



# OUR PLANET

## Building a greener future

There is only one earth and Innergex works hard every day to generate solutions to address the climate crisis by increasing its share of renewable energy to help in the transition to a clean economy. By focusing solely on generating energy from renewable sources, Innergex has positioned itself as a leader in the fight against climate change and a more just society. We are a leader in the transition to a clean economy that will build a better world for all. Innergex is committed to doing our part to ensure that the next generation can continue to build upon what we've accomplished.



100%  
RENEWABLE  
ENERGY

# INNERGEX

Renewable Energy.  
Sustainable Development.

# Greenhouse Gas Emissions

Fighting climate change is one of the key principles driving our work at Innergex. Generating renewable energy exclusively means we are a low emitter of greenhouse gas ("GHG"), relative to other energy sources while providing the solutions to build a better world. Our results illustrate that our facilities produce electricity with no significant amounts of GHG emissions in their operations which makes it hard to set reduction targets in our production system.

In fact, the amounts of renewable energy generated offset more than our own modest emissions (such as from vehicles or short-term backup generation during outages). In 2019, we committed to disclosing our GHG emissions on an annual basis. Increasing our output of renewable energy will allow us to make a bigger contribution in the fight against climate change to help build a cleaner future.

While our emissions are low, we will continue to work to develop solutions to further reduce our environmental footprint. In 2021, we increased the number of facilities in our portfolio from 75 to 79.



## GHG Inventory (metric tonnes CO<sub>2</sub>)

Type	2021	2020	2019 <sup>1</sup>
Scope 1 – Direct emissions	1,346.1	1,277.3 <sup>2</sup>	2,165.9
Scope 2 – Indirect emissions	4,794.6	4,670.1 <sup>3</sup>	2,138.4
Scope 1 + Scope 2	6,140.7	5,947.4	4,304.3
Scope 1 – Halocarbon releases	0	0	2,861.7
<b>Total – CO<sub>2</sub> emissions including halocarbon releases</b>	<b>6,140.7</b>	<b>5,947.4</b>	<b>7,166.0</b>

<sup>1</sup> 2019 figures updated to reflect inclusion of previously missing data.

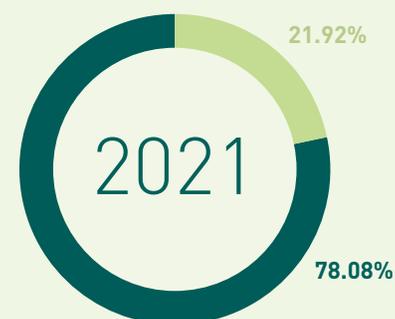
<sup>2</sup> Amount lower than 2019 due to reduction in fuel purchases throughout the year.

<sup>3</sup> Amount higher than 2019 due to full year of operation at Foard City (commissioned September 2019) and Phoebe (commissioned November 2019) facilities in Texas in 2020.

\* Scope 1 & 2 emissions calculations based on the Greenhouse Gas Protocol.

**Note:** Halocarbons in this context refers to sulfur hexafluoride ("SF<sub>6</sub>") and methane ("CH<sub>4</sub>"). In 2019, we had three SF<sub>6</sub> releases from high-voltage electrical systems at two of our facilities, resulting in a release of a total of 171.74 lbs. The majority of the loss occurred during construction of a substation at a facility in the United States.

## Percentage of total GHG Emissions by Scope



	2021	2020
Scope 1	21.92%	21.48%
Scope 2	78.08%	78.52%



## GHG Intensity (kg CO<sub>2</sub>e/MWh energy produced)

Type	2021	2020	2019
Total GHG Intensity	0.623	0.620	0.537
Total GHG Intensity including Halocarbon Releases	0.623	0.620	0.893

## Emissions Avoided

The electricity we produce from renewable sources has no significant GHG emissions in its generation contributing to further reducing CO<sub>2</sub> emissions from other sources in our business operations.

## Protecting Biodiversity

By harnessing the power of the sun's rays, the natural flow of water, and the motion of the air, we work with nature to generate clean energy for a brighter future. Innergex is committed to ensuring that the construction and operation of facilities to harness these resources is conducted in harmony with their host environments.

Our approach, laid out in our Sustainable Development Policy, describes the strategies to avoid, minimize and/or mitigate the effect our facilities could have on local ecosystems. We also consider remediation and restoration as a part of this strategy for not only the land we build on, but adjacent and protected areas.

As many of our projects are located in remote areas, consideration of wildlife plays an important role in the planning, construction and operation phases of our projects. We have a successful record of partnering with government, NGOs, conservation groups, academia and local organizations to design and implement solutions to mitigate human-wildlife interaction and disturbance of important species.

For example, concern about construction-related displacement of mountain goats at Innergex's Upper Lillooet and Boulder Creek hydro facilities in British Columbia is being monitored under a 5-year Operational Environmental Monitoring Plan ("OEMP"). Results from the first three years contributing to the OEMP found mountain goats in similar numbers actively using the migration corridors they used prior to construction of the project. The remaining two years will examine if the trend continues. Additionally, government-led monitoring has confirmed that grizzly and black bear populations continue to frequent the project area.

