



# Nalcor Energy Sustainability Report

2018

# NALCOR ENERGY SUSTAINABILITY REPORT

## 2018

### About This Report

This report describes our sustainability performance for 2018. The information is organized according to the corporate objectives of Nalcor Energy (Nalcor) and Newfoundland and Labrador Hydro (Hydro). We identified the key areas of interest through consultation with our stakeholders using a materiality assessment. This tool helped us reflect on our work practices and allowed us to measure how well we balance the expectations of our stakeholders and of our business, social, economic, and environmental needs. Learn more about our business and financial activities in our 2018 Annual Report, available at [www.nalcorenergy.com](http://www.nalcorenergy.com).



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# MESSAGE FROM THE PRESIDENT AND CEO



Nalcor's responsibility to safely develop the energy resources of our province is one we are proud to manage on behalf of the people of Newfoundland and Labrador. Every decision we make is supported by our values and our unwavering commitment to safety for our employees, the public, and our communities.

We recognize the impact of our footprint in the communities where we operate. We work hard to minimize these impacts and to ensure development of the province's energy resources continues to be implemented safely. We do this by respecting our accountabilities for responsible environmental stewardship, business excellence, people management, and community growth.

Underpinning this focus on sustainability is an ongoing assessment, measurement, evaluation, and communication of our results and progress. How we do our work today helps us understand how we will meet the needs of tomorrow and the future.

As an energy company, we are acutely aware of our duty to be responsible stewards through the pursuit of excellence in the areas of sustainability and environmental management. Our Sustainable Electricity Company brand designation from the Canadian Electricity

Association demonstrates our commitment to responsible environmental, social, and economic practices and to the principles of sustainable development. As the seventh Canadian electrical utility to receive this award, we are proud of the work we have done to meet the criteria established by the ISO 26000 Guidance on Social Responsibility.

While contributing to a sustainable future for Newfoundland and Labrador, we are also committed to being open, transparent, and meaningful in our communications with our stakeholders.

I look forward to working with the Board of Directors, our exceptional team of employees across the company, and our many diverse partners in the industry and community in the year ahead.

A handwritten signature in blue ink, which appears to read "Stan Marshall". The signature is stylized and fluid, with a large initial "S" and "M".

Stan Marshall  
President and CEO, Nalcor Energy



# ABOUT NALCOR

## WHO WE ARE

At Nalcor Energy, the generation and transmission of electrical power is the foundation of our business. We are committed to providing safe, reliable, and dependable electricity to our utility, industrial, residential, and commercial customers.

Throughout the company, our dedicated people are building a solid foundation for the future and making a difference in our province.

Our number one priority is safety. As we bring our business to the next level, our goal is always achieving excellence in safety performance.

## OUR VISION AND VALUES

Our vision is to develop and manage our energy resources safely and responsibly for the maximum benefit of the people of the province.

Our values shape how we do business every day. We use them to make decisions and interact with our stakeholders. We recognize it is not only what we achieve, but how we achieve it, that truly makes us proud of our accomplishments.

Our core values help us develop a culture based on high standards and expectations. We are empowered to challenge assumptions and to seize new opportunities while realizing our corporate vision.



### OPEN COMMUNICATION

Fostering an environment where information moves freely in a timely manner.

### ACCOUNTABILITY

Holding ourselves responsible for our actions and performance.

### SAFETY

Relentless commitment to protecting ourselves, our colleagues, and our community.

### HONESTY AND TRUST

Being sincere in everything we say and do.

### TEAMWORK

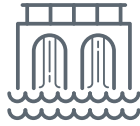
Sharing our ideas in an open and supportive manner to achieve excellence.

### RESPECT AND DIGNITY

Appreciating the individuality of others in our words and actions.

### LEADERSHIP

Empowering individuals to help guide and inspire others.



## LOWER CHURCHILL PROJECT

The lower Churchill River is one of the most attractive hydroelectric resources in North America. Muskrat Falls and Gull Island have a combined capacity of more than 3,000 megawatts. The development of the Muskrat Falls Project includes construction of an 824 megawatt hydroelectric dam and more than 1,600 kilometres of transmission lines that will provide long-term, clean, renewable energy.



## NEWFOUNDLAND AND LABRADOR HYDRO

Hydro manages Newfoundland and Labrador's electricity system. Through generation, transmission, and distribution operations, Hydro is committed to meeting the needs of customers and providing residents, businesses, and communities across the province with safe, reliable power.



## CHURCHILL FALLS

Churchill Falls, with a rate capacity of 5,425 megawatts, is one of the world's largest underground hydroelectric powerhouses. It provides clean, renewable electricity to millions of consumers across North America.



## ENERGY MARKETING

Nalcor actively trades and sells the province's surplus power to customers in external energy markets. The Energy Marketing portfolio includes surplus Churchill Falls recall power, long-term transmission rights, and agreements with Hydro for the provision of external electricity marketing services.



## OIL AND GAS

Nalcor is a partner in the development of Newfoundland and Labrador's offshore including the Hebron oil field, White Rose Growth Project, and Hibernia Southern Extension. With a multi-year exploration strategy, Nalcor is systematically finding and quantifying the province's oil and gas resource potential to facilitate new exploration investments.



## BULL ARM

The Bull Arm Fabrication Site is Atlantic Canada's largest fabrication site. The Site's magnitude, diversity of infrastructure, and strategic location offers a unique opportunity for fabrication, concrete construction, deep water commissioning, marine operations, and supply servicing.

## CODE OF BUSINESS CONDUCT AND ETHICS

At Nalcor, our work environment is based on trust and respect; this means our employees work without fear of intimidation, discrimination, and retaliation and they know they work in a safe, secure, and ethical workplace. Our Code of Business Conduct and Ethics strengthens our commitment to professional and ethical business practices, guiding our board of directors and all of our employees.

We also maintain the highest possible standards of business conduct and ethics in our relationships with all parties with whom we conduct business on either a commercial or non-commercial basis. We expect all employees, officers, and directors of the company, as well as contractors, suppliers, agents, and representatives to:

- conduct themselves in a professional manner at all times; and
- avoid any business practices or conflicts of interest with the potential to be in conflict with the company's core values, impair the reputation of the company, or expose the company to unnecessary financial or other liabilities.

## CORPORATE GOVERNANCE

In the past decade, we have experienced significant transition and growth. As a Crown corporation, Nalcor is accountable to the provincial government (Shareholder) and the people of our province.

The Shareholder has appointed a Board of Directors to oversee the management of the company. The Nalcor Board and the management team understand the importance of sound corporate governance. The board meets regularly with a view of maintaining high standards in corporate governance. There are four committees that meet regularly including Audit, Governance, Safety, Health, Environment and Community, and Human Resources and Compensation.\*

## OUR SUSTAINABILITY JOURNEY

At Nalcor, corporate sustainability is about developing and managing Newfoundland and Labrador's energy resources in the most responsible way. We understand that how we do our work is as important as what we do. Our sustainability strategy aligns with our core values and corporate goals. Our sustainability approach balances safety, environment, business excellence, people, and community, while providing a way to formalize these considerations, demonstrate our performance, and identify opportunities for improvement.

We have taken several steps to formalize our sustainability focus. We started with the Canadian Electricity Association's (CEA) Sustainable Electricity Program which addresses the three components of sustainability—environment, society, and economy—that enables the electricity industry to take a holistic approach to managing its impacts and securing a collective energy future.

In 2018, we developed a Sustainability Policy that embodied how our daily operations impact the communities in which we operate while guiding our overall approach to sustainability. We work each day to minimize our impact and ensure resources are developed in a sustainable way for the maximum benefit of the people of our province.

