



# Expanding Our Global Footprint

2019 Sustainability Report



**NORTHLAND  
POWER**





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# Message from the President and CEO

For more than 30 years, we have been successfully developing, constructing and operating renewable power projects. As we continue to evolve, we remain committed to thinking and acting with a long-term perspective; making important investment decisions that create value and prosperity for our shareholders, employees and for the communities where we operate.

It is with pride that we present our third consecutive Sustainability Report, showcasing a successful year driven by a combination of our people, our commitment to responsible operations and our business strategy. The report highlights our Environmental, Social and Governance (**ESG**) initiatives and how Northland is striving for leadership in the global de-carbonization effort for a greener future.

Today, Northland operates a well-diversified, modern global fleet of high-quality assets encompassing on-shore and offshore wind, solar and thermal generation, with a gross capacity of over 2.6 gigawatts (**GW**). We also have a visible pipeline of over 1.2 GW of renewable power projects, further solidifying our commitment to being a leader in de-carbonization.

At the core of our business is our commitment to health and safety – in fact, it is paramount to our operating strategy. The safe, efficient and effective operation of our facilities not only produces the cash flows to pay our dividends, but also fosters the advancement of our growth initiatives, allowing us to make the strategic investments that lead to a positive contribution to society. We believe this sustainable approach is central to the long-term success of our company.

Strategically, we are in the midst of an exciting time for our business as significant growth in renewable energy use continues to accelerate globally. The next wave of de-carbonization is starting to take hold as countries accelerate their efforts and institute policies to meet the 2030 Paris greenhouse gas (**GHG**) emissions reduction targets. These global de-carbonization efforts offer significant opportunities for Northland. Especially in densely populated regions, where offshore wind is an essential renewable resource, our experience, capabilities and innovation position us well to lead this next wave.

We continue to apply our entrepreneurial spirit to generate new opportunities from these changes and are confident in our role in creating a more sustainable future, helping to power the world with greener energy.

We expanded our development presence in Asia, a region with some of the best resources for offshore wind. In addition to Hai Long, our ongoing offshore wind project in Taiwan, we announced strategic partnerships in Japan and South Korea, providing us with the opportunity to develop offshore wind in these countries. We will work closely with our local partners on advanced site development and all required regulatory and permitting work to advance projects in the regions. These developments will help with Asia's overall de-carbonization efforts and accelerate the shift in energy use from fossil fuels to renewables.

In Mexico and Latin America, economic and demographic shifts continue to create opportunities to accelerate de-carbonization efforts and increase renewable energy use. In 2019, we made our first investment in Mexico, commencing the construction of our 130 megawatt (**MW**) La Lucha solar project, which, at the time of this writing, is expected to be complete in mid-2020. We are also evaluating additional development opportunities in other jurisdictions that seek increased energy independence, sustainability and security and that meet Northland's market and technology assessment criteria.

**Our commitment to sustainability goes beyond our assets and facilities to include sound management of our economic initiatives and business practices and upholding our social responsibilities to our communities and workforce.**

We have a deep-rooted belief that the communities we work in should benefit directly from our presence. We strive to be good neighbours and aim to create positive effects in these communities, through investments, partnerships with First Nations and other organizations and philanthropic commitments. We believe that being an active partner through engagement, respect and strategic investments will have a meaningful effect on our ability to execute our business strategy. In this report, you will find updates on some of the activities we have undertaken to further strengthen these relationships and contribute to the communities in which we work.

**We fully recognize that a diverse, engaged workforce with the necessary skills and support is crucial to our continued success.** Our employees have built Northland into a highly reputable brand and it's their entrepreneurial spirit and drive that has allowed us to succeed. In addition to providing opportunities for the education, development and empowerment of our workforce, we aspire to create a diverse and inclusive culture, where everyone is welcome and has the opportunity to have their voice heard. To that end, we established a Diversity and Inclusion Council, an employee-led initiative with the support of management, intended to provide an inclusive work environment encompassing diversity in all forms. We also adopted targets for female representation at the Board and Executive Management levels, recognizing diversity enhances organizational strength, problem-solving abilities and the opportunity for innovation. We recognize that by investing in our people, we are empowering them to achieve a sustainable and prosperous future for all our stakeholders.

**Our commitment to sustainability also affects how we conduct our business. As stewards of the environment, we are tasked with ensuring that our activities have a minimal environmental effect.** Recognizing the need to conduct good business, we implemented a **carbon offset emissions program** to make our business travel carbon neutral from 2019 onward. This program offset just over 1,000 tonnes of CO<sub>2</sub> equivalents in 2019. In an effort to further reduce our travel emissions, we also invested in teleconferencing technology to help facilitate more video meetings and reduce the need for face to face meetings. Lastly, as part of our initiative to reduce the consumption of single use plastics in the office, we provided our employees with reusable plates, cups and cutlery for their daily use.

We are proud of what we do and how we do it. These initiatives are just the first steps in our sustainability strategy and are designed to foster a culture whereby our employees balance the need to conduct business with the need to preserve our environment.

We are committed to keeping people safe, respecting the environment and being a trusted neighbour. This Sustainability Report is a symbol of our commitment to responsible and transparent development for all our stakeholders.



**Mike Crawley**  
President and Chief Executive Officer





# Northland's Response to COVID-19

In the midst of this year's global COVID-19 pandemic, Northland's response has been to ensure our stakeholders – our employees, investors and the communities we serve and operate in – remain safe, healthy and can depend on our services to power their businesses, institutions and homes. Northland's Crisis Management Team is actively monitoring and responding to the situation as it evolves.

As an essential service and electricity supplier to distribution systems around the world, all of our facilities are in full operation. We are doing everything to make sure our facilities continue to be available at full capacity, while taking action to protect the health and well-being of all our employees and contractors. We have implemented enhanced measures at all of our facilities to keep our employees safe. These measures include:

- Restricting access to necessary individuals and limiting control room access
- Frequent sanitization of work areas and common surfaces
- Implementing hygiene protocols and strategic onsite communications
- Establishing an inventory of hygiene supplies and tactical onsite storage and access plans
- Developing "shelter-in-place" emergency preparedness inventories, including stores of food, sleeping and other basic living supplies
- Routine temperature checks for all facilities
- Hygiene protocols and distribution of sanitizer throughout all vessels
- Providing hand sanitizer and food baskets to the village of Ceballos in Mexico where our La Lucha project is under construction
- Facilitating virtual internal and external meetings when possible

All non-essential employees not required on site to operate our facilities, have been working from home, supported by frequent virtual town halls, training sessions and interactive activities to ensure they feel connected and supported.

As a proud community member and grateful neighbour, we have also initiated a charitable giving plan to help fund organizations delivering services to vulnerable people in every community where we have an office, facility or project. That's more than 15 communities in eight countries around the world. Together with our Colombian regulated utility Empresa de Energía de Boyacá SA ESP (**EBSA**), we are donating more than \$750,000 to support food banks, social services and front-line health care workers, and we've challenged our employees to make individual donations that we will match 100%.

We continue to look to the future and plan for the ongoing well-being and resilience of our stakeholders around the world.



# Sustainability at Northland

## Our Company

Northland Power develops and operates sustainable infrastructure assets that produce electricity from clean-burning natural gas and renewable resources such as wind, solar and biomass.

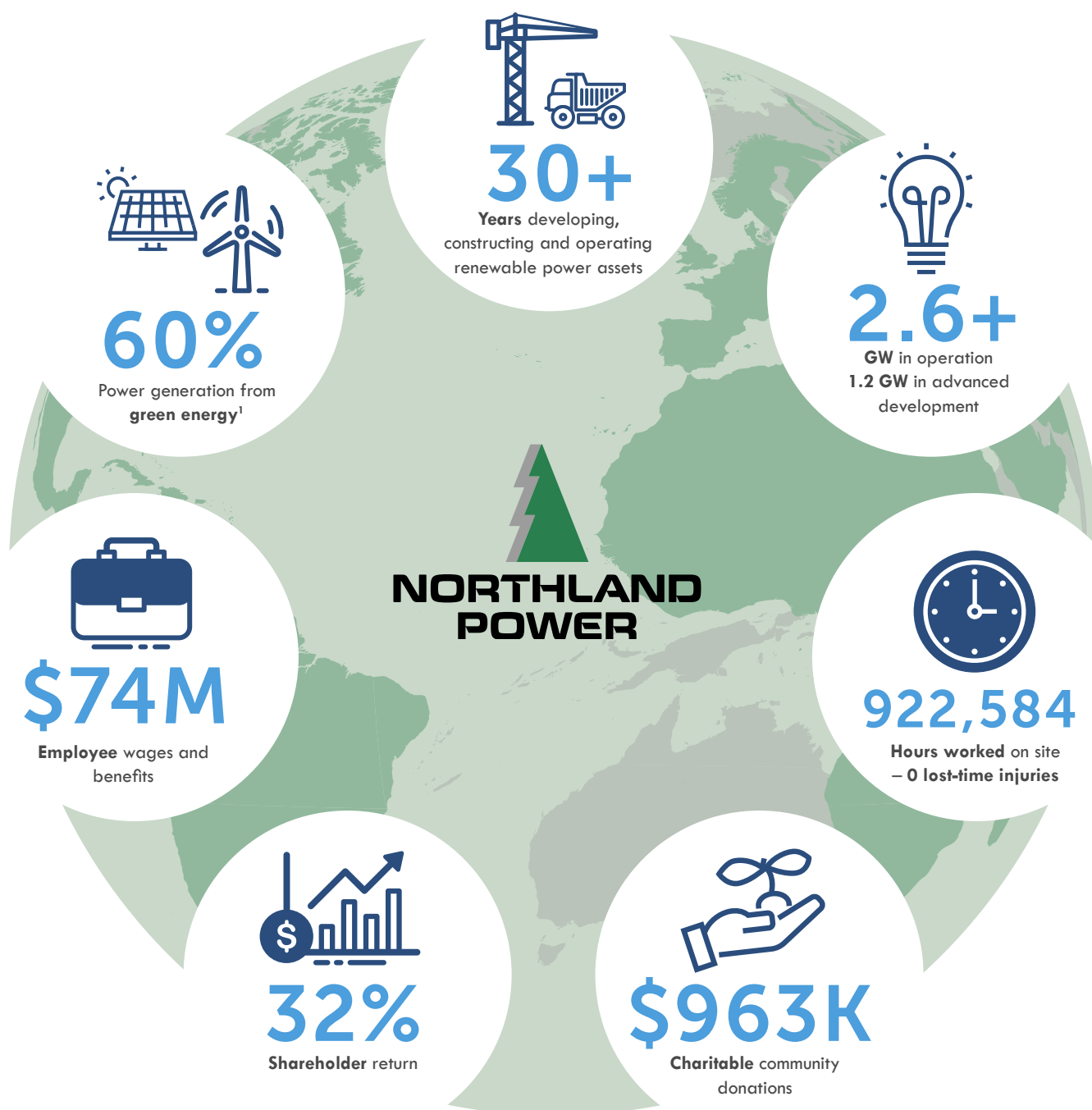
We continually strive to increase value for shareholders by creating and managing high-quality projects supported by predictable revenue streams. We focus on excellence in managing our projects and operating facilities, consistently seeking opportunities to enhance performance and value. Northland is managed by an Executive Team with over 200 years of combined power industry experience.

We inspire our people to achieve excellence in everything they do while working towards a sustainable and prosperous future for all stakeholders. We work in collaboration with business partners, municipalities, communities and Indigenous partners to develop our projects, always being mindful of our environmental footprint.





# Northland at a Glance



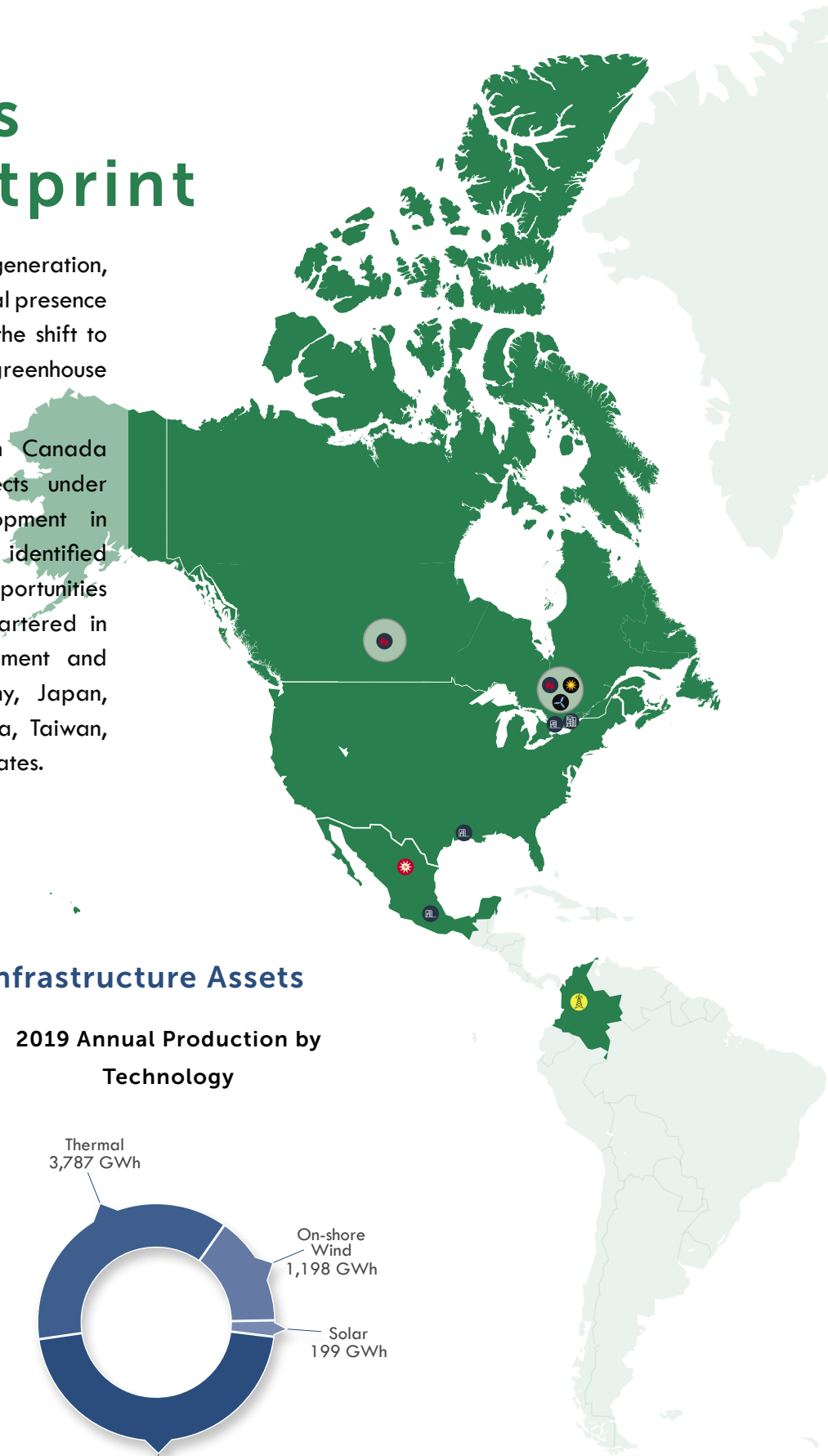
(1) Balance of power generation from biomass and natural gas thermal generation.

