and effectiveness of these measures. Below are a few examples.

EASTMAIN-SARCELLE-RUPERT COMPLEX

In compliance with the authorization certificates, impact assessment and *James Bay and Northern Québec Agreement*, Hydro-Québec implemented an environmental follow-up program in 2007 for the Eastmain-Sarcelle-Rupert complex, which was completed in 2023.

The follow-up was carried out in close collaboration with the Cree communities of Mistissini, Nemaska, Waskaganish, Eastmain, Wemindji and Chisasibi. It included numerous programs for monitoring changes in the physical, aquatic, land and human environments, determining the effectiveness of mitigation measures and assessing the need for any corrective measures.

ROMAINE COMPLEX

We have implemented various mitigation measures to reduce the impact of the Romaine complex on wetlands, including the clearing of a three-metre strip along certain sections of the reservoirs, the creation of bays to encourage habitat growth along the banks of the Romaine-1 reservoir and the funding of a wetland conservation plan for Minganie.

A compensation program was also implemented, through which 60 ha of wetlands were built in certain borrow pits. Completed in 2023, the program's final project was a 5-ha wetland, known as Ikuta pond, developed in the Romaine-4 sector. All wetland construction work was assigned to Innu companies from Ekuanitshit. The first follow-up of built wetlands was conducted in 2017, and the second in 2023. Drone vegetation surveys indicated an average coverage of 73%. Approximately 20 natural species not included in the seeding mixes used are gradually becoming established, and the planting of trees and shrubs was highly successful. Additional follow-ups are scheduled for 2025, 2027 and 2030.

Managing resources and waste material

The transformation of workspaces has prompted Hydro-Québec to reconsider surplus management and prevent waste by adopting resource circularity measures to optimize the company's socioeconomic footprint while reducing its environmental footprint.

In addition to promoting internal reuse of office furniture and other used items, we also work with social economy enterprises providing inclusive employment to ensure that surpluses find a second home. For example, we donated over 500 boxes of office supplies to La Collecte Foundation, which organized, packaged and distributed them at no charge to Montréal area schools. We also donated 900 boxes of books to La Fondation internationale des Cultures à partager (in French only), which sorted and then distributed them to schools, libraries and community groups.

In the last several years, we have taken major strides to limit food waste. For example, surpluses from the Manic-5 cafeteria are distributed to the community free of charge by charitable organizations to support local food security. In 2023, about 900 kg of organic waste from the Radisson cafeteria was composted and will be used for growing organic vegetables in the greenhouses of the non-profit organization Jardins du 53e Taïga.

Recovery and reuse of insulating oil

Recovered oil is regenerated or decontaminated and treated, then reused in Hydro-Québec's equipment. Oil that cannot be treated for reuse is reclaimed as energy. In 2023, the percentage of oil that is reused increased from 88.8% to 93.7%.

Our goal is to reuse all used oil. In 2023, an increase in the number of transformer upgrades required to handle peak periods resulted in a high demand for oil over a short amount of time. Since the demand could not be met entirely with treated oil, we purchased 634,828 litres of oil as an exception to make up for the shortage.

Recovery and reuse of insulating oil

Treatment category	2023
Collected from equipment (litres)	**3,831,622**
Treated for reuse (litres)	**3,590,050**
Designated for recycling and energy recovery (litres)	**241,572**
Designated for disposal (litres)	**-**