We are also committed to continually improving our business by providing a timely review of our operating procedures and practices to ensure we can manage and operate Newfoundland and Labrador's natural resources in a sustainable manner.

\* To see Nalcor's full board structure please see the 2018 Annual Report.





## SUSTAINABILITY DESIGNATION

In 2018, we received the Sustainable Electricity Company™ brand designation from the Canadian Electricity Association (CEA), a designation established by the CEA based primarily on ISO 26000 Guidance on Social Responsibility.

Nalcor is the seventh Canadian electrical utility to receive this award, which recognizes significant achievement in sustainability. The brand designation demonstrates our commitment to responsible environmental, social, and economic practices and to the principles of sustainable development. Every five years, a verification audit is completed by the CEA to ensure we uphold the standards and commitments as required.

“ Receiving the CEA Sustainability Brand Designation for our sustainability efforts is an absolute honour and is the result of the dedication and hard work of our employees. This designation will help deepen our unwavering commitment to minimize the impact our work has on communities where we operate, as we develop and manage Newfoundland and Labrador’s rich resources in a way that considers safety, environmental stewardship, and our communities.”



**Sustainable  
Electricity  
Company™**

**Canadian  
Electricity  
Association**

Stan Marshall  
President and CEO, Nalcor

## SUSTAINABILITY GOVERNANCE

In 2017, we created a Nalcor Sustainability Steering Committee to drive the implementation of strategic sustainability initiatives, goals, and targets. Committee members represent each of the five sustainability themes related to: safety and health, environment, business excellence, people, and community.

The Sustainability Steering Committee meets quarterly to review the company’s performance against its goals and targets, with the direction of the Environment and Sustainability Manager and the oversight of the committee members who are responsible for these initiatives.

The committee provides performance reports to the Nalcor senior leadership team at quarterly meetings and to the Safety, Health, Environment, and Community Committee of the Board of Directors.

# Nalcor Energy Sustainability Policy

At the heart of Nalcor's business is our people. We work hard every day for the people of Newfoundland and Labrador. We live and work here because of all our province has to offer and we are committed to being responsible corporate citizens.

Nalcor understands that our daily operations impact the communities in which we operate. We take our responsibility to Newfoundland and Labrador seriously, and work each day to minimize our impact and ensure that we develop our resources in a sustainable way for the maximum benefit of the people of our province.

Nalcor is committed to providing a timely review of sustainable business operating procedures and practices. We commit to track, measure, and report on our performance of the implementation of sustainability practices with a commitment of continual improvement in these areas.

To succeed in our goals, we have committed to demonstrating excellence in the following areas:

- SAFETY AND HEALTH**
- ENVIRONMENT**
- BUSINESS EXCELLENCE**
- PEOPLE**
- COMMUNITY**

To achieve this, Nalcor Energy will:

- Make sustainability a priority.
- Undertake activities and operations in a manner that strikes an appropriate balance between needs of current and future generations.
- Actively encourage economic efficiencies in operations that are consistent with sustainable practices.
- Promote a safe and healthy work environment.
- Consider the life cycle of projects related to Nalcor, including their economic, environmental, and social footprint.
- Establish sustainability indicators to enable accountability, communicate specific goals, and measure progress.
- Prepare and regularly update a sustainability plan with specific goals and objectives.
- Report annually on progress to Nalcor's Board of Directors and all stakeholders.

# Our Sustainability Priorities



## SAFETY AND HEALTH

- Occupational Health and Wellness
- Corporate Emergency Response
- Improving Safety Performance and Safety Culture
- Public Safety



## ENVIRONMENT

- EMS Improvement and Expansion
- Climate Change Mitigation and Adaptation
- Energy Use/Energy Savings
- Renewable Energy in Isolated Communities
- Emission Reduction/Displacement



## BUSINESS EXCELLENCE

- Fiscal Responsibility, Transparency, and Accountability
- Climate Change Risk Assessment of Assets
- Reliability
- Life Cycle Approach to Capital Projects
- Responsible Procurement/Supplier Diversity
- Interconnection with the North American Grid/Electricity Portfolio Growth Plan



## PEOPLE

- Diversity and Inclusion
- Employee Engagement
- Attraction and Retention



## COMMUNITY

- Community Investment Program
- Economic Impact
- Customer Satisfaction
- Stakeholder Engagement and Indigenous Partnerships



# SAFETY & HEALTH

## PRIORITIES

- Occupational Health and Wellness
- Corporate Emergency Response
- Improving Safety Performance and Safety Culture
- Public Safety



We recognize safety never stops. There is always more to learn and more to do. The families of our employees rely on us to ensure their loved ones make it home safely. The communities in which we operate have the right to believe our work is always done with their safety top of mind. It is our duty to look out for the safety and well-being of ourselves and our colleagues.



A clear and focused safety vision for our safety-focused work culture



We implemented a new Mental Health Strategy and Psychological Health and Safety Policy



Zero lost-time injuries maintained in several areas



More than an **18%** increase in the number of safety observations and commendations reported in our Safe Workplace Observation Program



Powerline safety education and awareness programs



## OCCUPATIONAL HEALTH AND WELLNESS

At Nalcor, nothing is more important than the safety of our employees, customers, contractors, and the public. Our commitment to safety excellence is embedded in our policies, practices, and how we communicate with one another.

Our safety excellence framework ensures safety initiatives are built on leadership, technically sound and best-in-class safety processes, procedures and equipment, competence, supportive culture, union-management alignment, responsibility, and reporting. Our safety and health activities are managed within a safety management system that follows the ISO 45001 standard.

A clear and focused safety vision inspires and supports our safety-focused work culture. It guides us in everything we do. The physical and psychological health and safety of our employees are key drivers



of our success and we are committed to providing a positive working environment where consideration for the mental well-being of our employees is woven into the fabric of our organization.

As we move forward on our journey to safety excellence, we will embrace every opportunity for continuous improvement. We will focus on the high risk areas and our top trending injuries while ensuring we take a holistic view of employee safety—considering not only the physical safety of our employees, but also their mental well-being.

To support this, in 2018 we implemented a new Mental Health Strategy and Psychological Health and Safety Policy.

The new policy sets our guiding principles and approach to mental health as an organization. Our Mental Health Strategy helps promote a workplace where employees can be healthy, productive and successful—an environment in which our employees are comfortable talking about mental health and are encouraged to reach out if they need assistance.



We have undertaken various initiatives to help achieve a psychologically safe workplace for our employees, including education and awareness programs, wellness and health promotions, and mental health training such as The Working Mind and Mental Health First Aid.

In the coming years, we are planning more initiatives, such as conducting a hazard assessment of psychosocial risk factors, establishing a working committee to address the identified risks, and reviewing existing policies and procedures to ensure the protection of psychological health is considered.

In addition to our mental health initiatives, many of our employees participated in our Wellness Works program. This program provides employees with a variety of tools and services to support health and wellness including reimbursement of costs associated with physical activities, flu shot clinics, massage therapy, and smoking cessation.

### RAISING FUNDS FOR MENTAL HEALTH PROGRAMMING IN THE PROVINCE

On June 24<sup>th</sup>, employees from Nalcor and Hydro Safety and Health teams participated in the Canadian Mental Health Association's Ride Don't Hide event in Paradise. Through its fundraising efforts, the team raised over \$2,000 in support of mental health and addictions programs and services in communities, workplaces, and schools throughout Newfoundland and Labrador.