**Note:** All dollar values are in Canadian (CAD) unless otherwise stated.

# Northland's Global Footprint

As a leader in clean and green power generation, Northland continues to expand its global presence providing sustainable power to help the shift to renewable energy while reducing greenhouse gas emissions.

We own and operate facilities in Canada and Europe, with renewable projects under construction and advanced development in Mexico and Taiwan. We have also identified future offshore wind development opportunities in Japan and South Korea. Headquartered in Toronto, we have regional development and facility offices in Canada, Germany, Japan, Mexico, the Netherlands, South Korea, Taiwan, the United Kingdom and the United States.

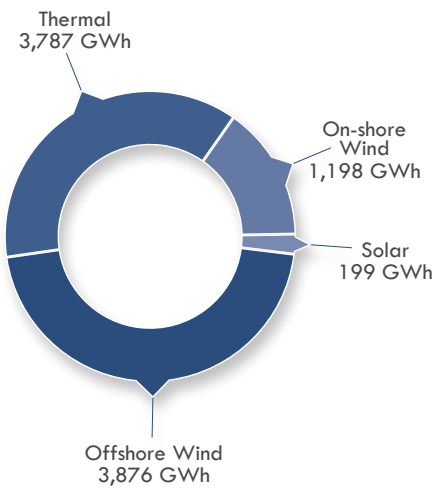


## Northland's Sustainable Infrastructure Assets

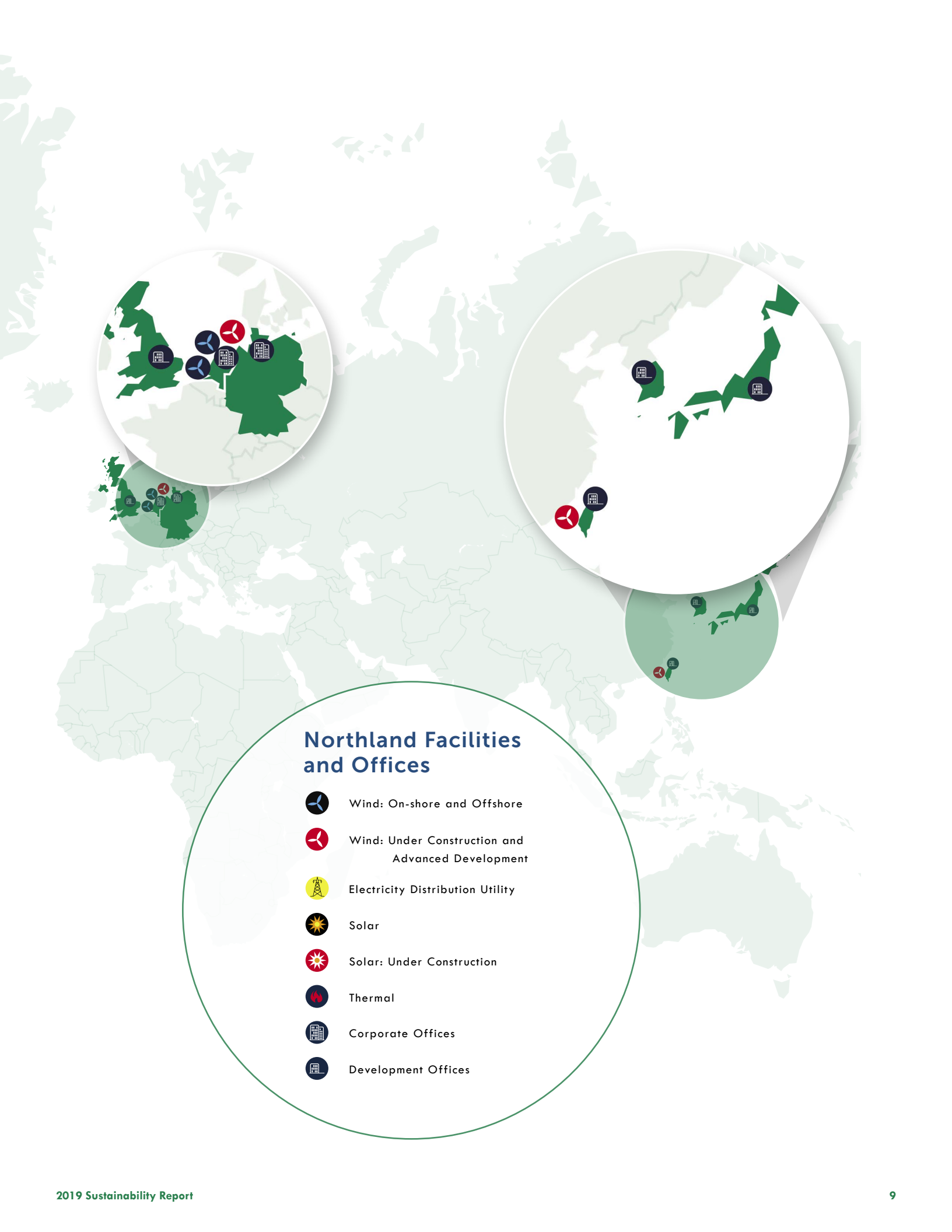
2019 Annual Production by Location



2019 Annual Production by Technology







## Northland Facilities and Offices

-  Wind: On-shore and Offshore
-  Wind: Under Construction and Advanced Development
-  Electricity Distribution Utility
-  Solar
-  Solar: Under Construction
-  Thermal
-  Corporate Offices
-  Development Offices

# Our Goals

*Social, Environmental and Governance*

Sustainability and the need for clean energy were among the key factors in Northland's founding more than 30 years ago and continue to be fundamental drivers of our business.

## **Our Vision**

***To be a top clean and green developer, constructor, owner and operator of sustainable infrastructure assets, inspiring our people to achieve a sustainable and prosperous future for all of our stakeholders.***

Photo by Gemini Windpark

Understanding the global shift to renewable energy and being able to capitalize on this shift have played an instrumental role in the success of Northland's business activities. The demand for renewable energy continues to rise as a result of the growing recognition of the adverse effects of climate change coupled with increased adoption of renewable energy policies and targets. We are well positioned to be a part of this transition and ready to create new development opportunities to aid in the global de-carbonization.

Beyond renewable energy, we are also committed to environmental responsibility in all our business activities, from managing the resources we use to protecting wildlife habitats at our sites. We are equally committed to maintaining socially responsible practices, from health and safety to community relations and diversity within the workplace.

## **2019 Sustainability in Action**

In 2019, we made significant progress on our social, environmental and governance efforts, launching new initiatives to expand our commitment to creating a sustainable future for all our stakeholders.

- Diversity & Inclusion Council launched and new targets set for gender diversity at Board and Executive management levels
- Carbon offset program implemented for corporate travel, balancing just over 1,000 tonnes of CO<sub>2</sub> equivalents
- Completed the construction of our 252 MW Deutsche Bucht offshore wind farm in the North Sea, which will produce enough climate-friendly electricity to power approximately 300,000 German households while saving nearly 700,000 tonnes of CO<sub>2</sub> emissions per year
- Commenced construction of our 130 MW La Lucha solar project in Mexico, with an expected completion date in 2020
- Announced a strategic partnership with Shizen Energy to develop offshore wind opportunities in Japan

## **Our Goals**

### **Social**

*Inspiring our Workforce, Empowering our People*

- Advancing and Fostering Diversity and Equal Opportunity
- Supporting Workforce Training and Education
- Promoting Health and Safety
- Working with Local Communities
- Developing Strong Relationships with Stakeholders

### **Environmental**

*Global Leadership in Clean and Green Power*

- Powering the De-carbonization Shift
- Mitigating Our Environmental Impact
- Managing Our Shared Resources
- Protecting Biodiversity
- Building a Cleaner and Greener Future

### **Governance**

*Strong Governance Leads to Prosperity for all Stakeholders*

- Strengthening Our Corporate Governance
- Managing Risk
- Creating Sustainable Economic Value
- Building Prosperity for Our Stakeholders



# About This Report

The purpose of this report is to demonstrate how we are delivering on our vision and strategy, of which sustainability is an integral component, and to inform our stakeholders about our overall ESG performance. No external assurance was sought for the content of this report. We invite comments and dialogue by contacting us at [sustainability@northlandpower.com](mailto:sustainability@northlandpower.com).

## Stakeholders

- Our stakeholders include:
  - » **Investors:** Individuals, investment and pension funds and the broader investment community, including lenders, who hold or are interested in purchasing Northland's equity or debt instruments
  - » **Community:** Municipalities, non-governmental organizations, Indigenous groups and regulatory authorities in and around the communities where we currently operate or are looking to expand
  - » **Employees:** Current and prospective employees and contractors
- In defining our stakeholders, we applied a broad definition of inclusiveness: any entities or individuals that may be significantly affected by our activities, products and services and/or that may in turn affect our ability to achieve our objectives.
- Stakeholder engagement helps us focus and prioritize our corporate sustainability initiatives.

## Materiality Approach

- This report addresses the sustainability issues that Northland considers material. Material issues are those that matter most to our business and stakeholders and that are expected to affect decision-making.
- To identify material issues, we conduct an internal materiality assessment, guided by the Global Reporting Initiative (GRI) indicators according to their relative importance to stakeholders and our business. Through this assessment we identify our key priorities including our governance and strategic initiatives, our financial and environmental effects and the health and safety of our employees. These and other material topics help guide our sustainability strategy and disclosures.
- In 2018, Northland conducted a full materiality assessment of all GRI indicators. For 2019, we updated this materiality assessment to take into account changes in our business and issues that are new, emerging or increasingly significant to our stakeholders.

## Report Scope and Boundary

- This report covers the year ended December 31, 2019, with comparative information for the year ended December 31, 2018.
- Certain comparative information has been restated to adhere to current year measurement and presentation, primarily as a result of this report's expanded scope and improved measurement methods.
- The information and data in this report take into account the direct effects of all material components of Northland's global activities, except where otherwise noted.
- Direct effects are those that Northland causes or contributes to through its direct activities, excluding indirect effects of the activities of our suppliers and other business partners.
- Data for 2019 captures the performance of subsidiaries owned or operated by Northland as of December 31, 2019. Subsidiaries acquired after this date will be included in future reports.

## Global Reporting Initiative Declaration

This report is informed by the GRI Standards. The GRI is an international independent standards organization that helps companies, governments and other organizations understand and communicate their effects on a range of economic, environmental and social issues such as climate change, human rights and many others. Using the GRI reporting guidelines facilitates transparency, clarity and comparability. Refer to the GRI Index on [pages 26–38](#) for detailed information on each GRI indicator included in this report.

## For additional information, refer to

- [2019 Annual Report](#), for Northland's financial performance
- [2020 Management Information Circular](#), for information on Northland's Governance initiatives, Executive Team and Board of Directors
- [2019 Annual Information Form](#), for information on Northland's business and key risks
- [northlandpower.com](http://northlandpower.com), for all of the above, including general corporate information and current developments

# Social Sustainability

## *Inspiring Our Workforce, Empowering Our People*

Our commitment to social sustainability recognizes the effect our organization's activities have on our employees and the communities where we operate. We understand the importance of inspiring and empowering our workforce and our partners around the world to achieve excellence. This past year saw several achievements in creating a more diverse workplace, fostering strong community relationships and prioritizing the safety and well-being of our workforce.

### Advancing and Fostering Diversity and Equal Opportunity

Promoting diversity and equal opportunity creates important benefits for our employees, our organization and society as a whole. We recognize and embrace the benefits that diverse perspectives and talent bring to the organization, resulting in enhanced decision-making, higher job satisfaction and greater opportunities for innovation. In 2019, we launched our Diversity and Inclusion Council, an employee-led, management-supported initiative to create an inclusive work environment that encompasses diversity in all forms across our global offices and various work sites. The Diversity & Inclusion Council is tasked with developing a diversity and inclusion strategy with measurable goals for the future.

Through our Diversity & Inclusion Policy, we aim to recruit, develop and retain talented and strong leaders and to recognize the value of diversity, including knowledge, experience, skills, expertise, gender and background in making our decisions.

In addition to the formation of the Diversity & Inclusion Council, Northland's Board of Directors also adopted a Diversity Policy for increased female representation at the Board Member and Executive Management levels with specific targets of 30% and 25% respectively.

### Supporting Workforce Training and Education

Learning and professional development are key to fostering a diverse and innovative workforce, which opens us to new opportunities and better outcomes for all our stakeholders. In 2019, we continued to invest in professional development for our employees, offering reimbursement for work-specific training totalling more than \$610,000.

Collectively, we worked to build skills and knowledge through corporate initiatives such as our *Hungry for Knowledge* lunchtime learning sessions and our in-house leadership training programs designed to strengthen our team-building capabilities and management effectiveness.

Northland also rolled out an enhanced performance review process and training sessions for employees at our Corporate and European offices.



# 138

New employees in 2019



# \$610K

Investment in training and education

## Promoting Health and Safety

We work collectively as an organization to deliver our services safely, responsibly and efficiently, ensuring a healthy and productive environment for all employees and contractors. We are committed to minimizing accidents, injuries and work-related illnesses at all our facilities, offices and construction sites around the world.

### Northland Health and Safety Management System

- Management Leadership Commitment
- Employee Involvement
- Communication and Training
- The Management System Manual
- Performance Evaluation and Improvement

Our Health and Safety Management System provides clear targets and goals for all Northland's international offices and facilities to monitor, evaluate and report on their health and safety performance. Internationally certified health and safety professionals manage programs across our operations through our global Health and Safety Office. Each facility maintains its own emergency response plan and regularly completes drills and exercises to reinforce our emergency preparedness.

At the Executive level, Northland is deeply committed to maintaining our exceptional health and safety record and standards. Our Executive Team regularly reviews our Global Health and Safety Policy and receives monthly health and safety updates from all our regional offices and facilities along with a Global Health and Safety Scorecard.