In another example, the daily water monitoring of the Inukjuak River during the construction of the Innalik Hydro Project on the eastern shores of Hudson Bay (Quebec) ensures the water is not negatively impacted by the construction work. The water monitoring program consists of two daily samplings, one upstream and one downstream from the worksite. Currently monitored parameters include temperature, pH and turbidity, allowing us to immediately identify a significant change/issue that could affect drinking



## Avoided Carbon Emissions (in metric tonnes)

	2021 <sup>1</sup>	2020 <sup>2</sup>	2019 <sup>3</sup>
<b>Avoided emissions</b>	6,982,908	6,780,613	5,670,558

<sup>1</sup> Based on Innergex's 2021 Production Proportionate of 9,853,366 MWh

<sup>2</sup> Based on Innergex's 2020 Production Proportionate of 9,590,140 MWh

<sup>3</sup> Based on Innergex's 2019 Production Proportionate of 8,021,758 MWh

**Note:** All results calculated using <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

water supplies for the downstream community of Inukjuak. To date results have shown that water parameters are identical at the upstream and downstream monitoring points indicating that the project has no effect on water quality.

Our commitment to reducing our footprint takes many forms and is a collective project that relies on the participation of all our employees, subcontractors and visitors. At Innergex, we want to implement as many green initiatives as we can, following the think globally, act locally rule. One concrete environmental protection measure that also saves costs is our "no-idling" policy for all vehicles on our construction and operating sites. On top of protecting the environment and being economical, it may improve safety by avoiding risk of idling vehicles accidentally moving if a driver exits the vehicle. By implementing this measure, users are more likely to leave the vehicle in the park position and not running.

## Environmental Expenditures

Expenditure disclosures consist of all costs at our operating facilities associated with the following categories: operational environmental monitoring programs, waste management costs and spill supplies (including oil recycling, hazardous waste disposal/treatment), environmental compliance costs (permitting, incident response, instream works monitoring), environmental restoration occurring during operations (maintenance of fish habitat compensation sites, additional tree planting and restoration costs).

Some years, our expenses are higher or lower than previous ones based on several factors, including whether any long-term monitoring programs have concluded or begun, amount of waste generated and recycled, and the number of projects under construction and development.



**Environmental Expenditures** of over

**\$1.7 M** in 2021

# Climate Change Risk Management

Climate change, which increases the likelihood, frequency and severity of adverse weather conditions such as severe storms, droughts and water stress, heat waves, forest fires, rising temperatures and changing precipitation patterns, presents both risks and opportunities to the Corporation. Climate change may change existing weather patterns in ways that are difficult to anticipate, which could result in more frequent and severe disruptions to the Corporation's generation facilities and the power markets in which the Corporation operates. In addition, energy demands generally vary with weather conditions.

The Corporation's facilities and projects are exposed to various hazards that are expected to increase in the future under various climate scenarios. The Corporation carefully manages physical risks, including preparing for, and responding to, extreme weather events through activities such as proactive route selection, asset hardening, regular maintenance, and insurance. The Corporation follows regulated engineering codes, evaluates ways to create greater system reliability and resiliency and, where appropriate, submits regulatory applications for capital expenditures aimed at creating greater system reliability and resiliency. When planning for capital investments or asset acquisitions, we consider site-specific climate and weather factors, such as flood plain mapping and extreme weather history. Prevention activities include wildfire management plans and vegetation management at electricity transmission and distribution sites. The Corporation maintains in-depth emergency response measures for extreme weather events. Despite all the measures in place to prepare for and respond to extreme weather events, there is no assurance that there would be no consequences on the Corporation's revenues and profitability.

Innergex is currently in the process of furthering its internal analysis and integration of a more detailed and comprehensive assessment of the risks and opportunities of climate change on the Corporation in line with the recommendations laid out in the Task Force on Climate-related Financial Disclosures and will release an accompanying report in 2022.

## Vegetation Management

Due to the geographic diversity of our assets, the natural growth of vegetation varies greatly between Innergex operating facilities – some facilities are located in coastal rainforest areas where vegetation growth is rapid, others are located in sparsely-vegetated desert areas. Despite their location, it is imperative we keep our facilities and surrounding infrastructure in orderly condition. Innergex follows an integrated management approach to manage vegetation at our sites. After vegetation is initially cleared for project construction, varying degrees of vegetation management are required during operations. Some areas require active vegetation control (such as weeds inside a fenced electrical sub-station for fire risk), other sites such as powerline rights-of-way are brushed every few years. Risk of falling trees (windfall) is managed along rights-of-way to reduce the risk of powerline contact, associated outage, and forest fire hazard. We employ a customized, regionally-appropriate integrated vegetation management approach at each of our facilities based on permit and approval requirements, location of the facility, types of vegetation, type of infrastructure and where relevant, compliance with North American Electric Reliability Corporation ("NERC") mandatory reliability standards.