“One-in-five Canadians will suffer from mental illness in their lifetime; this means close to 300 of our employees are affected by a mental health illness. We thank each and every employee who took the time to support our team.”

Tina Murphy, Occupational Health and Hygiene Lead, Nalcor.



## CORPORATE EMERGENCY RESPONSE

Ensuring the safety and well-being of our employees, contractors, and the public is a priority for Nalcor and Hydro. We have an established Corporate Emergency Response Plan (CERP) which allows us to respond quickly and effectively in case of emergency.

To support our CERP team, we created a schedule of exercises to test team preparedness, response, and our corporate crisis communications team has initiated training using the Incident Command System (ICS). ICS is a standardized approach to the

command, control, and coordinated emergency response by providing a common hierarchy within which responders from multiple agencies can be effective.

Approximately 30 Hydro staff took part in I-100, 200, and 300 training levels over a five day period. The intensive program included classroom learning and exercises to prepare teams to respond to emergencies. Next, we will initiate executive training and complete additional simulation exercises using the ICS program.



## IMPROVING SAFETY PERFORMANCE AND SAFETY CULTURE

We have a clear and focused safety vision. We have a goal of achieving world-class safety and an injury free workplace. This is a responsibility that lies with every single person in the organization from senior leadership to frontline employees.



To improve, achieve, and sustain best-in-class safety performance, we monitor and manage our safety and health programs, processes, and procedures to ensure continual improvement while taking a personal and proactive approach to incident prevention.

Our safety culture rests on a foundation of open reporting through our Safe Workplace Observation Program (SWOP). Our employees see reporting as a tool that helps drive continuous improvement. In 2018, there was more than an 18 per cent increase in the number of safety observations and commendations entered in the SWOP database. Employees recorded more than 9,000 observations, providing continuous learning and improvement opportunities across our operations.

Through our collective efforts, hard work, and ongoing commitment, we continue to see improvements in our safety performance, with many of our operations sustaining zero lost-time injuries over extended periods of time. As we continue to move forward on our journey to safety excellence, we will embrace every opportunity for continuous improvement.



### EDUCATION AND AWARENESS

In 2018, we continued the roll-out of a multi-year strategic education plan focused on increasing awareness and prevention of our top trending incidents and injuries. Materials, including safety moments, news articles, posters, and information sessions were released throughout the year relating to: slips, trips and falls, hand-related injuries, strains and sprains, new and young workers, and driving and vehicle safety.

Throughout 2018, we also continued to engage employees in safety and health events such as North American Occupational Health and Safety Week and our annual Safety Summit. The Summit is a one-day event bringing employees together from all lines of business across the province to collectively learn, discuss, and engage in safety and health-related topics that are important to our pursuit of safety excellence.

## PUBLIC SAFETY

While ensuring the safety of our employees is our number one goal, we never lose sight of the importance of public safety around our facilities and infrastructure. In 2018, safety communications aimed at enhancing contractor and public safety continued to be a key priority.

Working in partnership with Newfoundland Power, Service NL, the Newfoundland and Labrador Construction Safety Association, and Workplace NL, we continue to educate and raise awareness about powerline safety and the dangers associated with working around powerlines.

Our power line safety public awareness activities continue to focus on: snowmobile or ATV use near lines and guy wires, potential line contacts by heavy equipment operators, and hazards surrounding residential digging or tree trimming.

### ENSURING PUBLIC SAFETY AROUND DAMS

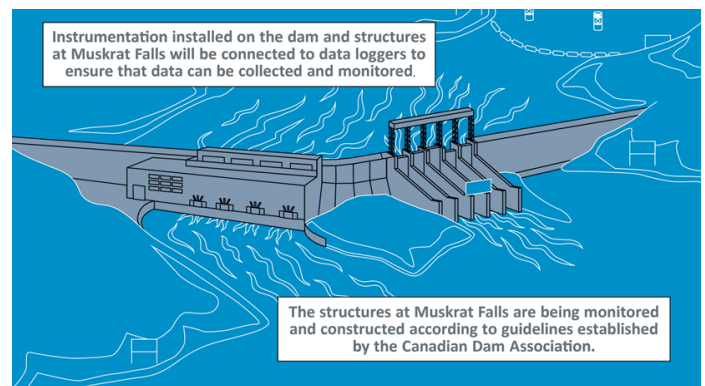
Dam safety is a priority for Nalcor, Hydro, and Power Supply. We have an experienced team in place to ensure the safety of the people who live close to our facilities. We have experience maintaining and operating more than 125 hydro dams and facilities across the island and more than 100 in Labrador.

We ensure the safety of our dams by following the Canadian Dam Association guidelines. We assess our dams regularly for safety risks. We complete engineering and routine inspections, stability analyses, and planning for maintenance and capital expenditures. We also issue public notices and conduct community engagement events throughout the province to improve awareness about our dams and the associated safety hazards.

We have an active Dam Safety Program that includes detailed inspections, monitoring, and analysis for the entire life of the facilities, as well as instrumentation for monitoring dam performance. We regularly perform dam safety reviews and we have emergency preparedness plans completed for structures with a resident population downstream of our structures. We are committed to ensuring the public is aware of the importance of being safe around our hydro facilities.

Throughout the year, we provided operational and safety updates to our stakeholders advising of potential dangers around each facility. We regularly publish stakeholder updates focused on project information and public safety advisories, such as changing water levels. These updates are also shared via email, Twitter, Facebook, and the Project's website.

In addition to stakeholder updates, several Emergency Preparedness meetings have taken place over the past year in various Labrador communities as well as island communities affected by the operation of our facilities. In particular, in 2018, we worked with municipalities in the Upper Lake Melville area to assist them in the development of a regional early warning system. This system is used to inform local residents about potential emergency situations in the community. In addition, working with residents from Mud Lake, we assisted the community with the development and implementation of an emergency response plan.



We also work closely with various provincial government departments to share information on topics such as water levels, water flows, and ice conditions.



We are fortunate to live and work in a province with an abundance of natural resources and pristine land. Recognizing this, our employees understand the importance of finding ways to minimize our environmental footprint, tackle climate change, and inspire others to do the same.

# ENVIRONMENT

## PRIORITIES

- Environmental Management System Improvement and Expansion
- Climate Change Mitigation and Adaptation
- Energy Use and Energy Savings
- Renewable Energy in Isolated Communities
- Emission Reduction and Displacement



We achieved **98%** of our environmental targets



Key areas of the business achieved ISO 14001:2015 registration



Clear focus and commitment to climate change mitigation and adaptation



10 energy efficiency upgrades completed for commercial customers located in isolated diesel communities



Achieved significant emission reductions





## ENVIRONMENTAL MANAGEMENT SYSTEM IMPROVEMENT AND EXPANSION

Every day, through the safe and responsible use of our province's energy resources, our employees across the province help sustain a diverse and healthy environment for Newfoundlanders and Labradorians.



One way we accomplish this is through our Corporate Environmental Management System (EMS). This system helps us develop environmental targets, goals, objectives, and plans to ensure we maintain a high level of environmental compliance, responsibility, and performance.

**IN 2018, WE COMPLETED 98% OF OUR ENVIRONMENTAL TARGETS.**

This year, Nalcor, Hydro, and Power Supply achieved ISO 14001:2015 registration, including registration of Power Supply Engineering, Menihek, and Exploits. The transition to the new version of the ISO 14001:2015 is a huge accomplishment, given the changes required to both elements of the standard, as well as to the commitments we are required to demonstrate. The new standard allows for more flexibility and integration into core business processes. It also allows for easier integration of other ISO standards such as the ISO 9001 or ISO 45001. The transition of the ISO 14001:2015 to the new standard includes four key changes. These are:

- increasing the prominence of environmental management within the organization's strategic planning processes;
- focusing more on leadership;
- adding proactive initiatives to protect the environment from harm and degradation, such as sustainable resource use and climate change mitigation; and

- adding improved environmental performance through a life cycle perspective when considering environmental aspects.