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	2023
Environment					
Total number of generating stations in Québec generating fleet	86	85	87	88	**87**
Installed capacity of Québec generating fleet (Thermal energy, hydropower and solar power) (MW)	37,243	37,231	37,247	37,439	**37,436**
Power generated – Hydropower (GWh)	175,086	171,162	178,476	179,730	**160,567**
Power generated – Solar (GWh)	N.A.	N.A.	8	14	**12**
Power generated – Thermal (GWh)	318	310	289	313	**308**
Power generated – Total (GWh)	175,404	171,472	178,773	180,057	**160,887**
Power purchased – Hydropower (GWh)	N.A.	N.A.	N.A.	35,987	**36,708**
Power purchased – Wind (GWh)	N.A.	N.A.	N.A.	11,911	**10,154**
Power purchased – Biogas and biomass (GWh)	N.A.	N.A.	N.A.	2,239	**2,201**
Power purchased – Solar (GWh)	–	–	–	–	**–**
Power purchased – Thermal and other sources[a] (GWh)	N.A.	N.A.	N.A.	2,273	**3,955**
Power purchased – Total (GWh)	N.A.	N.A.	N.A.	52,409	**53,018**
Power purchased outside Québec – Total (GWh)	31,600	29,154	31,648	32,240	**34,832**
Percentage of power purchased outside Québec – New England (%)	0.001	0.001	0.006	0.049	**0.130**
Percentage of power purchased outside Québec – New York (%)	0.175	0.006	0.014	2.151	**3.503**
Percentage of power purchased outside Québec – Ontario (%)	4.141	3.967	2.095	5.297	**7.958**
Percentage of power purchased outside Québec – New Brunswick (%)	0.011	0.003	0.011	0.013	**0.034**
Percentage of power purchased outside Québec – Newfoundland and Labrador (%)	95.664	95.994	97.869	92.490	**88.375**
Renewable energy certificates sold to third parties – Hydropower (GWh)[b]	N.A.	N.A.	4,450	8,769	**16,631**
Renewable energy certificates sold to third parties – Wind (GWh)[b]	N.A.	N.A.	6,852	6,341	**9,904**
Renewable energy certificates sold to third parties – Biomass and biogas (GWh)[b]	N.A.	N.A.	192	425	**457**
Renewable energy certificates sold to third parties – Solar (GWh)[b]	N.A.	N.A.	N.A.	–	**–**
Renewable energy certificates sold to third parties – Total (GWh)[b]	649	1,232	11,494	15,535	**26,992**
Percentage of renewable energy in the residual electricity mix distributed to customers in Québec connected to the main grid (%)	N.A.	N.A.	N.A.	99.6	**99.9**
Number of import interconnections	15	15	15	15	**15**
Interconnection import capacity (MW)	6,025	6,025	6,015	6,015	**6,010**
Number of export interconnections	15	15	15	15	**15**
Interconnection export capacity (MW)	7,974	8,145	8,190	8,202	**8,177**
Total number of road vehicles in service on December 31	5,723	5,805	5,702	5,618	**5,803**
Number of all-electric, hybrid, plug-in hybrid and dual-energy road vehicles in service on December 31	N.A.	N.A.	683	769	**1,125**
Total number of light vehicles in service on December 31	N.A.	N.A.	4,033	3,928	**4,047**
Number of all-electric, hybrid, plug-in hybrid and dual-energy light vehicles in service on December 31	399	561	614	689	**971**
Energy efficiency initiatives: Energy saved – Residential customers (GWh)	214	225	312	410	**308**
Energy efficiency initiatives: Energy saved – Business customers (GWh)	257	218	420	411	**487**

a) "Other sources" refers to imports from neighboring regions and may include renewable energy.
b) Assessment of renewable energy certificate purchases is partly provisional.

Indicators		2019	2020	2021	2022	2023
Environment						
Energy efficiency initiatives: Energy saved – Off-grid systems (GWh)		10.0	0.3	0.4	2.5	**0.7**
Energy efficiency initiatives: Total energy saved (GWh)		481	443	733	824	**795**
Energy efficiency results – Administrative buildings (kWh/m² gross)		233	222	223	222	**242**
Reduction in administrative building power demand during winter peaks (number of buildings)		38	41	41	41	**43**
Reduction in administrative building power demand during winter peaks (kW)		7,259	10,431	455	5,464	**6,402**
Accidental spills reported to the authorities (number)		1,365	1,122	1,379	1,299	**1,283**
Significant cases of environment-related legal non-compliances[c] brought against Hydro-Québec		N.A.	N.A.	N.A.	N.A.	**4**
Fines paid for environment-related non-compliance [c] (new indicator)		N.A.	N.A.	N.A.	N.A.	**0**
Insulating mineral oil recovered from Hydro-Québec equipment (thousands of litres)		3,228	2,837	5,014	4,557	**3,832**
Insulating mineral oil treated for reuse (thousands of litres)		N.A.	N.A.	3,775	4,047	**3,590**
Insulating mineral oil treated for reuse (%)		95.9	98.7	75.3	88.8	**93.7**
Insulating mineral oil designated for recycling (thousands of litres)		N.A.	N.A.	N.A.	504	**235**
Insulating mineral oil designated for energy recovery (thousands of litres)		N.A.	N.A.	N.A.	6	**7**
Insulating mineral oil sold to suppliers (thousands of litres)		N.A.	N.A.	N.A.	117	**–**
New insulating mineral oil purchased (thousands of litres)		N.A.	N.A.	N.A.	N.A.	**635**
Water withdrawn (millions of m³)[d]		2.70	2.70	2.69	2.70	**2.69**
Area of transmission line rights-of-way treated (ha)		13,100	15,876	18,856	20,518	**21,804**
Area of transmission line rights-of-way treated mechanically (%)		93	93	90	92	**94**
Area of dikes and dams treated (ha)		758	748	850	882	**708**
Area of dikes and dams treated mechanically (%)		73	71	57	71	**75**
NOX emissions from thermal electricity generation (t)		4,154	4,214	3,443	3,595	**3,527**
SO2 emissions from thermal electricity generation (t)		1,169	1,180	1,026	1,129	**1,095**
Carbon footprint (t CO_2 eq.)						
Direct sources (Scope 1)						
Generating stations	Thermal generating stations	235,855	228,074	215,561	233,454	**228,303**
Mobile sources	Vehicle fleet	50,131	43,943	47,989	48,037	**46,977**
	Aircraft fleet	12,941	13,605	14,718	12,783	**12,056**
	Utility vehicles (snowmobiles, tractors, snowblowers)	1 068	890	886	926	**957**
	Propane-fueled lift trucks	88	68	756	116	**133**
Fuel use	System maintenance generators	14,656	4,699	3,952	10,459	**2,070**
	Emergency and jobsite generators	554	710	675	705	**711**
	Building heating	1,118	966	1,084	1,068	**903**
Other sources	Equipment containing CF_4 and SF_6	37,527	74,258	80,672	37,220	**47,556**
	Aerosols	258	382	262	517	**363**
	Equipment containing CFCs, HCFCs and halons	459	714	786	479	**1,965**
	Synchronous compensators	24	24	47	42	**25**
Indirect sources (Scope 2)						