Northland also adheres to internationally recognized occupational health and safety standards, such as the International Organization for Standardization (ISO). In 2019, our team in The Netherlands at the Gemini offshore wind farm achieved ISO 45001 certification for upgrading their occupational health and safety management system. This certification also affiliates within Gemini's integrated management system (IMS) framework as part of the broader ISO 55001 certification previously achieved for asset management.

### Identifying and Managing Workplace Hazards and Risks

Safe and efficient operations depend on rigorous monitoring and management of workplace hazards and risks. Our Global Risk Management Program is used at all our facilities to ensure compliance with regional laws, regulations and industry best practices.

#### Northland Global Risk Management Program

1. Identify hazards
2. Understand exposure
3. Assess risks and identify control measures
4. Implement controls
5. Review the performance and efficiency of these measures and update the risk assessment criteria

When managing non-routine tasks, we apply Job Hazard Analysis (JHA) standards to identify hazards and assess risks and develop methods to mitigate these risks.

## Occupational Health Services

Northland's employees and contractors are guaranteed the right to refuse work and remove themselves from situations that could cause injury or ill health. In any situation where this right is invoked and action taken, we work quickly to investigate and resolve the situation, following the steps of our Global Risk Management Program. Occupational health services across all our locations are provided by qualified and accredited professionals, comply with legal requirements and follow industry best practices.

### Participating in Workplace Health and Safety

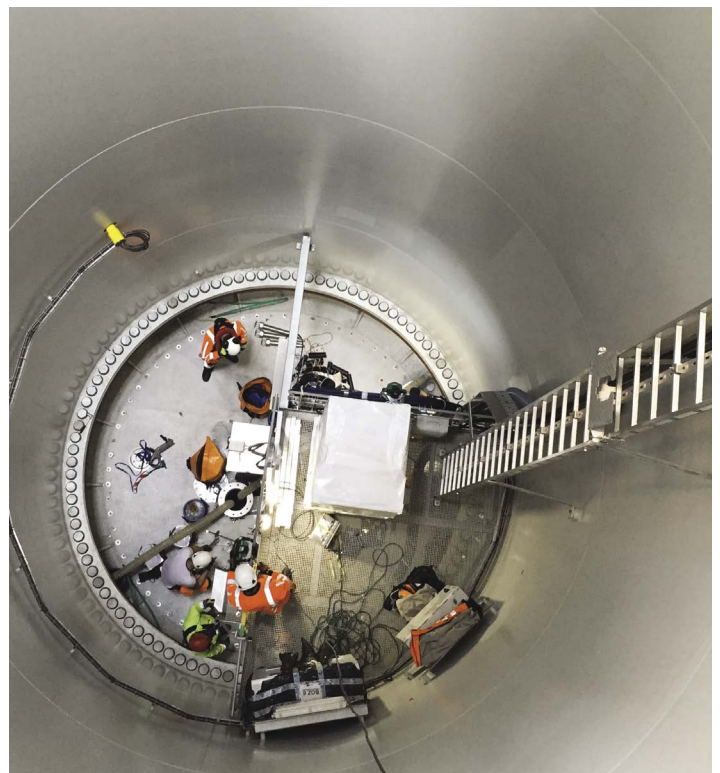
We encourage employees to take an active role in Northland's Health and Safety Committees or to become a Health and Safety Representative at their work location. These committees meet regularly to identify, address and resolve Northland-specific health and safety issues and enhance co-operation within our workforce.

In 2019, Northland organized its third Annual Health and Safety Conference to keep our people informed and up to date on the successes and challenges of health and safety at our Canadian facilities. In 2020, we plan to make this a global initiative.

### Employee Health and Safety Training

Training for our frontline managers and supervisors plays a fundamental role in Northland's outstanding health and safety record.

At our European offshore wind facilities, we have adopted the internationally recognized Global Wind Organization (GWO) framework, which aligns safety and technical training standards. Our technicians, contractors and supply chain partners must all complete 140 hours of GWO training before working at our facilities. At our Canadian operating facilities, supervisors undertake mandatory health and safety training facilitated by the National Centre for Occupational Health and Safety, the national resource for workplace health and safety.



Transition piece assembly at our 600 MW Gemini offshore wind farm.  
Photo by Gemini Windpark



## Working with Local Communities

Social sustainability also demands that we are responsible for understanding how our activities effect the people and communities where we operate. We strive to not only mitigate the effects from our activities, but also to proactively build stronger relationships that help communities thrive. As a global organization, it's very important that we recognize and respect local cultures and traditions, finding sustainable ways to support our neighbours' values, social systems and ways of life. We are members of our communities and we have an active role to play in meeting local needs and participating in the long-term development of our communities.

Northland's approach is collaborative and holistic, which has led to productive and lasting relationships at all of our sites, most recently with the construction of the La Lucha solar farm in Mexico. At the launch of each project, we identify our stakeholders and spend time on the ground understanding the needs, customs, as well as policies and practices of the local community. Our community consultations begin early in the proposal stage and we commit to open and transparent communication throughout construction and during ongoing operations. All our onsite and development teams undergo cultural sensitivity training to enhance cross-cultural communication abilities and avoid negative impacts or misunderstandings.

Using a multi-layered communication framework, we establish direct connections with local stakeholders and ensure open and accessible dialogue occurs at multiple levels. This includes clear lines of communication between facility or construction personnel as well as direct channels between local leaders and Northland's corporate offices. We support this framework with weekly meetings and check-ins as well as engaging with stakeholders at regional and national levels.

We make considerable investments in our communities – direct, indirect and philanthropic – to provide for greater economic opportunities and development and to support programs that have positive social effects.

## Indigenous Partnerships

Born from a firm belief in the rights of Indigenous peoples and their lands, we make it a priority to ensure that our activities provide positive benefits to the Indigenous communities where we operate. Many of our renewable facilities in Canada are located within traditional Indigenous territories and we've made it our policy to develop positive relationships with these communities.

We currently have formal partnerships with First Nations at our Ontario on-shore wind farms, Grand Bend and McLean's Mountain, and recently began partnerships at our four Cochrane solar facilities.

### Northland's First Nations Project Partners

- Aamjiwnaang First Nation
- Aundeck Omni Kaning First Nation
- M'Chigeeng First Nation
- Sheguiandah First Nation
- Shesheganing First Nation
- Taykwa Tagamou Nation
- Wahgoshig First Nation
- Walpole Island First Nation – Bkejwanong Territory
- Whitefish River First Nation
- Zhiibaahaasing First Nation



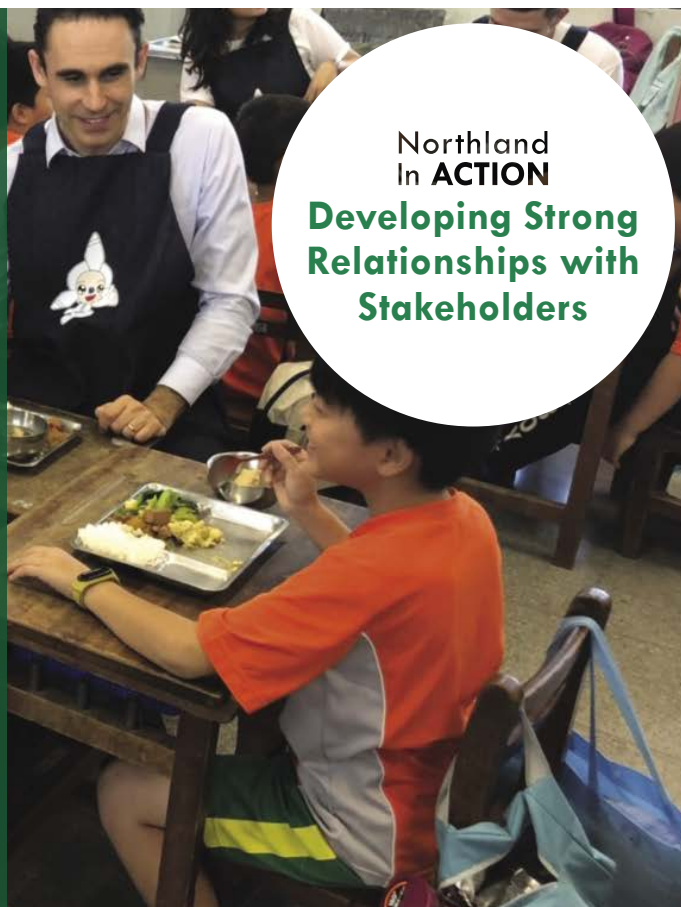
Monica Liu, General Manager, Northland Power Taiwan, at the Changhua beach clean-up with partner and daughters.

## Changhua School Lunch Sponsorship Program

Tradition and food are important cultural values in the fishing villages of Taiwan's Changhua coastal region, where we are developing our Hai Long offshore wind project together with local partners. As a contributing member of the local community, we wanted to engage and participate in ways that provide tangible and practical benefits for our neighbours.

Northland joined a group of offshore wind developers to organize and sponsor a school lunch program to assist busy families and help sustain an important local custom. The program provides healthy and nutritious meals to 16,700 students at 46 primary and secondary schools in the coastal townships.

It's one of the ways we're stepping up to build relationships and work with local communities to create positive benefits.



Northland  
In **ACTION**  
**Developing Strong  
Relationships with  
Stakeholders**

## Northland in Action Establishing Strong Bonds and Friendship with Ejido La Lucha

From day one, we worked to establish strong bonds and an enduring friendship with ejido La Lucha, the community and landowners at the future site of Northland's La Lucha solar farm in Mexico.

In celebration of this relationship, the community invited Northland to attend a traditional Mexican barbacoa at the community auditorium. Local families put together an elaborate banquet that featured specialty dishes from the region, including spicy sauces and traditionally prepared lamb. The feast was accompanied by a Mariachi performance, followed by singing and dancing.

It was a powerful sign of generosity, friendship and gratitude for Northland's active relationship with the ejido. The La Lucha project has also provided important economic opportunities for the ejido members. Nearly 90% of the project's workforce live in the neighbouring community of Ceballos, with close to 40% being hired directly from the local area. This translates to increased employment and also increased spending at local shops and business.



Paul Kaminski, General Manager, Construction, Americas, at barbacoa with Ms. Maria Ana Sánchez of the ejido La Lucha.





Our Gemini offshore wind farm. Photo by Gemini Windpark

## Northland in Action Gemini Wind Farm's ISO 45001 Certification

Health and safety is a fundamental part of the culture and day-to-day operations at Northland's Gemini offshore wind farm. The Gemini team continually strives to improve its occupational health and safety management systems and in 2019 they achieved ISO 45001 certification from the International Organization for Standardization.

The goal of ISO 45001 is to guide organizations in reducing work-related injuries and ill health and improve overall occupational health and safety performance. The team implemented ISO 55001 certification for asset management in 2018 and have integrated the two components within their IMS framework.

This achievement demonstrates Northland's dedication to a systematic and risk-based approach to support safe, profitable and sustainable operations.

## Northland in Action Third Annual Northland Health and Safety Conference

Workplace safety is a collaborative, company-wide concern. Each year, Northland's Health and Safety Manager invites employees from facilities across Canada to put this belief into practice. The annual conference is an opportunity to share knowledge, review health and safety practices and establish goals for the coming year. In 2019, training and collaborative discussions centred around critical topics such as fire protection, workplace electrical safety and effective personal protective equipment. To meet the needs of our growing global workforce, the annual event will be open to all our international facilities in 2020.

*We fully recognize that a diverse, engaged workforce with the necessary skills and support is crucial to our continued success.*

**Mike Crawley**  
President and Chief Executive Officer



The Health and Safety Conference visits our 10 MW Crosby solar site in Tay Valley Township, Canada.



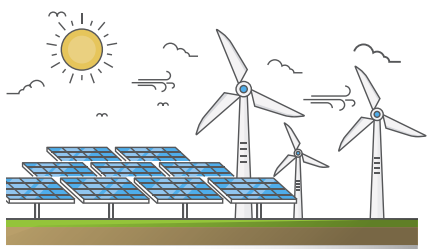
# Environmental Sustainability

## Global Leadership in Clean and Green Power

A significant focus of our sustainability efforts is being at the forefront of the global shift towards de-carbonization and renewable energy. We are actively exploring new opportunities around the world for our business to meet the global demand for environmentally sustainable energy. Northland is currently pursuing opportunities in sustainable power generation in North America, Europe, Latin America and Asia. Our current generation from renewable energy sources is over 2.6 GW.

As a leader in clean energy production, we also take great care to be responsible stewards of the planet and protect the environment and ecosystems where we operate. From new construction to ongoing operations at each of our facilities, we carefully maintain environmental standards, efficiently manage resources and work to mitigate any potential effects on biodiversity. In 2019, we launched a carbon offset program to make our business travel carbon neutral, invested in enhanced teleconferencing to facilitate more online meetings and reduced the day-to-day waste of single-use plastics in our Toronto Corporate office.

### Northland's Asset Diversification: Meeting the Demand for Renewable Energy



#### On-shore Renewables (Wind and Solar)

Northland's on-shore renewable projects include solar farms and utility-scale on-shore wind farms in Canada, with a solar project under development in Mexico. On-shore wind projects operate similarly to offshore wind, but with lower operating costs and generally lower wind resources. Solar facilities generate renewable electricity from the sun and have lower fixed operating costs per unit of capacity than thermal or wind facilities.

#### 1,397 GWh Production | 0 GHG Emissions

- Armour Township, Canada
- Cochrane, Canada
- Grand Bend, Canada
- Manitoulin Island, Canada
- Matane, Canada
- Mont Louis, Canada
- Prince Edward County, Canada
- Rideau Lakes Township, Canada
- Ryerson Township, Canada
- South Glengarry, Canada
- Tay Valley Township, Canada

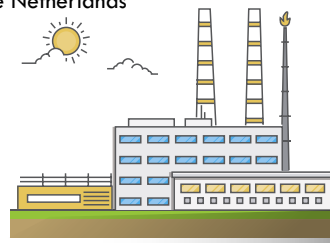


#### Offshore Wind

Northland's three offshore wind farms generate renewable electricity from wind turbines strategically located in the North Sea, off the coasts of Germany and the Netherlands. Wind energy as a source of electric power is growing in use globally and is an efficient means to reduce reliance on fossil fuels for our power needs.

#### 3,876 GWh Production | 0 GHG Emissions

- North Sea, Germany
- North Sea, The Netherlands



#### Thermal (Biomass and Natural Gas)

Northland's natural gas thermal facilities use turbine technology to produce electricity in an efficient, reliable and environmentally responsible manner. Northland's biomass thermal facility generates carbon-neutral electricity from natural waste collected at sawmills.