Through effective and efficient environmental management, we expect to see improved relationships with interested parties and stakeholders.

These key changes in the standard have also led to the incorporation of new concepts for environmental management. With the new standard, we can explore the risks and threats to our EMS as well as any opportunities. These efforts will enable us to realize our goal—becoming an environmental leader in the energy and utility sector.

### REDUCING LIGHT POLLUTION MAKES A DIFFERENCE TO TINY SEABIRDS

Protecting our environment and its wildlife is important. In 2018, we took steps to reduce the impact of our terminal station infrastructure in Soldiers Pond on Leach's Storm-Petrels (*Oceanodroma leucorhoa*). Given their size, Storm-Petrels are easy prey. To protect themselves from predation, they are only active at night when on land. These small birds are attracted to light, particularly on foggy nights, and they can crash into buildings with lighted areas. They are most attracted to light at the end of the breeding season

when adults and newly fledged chicks leave their colonies to migrate to their offshore wintering grounds. Our employees reduced any unnecessary lighting around the site, changed the angle on lighting to reduce any upward glow, and carried out searches for stranded birds and released them back to the ocean.



Above: Leach's Storm-Petrels are dark brown in colour with a conspicuous white patch at the base of the tail.



## CLIMATE CHANGE MITIGATION AND ADAPTATION

The Earth's dynamic climate has changed significantly over the last several decades. The results of the scientific community are widely accepted and it is recognized that emissions from industrial and daily living activities are resulting in climate change.

Global mitigation efforts are underway to curb greenhouse gas emissions, but unless concerted action happens soon, further and more extreme changes may become unavoidable. As a company, we must take action today to make a positive and lasting impact on the effects of climate change, not only here in Newfoundland and Labrador, but also globally.

The Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change, suggests the electricity sector is one of the sectors most at risk of disruption from climate change. As a large scale utility responsible for the generation, transmission, and distribution of electrical power, we play a key role in climate change mitigation and adaptation. In 2017, in recognition of our role and responsibility, we formed a Climate Change Mitigation and Adaptation Working Group, a multi-disciplinary group representing various lines of business within the organization. Its purpose is to form a centre of knowledge, to share internal and external initiatives, and to influence the organization to integrate climate change adaptation into planning.

In 2018, the working group developed an approach for the assessment of current and future opportunities and implemented an inventory of current risk mitigation strategies. The committee also identified training opportunities and has actively engaged with the provincial Office of Climate Change



to collaborate on issues related to climate change mitigation and adaptation.

Specific initiatives related to climate change mitigation and adaptation are detailed in the following sections of this report, including: energy use and savings, renewable energy in isolated communities, emissions reduction, and climate change risk assessments of our assets. These are examples of projects we undertook in response to current opportunities and vulnerabilities and how we have incorporated climate change considerations into our planning process, as well as in our new facilities.

Our 2019 focus will be to develop a more comprehensive and proactive risk mitigation strategy and incorporate it into our corporate planning processes.

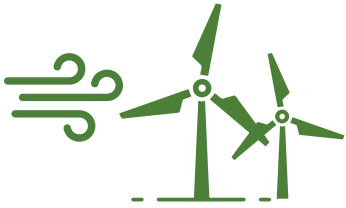


## ENERGY USE AND ENERGY SAVINGS

### CUSTOMER CONSERVATION PROGRAMS

Through the Isolated Systems Business Efficiency Program, Hydro promotes energy efficiency upgrades to commercial customers located in these communities. The high cost of generation in isolated diesel communities provides an opportunity for Hydro to implement energy efficiency programs specific to these areas. This program provides support and financial incentives for a wide range of energy saving projects.

In 2018, 58 site visits were completed, resulting in 10 completed projects. These projects included the installation of LED lighting in fish plants as well as mini-split heat pumps and insulation in office buildings throughout the province. The projects received more than \$60,000 in incentives paid to the customers and resulted in 205 MWh of annual energy savings. Opportunities identified in 2018 will continue to lead to savings for customers in the future.



## RENEWABLE ENERGY IN ISOLATED COMMUNITIES

### INTEGRATION OF RENEWABLE ENERGY

Hydro is currently partnering with the Nunatsiavut government to access funds under the Federal Government's Clean Energy for Rural and Remote Communities program to deploy a smart grid system in an isolated community currently supplied by diesel generation. This proposal involves constructing wind and solar generation sources and connecting them to the existing diesel plant through a grid controller. Smart metering would be installed to study load control and fuel reduction. This initiative would reduce the amount of diesel fuel consumed per kWh of

electricity required by the community. This measure is currently tracked as kWh of electricity produced per litre of fuel consumed and has remained relatively stable in the past several years.

At Hydro, we know our customers are counting on us to provide reliable power that balances cost. We remain committed to reducing reliance on diesel generation in the isolated communities we serve and this project is one step toward that. We will continue to explore viable options for renewable energy in these communities.

### HYDRO PLACE GO GREEN TEAM RECOGNIZED FOR KEEPING ST. JOHN'S CLEAN AND BEAUTIFUL



Above: Tracey Kane and Michelle Roche, Environment Team members.

At the City of St. John's Council Meeting December 3, members of the Hydro Place Go Green Team accepted the Clean St. John's Golden Broom Corporate Award for the Go Green Challenge.

The Golden Broom Awards are an initiative of Clean St. John's, a not-for-profit committed to inspiring community pride and action for a clean and beautiful St. John's. The Corporate Award is presented to a St. John's company that raises environmental awareness within the community and promotes and participates in environmental and clean-up activities.

The Go Green Team at Hydro Place started the Go Green Challenge in 2015 in an effort to provide opportunities for employees to participate in environmental activities and events.

### Over the last three years, the Go Green Team and Hydro Place employees have:

- Supported 17 local organizations and charities through recycling initiatives, clothing and furniture upcycling, and community clean-up programs.
- Diverted over 2,000 pounds of organic waste from the landfill through an employee led composting program.
- Planted an onsite vegetable garden.
- Promoted education and volunteer opportunities with Conservation Corps and Canadian Parks and Wilderness Society (CPAWS).
- Educated employees on sustainable living practices, while promoting local and national "green" companies.



Above: Environment Team members.



## EMISSION REDUCTION AND DISPLACEMENT

### GHG MANAGEMENT PLAN

In 2016, the Government of Canada, along with many provinces and territories, agreed to the Pan-Canadian Framework on Clean Growth and Climate Change to meet the greenhouse gas (GHG) emissions reduction target and grow the economy. A key component of the framework is to establish a price on carbon pollution resulting from GHG emissions. Some provinces have introduced their own carbon pricing systems. In the provinces that do not set their own carbon pollution pricing systems, the federal option will apply.

We are prepared for the upcoming provincial carbon pricing plan, and completed a 2018 EMS target to develop our own GHG Management Strategy. To achieve the target we identified the need to:

- develop an inventory of the GHG emissions for Hydro's thermal generating facilities and compile applicable federal and provincial reports as required; and
- carry out a review of the carbon pricing system and assess impact.