c) Includes administrative monetary penalties, orders and criminal offences issued against Hydro-Québec in 2023.
d) 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 Westlake Chemical Canada Inc.).

Indicators		2019	2020	2021	2022	2023
Environment						
Energy losses	Power transmission and distribution system losses	7,415	6,662	8,290	12,245	**21,169**
Indirect sources (Scope 3)[e]						
	Electricity purchases	100,365	93,224	105,430	170,028	**310,121**
	Business travel – Employee personal vehicles	5,153	2,818	3,190	3,585	**3,569**
	Vehicles leased long-term	2,134	1,967	2,612	2,627	**2,513**
	Business travel – Trains	15	3	1	3	**7**
	Business travel – Commercial airlines	1,743	351	365	955	**1,470**
	Business travel – Helicopters[f]	5,079	2,620	5,777	4,070	**3,851**
	Business travel – Chartered airplanes[h]	4,796	3,878	4,709	6,947	**5,309**
	Life cycle of fuel	52,639	48,887	54,232	59,332	**56,460**
Total emissions						
	Direct sources (Scope 1)	354,680	368,332	367,388	345,805	**342,020**
	Indirect sources (Scope 2)	7,415	6,662	8,290	12,245	**21,169**
	Indirect sources (Scope 3)	171,924	153,748	176,315	247,546	**383,300**
	Direct and indirect sources	534,019	528,742	551,993	605,596	**746,489**
Intensity of direct GHG emissions (kg CO_2 eq./MWh generated)[g]		N.A.	N.A.	N.A.	N.A.	**2.13**
GHG emission rate of the residual energy mix distributed to customers in Québec connected to the main grid (kg CO_2 eq/MWh)[h]		N.A.	N.A.	N.A.	1.30	**0.62**
Emissions avoided by net electricity exports (t CO_2 eq.)		6,880,394	6,611,235	6,848,966	6,385,760	**3,168,253**

e) The following indirect emission categories were not included in the annual report: purchased goods and services, capital goods, transportation and distribution of goods and services, waste generated in operations, business travel, leased assets, processing/use of sold products, end-of-life treatment of sold products, franchises and investments.
f) Calculations for 2023 are based on flights taken between October 1, 2022, and September 30, 2023.
g) This value is a measure of the intensity of GHG emissions per unit of Hydro-Québec generation. It accounts for all direct GHG emissions, including emissions from off-grid systems and from Hydro-Québec's other activities.
h) This value represents the GHG emissions directly linked to electricity generation. This is the value that should be used by Hydro-Québec customers to calculate their scope 2 indirect emissions.