#### 3,787 GWh Production | 1.7m GHG Emissions\*

- |                          |                            |
|--------------------------|----------------------------|
| • Esterhazy, Canada      | • Kirkland Lake, Canada    |
| • Iroquois Falls, Canada | • North Battleford, Canada |
| • Kingston, Canada       | • Thorold, Canada          |

\*metric tonnes CO<sub>2</sub> equivalent

## Powering the Shift Towards De-carbonization

Northland's thermal facilities are our primary source of water use, energy consumption, greenhouse gas (GHG) and other air emissions. Compared to other non-intermittent on-demand energy generation sources, such as coal, our biomass and natural gas facilities allow us to provide reliable electrical output with lower GHG emissions and associated environmental impacts.

As electricity systems continue to increase intermittent renewable energy generation, such as wind and solar, non-intermittent on-demand sources are important for maintaining system stability. The quick start-up characteristics of natural gas and biomass generation mean operators can fully utilize intermittent generation without worrying about fluctuating supply or other zero emission sources, such as nuclear, that can't ramp up and down rapidly.

### Supporting Ontario's Transition to Renewable Energy

Northland's natural gas facilities came about as a response to a need for flexible electricity production as Ontario transitions to renewable energy sources. In the 1980s, with the delay of the Darlington nuclear facility, Ontario's government looked to supplement its production needs by issuing Power Purchase Agreements (PPA) for natural gas fired generation stations.

Natural gas facilities have been instrumental in significantly reducing Canada's reliance on coal electricity production, which is one of the main sources of pollution to the atmosphere. Natural gas, for example, emits approximately half the CO<sub>2</sub> emissions of conventional power coal-powered generation – 117 lbs of CO<sub>2</sub> per one million British Thermal Units (BTU) versus 228.6 lbs of CO<sub>2</sub> per one million BTU for coal (U.S. Energy Information Administration). The global shift from coal to natural gas powered facilities has led to notable reductions in GHG emissions in Canada and around the world.

### Converting Forestry Waste to Sustainable Power Generation

Similarly, biomass is a much more efficient combustion source compared to coal and yields more renewable energy while emitting far fewer emissions. The solid waste residue from biomass is also far less intrusive on the environment and lessens other toxic emissions such as SO<sub>2</sub> and CO<sub>2</sub>. Biomass combustion is a sustainable process as it takes a waste product that would otherwise potentially be landfilled or incinerated and instead converts it to energy.

Northland's origins as a biomass-fueled electricity provider began as an opportunity to divert forestry waste in Ontario. We received the rights to the waste from multiple sawmills and secured long-term government contracts to produce electricity from the biomass product.

Looking forward, we expect to transition our thermal facilities to more capacity-focused contracts (from production-focused contracts) to further support the transition to de-carbonization and fully renewable energy sources.

## Mitigating Our Environmental Impact

### GHG Emissions

1,686,511 direct GHG emissions (metric tonnes of CO<sub>2</sub>)

0.190 GHG emissions intensity (tonnes / MWh)

### Emissions

In terms of emissions, our strategic focus is to operate our facilities as efficiently as possible and reduce the effect of our operations while continuing to grow our renewable generation capacity. We monitor all our operating facilities and offices to measure GHG emissions in relation to our energy use.

We also monitor air emissions from our thermal facilities to ensure levels of nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>) and other significant air emissions are within permitted levels. We measure gross emissions and intensity in comparison to electricity production.

### Other Significant Air Emissions

2,021 NO<sub>x</sub> emissions\*

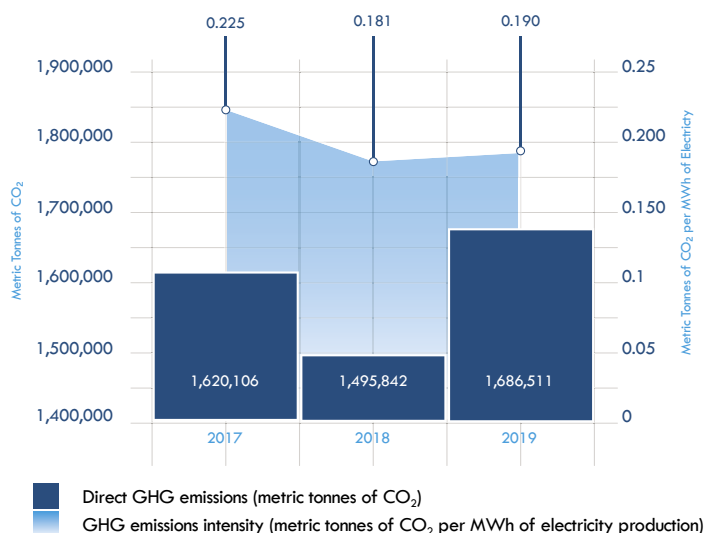
8.7 SO<sub>x</sub> emissions\*

211 VOC emissions\*

104 Particulate Matter (PM) emissions\*

\*Metric tonnes per year

### GHG Emissions and GHG Intensity Factor



## Managing Our Shared Resources

### Water Usage

83,498,912 m<sup>3</sup> total water withdrawal

98% of removed water is returned to the original source

### Water Management

Northland's water management objectives are to minimize the use of water in our operations, reduce the effect on all bodies of water in and around our sites and recycle as much of the water we use as possible. Water withdrawal occurs primarily at our thermal facilities. Approximately 98% of the removed water is returned to the original source, with the returned water being in an equivalent state or better. A small portion of the water withdrawn at our Kingston and Kirkland Lake facilities evaporates in their cooling towers; the specific amount varies based on internal and external conditions.

We closely monitor water discharged, ensuring pH-levels, temperature and other mineral levels are in accordance with permit requirements.

### Environmental Compliance

Northland monitors and reports on all incidents of non-compliance with environmental laws and regulations.

We take all spills seriously and report even the smallest incidence to the regulatory authorities.

In 2019, we reported a spill at our Kirkland Lake thermal facility, resulting in the loss of about 4,000 litres of oil when a heavy piece of equipment fell and sheared a pipe connected to a steam turbine oil reservoir. The heated liquid spilt into the garage area and around the outside of the plant. The team reacted quickly, building a 100% containment berm that avoided impact on nearby land and waterways.

In December 2019, Northland was fined \$275,000 by the Ontario Ministry of Natural Resources and Forestry for sediment release that occurred during construction of our solar farms near Cochrane in 2015. The judge noted in his decision that we had spent close to \$4 million to control the silt discharges and clearly took our environmental obligations seriously. At the time of the judgement, we issued the following statement:

*As a developer, builder, owner and operator of renewable energy infrastructure, Northland understands the importance of environmental responsibility; in fact, it is a core value of our company. We regret the sediment discharges that occurred during construction of the solar facilities at our Cochrane area sites and we respect the judgement of the court. Independent of these proceedings, we took steps to fix these problems, and are pleased that the Crown and Justice Labelle recognized our efforts and the seriousness with which we undertake our environmental obligations. Following completion of construction, the sites were re-vegetated and there have not been any further incidents. Finally, it is worth noting that no appreciable long-term effects arising from the sediment discharges have been seen in the receiving water bodies.*

## Protecting Biodiversity

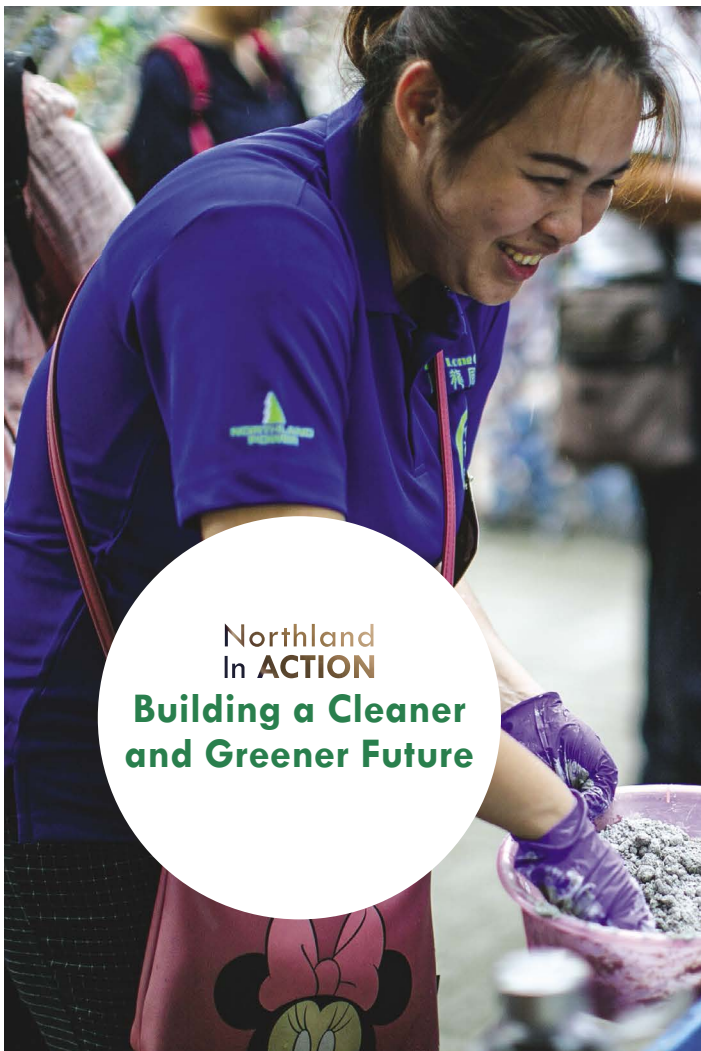
As part of our commitment to environmental sustainability, we aim to minimize any potential effects that our activities may have on the ecosystems where we operate.

Before selecting or developing a site, we conduct thorough environmental impact assessments of the surrounding area to identify environmentally sensitive vegetation, wildlife or other features and uses. We design our facilities to avoid disturbing any environmentally sensitive species and work to revive and restore natural environments through activities such as replanting forested areas and grasslands to give back to the planet. Throughout operations, our environmental management teams conduct ongoing monitoring to ensure long-term support and sustainability for wildlife populations and ecosystems.

We also work with local partners, including non-governmental, academic and government organizations, to support research programs aimed at discovering new ways to protect and manage our planet's plants, animals and ecosystems.







Northland  
In **ACTION**  
**Building a Cleaner  
and Greener Future**

## Global Clean-Up Initiatives

Northland's employees are keen environmental leaders and regularly go out of their way to take practical action to protect the environment. From Taiwan to Germany, we have launched several grassroots environmental clean-up operations, making an immediate positive effect on our local ecosystems.

### Beach Clean-Up – Changhua, Taiwan

In the coastal area near Changhua, beaches are heavily polluted by plastic waste. Northland collaborated with the local Wanggong Oyster Association to organize two beach clean-up events to revitalize the local environment and help the community thrive. Our team also worked with local oyster farmers to learn the proper waste management methods that divert plastic waste from the local shoreline.

### Coastal Clean-Up – Norddeich & Oststeinbek, Germany

Inspired by the initiatives led in Canada and Taiwan, our Norddeich office made a team outing to a coastal area in the region to help revive and de-litter the local ecosystem. Northland's Oststeinbek office also led a clean-up initiative and habitat restoration at a biotope in the Hamburg area.

### Ravine Clean-Up – Toronto, Canada

As part of Earth Day celebrations, a group from Northland's Toronto Corporate office went to a nearby park to make a positive effect on their local surroundings. The motivated team donned gloves and garbage bags and went to work picking up litter and waste to make the space cleaner, greener and more pleasant for visitors.



Northland Power staff posing with a special wall that was created for birds and amphibians.

## Northland in Action Corporate Travel Carbon Offset Program



Working to lessen our environmental footprint across our operations, in 2019 we introduced a carbon offset program to balance emissions related to corporate travel. By purchasing Gold Standard credits from offset provider Less Emissions, we are able to balance emissions from our business flight travel to support significant international projects that reduce greenhouse gases. Our credits in 2019 allowed us to offset just over 1,000 metric tonnes of CO<sub>2</sub>. We plan to continue this carbon-neutral travel indefinitely.





*Phrynosoma cornutum*, commonly known as Horned lizard, is one of the most widely distributed species of wildlife at our La Lucha project.

## Northland in Action North Sea Bat Migration Study

Several species of bats in Northern Europe undertake seasonal migrations through areas of the North Sea. The tiny Nathusius' Pipistrelle bat is one of those species, travelling thousands of kilometres each year on its migratory route. Migration timing is essential for bats and it's critical for them to find safe navigation and rest areas along the way. To help understand these migratory patterns and ensure our activities have minimal effects, our Gemini offshore wind farm collaborated with Dutch authorities to create an offshore bat monitoring project as part of the Offshore Wind Ecological Programme.

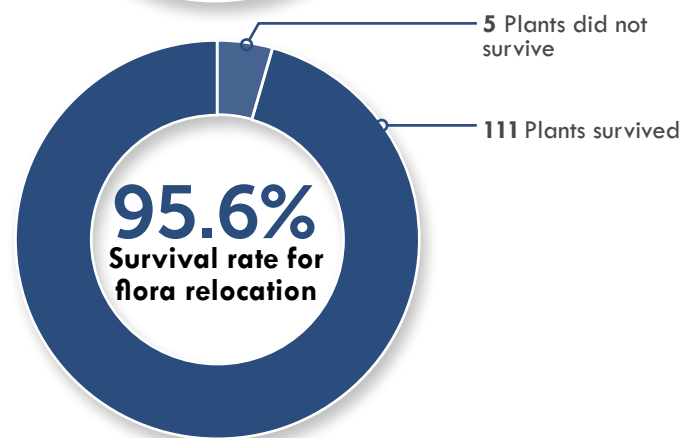
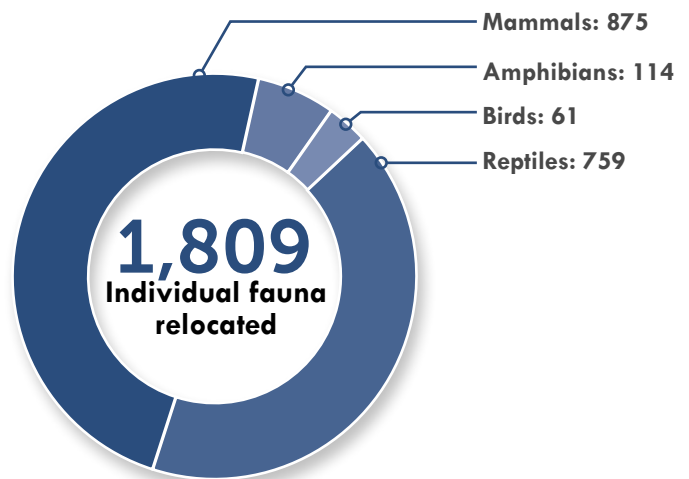


Tiny Nathusius' Pipistrelle bat clinging to grates on wind turbines at our Gemini offshore wind farm.