In 2018, we completed and submitted all applicable GHG regulatory reports by the prescribed regulatory dates. The Government of Newfoundland and Labrador released their provincial carbon plan in the fourth quarter of 2018. Hydro met with the government in November to learn more and ask specific questions related to the plan. The government

has assigned performance-based standards on two of Hydro's facilities—Holyrood and the Holyrood Gas Turbine—that meet the GHG thresholds for large industry.

Once the Muskrat Falls Generating Station comes online, the key driver for GHG reduction at Hydro will be the retirement of thermal generating assets. These changes to our system will allow Hydro to generate carbon credits, which in turn opens a new revenue stream for the company.

A key focus for 2019 will be to identify stakeholders in the GHG credit market and investigate the revenue opportunities through credit sales.

### EMISSION REDUCTION

In 2018, we reduced our carbon dioxide equivalent emissions by approximately 33 per cent compared to 2017. Nitric oxide emissions were reduced by approximately 29 per cent, while sulfur dioxide emissions were reduced by approximately 32 per cent. We reduced the operations at our Holyrood Thermal Generating Station due to higher than anticipated unavailability of units during the 2018 winter season, which also coincides with our highest system energy requirements. We further reduced production on an economic basis by using hydraulic generation and economic market purchases to offset thermal production that would otherwise have been required.



### CHURCHILL FALLS ELECTRIC CAR

In May 2018, staff in Churchill Falls began an 18-month electric car pilot program. The program looks at the viability of electric vehicles, particularly where winters are long and temperatures can drop to minus 40°C. During the trial, the Town Manager for Churchill Falls is using the vehicle to test mileage and costs of operation and maintenance in comparison to gas-powered vehicles.

Our goal is to ensure we develop a feasible, environmentally-friendly vehicle system. The pilot program explores light vehicles for site work and regional travel. While it does not include heavy-duty work tasks that require pick-up trucks and specialty vehicles, we are looking at exploring the use of hybrids in the future for the larger fleet needs.

A photograph of two women in safety gear standing by a rocky stream in a forest. The woman in the foreground is wearing a white t-shirt, a high-visibility yellow safety vest with reflective stripes, and sunglasses. She is smiling and holding a long, thin stick. The woman in the background is wearing a green t-shirt, a high-visibility yellow safety vest, and a backpack. She is also smiling and holding a smartphone. The stream flows over rocks, and the background is filled with lush green trees and vegetation.

**WE TAKE OUR  
RESPONSIBILITY AS  
ENVIRONMENTAL  
STEWARDS SERIOUSLY  
AS WE CONTINUE  
THE RESPONSIBLE  
DEVELOPMENT OF OUR  
ENERGY RESOURCES.**

# BUSINESS EXCELLENCE

## PRIORITIES

- Fiscal Responsibility, Transparency, and Accountability
- Climate Change Risk Assessment of Assets
- Reliability
- Lifecycle Approach to Capital Projects
- Responsible Procurement and Supplier Diversity
- Interconnection with the North American Grid
- Portfolio Growth Plan



Understand the importance of accountability and transparency



Operate responsibly and manage costs



Create and implement proactive plans to adapt to climate change



Invest responsibly to maintain our electricity assets throughout the province



Integration of renewable energy—history was made with the flow of power from Churchill Falls to the island



High business standards to ensure we are guided by our need to provide the best total value when we purchase goods and services



Pursue opportunities to optimize the value of the province's surplus electricity by actively participating in energy markets in eastern Canada and the United States

We are committed to safely and responsibly developing and managing our natural resources in the best interest of the people of the province. Our employees share a set of values that shape how we do business every day. We recognize that it is not only what we achieve, but how we achieve it, that truly makes us proud of our accomplishments.



## FISCAL RESPONSIBILITY, TRANSPARENCY, AND ACCOUNTABILITY

We believe sharing information is an important part of openly engaging the public and creating a broader understanding of our core businesses and operations. We understand the importance of accountability and transparency to the citizens of this province and we are committed to being open, transparent, and accountable across our operations.

Through our reporting processes and procedures, we ensure accountability and provide due diligence and oversight. As part of our regular business operations, we report to the public, government, and stakeholders through various means such as formal reports, a public annual general meeting, responses to public requests for information, public information sessions, open houses, and presentations offered throughout the province.

We continue our commitment to public accountability through the following government departments and regulatory processes:

- A presentation of the capital and operating budgets to the Premier and Ministers of Natural Resources and Finance and senior government officials for review and approval.
- As a regulated utility, Hydro's expenditures and investments are

subject to full oversight and approval by the Board of Commissioners of Public Utilities (PUB).

- The PUB requires Hydro to submit quarterly and annual reports and comply with rigorous reporting.
- The government has the power to audit Nalcor and its processes and the Auditor General has open access to the company.
- Nalcor produces an annual Transparency and Accountability Report, a Strategic Plan, and an Annual Report.

Nalcor is committed to openness and transparency. During 2018, we responded to almost 100 requests for information under the Access to Information and Protection of Privacy Act.

As part of our commitment to managing costs, in 2018, we carried out a comprehensive, third-party review of our non-union compensation framework, including an external market assessment. We carry out compensation reviews regularly to make sure we remain consistent with industry best practice and to ensure our framework is structured to attract and retain a skilled workforce while supporting internal equity and fiscal responsibility.



### HYDRO'S RESPONSIBILITY AS A REGULATED UTILITY

Hydro has always been committed to building and strengthening our commitment to reliability and safety. As a public utility owned by the people of the province, Nalcor also has an obligation to operate responsibly and manage costs. Over the past couple of years, we have a renewed, dedicated effort to increase efficiency and productivity. We have focused on finding quality improvements, streamlining processes, and reducing operating costs where possible. Whether the impact is big or small, this initiative will continue as we keep our sights trained on finding newer, better, more efficient ways of doing things, and ultimately, providing better service to our customers.



### ETHICSLINE 24/7 EMPLOYEE REPORTING TOOL

Our corporate values are reflected in the company policies and procedures that guide the way we do our work every day. Ethicsline is an online tool available to all employees who have information about the violation of a company policy or procedure, or illegal activity impacting the company. It is a fully confidential and secure way to make a report. When a violation of policies and procedures happens, it's important to report it immediately.



## CLIMATE CHANGE RISK ASSESSMENT OF ASSETS

Adapting to climate change means understanding the impacts of change and what we will likely experience in the future, and creating proactive plans to take advantage of opportunities and avoid and prepare for impacts. Several initiatives are currently being undertaken to improve climate resiliency, including:

- inclusion of climate change adaptation into our long-term asset management by studying areas that have had multiple weather-related failures and developing a plan for storm hardening in areas seeing higher occurrences and strength of wind and weather conditions;
- remote operations installation at our Salmon River Spillway;
- rerouting sections of two transmission lines (226 and 239), that are next to a stream that eroded due to increased precipitation; and
- consideration of potential sea level rise in the design of the Labrador-Island-Link grounding stations.