Indicators	2019	2020	2021	2022	2023
Social					
Reputation score	7.0	7.4	7.5	7.4	**7.4**
Employee sustainable engagement index (%)	84	87	88	87	**86**
Overall public satisfaction (very and quite satisfied) (%)	94	96	97	96	**95**
Customer satisfaction index – Combined index (scale of 10)	8.3	8.3	8.4	8.4	**8.3**
Average call wait time – Customer relations centers (seconds)	104	96	101	110	**97**
Call service level (%)	N.A.	85	83	83	**84**
System average interruption duration index (SAIDI) (min/customer)	761	305	346	848	**1,072**
Payment arrangements for low-income customers (number)	94,924	36,020	38,884	55,422	**69,536**
Payment arrangements for low-income customers ($M)	N.A.	N.A.	N.A.	218.2	**254.6**
Payment arrangements for all residential customers (number)	378,836	224,157	305,048	343,050	**290,788**
Payment arrangements for all residential customers ($M)	N.A.	N.A.	N.A.	836.4	**665.3**
Customer claims (number)	3,501	2,517	2,396	2,701	**3,873**
Customer complaints (number)	2,231	1,611	1,562	1,979	**1,640**
Complaints appealed to the Régie de l'énergie (number)	90	42	61	44	**50**
Employee Assistance Program – Number of cases opened	2,644	2,437	2,817	2,613	**5,222**
Potentially serious incidents (number)	291	245	276	257	**280**
Lost time accident frequency rate (per 200,000 hours worked)	1.41	1.00	1.10	0.96	**1.17**
Field observations (number)	23,699	31,439	32,086	32,638	**24,507**
Number of inspections of critical hazards	N.A.	N.A.	N.A.	6,992	**9,339**
Electrical accidents involving an employee – Incidents (number)	N.A.	N.A.	N.A.	34	**38**
Electrical accidents involving an employee – Deaths (number)	N.A.	N.A.	N.A.	–	**–**
Percentage of payroll invested in training (%)	2.8	2.4	3.0	3.4	**2.8**
Percentage of new hires belonging to one of the target groups (%)	N.A.	N.A.	N.A.	45.5	**43.6**
Donations and sponsorships ($M)	18.9	19.3	17.4	19.6	**20.6**
Donation to Centraide ($M)	N.A.	N.A.	N.A.	8.05	**8.09**[i]
Donations and sponsorships – Fight against poverty (%)[k]	N.A.	23.2	25.2	37.3	**23.6**
Donations and sponsorships – Transition (%)	N.A.	32.2	28.6	9.4	**16.4**
Donations and sponsorships – Vitality of Québec's regions (%)	N.A.	35.8	35.8	40.2	**48.4**
Donations and sponsorships – Business development (%)	N.A.	5.2	6.4	7.5	**5.7**
Donations and sponsorships – Reducing GHG emissions (%)	N.A.	3.6	3.9	5.7	**6.0**

i) This amount includes the donation made by Hydro-Québec ($4,360,097) and the donations from employees and pensioners ($3,729,530).

Indicators	2019	2020	2021	2022	2023
Economy					
Patents held (number)	737	812	871	947	**981**
Patents pending (number)	428	455	535	482	**465**
Total procurement of goods and services ($M)	3,115	3,022	3,652	4,184	**5,007**
Total procurement of goods and services – Québec only (%)	92	90	91	90	**90**
Revenue from electricity sales inside and outside Québec ($M)[i]	14,000	13,395	14,145	16,143	**15,880**
Contribution to Québec's gross domestic product (GDP) ($B)[l, k]	20.7	20.5	22.7	25.0	**24.0**
Net income ($M)[l]	2,923	2,303	3,564	4,557	**3,288**
Dividend (M$)[l]	2,192	1,727	2,673	3,418	**2,466**
Water-power royalties ($M)[l]	720	716	757	780	**740**
Public utilities tax ($M)[l]	299	304	308	330	**333**
Funding for educational institutions – Research chair funding and research contracts ($M)[l]	6.8	7.5	8.8	3.7	**2.8**

j) Information taken from *Hydro-Québec's Annual Report 2023* and verified in a separate audit.
k) Data based on the most recent information available at the time this report was published.
l) Since 2022, this figure takes into account only research chair funding and research contracts awarded by IREQ. Previous results can therefore not be compared.

Independent assurance from the Bureau de normalisation du Québec regarding Hydro-Québec's *Sustainability Report 2023*

To stakeholders and Hydro-Québec Management

The Bureau de normalisation du Québec (BNQ) was engaged to conduct an independent evaluation of the *Sustainability Report 2023* (the "Report"), which covers the period from January 1 to December 31, 2023. The objectives of the evaluation were as follows:

- To determine the reliability and quality of the Report's quantitative performance data;
- To assess the nature and extent to which the organization adheres to the *AccountAbility AA1000* principles;
- To determine the Report's compliance with the applicable reporting standards under the *Global Reporting Initiative* (GRI).

Hydro-Québec is responsible for the preparation and content of the Report. The BNQ's role is to provide an independent opinion on the Report.