## Northland in Action La Lucha Wildlife Habitat Restoration

As part of the construction plan for the 130 MW La Lucha solar project, Northland worked with specialists to complete an environmental impact study and incorporate conditions established by the local environmental authority to develop a comprehensive plan for biodiversity protection.

We are also working on a reforestation program to reduce the effect associated with vegetation removal and have contributed to the Mexican Forestry Fund to support further reforestation and restoration activities for plant and animal habitats.



Flowers appearing on the *Echinocereus pectinatus* a year after its rescue, a perfect example of the success of our relocation activities.

# Governance

## *Strong Governance Leads to Prosperity for Our Stakeholders*

As a leading developer and operator of renewable energy facilities, strong corporate governance and long-term economic prosperity are essential components of Northland's business strategy and sustainability vision.

Strong corporate governance is the foundation for effective oversight, accountability, investor confidence, compliance and risk management. In 2019, Northland continued to advance its governance practices by adopting a number of new policies and initiatives, including measures to address enterprise risk, enhance anti-corruption and bribery efforts and increase diversity throughout the organization.

Economically, Northland's mandate is to create sustainable, long-term value for all our stakeholders across our operations. This comprises of ongoing investments in sustainable infrastructure assets that provide long-term revenue streams and direct economic impacts. We also focus on investments that provide indirect economic impacts and create new economic opportunities for the communities where we operate.

## Strengthening our Corporate Governance

Committed to the highest standards, we are constantly evolving our practices to strengthen our corporate governance and achieve excellence in transparency, integrity and accountability to shareholders.

### 2019 Governance Highlights

- Set target for minimum percentage of independent Board members (66%) – actual will be 78%
- Adopted term limits (15 years) and age limits (75) for directors
- Created a written diversity policy for the Board, including specific gender targets (30%)
- Established a written policy relating to the identification and nomination of females to the executive team, including specific targets (25%)
- Implemented a written policy for direct communication by shareholders with the Board
- Endorsed and authorized implementation of Northland's ESG initiatives by the Board of Directors
- Performed comprehensive review of Northland's Enterprise Risk Management Framework and risk universe

## Our Governance Structure

Northland's Board of Directors is the organization's central governing body and maintains absolute and exclusive power, authority and management of Northland's property, assets and undertakings, including all corporations, trusts, partnerships and other entities owned or controlled by Northland. The Board carries out its responsibility by supervising Northland's management and the actions of its Entities.

Northland's Board of Directors primarily consists of independent members with a broad and diversified skillset encompassing finance, audit, business acumen, legal and power industry experience and expertise. The Board also has three sub-committees: an independent Audit Committee that oversees accounting and financial matters, as well as a Compensation & Governance Committee and Nominating Committee. The Board conducts formal performance reviews on the Board, the Chair and Committee Chairs to ensure the Board is effective, aligned with best practices and meets its performance objectives.

### Northland's Board of Directors

- John W. Brace, Chair
- James C. Temerty
- Russell Goodman, Lead Independent Director
- Linda L. Bertoldi
- Dr. Marie Bountrogianni
- Barry Gilmour
- Keith Halbert

### Executive Officers

- Mike Crawley, President and Chief Executive Officer
- Paul Bradley, Chief Financial Officer<sup>(1)</sup>
- Troy Patton, Chief Operations Officer
- Morten Melin, Executive Vice President, Construction
- Michael Shadbolt, Vice President, Legal and Corporate Affairs

(1) Paul Bradley announced his formal retirement on July 22, 2019 and was succeeded by Pauline Alimchandani as Chief Financial Officer on April 13, 2020.

### Board Committees

- Audit Committee: Oversees accounting and financial reporting, internal controls and management information, risks and risk management, the external audit process and compliance with all applicable laws and regulations.
- Compensation Committee: Guides the compensation of Northland's executive team and Board.
- Governance & Nominating Committee: Responsible for governance issues, such as recommending new Board candidates and committee nominees, assessing the effectiveness of the Board, its committees and members, orienting new members and advising on Board compensation matters.

The Board of Directors has adopted a Code of Business Conduct and Ethics which applies to all representatives, officers and Directors of Northland. The Code provides guidelines with respect to securing assets, conflicts of interest, respect in the workplace, social responsibility, privacy, compliance with laws, insider trading, environment, health and safety and Northland's commitment to ethical and honest conduct. The Code goes beyond the laws, rules and regulations that govern Northland's business in the jurisdictions in which it operates; it outlines principal business practices with which all directors, employees and consultants must comply.



The Board of Directors believes that it is important to have regular and constructive engagement directly with shareholders to allow and encourage shareholders to express their views on corporate governance matters directly to the Board outside of annual meetings. These discussions are intended to be an exchange of views about corporate governance matters that are within the public domain and will not include a discussion of undisclosed material facts or material changes. To facilitate this, the Board adopted a Shareholder Engagement Policy which outlines how the Board may communicate with shareholders and how shareholders can communicate with the Board.

For additional information on Northland's Governance policies, please see the [Management Information Circular](#) for 2019.

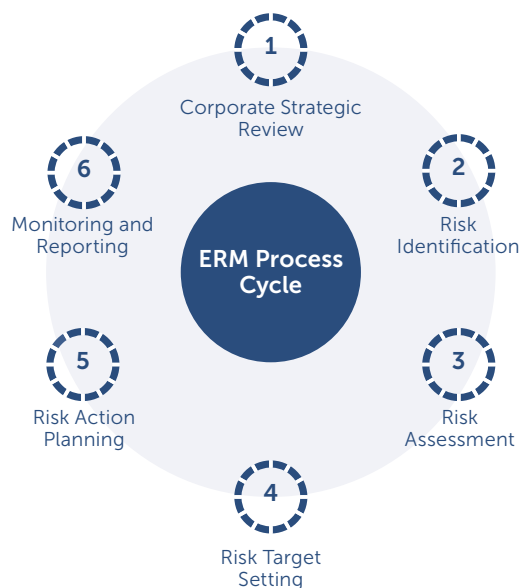
Publicly traded since 1997, we are listed on the Toronto Stock Exchange (TSX:NPI).

## Managing Risk

Northland's Enterprise Risk Management (ERM) Framework was designed to establish a clear process and provide practical guidance on activities to support our long-term sustainability. This includes integrating risk management with strategic planning, conducting risk identification and assessment activities, developing risk responses and action plans, monitoring risk and reporting on the results of the process. In 2019, we reviewed Northland's entire risk universe and identified key risks with the highest potential to affect and influence how we achieve our strategic objectives. Based on changes to our external and internal business environment and strategy, the company assessed key risks based on three criteria: (i) impact, (ii) likelihood and (iii) the need to manage differently or more formally.

Within our ERM Framework, we have committed to evaluating key risks quarterly, or more frequently if required, to ensure we are successfully achieving our corporate objectives. We also drafted and proposed a new action plan to address risk impact and likelihood.

## Whistle Blower Anonymity and



## Protection

Northland's Whistle Blower policy enables employees and other stakeholders to safely report misconduct or actions that violate the law or our Code of Business Conduct and Ethics. As approved by Northland's Board of Directors, the Audit Committee established clear procedures for receiving and responding to complaints regarding financial reporting,

accounting or auditing matters. All submissions are strictly confidential and any reprisal, retaliation or disciplinary action against the reporting party is prohibited. Supporting and protecting those who report wrongdoing encourages all employees to observe the highest standards of business and personal ethics in accordance with our principal business and practices.

All reports can be made to Russell Goodman, the Chair of the Audit Committee by email at [Russell.Goodman@npibm.com](mailto:Russell.Goodman@npibm.com).

## Climate Change Risk Impacts

### Climate Change Related Opportunities

#### Growth of Renewable Assets Portfolio

Northland sees significant growth opportunities in its renewable asset portfolio as a result of the trend towards de-carbonization which encourages sustainable power generation from clean and green technologies.

#### New Business Opportunities

Northland expects to identify new business opportunities due to continued interest and growth in clean and renewable power technologies as well as increased investment by public and private entities in the sector.

#### Greater Access to Capital

Northland expects to benefit from direct business partnerships as well as the trend of increasing capital allocations by large institutional investors to companies pursuing environmentally sustainable business models.

#### Reputational Advantage

Northland's business model has and is expected to continue to attract and retain top talent due to employees' growing preference to work for companies whose actions and strategies align with their own beliefs.

### Climate Change Related Risks

#### Variability of Results

Climate change may increase the potential for variability of renewable resources, resulting in higher inconsistencies of electricity production and financial results globally. Though growing, research on the effect of climate change on wind and solar patterns in areas of concentrated renewable power production remains in early stages.

#### Acute and Chronic Effect on Physical Assets

Northland's facilities and projects are exposed to elements such as wind, water, and in the case of our offshore wind projects, movement of the seafloor. They are also susceptible to extreme weather conditions and natural disasters such as hurricanes, tornadoes, lightning storms, ice, and in the case of distribution lines, fires.

#### Regulatory Compliance

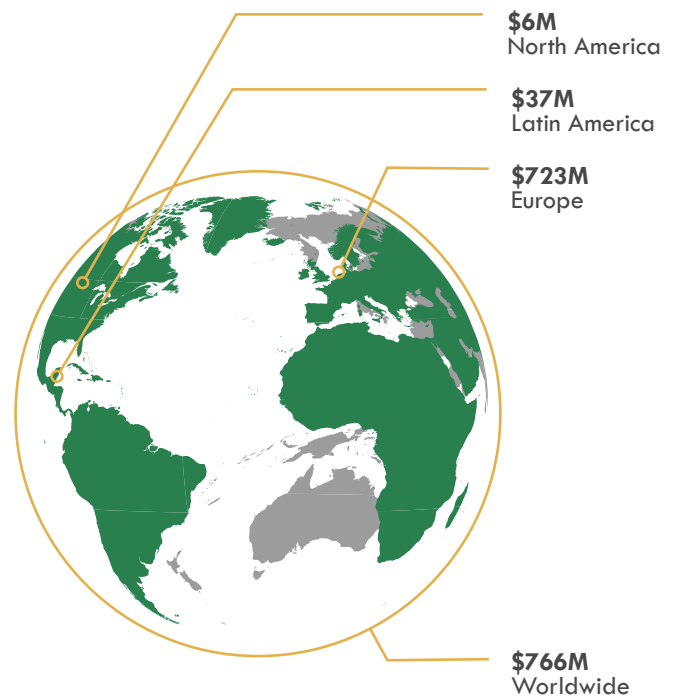
With the growing scrutiny of environmental effects of business activities, Northland faces the risk of increased costs for regulatory compliance such as carbon pricing programs for natural gas fired thermal facilities, maintenance of air and water quality standards, limiting greenhouse gas emissions and costs of compliance during the construction phase.

Northland discloses its direct greenhouse gas and air emissions in its Sustainability Report and plans to continue to measure and report on these metrics annually. Northland recognizes the long-term importance of sustainability and the role of renewable energy in counteracting climate change and is focused on increasing the capacity of its renewable asset portfolio in response to the threat of climate change.

## Northland's Economic Impacts



### Capital Expenditures



### Anti-Bribery and Anti-Corruption

Ongoing communication and training is an important part of our mandate for strong and transparent governance. We have a strict Code of Business Conduct and Ethics. We also have an Anti-Bribery/Anti-Corruption (**ABAC**) Policy that was affirmed by our Board in the fall of 2019 and is supported by regular employee training and compliance procedures to prevent bribery.

We strive to ensure that all of our global employees, contractors and partners adhere to these policies and procedures at all times. Towards this, in 2019 we worked to develop and implement localized policies and training for our employees in Europe and Mexico.

## Creating Sustainable Economic Value

The core of Northland's business strategy is creating sustainable, long-term value and prosperity for all stakeholders across our global operations. Our approach is to continually increase value through investments in sustainable infrastructure assets by developing high-quality projects with predictable revenue streams. We constantly reinvest in our operating assets to ensure maximum efficiency and viability. We also focus on innovation and development to reduce the cost of renewable power generation and improve efficiency—both of which drive the competitiveness and economic feasibility of power generation.

We create and distribute significant economic value to our stakeholders and in the communities where we operate. The direct value we deliver comes in the form of salaries and wages, payments for goods and services, payments to governments and dividends and appreciated value for our shareholders.

### Indirect Economic Impacts

In addition to the direct financial impact, our activities continue to drive indirect economic impact beyond our operations. We take time to work with local communities to determine need and potential impact and make investments in infrastructure and services that contribute to local and regional economies. This includes infrastructure investments, creating jobs and improving conditions for economic activity, supporting the use of local products and services and investing in programs that support the economic prosperity and overall wellbeing of our local communities.

Last year, at our development projects in Taiwan and Mexico, Northland supported local communities and economies directly through community sponsorships and programs as well as through construction expenditure.



Signing a preferred supplier agreement with Siemens Gamesa Renewable Energy for the delivery and servicing of wind turbines for our Hai Long offshore wind project.

## Investing in Our Communities

In 2019, Northland donated over \$600,000 to charities and organizations in the communities where we operate, helping to make a practical local effect and contribute to the economic prosperity of our partners.

### Little Native Hockey League

In 2019, we were a platinum sponsor for the 48th Little Native Hockey League tournament. One of our long-term partners, the Aamjiwnaang First Nation, hosted the tournament. The event is the largest First Nations organized hockey tournament in Ontario.