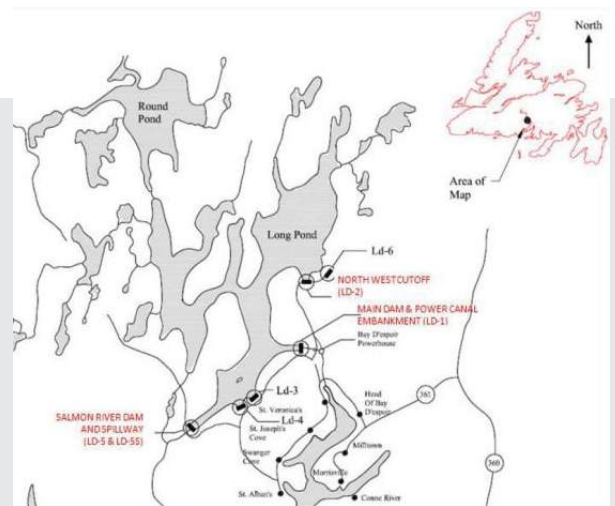
### SUSTAINABILITY IN ACTION: INSTALLATION OF REMOTE OPERATIONS FOR THE SALMON RIVER SPILLWAY

The Salmon River Spillway provides protection for the Long Pond Reservoir in Bay d'Espoir. The spillway releases water in a controlled manner to prevent the failure of the Long Pond Reservoir during periods of high water inflows. Currently, the Salmon River Spillway gates are manually operated in order to release water from the reservoir.

In recent years, the number of times the Bay d'Espoir Salmon River Spillway control gates had to be opened to spill water has increased. In October 2016, during Hurricane Matthew, the volume of water caused an increase in the reservoir level, putting the structure at risk. During the storm, our employees could not travel to the spillway structure to open the gates as the storm made the road impassable. High wind conditions during the storm prevented the use of helicopters. These types of events increase the risk that access is not available via helicopter or road, and flood waters could compromise the reservoir containment system.

Changes in system operation, climate, and system-wide water management contribute to increases in reservoir levels and the likelihood of a spill. Prior to 2016 and Hurricane Igor, our employees carried out manual spilling at the Bay d'Espoir Salmon River without incident. However, as the need for spilling increases and the frequency of extreme weather events grows, so does the likelihood of these two events coinciding.

We proposed a project to install remote control capabilities at the spillway. Being able to control the Salmon Spillway gates remotely means we can ensure the safe and reliable operation of the spillway even when our employees are unable to travel to the site. This approach has been approved and will be implemented in 2019.



Top to Bottom: Long Pond Reservoir, Salmon River Spillway, road wash out resulting from Hurricane Igor.





## RELIABILITY

We invest responsibly to maintain our electricity assets throughout the province and to ensure we are in a position to serve our customers reliably. We focus on balancing our customers' need for reliability with our responsibility to be strategic and cost-effective in planning and decision making.

### PLANNING AHEAD FOR FUTURE RELIABILITY

In 2018, Hydro completed and submitted its Reliability and Resource Adequacy Study to the Board of Commissioners of Public Utilities. The study addressed both the near-term and longer-term approaches to ensure electricity customers in Newfoundland and Labrador continue to receive least-cost, reliable service into the future. Preparing for future electrical system growth is complex and our objective will always be to strike an appropriate balance between investing in reliability and managing costs to our customers.



One of many influencing factors in this process is the fact that the province's electricity system is changing. For the first time, the island and Labrador networks will be tied together and fully interconnected to the North American grid. This changing reality means we must shift how we operate and plan for system requirements. The integrated system will be the foundation of our planning in the future.

Included in Hydro's reliability study was a comprehensive resource plan that considers a range of possible scenarios over a 10-year planning horizon (2019–2028). The study took into account a number of critical inputs, including Hydro's existing assets and retirements, the provincial economic outlook, and customers' expectations regarding reliability and cost.

The various options considered as part of the resource planning study included generation sources that are more conventional to Newfoundland and Labrador (such as installing more gas turbines and building new hydro plants, or expanding existing ones) as well as newer alternatives like wind and solar. It also

considered other solutions, such as capacity assistance, external market purchases, customer demand management, and time-of-use rates.

### INTEGRATION OF RENEWABLE ENERGY: MAKING CONNECTIONS TO POWER OUR PROVINCE

The Labrador-Island Transmission Link (LIL) stretches over a thousand kilometres across rugged terrain and along the sea floor to connect Newfoundland and Labrador for the first time. It was the most complex transmission project in our province's history.

Moving from construction completion in 2017 to energization in 2018, we have transformed our electricity system. Our project team, along with our trades people, contractors, unions, partners, and communities, have built a transmission network and integrated new assets and technology into existing infrastructure and systems.

In June 2018, we gathered at Soldiers Pond to recognize the initial flow of electricity from Labrador to the island. For the first time in history, power flowed from the existing Churchill Falls Generating Station to the island, marking a significant step toward bringing our new transmission assets into service.

We can deliver another reliable source of power to the people of our province while providing additional options to bring power to the island, thus reducing our reliance on burning fuel.

This accomplishment is a testament to the competence and commitment of all those involved in the Transmission Link Project. Our diverse team of skilled individuals worked through rough, remote areas and harsh weather conditions to construct, energize, and safely integrate our new transmission infrastructure.

We have come a long way and we have covered a lot of ground. We are working hard to finish the work needed to fully commission the new transmission system with safety, quality, and the environment at the forefront.

Once the Muskrat Falls Generating Station is in service, LIL will deliver the power generated at this facility to the island. At that time, our province will be served by 98 per cent renewable energy.

## CHURCHILL FALLS GENERATING FACILITY RUNNER REPLACEMENT



The Churchill Falls Generating Station is one of the largest underground hydroelectric powerhouses in the world. It has 11 turbines that have been safely producing and delivering 5,428 megawatts of clean, renewable energy for nearly half a century. Our employees' dedication to safety and operational excellence will drive the successful delivery of safe, reliable power every day for another 50 years and more from this world-class facility. Maintaining this massive operation requires sound asset management practices and long-term planning to ensure our assets remain strong, reliable, and operate safely year after year.

Through strong asset management practices and long-term planning, Churchill Falls has safely and successfully executed various refurbishments, replacements, and upgrades to infrastructure over the years, and 2018 marks one of the biggest jobs yet—generating Unit 3's runner replacement. The runner is the bottom section of the generating unit. It is here where the forces of running water cause the runner to spin at 200 revolutions per minute, driving the connected rotor to also spin

at the same speed, creating electricity via a magnetic field. This component of the generating unit was identified for replacement through regular onsite condition assessments, which are ongoing for all assets at Churchill Falls.

The management and planning of this massive undertaking was three years in the making—from engineering design development in Montreal to final construction in Mexico. On April 29, the 80,000 kilogram and nearly 20 metres in diameter runner arrived at Churchill Falls to begin its approximate six month installation process. On November 4, the installation was complete and the new runner became operational.