Level of assurance and standards

The BNQ conducted its evaluation to a moderate level of assurance and as a Type 2 engagement, in accordance with the applicable verification standards of the *AA1000 Assurance Standard* in effect (AA1000AS v3). The goal of an engagement performed in accordance with the *AccountAbility AA1000* principles is to provide stakeholders with assurance on how the organization manages its sustainability performance and on how that performance is presented in the Report. The Type 2 engagement assesses both the nature and extent to which Hydro-Québec adheres to the *AccountAbility AA1000* principles (Inclusivity, Materiality, Responsiveness and Impact) and verifies the reliability of specific sustainability performance information. The BNQ also performed its evaluation by ensuring that the Report complies with the applicable GRI standards, that the organization can identify the original sources of the information in the Report and provide reliable evidence to support assumptions and complex calculations.

Independence and qualifications

The evaluation team for the Report was comprised of independent, experienced and qualified professionals who have been involved in several sustainable development sectors. The BNQ examined Hydro-Québec's sustainability reports from 2012 to 2017 and, at that time, had assessed the extent of their adherence to the *AccountAbility AA1000* principles and their compliance with the GRI guidelines in effect. The team therefore had the benefit of experience from previous years.

Methodology and scope of the evaluation

The list of the main indicators verified can be found on pages 41 to 45 of the Report and shows the scope of the evaluation. These indicators were verified using an approach based on the risk of errors and omissions that could have a major impact on the values published.

To assess how stakeholders are taken into account in the company's strategies for dealing with sustainability issues, the BNQ 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 to the organization and its stakeholders (principle of Materiality/relevance)
3. Responds to sustainability issues and their impacts (principle of Responsiveness/transparency)
4. Monitors, measures and reports on how its actions affect its broader ecosystem (principle of Impact)

The BNQ verified the data by conducting interviews and document reviews to validate the data collection processes and by selecting examples of information and documented evidence supporting the source data to verify the traceability and appropriate usage 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 and assumptions were appropriate.
- Information management systems and their controls were sufficiently robust to minimize the potential for errors, omissions and misinterpretation.

The BNQ verified the indicators related to greenhouse gases (GHGs) based on the general principles described in the standard ISO 14064-3:2019 — Specification with guidance for the verification and validation of greenhouse gas statements.

Observations and conclusion

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

- **Principle of Inclusivity**
  The evaluation has shown that Hydro-Québec has considered its stakeholders in its governance, strategies and decision-making processes throughout the company. It has established methods for identifying and understanding its stakeholders, taking into account their capacity to participate as well as their views and expectations. Hydro-Québec uses the information gathered from stakeholders to facilitate understanding, learning and improvement of the organization. In addition, information related to its sustainability performance is conveyed to stakeholders in an appropriate and transparent manner.

- **Principle of Materiality**
  Hydro-Québec has demonstrated that it uses a methodology to identify the most important sustainability issues. It bears mentioning that Hydro-Québec has defined specific criteria to determine and assess company-wide materiality thresholds and material issues. These criteria are supervised by senior management and comply with the applicable laws, regulations and internal policies and procedures.

- **Principle of Responsiveness**
  Hydro-Québec has implemented processes for responding to its stakeholders, particularly government authorities, employees, partners, suppliers and the public. It has established methods that are complete, accurate, timely, accessible and balanced to meet its stakeholders' expectations.

- **Principle of Impact**
  Hydro-Québec has developed processes to understand, measure, assess and manage the effects of its activities for the indicators established and published in the Report. The company has qualified personnel to implement these processes, which are documented and integrated into the organization's activities.

- **Compliance with the GRI**
  The evaluation confirmed that the Report was prepared in accordance with the applicable GRI standards in effect.

- **Quality and reliability**
  The evaluation of the sustainability performance data defined for the purposes of this Report, in accordance with the relevant materiality criteria selected, has demonstrated that the data is sufficiently complete and accurate.

- **Recommendations and improvements**
  The BNQ notes that Hydro-Québec has followed up on a number of the recommendations issued by the organization that conducted the verification of the *Sustainability Report 2022*. With a view to continuously improving sustainability performance, the BNQ has issued non-binding recommendations for improvement to Hydro-Québec in a management report. Hydro-Québec can consider these areas for improvement in its efforts to optimize certain data management processes.

- **Conclusion**
  The BNQ affirms that, based on its evaluation, the *Sustainability Report 2023* accurately reflects Hydro-Québec's sustainability performance for the period from January 1 to December 31, 2023. There are no notable limitations influencing the BNQ's opinion.

Québec, March 31, 2024
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Ce document est également diffusé en français.

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Hydro Québec