## Land Management

It is important for Innergex to properly site our projects and then responsibly manage the land that hosts our facilities whether that be private or public lands. Initial studies identify the most suitable and productive areas to develop a renewable energy project depending on the energy source. Baseline surveys and assessments are performed during the development phase to guide project layout in order to optimize future electricity generation while minimizing disruption to existing ecosystems and surrounding land-use. Oftentimes, for many private landowners, a solar or wind renewable energy project allows them to diversify their income by using land that is either used in conjunction with another use, or no longer usable for other purposes.

During land clearing, care is taken to minimize the footprint of the clearing and to remove and stockpile topsoil for future use. Post-construction, disturbed areas for temporary use (laydowns, construction camps, temporary access roads) are remediated to facilitate soil stability, growth of planted vegetation or natural regeneration. We continue to monitor the area throughout operations to ensure that we are not only compliant with our permits but deliver on the expectations of the surrounding communities, our employees, and our shareholders.

Innergex's hydroelectric projects, by definition, are closely associated with natural rivers and streams upon which the projects are situated. To avoid possible contamination, many Innergex facilities have adopted the use of biodegradable, non-toxic, synthetic lubricants (non-petroleum based) in turbine and hydraulic systems where an elevated risk of leaks exists. Innergex continues to evaluate adoption of biodegradable fluids as new options become available.

## Environmental Incidents

The Innergex environment team launched an internal awareness campaign at our facilities to mitigate, reduce or eliminate releases of damaging halocarbons and other high emission gases. Since implemented, there have been zero incidents recorded.



### Environmental Incidents

Type	2021	2020	2019
Number of spills >1L <sup>1</sup>	18	31	20
Sulphur hexafluoride (SF <sub>6</sub> )	0	0	61.63 kg
Methane (CH <sub>4</sub> )	0	0	0.54 kg
Nitrogen oxides (NO <sub>x</sub> )	0	0	-
Sulphur oxides (SO <sub>x</sub> )	0	0	-
Particulate matter (PM10)	0	0	-
Lead (Pb)	0	0	-
Mercury (Hg)	0	0	-

<sup>1</sup> All spills are cleaned up immediately and any affected soils are disposed of properly in accordance with provincial, state or federal regulations.

**Note:** Excludes operations in France as they are managed by third-party operators and Chile as the data was not available by the time of this publication.

# Water Use

Maintaining the integrity of water resources is a priority in the environments in which we conduct business activities. As a long-time operator of run-of-river hydro facilities, we are acutely aware of the importance and health of the water systems we work with to generate renewable energy, as well as the limited amounts we consume in our day-to-day activities. Our 40 hydro facilities generate electricity using water in a non-consumptive way, by temporarily diverting a portion of natural stream flows through turbines and then returning it unaffected to the original source (i.e. the same river). Our wind facilities do not consume water in their operation.

Solar facilities in general have limited water needs (periodic cleaning) and we have one solar thermal facility in Chile that uses water in a closed loop for heat transfer.

Domestic water consumption is minor in volume and limited to usage at our five offices and at facilities that have washrooms.

In 2020, we began accounting for our water use as outlined in the table below.



Our **40 run-of-river hydro facilities** temporarily divert water to generate electricity which is then returned to its natural source.

## Managing Waste

Innergex promotes recycling and reuse throughout the organization. We have different systems in place to address the specifics at each of our operating sites as they vary from urban office environments to electricity generating facilities in the remote backcountry. During construction, our Engineering, Procurement and Construction (EPC) contractors are required to provide waste management plans for recycling or disposal of waste in compliance with local, regional and federal regulations as well as Innergex procedures.

Although our facilities do not generate waste directly from their operation, we nonetheless have protocols in place to deal with typical waste generation (i.e. domestic garbage, recycling, metal scraps, used oil recycling). Operators at our facilities sort waste to be sent to recycling facilities or disposal depending on the geographic location and availability of services in that jurisdiction.

Our office staff also plays a role in reducing our environmental footprint. Each of our offices have recycling available and some have more comprehensive programs depending on their locality. Internal initiatives help communicate the importance of recycling and waste reduction initiatives such as a central recycling station that was implemented in 2019 in our Vancouver office.

We are always looking to introduce new methods of reducing our footprint in our operations and will continue to deploy new initiatives to achieve our mission of building a better world.



### Water Use

	2021	2020
Total water withdrawn <sup>1</sup>	5,280 m <sup>3</sup>	6,161 m <sup>3</sup>
Total water consumed	5,280 m <sup>3</sup>	6,161 m <sup>3</sup>
Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations <sup>2</sup>	0	0

<sup>1</sup> Does not include water temporarily diverted for hydro power generation that is returned to its original water source.

<sup>2</sup> As defined in SASB reporting framework.