## IMPROVING EFFICIENCY AND RELIABILITY AT OUR GENERATING FACILITIES

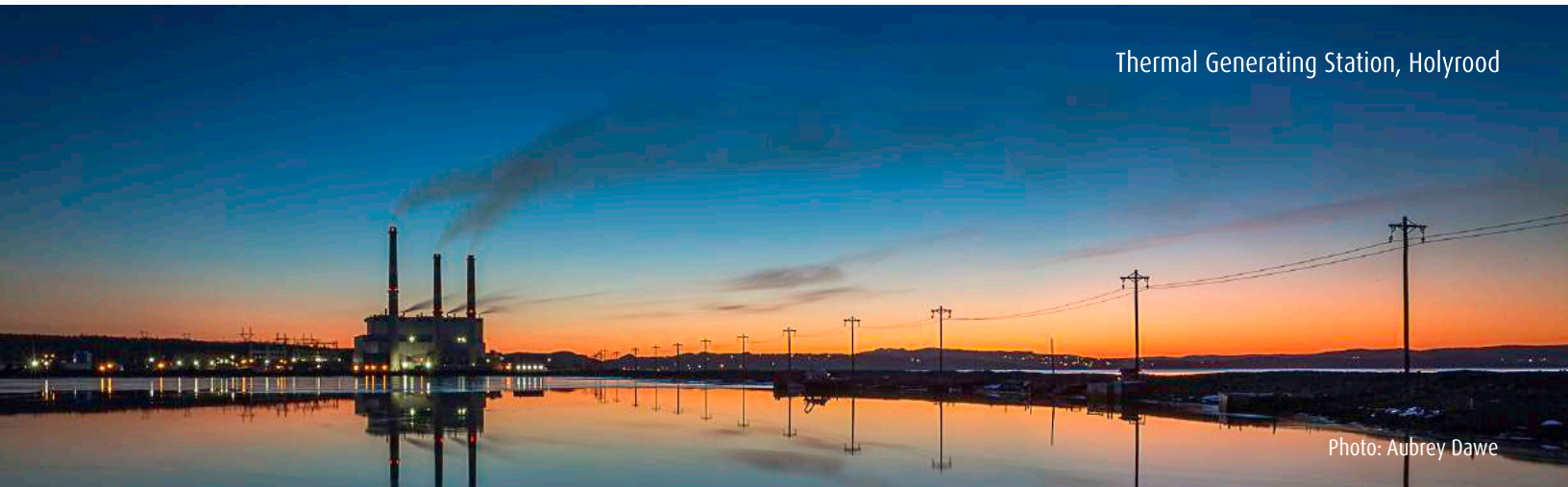
Hydro continued to carry out refurbishment projects at our hydraulic generation facilities in 2018. Substantial work was done to repair and refurbish penstocks at the Bay d'Espoir Hydroelectric Generating Plant.

Turbine and generator overhauls were also completed at the Bay d'Espoir and Cat Arm plants and refurbishments of the control structures were carried out at Bay d'Espoir and Hinds Lake.

At the thermal generating station in Holyrood, a unit condition assessment and upgrades were conducted, resulting in enhanced reliability from the facility.

Equipment upgrades were also carried out in remote diesel locations, including Makkovik and Port Hope Simpson, and scheduled diesel engine overhauls were completed for several plants. These projects help ensure these key facilities continue to operate efficiently and reliably.

Thermal Generating Station, Holyrood



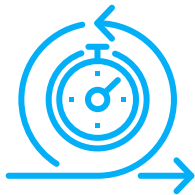
## GRAND FALLS MAIN DAM REHABILITATION

This year saw the completion of a multi-year project to rehabilitate and modernize the more than 100-year-old main dam in Grand Falls-Windsor. The project included reinforcement of the existing structure and installation of a new inflatable spillway.

Throughout the 2018 fishing season, there was careful oversight and effort taken to ensure that dam construction activities did not negatively impact the annual salmon run.

Hydro continues to be a close partner in the stewardship of the Exploits River and the Atlantic salmon run.

The new upgrades further stabilize the dam, improve flood handling capability and facilitate fish passage. The project extends the operating life of the dam by 50 years, ensuring the safe and reliable operation of the hydroelectric facilities well into the future.



## LIFE CYCLE APPROACH TO CAPITAL PROJECTS

As part of Nalcor's ISO 14001:2015 certified EMS, we consider a life cycle approach in all environmental aspects of our business. Through a review of each stage of an environmental aspect, we identify where we may have the most control and influence over our environmental impact. The stages of an environmental aspect include acquisition of materials, design, procurement, production, transportation, use and end of life treatment or disposal. We take this approach to ensure environmental impacts at one stage are not being shifted to other stages of the life cycle where we may not have the same control or influence. It is at this identified stage in the life cycle where we can prevent and mitigate adverse environmental impacts effectively.

We also apply a life cycle approach to evaluating our policies and procedures to ensure we are adequately addressing life cycle in our operational planning and management of contracts. We use Environmental Management Plans (EMPs) to address and communicate the three key parameters in a life cycle perspective. These key parameters include the scope of the aspect and its significance, the control or influence we may have, and if there are any internal or external interests in potential environmental impacts.

The life cycle perspective has been applied to many areas of our operations, including the 6.9kV power cable replacement at our Menihek Generating Station, which included the identification of hazardous waste. After completing our life cycle evaluation, we identified that the most control and influence was during the end-of-life treatment and disposal. We developed an EMP to ensure all steps were developed and specific personnel were



identified to ensure proper removal, handling and disposal, and mitigation of any adverse environmental impacts.

Applying a life cycle perspective provides benefits throughout all facets of our business, including a better understanding of our environmental impacts beyond our organization's boundaries and of our stakeholder interests. It also improves purchasing process and supply chain management, all while improving our company's environmental performance. Taking a life cycle approach also encourages longer term planning, more informed decision making, and better understanding of the broader impacts we have on the environment throughout each and every stage of a project.



## RESPONSIBLE PROCUREMENT AND SUPPLIER DIVERSITY

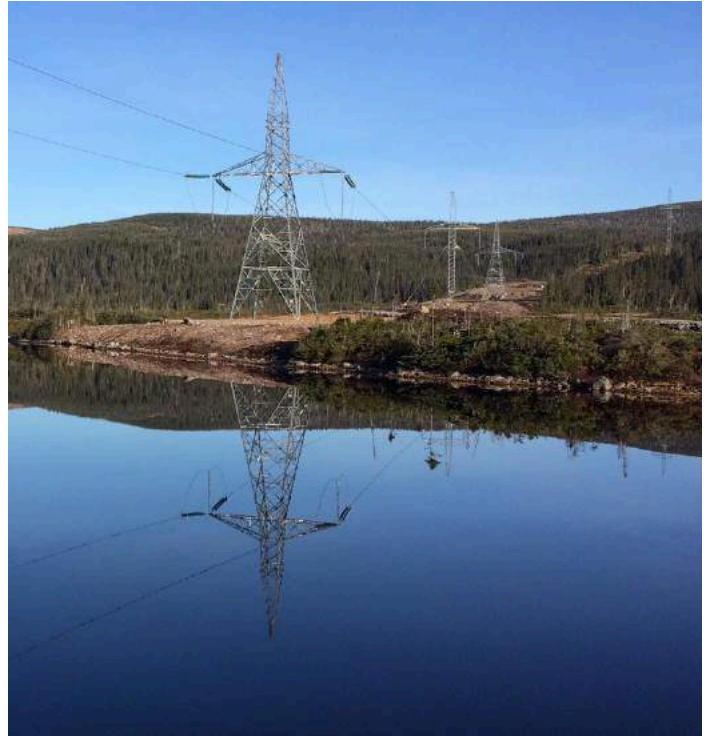
We purchase products and services in a competitive and cost efficient manner, consistent with good business practices, and within the legislation of the Public Tender Act. We ensure that effective procurement practices, systems, and processes exist within the company. Supply Chain Management personnel also manage inventories and disposal of assets. We maintain the highest business standards and ensure that when we purchase goods and services, we are guided by our need to provide the best value for the people of Newfoundland and Labrador.

Nalcor is committed to supplier diversity and encourages the participation of companies owned and operated by women, Indigenous people, persons with disabilities, and members of visible minorities.

Supply Chain Management is the primary contact point for all vendors. The team sources, approves, develops, and monitors all vendors used by Nalcor. We promote and practice a total value analysis in the evaluation of bids, which considers such factors as safety, cost, quality, service, delivery, environmental, innovation, and local content. Nalcor is actively involved in vendor partnerships and long-term agreements, moving toward integrated supply agreements and electronic procurement for specific product and service groups.

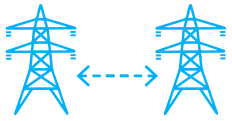
In 2018, we reached out to our vendors to promote sustainability via a letter and survey. We informed vendors of our Sustainability Strategy and ongoing work to be a sustainable energy company.