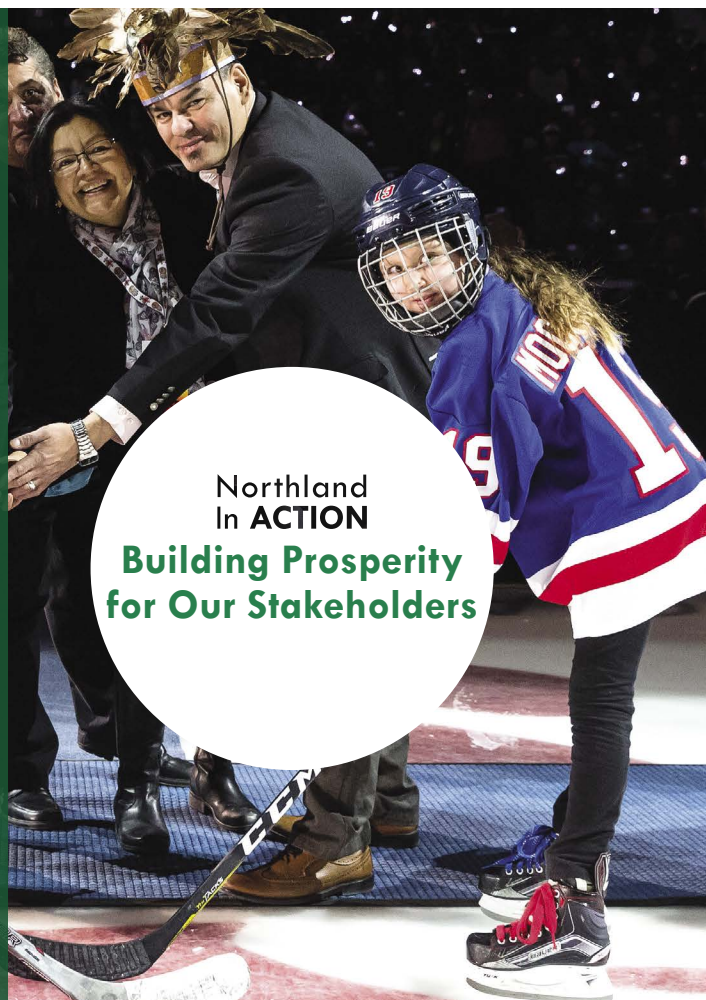
### Downie Wenjack Fund's Legacy Schools Program

The Legacy Schools program is a free national initiative to engage, empower and connect students and educators with opportunities for further reconciliation through awareness, education and action in Canada.

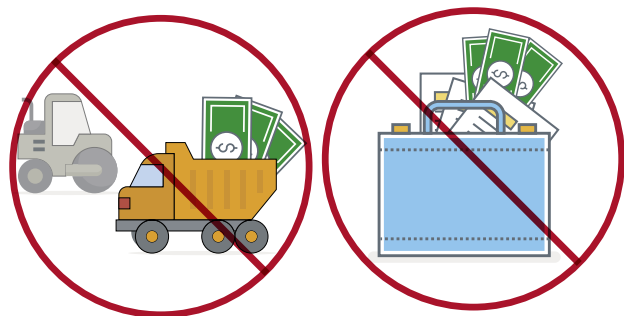
Northland renewed our \$100,000 sponsorship in 2019, helping to fund educational resources and program development that has now reached over 600,000 students.

### Sick Kids Hospital Get Loud March across Toronto

Northland's Corporate office took to the streets of Toronto to march, raising funds for The Hospital for Sick Children. The event raised over \$2 million for the construction of a brand-new facility at Sick Kids, Northland's efforts contributed more than \$6,000 to the cause.



©Adam Pulicichio Photography.



## Northland in Action Global Anti-Bribery/Anti-Corruption Training

In 2019, Northland implemented a series of global training sessions to build awareness of our ABAC Policy and equip our teams to be able to identify ABAC instances through accounting procedures.

Northland carried out a training session with PWC at our Corporate Office in Toronto. Northland's Global Development team also took part in ABAC training to ensure that policies were part of our worldwide operations and planning. At our 130 MW La Lucha solar project in Mexico, Northland's Latin America development team carried out localized anti-bribery training with our legal partner Creel.

## Northland in Action Economic Impact for Local Stakeholders at La Lucha

The development of Northland's La Lucha project has delivered direct and indirect economic impacts for communities in the surrounding region. Primarily agriculture-based, the local economies are sharply affected by seasonal growing patterns and harvests. In the off-seasons, adequate employment and revenue sources can be scarce.

The La Lucha project has provided much-appreciated employment during these economic downturns, making a priority of hiring local workers throughout the construction phase. Local employment has grown steadily since the start of construction. Thus far, 148 employees have been hired from local communities making up nearly 40% of the project's total workforce.

The land lease arrangements with the local ejidos (communal farms) have also provided a reliable source of income and created opportunities for economic activity and development. The La Lucha construction team has also supported local communities with services, such as infrastructure improvements and donations of supplies for local building projects.



# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location			
GRI 102: GENERAL DISCLOSURES					
102-1	Name of the organization	Northland Power Inc.			
102-2	Activities, brands, products, and services	Sustainable infrastructure that includes wind, solar and thermal power generation. 2019 Annual Report ( <a href="#">page 13</a> ) 2019 Annual Information Form ( <a href="#">page 7</a> ) <a href="http://www.northlandpower.com">www.northlandpower.com</a>			
102-3	Location of headquarters	Toronto, Ontario (Canada)			
102-4	Location of operations	North America, Europe, Asia and Latin America. 2019 Annual Report ( <a href="#">page 14</a> )			
102-5	Ownership and legal form	2019 Annual Report ( <a href="#">page 53</a> ) 2019 Annual Information Form ( <a href="#">page 2</a> )			
102-6	Markets served	2019 Annual Report ( <a href="#">page 14</a> ) 2019 Annual Information Form ( <a href="#">page 7</a> )			
102-7	Scale of the organization	2019 Annual Report ( <a href="#">page 11</a> ) 2019 Annual Information Form ( <a href="#">page 7</a> ) <a href="http://www.northlandpower.com">www.northlandpower.com</a>			
102-8	Information on employees and other workers	Northland Employees		2019	2018 <sup>1</sup>
		Number of employees		425	318
		Number of employees, by gender			
		Male		335	252
		Female		90	66
		Number of employees, by age			
		Age <30		61	44
		Age 30 – 50		239	162
		Age >50		125	112
		Number of employees, by region			
		Full time			
		Canada		254	229
		Germany		118	58
		The Netherlands		12	11
		Mexico		15	-
		Other		16	8
		Part time			
		Canada		3	7
		Germany		4	3
		The Netherlands		3	2
		(1) Certain comparative information has been restated to adhere to current year measurement and presentation.			

# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location
<b>102-11</b>	Precautionary principle or approach	The purpose of the ERM Framework at Northland is to set out the risk management process and provide practical guidance on carrying out risk management activities. Such activities include integrating risk management with strategic planning, conducting risk identification and assessment, developing risk responses and action plans, monitoring risks, and reporting on the results of the risk management process.
<b>102-14</b>	Statement from senior decision-maker	Letter from the President and Chief Executive Officer ( <a href="#">page 3</a> )
<b>102-15</b>	Key impacts, risks, and opportunities	<p>Letter from the President and Chief Executive Officer (<a href="#">page 3</a>)</p> <p>2019 Annual Report (<a href="#">page 38</a>)</p> <p>Northland continuously identifies and monitors risk through its ERM program. The ERM program is led by senior management and overseen by the Board of Directors. As part of the ERM program, Northland reviews what it considers to be its "risk universe" (i.e. all the risks that could impact the business) annually. During 2019, this review identified key risks based on three criteria with the goal of identifying risks that could influence Northland achieving one or more of its strategic objectives. The three criteria applied were: (i) impact, (ii) likelihood and (iii) a need to manage differently or more formally. Within the ERM process, Northland re-evaluates key risks quarterly, or more frequently if required, to reflect new information that could affect the company and possibly impede the successful achievement of the corporate objectives. Northland drafted and proposed new action plans to address impact and/or likelihood of each key risk from its current risk level to its risk target. ERM is positioned to be value-adding by focusing its efforts on supporting long-term sustainability at Northland.</p>
<b>102-17</b>	Mechanisms for advice and concerns about ethics	Concerns about unethical or unlawful behaviour are reported directly to the Lead Independent Director of the Board. Code of Business Conduct and Ethics ( <a href="#">page 3</a> )
<b>102-18</b>	Governance structure	2020 Management Information Circular ( <a href="#">page 23</a> )
<b>102-22</b>	Composition of the highest governance body and its committees	<p>2019 Annual Report (<a href="#">page 92</a>)</p> <p>2020 Management Information Circular (<a href="#">page 23</a>)</p>
<b>102-23</b>	Chair of the highest governance body	<p>John W. Brace, Chairman and Director</p> <p>2020 Management Information Circular (<a href="#">page 25</a>)</p>
<b>102-28</b>	Evaluating the highest governance body's performance	2020 Management Information Circular ( <a href="#">page 23</a> )
<b>102-32</b>	Highest governance body's role in sustainability reporting	Our annual Sustainability Report is reviewed by the Chief Executive Officer and Board of Directors prior to publication.
<b>102-40</b>	List of stakeholder groups	<p><b>Northland Stakeholders</b></p> <p><b>Investors:</b> Individuals, investment and pension funds and the broader investment community, including lenders, who hold or are interested in purchasing Northland's equity or debt instruments.</p> <p><b>Community:</b> Municipalities, non-governmental organizations, Indigenous groups and regulatory authorities in and around the communities where we currently operate or are looking to expand.</p> <p><b>Employees:</b> Current and prospective employees and contractors.</p> <p>In defining our stakeholders, we applied a broad definition of inclusiveness: any entities or individuals that may be significantly affected by our activities, products and services and/or that may in turn affect our ability to achieve our objectives. Stakeholder engagement helps us focus and prioritize our corporate sustainability initiatives.</p>
<b>102-41</b>	Collective bargaining agreements	Percentage of employees covered by collective bargaining agreements: 2019: 8.00%. 2018: 14.17%.
<b>102-45</b>	Entities included in the consolidated financial statements	2019 Annual Report ( <a href="#">page 53</a> )
<b>102-46</b>	Defining report content and topic boundaries	About This Report ( <a href="#">page 11</a> )
<b>102-47</b>	List of material topics	About This Report ( <a href="#">page 11</a> )
<b>102-49</b>	Changes in reporting	Certain comparative information has been restated to adhere to current year measurement and presentation, primarily as a result of our expanded scope, providing more fulsome coverage of our global operations.

# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location
<b>102-50</b>	Reporting period	January 1, 2019 to December 31, 2019.
<b>102-51</b>	Date of most recent report	2018 Sustainability Report was issued in July 2019.
<b>102-52</b>	Reporting cycle	Northland reports annually on its sustainability progress and performance.
<b>102-53</b>	Contact point for questions regarding the report	Northland Power Inc. St. Clair Avenue West, 12th Floor Toronto, ON M4V 3A1 <a href="mailto:sustainability@northlandpower.com">sustainability@northlandpower.com</a> <a href="http://www.northlandpower.com">www.northlandpower.com</a>
<b>102-54</b>	Claims of reporting in accordance with the GRI Standards	This report is informed by the GRI Standards.
<b>102-55</b>	GRI content index	Global Reporting Initiative Index ( <a href="#">page 26</a> )
<b>102-56</b>	External assurance	No external assurance was sought for the content of this report. Financial and greenhouse gases emissions data are externally audited on an annual basis.

## GRI 103: MANAGEMENT APPROACH

<b>103-1</b>	Explanation of the material topic and its boundary	About This Report ( <a href="#">page 11</a> )
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## GRI 201: ECONOMIC PERFORMANCE

<b>201-1</b>	Direct economic value generated and distributed	2019 Annual Report ( <a href="#">page 48</a> )																																				
		<table> <tr> <th>Direct Economic Value</th><th>2019</th><th>2018<sup>1</sup></th></tr> <tr> <td colspan="3">\$CAD thousands</td></tr> <tr> <td colspan="3"><b>Economic value generated</b></td></tr> <tr> <td>Revenues<sup>2</sup></td><td>\$1,671,331</td><td>\$1,568,247</td></tr> <tr> <td colspan="3"><b>Economic value distributed</b></td></tr> <tr> <td>Operating costs<sup>3</sup></td><td>346,454</td><td>355,734</td></tr> <tr> <td>Employee wages and benefits</td><td>73,875</td><td>64,180</td></tr> <tr> <td>Payments to capital providers<sup>4</sup></td><td>619,854</td><td>623,658</td></tr> <tr> <td>Payments to governments<sup>5</sup></td><td>49,236</td><td>40,919</td></tr> <tr> <td>Community investments</td><td>964</td><td>808</td></tr> <tr> <td></td><td><b>1,090,383</b></td><td><b>1,085,299</b></td></tr> <tr> <td><b>Net economic value retained</b></td><td><b>\$580,948</b></td><td><b>\$482,948</b></td></tr> </table>	Direct Economic Value	2019	2018 <sup>1</sup>	\$CAD thousands			<b>Economic value generated</b>			Revenues <sup>2</sup>	\$1,671,331	\$1,568,247	<b>Economic value distributed</b>			Operating costs <sup>3</sup>	346,454	355,734	Employee wages and benefits	73,875	64,180	Payments to capital providers <sup>4</sup>	619,854	623,658	Payments to governments <sup>5</sup>	49,236	40,919	Community investments	964	808		<b>1,090,383</b>	<b>1,085,299</b>	<b>Net economic value retained</b>	<b>\$580,948</b>	<b>\$482,948</b>
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		<p>(1) Certain comparative information has been restated to adhere to current year measurement and presentation.</p> <p>(2) Revenues include sales and finance lease income.</p> <p>(3) Operating costs include cost of sales, plant operating costs and general and administrative costs.</p> <p>(4) Includes payments for interest and dividends to common shareholders, preferred shareholders and non-controlling interest partner, disclosed on a cash basis.</p> <p>(5) Limited to current year tax expense recognized on an accrual basis.</p>																																				

# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location
201-2	Financial implications and other risks and opportunities due to climate change	<p><b>Climate Change Risk Impacts</b></p> <p>Sustainability and the need for clean energy were key factors leading to Northland being established in 1987 and continue to be a fundamental part of the business environment in which Northland operates. Sustainability underlies and influences many of the key business risks identified and managed by management and overseen by the Board of Directors. Understanding, measuring and managing the opportunities and risks arising from the global shift to renewable energy sources, as a result of climate change, is a core component of Northland's business activities and critical to delivering on its vision. Northland holds the view that demand for electricity from renewable sources will continue to rise as a result of growing recognition of the adverse effects of climate change and an increasing number of jurisdictions adopting de-carbonization policies and renewable energy targets.</p> <p>Climate change, which increases the likelihood of unexpected, severe and more frequent weather-related natural disasters such as severe storms, droughts, heat waves, rising temperatures and sea levels and changing precipitation patterns, presents both risks and opportunities to Northland. Climate change has raised the importance of access to clean energy, energy security and energy efficiency, to which Northland is well-positioned to contribute.</p> <p>Northland manages the business risks presented by climate change as part of its ERM program.</p> <p>Northland's ERM program builds risk identification, assessment, response planning, reporting and monitoring into routine business activities, with ownership of key risks delegated throughout the organization. Assessment, using quantification of business impacts wherever possible, occurs on an ongoing basis.</p>
		<p><b>Climate Change Related Opportunities</b></p>
		<p><b>Growth of renewable assets portfolio</b></p> <p>Northland sees significant growth opportunities in its renewable asset portfolio as a result of the global trend towards de-carbonization which encourages sustainable power generation from clean and green technologies. Northland expects these opportunities to span short, medium and long-term time horizons as such policies spread to new parts of the globe and strengthen in advanced economies. Northland is currently pursuing such opportunities through active development of sustainable projects in Asia, Europe, Latin America and North America.</p>
		<p><b>New business opportunities</b></p> <p>Northland expects to identify new business opportunities due to continued interest and growth in clean and renewable power technologies as well as increased investment by public and private entities in the sector. For example, many commercial and industrial entities are partnering with sustainable power producers for their energy needs. Such partnerships and capital investments are expected to lead to enhanced performance and reliability and/or reduced operating costs, improving Northland's operating and financial results. Continued investment in clean technology may also uncover new applications for existing technologies and entirely new business models, from which Northland is well-positioned to benefit.</p>
		<p><b>Greater access to capital</b></p> <p>Northland expects to benefit from direct business partnerships as well as the trend of increasing capital allocations by large institutional investors to companies pursuing environmentally sustainable business models. Northland's current shareholder base includes large institutional investors and "green funds" that have found Northland to meet their criteria. Newer financial products, such as green bonds, present additional opportunities to raise capital in the future.</p>
		<p><b>Reputational advantage</b></p> <p>Northland's business model has and is expected to continue to attract and retain top talent due to employees' growing preference to work for companies whose actions and strategies align with their own beliefs. Northland's sustainability focus provides an advantage in the competition for top talent at all levels of the organization. Similarly, Northland benefits from its positive brand image and reputation when seeking new business partners, exploring new jurisdictions and obtaining regulatory approvals.</p>



# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location
<b>201-2</b> (Continued)	Financial implications and other risks and opportunities due to climate change	<b>Climate Change Related Risks</b>
		<p><b>Increased variability of results</b></p> <p>Climate change may increase the potential for variability of renewable resources, resulting in higher inconsistencies of electricity production and financial results globally. Research on the impact of climate change on wind and solar patterns in areas of concentrated renewable power production, though growing, remains in early stages. Reliable information on localized impact for specific regions over the long-term is not yet available in today's climate change computer simulation models. Northland's concentration of offshore wind farms in the North Sea presents a performance and operating risk. Over the long-term, the effects of climate change and severe weather events may also change energy demand patterns and market prices in the regions where Northland operates to the benefit or detriment of Northland.</p>
		<p><b>Acute and chronic effect on physical assets</b></p> <p>Northland's facilities and projects are exposed to the elements such as wind, water, and in the case of the offshore wind projects, movement of the sea floor. They are also susceptible to extreme weather conditions and natural disasters such as hurricanes, tornadoes, lightning storms, icing events, and in the case of distribution lines, fires. Extreme weather conditions and natural disasters can cause downtime, construction delays, production losses and/or damage to equipment. Natural events may also make it impossible for operations and maintenance crews to access the disabled equipment to deliver parts and provide services.</p> <p>Northland is exposed to weather risk and subsurface risk during the construction and operation of its offshore wind farms. Northland attempts to mitigate these risks through the purchase of insurance and/or the inclusion of provisions under applicable construction agreements with contractors. However, insurance policies and/or construction agreements may not provide coverage for certain events, or coverage may be insufficient to compensate for all of the losses suffered by a project. Such insurance may not continue to be available at all or at an economically feasible cost.</p> <p>Northland's operations rely on assets such as transmission grids, towers and substations which are owned and operated by third-parties. These assets may also be adversely affected by extreme weather events and climate change, which Northland has little ability to control. Similarly, Northland's operating and construction activities could be affected by the impact of extreme weather events on its supply chain.</p>
		<p><b>Regulatory compliance</b></p> <p>With the growing scrutiny of environmental impacts of business activities, Northland faces the risk of increased costs for regulatory compliance such as carbon pricing programs for natural gas fired thermal facilities, maintenance of air and water quality standards, limiting greenhouse gas emissions and costs of compliance during the construction phase.</p> <p>Northland monitors global regulatory developments and acts to manage the related financial and business risks associated with its activities. For example, the Pan-Canadian Framework on Clean Growth and Climate Change, established by the Canadian government in 2016, provided a back-stop to provincial carbon pricing programs. Under the program, a fuel charge is applied to a range of fuels. Natural gas and industrial facilities are subject to an Output-Based Pricing System (OBPS) for carbon emissions above applicable limits. Industrial facilities may pay the OBPS or procure equivalent credits from other companies. Northland's thermal facilities are subject to OBPS programs, federally or through an equivalent provincial program. Substantially all of Northland's operating thermal facilities pass the costs of compliance through to the counterparty under the terms of their PPA.</p> <p>Northland discloses its direct greenhouse gas and air emissions in its Sustainability Report and plans to continue to measure and report on these metrics annually. Northland recognizes the long-term importance of sustainability and the role of renewable energy in counteracting climate change and is focused on increasing the capacity of its renewable asset portfolio in response to the threat of climate change.</p>
<b>201-4</b>	Financial assistance received from government	Northland's long-term revenue contracts include contracts with government entities in Canada and Europe under programs to encourage sustainable power development. Northland's Nordsee One offshore wind farm received a €70 million subsidy from the European Commission for use of innovative wind turbines (6 MW) on innovative foundations (large monopiles). The subsidy will be paid over the first five years of energy production (2018 – 2022).

# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location																																										
<b>GRI 203: INDIRECT ECONOMIC IMPACTS</b>																																												
<b>203-1</b>	Infrastructure investments and services supported	<p>Northland invests significantly in the development of sustainable infrastructure, which is core to our business strategy. For the La Lucha project, Northland supports the local communities and economies directly through local hiring practices. For the upcoming Hai Long project, Northland has made commitments to support local communities and economies directly through community sponsorships and programs as well as indirectly through its construction expenditure. As of December 31, 2019, Northland has committed to future spending of approximately \$123 million on capital projects, primarily relating to the construction of the La Lucha project.</p> <p>The table below shows Northland's total spending on sustainable development and capital projects by region.</p> <table> <tr> <th>Infrastructure Investments and Services Supported</th><th>2019</th><th>2018</th></tr> <tr> <td colspan="3">\$CAD thousands</td></tr> <tr> <td colspan="3"><b>Development prospecting expenses</b></td></tr> <tr> <td>North America</td><td>\$3,444</td><td>\$3,857</td></tr> <tr> <td>Latin America</td><td>2,749</td><td>3,902</td></tr> <tr> <td>Europe</td><td>4,661</td><td>3,278</td></tr> <tr> <td>Asia</td><td>13,219</td><td>6,930</td></tr> <tr> <td></td><td><b>\$24,073</b></td><td><b>\$17,967</b></td></tr> <tr> <td colspan="3"><b>Capital expenditures</b></td></tr> <tr> <td>North America</td><td>\$5,718</td><td>\$11,938</td></tr> <tr> <td>Latin America</td><td>36,932</td><td>—</td></tr> <tr> <td>Europe</td><td>723,388</td><td>384,951</td></tr> <tr> <td>Asia</td><td>—</td><td>—</td></tr> <tr> <td></td><td><b>\$766,038</b></td><td><b>\$396,889</b></td></tr> </table>	Infrastructure Investments and Services Supported	2019	2018	\$CAD thousands			<b>Development prospecting expenses</b>			North America	\$3,444	\$3,857	Latin America	2,749	3,902	Europe	4,661	3,278	Asia	13,219	6,930		<b>\$24,073</b>	<b>\$17,967</b>	<b>Capital expenditures</b>			North America	\$5,718	\$11,938	Latin America	36,932	—	Europe	723,388	384,951	Asia	—	—		<b>\$766,038</b>	<b>\$396,889</b>
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<b>GRI 205: ANTI-CORRUPTION</b>																																												
<b>205-2</b>	Communication and training about anti-corruption policies and procedures	<p>Northland's ABAC policy was affirmed by our Board in the fall of 2019 and is supported by regular employee training and compliance procedures to prevent bribery.</p> <p>We also have a strict Code of Business Conduct and Ethics. We strive to ensure that all of our employees, contractors and partners adhere to these policies and procedures at all times.</p>																																										
<b>205-3</b>	Confirmed incidents of corruption and actions taken	<p>2019: No incidents of corruption occurred during the reporting period.</p> <p>2018: No incidents of corruption occurred during the reporting period.</p>																																										
<b>GRI 206: ANTI-COMPETITIVE BEHAVIOR</b>																																												
<b>206-1</b>	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	<p>2019: There were no incidents or legal actions for anti-competitive behavior, antitrust, or monopoly practices taken against Northland.</p> <p>2018: There were no incidents or legal actions for anti-competitive behavior, antitrust, or monopoly practices taken against Northland.</p>																																										
<b>GRI 302: ENERGY</b>																																												
<b>302-1</b>	Energy consumption within the organization	<p><b>Total Energy Consumption<sup>1</sup></b>  2019: 28,759,088 GJ.  2018: 26,509,336 GJ.</p> <p>Energy consumption is higher in 2019 primarily due to higher production (run hours and natural gas used) at Northland's thermal facilities.</p> <p>(1) Certain comparative information has been restated to adhere to current year measurement and presentation.</p>																																										

# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location	
GRI 303: WATER AND EFFLUENTS			
303-1	Interactions with water as a shared resource	Northland's water management objectives are to minimize the use of water in our operations, reduce the effect on all bodies of water in and around our sites and recycle as much of the water we use as possible. We aim to withdraw only the amount of water that we need and return all withdrawn water to its original source at equal or better quality, less any losses from evaporation.	
303-2	Management of water discharge-related impacts	We closely monitor water discharged, ensuring pH-levels, temperature and other mineral levels are in accordance with permit requirements. Our Thorold thermal facility accounts for the vast majority of all water withdrawal. Water withdrawal is affected by plant production levels as well as water temperature. Since water is used for cooling, less is required when the water is colder.	
303-3	Water withdrawal	<p><b>Total Water Withdrawal</b> 2019: 83,498,912 m³. 2018: 96,099,473 m³.</p> <p>Nearly all of Northland's water withdrawal is used for cooling purposes at our thermal facilities. The total withdrawal is affected by production levels as well as water temperature.</p> <p>All of our water withdrawal used for process water or system cooling is surface water. Minimal amounts of groundwater are removed for domestic or sanitation purposes, generally at renewable energy facilities without municipal water supply.</p> <p>Northland does not operate in any areas of water stress.</p>	
303-4	Water discharge	<p><b>Returned Water</b> 2019: 98%. 2018: 93%.</p> <p>The higher return rate in 2019 was primarily due to changes in the operating patterns of thermal facilities, including lower operating hours at the Kingston facility and lower levels of steam production. All discharged water is monitored and returned at equal or better quality levels than it was withdrawn. Water loss is generally due to evaporative cooling systems used at Northland's thermal plants.</p>	
GRI 304: BIODIVERSITY			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	As part of our commitment to environmental sustainability, we aim to minimize any potential effects that our activities may have on the ecosystems where we operate. Before selecting or developing a site, we conduct thorough environmental impact assessments of the surrounding area to identify environmentally sensitive vegetation, wildlife or other features and uses.	
304-2	Significant impacts of activities, products, and services on biodiversity	We design our facilities to avoid disturbing any environmentally sensitive species and work to revive and restore natural environments through activities such as replanting forested areas and grasslands to give back to the planet. Throughout operations, our environmental management teams conduct ongoing monitoring to ensure long-term support and sustainability for wildlife populations and ecosystems.	
		Biodiversity Protection – La Lucha Solar Farm	
		Flora relocation	116 individual plants relocated 5 individual plants did not survive 111 individual plants survived 95.6% survival rate
		Fauna relocation	Amphibians: 114 Birds: 61 Mammals: 875 Reptiles: 759 Total: 1,809 individuals



# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location															
<b>GRI 305: EMISSIONS</b>																	
<b>305-1</b>	Direct (scope 1) GHG emissions	<p><b>Total GHG Emissions</b>  2019: 1,686,511 metric tonnes of CO<sub>2</sub> equivalents.  2018: 1,495,842 metric tonnes of CO<sub>2</sub> equivalents.</p> <p>Direct (scope 1) GHG emissions are higher than prior years primarily due to higher production (i.e. run hours and natural gas used) at Northland's thermal facilities.</p>															
<b>305-4</b>	GHG emissions intensity	<p><b>GHG Emission Intensity</b>  2019: 0.190 metric tonnes/MWh.  2018: 0.181 metric tonnes/MWh.</p> <p>GHG emissions intensity increased from 2018 to 2019 due to higher production at the thermal facilities.</p>															
<b>305-5</b>	Reduction of GHG emissions	We expect to transition our thermal facilities to more capacity-focused contracts (from production-focused contracts) to further support the transition to de-carbonization and fully renewable energy sources.															
<b>305-7</b>	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	<p>The most significant source of NOx emissions is from Northland's Kirkland Lake biomass generator, which reduces GHG emissions by using renewable wood waste as fuel input but produces higher NOx emissions.</p> <table> <tr> <th>Other Significant Air Emissions</th><th>2019</th><th>2018</th></tr> <tr> <td>VOC emissions (metric tonnes)*</td><td>211</td><td>194</td></tr> <tr> <td>NOx emissions (metric tonnes)*</td><td>2,021</td><td>1,859</td></tr> <tr> <td>SOx emissions (metric tonnes)*</td><td>8.7</td><td>8.1</td></tr> <tr> <td>PM emissions (metric tonnes)*</td><td>104</td><td>98</td></tr> </table> <p>* Metric tonnes per year</p>	Other Significant Air Emissions	2019	2018	VOC emissions (metric tonnes)*	211	194	NOx emissions (metric tonnes)*	2,021	1,859	SOx emissions (metric tonnes)*	8.7	8.1	PM emissions (metric tonnes)*	104	98
Other Significant Air Emissions	2019	2018															
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PM emissions (metric tonnes)*	104	98															
<b>GRI 306: EFFLUENTS AND WASTE</b>																	
<b>306-3</b>	Significant spills	<p>2019: One significant spill occurred during the reporting period. We lost about 4,000 litres of oil at our Kirkland Lake facility when a heavy piece of equipment fell and sheared a pipe connected to a steam turbine oil reservoir. The heated liquid spilt into the garage area and around the outside of the plant. The team reacted quickly, building a 100% containment berm that avoided impact on nearby land and waterways.</p> <p>2018: No significant spills occurred during the reporting period.</p>															
<b>GRI 307: ENVIRONMENTAL COMPLIANCE</b>																	
<b>307-1</b>	Non-compliance with environmental laws and regulations	<p>2019: No incidents of non-compliance with environmental laws and regulations occurred during the reporting period.  2018: No incidents of non-compliance with environmental laws and regulations occurred during the reporting period.</p> <p>In 2019, Northland paid a penalty of \$343,750 associated with a charge from the Ministry of Natural Resources related to activities at four Ontario solar facilities in 2015. The related silt discharge from construction has been fully addressed by Northland with no issues since 2015.</p>															

# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location		
GRI 401: EMPLOYMENT				
401-1	New employee hires and employee turnover			
		New Employee Hires	2019	2018
		Number of new employee hires	138	93
		Number of new employee hires, by gender		
		Male	109	77
		Female	29	16
		Number of new employee hires, by age		
		Age <30	42	22
		Age 30 – 50	79	65
		Age >50	17	6
		Number of new employee hires, by region		
		Canada	36	22
		Germany	75	62
		The Netherlands	4	2
		Mexico	16	-
		Other	7	7
		Employee Turnover	2019	2018
		Total number of employee turnover	43	21
		Total employee turnover, by gender		
		Male	32	17
		Female	11	4
		Total employee turnover, by age		
		Age <30	11	4
		Age 30 – 50	23	10
		Age >50	9	7
		Total employee turnover, by region		
		Canada	30	17
		Germany	7	2
		The Netherlands	2	1
Mexico	1	-		
Other	3	1		
401-3	Parental leave			
		Employee Parental Leaves	2019	2018
		Male	6	1
		Female	0	2

# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location
<b>GRI 403: OCCUPATIONAL HEALTH AND SAFETY</b>		
<b>403-1</b>	Occupational health and safety management system	<p>We work collectively as an organization to deliver our services safely, responsibly and efficiently, ensuring a healthy and productive environment for all employees and contractors. We are committed to minimizing accidents, injuries and work-related illnesses at all our facilities, offices and construction sites around the world.</p> <p><b>Northland Health and Safety Management System</b></p> <ul style="list-style-type: none"> <li>• Management Leadership Commitment</li> <li>• Employee Involvement</li> <li>• Communication and Training</li> <li>• The Management System Manual</li> <li>• Performance Evaluation and Improvement</li> </ul> <p>Our Health and Safety Management System provides clear targets and goals for all Northland's international offices and facilities to monitor, evaluate and report on their health and safety performance. Internationally certified health and safety professionals manage programs across our operations through our global Health and Safety Office. Each facility maintains its own emergency response plan and regularly completes drills and exercises to reinforce our emergency preparedness. At the Executive level, Northland is deeply committed to maintaining our exceptional health and safety record and standards. Our Executive Team regularly reviews our Global Health and Safety Policy and receives monthly health and safety updates from all our regional offices and facilities along with a Global Health and Safety Scorecard.</p> <p>Northland also adheres to internationally recognized occupational health and safety standards, such as the ISO. In 2019, our team in The Netherlands at the Gemini offshore wind farm achieved ISO 45001 certification for upgrading their occupational health and safety management system, enhancing their work to reduce occupational injuries and disease. This certification also affiliates within Gemini's IMS framework as part of the broader ISO 55001 certification previously achieved for asset management.</p>
<b>403-2</b>	Hazard identification, risk assessment, and incident investigation	<p>Safe and efficient operations depend on rigorous monitoring and management of workplace hazards and risks. Our Global Risk Management Program is used at all our facilities to ensure compliance with regional laws, regulations and industry best practices.</p> <p>To manage risk globally, we also:</p> <ul style="list-style-type: none"> <li>• Enabled our Corporate and European offices to work with the Taiwan Ministry of Labour on the development of guidelines for safe construction and operations for the emerging offshore wind market.</li> <li>• Worked with our team in Europe on the Deutsche Bucht project and our team in Latin America on the La Lucha project to develop an emergency and crisis response plan, to test the communication lines in cases of emergency and/or crisis and to better evaluate the effectiveness of the plan.</li> <li>• Implemented a revised Hazard Identification and Risk Assessment (<b>HIRA</b>) methodology for routine tasks that are undertaken at our Canadian facilities. The HIRA helps employees identify occupational hazards, assess risks and eliminate or mitigate them.</li> <li>• Completed a health and safety risk assessment of EBSA prior to acquisition.</li> </ul> <p><b>Northland Global Risk Management Program</b></p> <ol style="list-style-type: none"> <li>1. Identify hazards</li> <li>2. Understand exposure</li> <li>3. Assess risks and identify control measures</li> <li>4. Implement controls</li> <li>5. Review the performance and efficiency of these measures and update the risk assessment criteria</li> </ol> <p>When managing non-routine tasks, we apply JHA standards to identify hazards and assess risks and develop methods to mitigate these risks.</p>
<b>403-3</b>	Occupational health services	<p>Northland's employees and contractors are guaranteed the right to refuse work and remove themselves from situations that could cause injury or ill health. In any situation where this right is invoked and action taken, we work quickly to investigate and resolve the situation, following the steps of our Global Risk Management Program. Occupational health services across all our locations are provided by qualified and accredited professionals and comply with legal requirements, and follow industry best practices.</p>
<b>403-4</b>	Worker participation, consultation, and communication on occupational health and safety	<p>We encourage employees to take an active role in Northland's Health and Safety Committees or to become a Health and Safety Representative at their work location. These committees meet regularly to identify, address and resolve Northland-specific health and safety issues and enhance co-operation within our workforce.</p> <p>In 2019, Northland organized its third Annual Health and Safety Conference to keep our people informed and up to date on the successes and challenges of health and safety at our Canadian facilities. In 2020, we plan to make this a global initiative.</p>



# Global Reporting Initiative Index

GRI Standard	Disclosure Title	Disclosure Description and/or Location		
403-5	Worker training on occupational health and safety	Training for our frontline managers and supervisors plays a fundamental role in Northland's outstanding health and safety record.  At our European offshore wind facilities, we have adopted the internationally recognized GWO framework, which aligns safety and technical training standards. Our technicians, contractors and supply chain partners must all complete 140 hours of GWO training before working at our facilities. At our Canadian operating facilities, supervisors undertake mandatory health and safety training facilitated by the National Centre for Occupational Health and Safety, the national resource for workplace health and safety.		
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Northland requires all contractors or partners to comply with all jurisdictional occupational health and safety acts, regulations and codes, and to follow known industry safe-work practices and standards. When awarding major contracts or acquiring a company, their safety record is considered to ensure they comply with the law. In 2019, Northland's health and safety team was substantially involved in the set up of the La Lucha construction site and purchase of the EBSA utility.		
403-9	Work-related injuries	<b>Health and Safety<sup>1</sup></b>		
		Employees in Health and Safety Committees <sup>2</sup>	51	36
		Total hours worked (all sites)	922,584 hrs	1,123,373 hrs
		Lost-time injuries	0	0
		Days lost	0	0
		Fatalities or critical injuries	0	0
		Occupational illnesses	0	0
		Lost-Time Injury Frequency Rate (LTIFR) <sup>3</sup>	0.00	0.00
		Worker training on occupational health and safety (100% of Plant Managers and Site Supervisors) <sup>4</sup>	78	76
		(1) Employees at all 26 power generation facilities and Toronto corporate office only, and does not include contractors. (2) Health and Safety Committees represent management and workers. (3) LTIFR is the number of lost-time injuries per 200,000 hours worked. LTIFR = (# cases x 200,000) / total hours worked. (4) Total number of plant managers and site supervisors.		
		<b>Time Since Last Lost-Time Incident (LTI)</b>		
		<b>Thermal generating plants</b>		
		Kingston	22 yrs 10 mos	21 yrs 10 mos
		Iroquois Falls	10 yrs 8 mos	9 yrs 8 mos
		Thorold	9 yrs 10 mos	8 yrs 10 mos
		Spy Hill	8 yrs 2 mos	7 yrs 2 mos
		North Battleford	6 yrs 6 mos	5 yrs 6 mos
		Kirkland Lake	3 yrs 10mos	2 yrs 10mos
		<b>On-shore wind farms</b>		
		St. Ulric	10 yrs 1mos	9 yrs 1 mos
		Mont Louis	8 yrs 3 mos	7 yrs 3 mos
		McLean's Mountain	5 yrs 8 mos	4 yrs 8 mos
		Grand Bend	3 yrs 8 mos	2 yrs 8 mos
		<b>Offshore wind farms</b>		
		Gemini	3 yrs 9 mos	2 yrs 9 mos
Nordsee One	3 yrs	2 yrs		
<b>Solar farms</b>				
13 plants—all zero LTI since commercial operations	Since 2013, 2014 and 2015			
403-10	Work-related ill health	2019: No cases of work-related ill health occurred during the reporting period. 2018: No cases of work-related ill health occurred during the reporting period.		

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GRI Standard	Disclosure Title	Disclosure Description and/or Location						
GRI 404: TRAINING AND EDUCATION								
404-2	Programs for upgrading employee skills and transition assistance programs	We encourage learning and professional development for our employees and offer reimbursement for work-specific training. Skills and knowledge building are encouraged through corporate activities, such as Northland's regular Hungry for Knowledge sessions, which range in scope from Healthy Living to Waste Gasification.						
		Northland's Work Reintegration Program provides our employees with the resources and tools to successfully return to work after a work-related injury or illness. Through goal-oriented transition plans, employees collaborate with their supervisor, health professionals, union representatives and the Worker's Compensation Board to return to work at a pace and in a role that best suits their recovery.						
		Employee Courses and Training		2019	2018 <sup>1</sup>			
		\$CAD thousands						
		Investment in training and education		\$610	\$763			
(1) Certain comparative information has been restated to adhere to current year measurement and presentation.								
404-3	Percentage of employees receiving regular performance and career development reviews	An enhanced performance review process, supported by training sessions, was rolled out to all Toronto corporate office employees in 2018. This was expanded to our European offices by the end of 2019.						
GRI 405: DIVERSITY AND EQUAL OPPORTUNITY								
405-1	Diversity of governance bodies and employees	In 2019, Northland adopted specific targets for female representation at the Board and Executive Management levels. The new Diversity Policy considers candidates for nomination to the Board and when assessing the composition of the senior management team: <ul style="list-style-type: none"><li>• Northland seeks to have a Board in which at least 30% of the directors are women.</li><li>• Northland seeks to have a senior management team in which at least 25% of the members are women.</li></ul>						
		The data below was collected to provide a baseline against which to measure the impact of future diversity and inclusion initiatives.						
		Diversity of Governance Bodies and Employees, by Gender		2019		2018		
			Male	Female	Male	Female		
		Board members	71%	29%	71%	29%		
		Executives <sup>1</sup>	86%	14%	90%	10%		
		Directors	92%	8%	91%	9%		
		Managers	76%	24%	77%	23%		
		Individual contributors	77%	23%	77%	23%		
		Diversity of Governance Bodies and Employees, by Age		2019		2018		
			Age <30	Age 30 - 50	Age >50	Age <30	Age 30 - 50	Age >50
		Board members	0%	0%	100%	0%	0%	100%
		Executives <sup>1</sup>	0%	36%	64%	0%	40%	60%
		Directors	0%	63%	37%	0%	63%	37%
		Managers	8%	65%	26%	6%	65%	29%
Individual contributors	19%	55%	25%	20%	47%	33%		
(1) Northland defines senior management as executive officers and vice-president employees.								

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GRI Standard	Disclosure Title	Disclosure Description and/or Location
<b>GRI 406: NON-DISCRIMINATION</b>		
<b>406-1</b>	Incidents of discrimination and corrective actions taken	2019: No incidents of discrimination occurred during the reporting period. 2018: No incidents of discrimination occurred during the reporting period.
<b>GRI 408: CHILD LABOR</b>		
<b>408-1</b>	Operations and suppliers at significant risk for incidents of child labor	Northland policies prohibit child labour. 2019: No operations and suppliers were at significant risk for incidents of child labor during the reporting period. 2018: No operations and suppliers were at significant risk for incidents of child labor during the reporting period.
<b>GRI 409: FORCED OR COMPULSORY LABOR</b>		
<b>409-1</b>	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Northland policies prohibit compulsory labour. 2019: No operations and suppliers were at significant risk for incidents of forced or compulsory labor during the reporting period. 2018: No operations and suppliers were at significant risk for incidents of forced or compulsory labor during the reporting period.
<b>GRI 411: RIGHTS OF INDIGENOUS PEOPLES</b>		
<b>411-1</b>	Incidents of violations involving rights of indigenous peoples	2019: No incidents of violations involving rights of indigenous peoples occurred during the reporting period. 2018: No incidents of violations involving rights of indigenous peoples occurred during the reporting period.
<b>GRI 412: HUMAN RIGHTS ASSESSMENT</b>		
<b>412-1</b>	Operations that have been subject to human rights reviews or impact assessments	2019: No operations were subject to human rights reviews or impact assessments during the reporting period. 2018: No operations were subject to human rights reviews or impact assessments during the reporting period.



# Disclaimer

This report contains certain forward-looking statements that are provided for the purpose of presenting information about management's current expectations and plans. Readers are cautioned that such statements may not be appropriate for other purposes. Forward-looking statements include statements that are predictive in nature, depend upon or refer to future events or conditions, or include words such as "expects", "anticipates", "plans", "believes", "estimates", "intends", "targets", "projects", "forecasts" or negative versions thereof and other similar expressions, or future or conditional verbs such as "may", "will", "should", "would" and "could". These statements may include, without limitation, statements regarding future adjusted EBITDA or adjusted EBITDA, cash flows and dividend payments, the construction, completion, attainment of commercial operations, cost and output of development projects, plans for raising capital, and the future operations, business, financial condition, financial results, priorities, ongoing objectives, strategies and outlook of Northland and its subsidiaries. This information is based upon certain material factors or assumptions that were applied in developing the forward-looking statements, including the design specifications of development projects, the provisions of contracts to which Northland or a subsidiary is a party, management's current plans, its perception of historical trends, current conditions and expected future developments, as well as other factors that are believed to be appropriate in the circumstances.




*Our commitment to sustainability goes beyond our assets and facilities to include sound management of our economic initiatives and business practices and upholding our social responsibilities to our communities and workforce.*

**Mike Crawley**  
President and Chief Executive Officer









Northland Power is an independent power producer. We develop, build, own and operate sustainable infrastructure assets that produce electricity from clean burning natural gas and renewable resources such as wind, solar and biomass. Our goal is to be a leading supplier of clean, green energy while providing a sustainable and prosperous future for all stakeholders. We aim to increase shareholder value by creating high-quality projects underpinned by revenue contracts that deliver predictable cash flows.



**NORTHLAND  
POWER**

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