As part of our ongoing commitment, we asked suppliers and contractors to share their sustainability practices through an



online survey to help build and improve upon our Sustainability Strategy. We encouraged contractors and suppliers to implement sustainable business practices and welcomed them to meet with us to discuss our programs and policies and to share their sustainability goals and successes. We strive to continually improve as a sustainable energy company and are working with our stakeholders to that end.





## INTERCONNECTION WITH THE NORTH AMERICAN GRID AND ELECTRICITY PORTFOLIO

Our Energy Marketing line of business pursues opportunities to optimize the value of the province's surplus electricity by actively participating in energy markets in eastern Canada and the United States. In keeping with this objective, 96 per cent of available recapture energy was delivered to market in 2018.

**APPROXIMATELY 1.6 TERAWATT HOURS OF RECAPTURE ENERGY FROM CHURCHILL FALLS WAS SOLD TO CUSTOMERS IN NEW YORK, NEW ENGLAND, ONTARIO, AND THE MARITIMES RESULTING IN REVENUES OF \$58 MILLION.**

In June, the first flow of electricity from the existing Churchill Falls Generating Station in Labrador, over the Labrador-Island Link, to the island took place. The Energy Marketing team, along with Hydro Production, worked together to maximize the transfer of low-cost recapture energy to the island for Hydro's customers. Since June, low-cost energy from Churchill Falls has been put to good use on the island, increasing hydraulic energy stores and displacing higher cost fuel generation at the Holyrood Thermal Generating Station.

Energy Marketing continues to coordinate with our industry counterparts and with Hydro to enable energy purchases over the Maritime Link when there are cost savings to be realized. Throughout 2018, we leveraged our market knowledge and



capabilities to import low-cost energy from various regions across eastern Canada and the northeastern United States for the benefit of Newfoundland and Labrador's electricity customers.

In the latter part of 2018, Hydro was given the green light for ponding. Ponding allows Hydro to store low-cost energy purchased by Energy Marketing from external markets in its vast hydraulic reservoirs. This low-cost energy is later sold by our Energy Marketing team when pricing conditions are favourable. Our ability to maximize the value of the island's reservoir assets on behalf of the people of Newfoundland and Labrador is one of the many benefits of being interconnected to the North American grid.





We are committed to fostering a safe, supportive, and inclusive work environment where employees can be healthy, productive, and successful. We work hard to ensure our employees feel comfortable bringing their whole selves to work every day, and we believe diversity and inclusion strengthen us. We are committed to taking action to make sustainable progress in our company and the communities we serve.

# PEOPLE

## PRIORITIES

- Diversity and Inclusion
- Employee Engagement
- Attraction and Retention



Continued to make progress in increasing female representation in several key areas



Signed the Electricity Human Resources Canada (EHRC) Leadership Accord on Gender Diversity



Held first company-wide Diversity and Inclusion Day for employees



Partnered with Women in Resource Development Corporation to offer scholarships for women in trades



## DIVERSITY AND INCLUSION

Promoting diversity and inclusion in the workplace matters. We know a diverse workforce enhances our work culture and contributes to our success as a company and recognize how important it is to have a workforce that reflects the people and communities we serve. Diversity in perspective and experience supports innovation and excellence in our work.

In 2017, we set gender equity targets to support the advancement of women into leadership roles and positions where women are typically under-represented. To support these targets, along with our broader commitment to encourage opportunities for women and other designated groups (Indigenous peoples, persons with disabilities, and members of visible minorities), we apply a diversity and inclusion lens to our recruitment process, recognizing that diversifying our workforce will support our business success.

Through collaboration with community partners and proactive efforts to attract a diverse pool of qualified candidates,

we increased female representation in several key areas including management and skilled trades apprentices, particularly within Hydro.

### OUR FIRST ANNUAL DIVERSITY AND INCLUSION DAY

We believe diversity of backgrounds, ideas, and experiences enriches our company and contributes to an innovative, high-performance environment. We embrace individual differences and enable each other to reach our full potential. Over the past couple of years, we have been enhancing our focus on diversity and inclusion, and in October, we held our first company-wide Diversity and Inclusion (D&I) Day. D&I Day provides us with the opportunity to demonstrate our commitment to diversity and inclusion, and to engage employees in foundational and important topics that support a diverse and inclusive work environment.

### HYDRO PARTNERS WITH WRDC TO OFFER SCHOLARSHIPS FOR WOMEN IN TRADES

On International Women's Day 2018, Hydro launched the Trades Scholarships for Women in partnership with the Women in Resource Development Corporation (WRDC). Through this initiative, six scholarships of \$1,500 were awarded to female students from the province pursuing a skilled trades program.



Above: Jennifer Williams, President, Hydro

The Trades Scholarships for Women were designed to help with the financial challenges full-time female students can face during their first year of study. The scholarships were awarded in October at locations across the province. The diverse group of scholarship recipients were pursuing careers in programs such as Construction/Industrial Electrician, Welding, Carpentry, and Heavy-Duty Equipment Operator.

As one scholarship recipient noted, "Being a recipient of the 2018 Trades Scholarships for Women will have a positive impact on me for many reasons. In addition to the financial relief this provides, it contributes to the pride I feel as a woman pursuing a career in a male-dominant field, where I strive to lead by example and empower other women."

### GENDER EQUITY TARGETS

OCCUPATIONAL GROUP	WOMEN			
	2016	2017	2018	TARGETS
<b>Executive Management</b>	15%	15%	24%	30%
<b>Engineers</b> (Including Engineers in Training)	27%	32%	33%	35%
<b>Technicians and Technologists</b>	24%	21%	21%	30%
<b>Field Supervisors</b>	5%	6%	6%	10%
<b>Skilled Trades</b> (Including Apprentices)	3%	5%	5%	6%
<b>Manual Workers</b>	2%	4%	6%	10%
	16%	16%	17%	20%

\*Notes: Includes Nalcor Energy and subsidiaries representation as of December 2018.

## FURTHERING OUR COMMITMENT TO DIVERSITY AND INCLUSION

It is very important to us to be a company who values diversity and inclusion in the workplace. Furthering our commitment to diversity and inclusion, on October 1st, Stan Marshall, Nalcor President and CEO signed the Electricity Human Resources Canada Leadership Accord on Gender Diversity in the Canadian Electricity Industry (the Accord) on behalf of Nalcor and Hydro.

The Accord is a public commitment by employers, educators, unions, and governments to promote the values of diversity and inclusion within their organizations. All those who sign the Accord acknowledge that united action is required to ensure the support of women in the industry, along with equality and fairness for the entire workforce.

The employer commitments for the Accord are aligned with Nalcor's existing commitments to diversity and inclusion, and the identified actions align with Nalcor's D&I strategy and initiatives.



Above: Signing the Electricity Human Resources Canada Leadership Accord on Gender Diversity in the Electricity Industry. L-R: Ashley Turner, Jennifer Williams, Stan Marshall, Nicole Parsons, and Michael Roberts



## EMPLOYEE ENGAGEMENT

When our employees come to work every day, we want them to feel valued, respected, engaged, and empowered. We recognize that the relationship between employees and their supervisor is fundamental to building an engaged workforce.

In 2018, we launched an initiative focused on employee and supervisor behaviours to support positive and productive employee-supervisor relationships. We conducted pulse surveys to measure expected behaviours and shared the results with reporting groups. We also released employee and supervisor toolkits with helpful tips related to the defined behaviours.

## ATTRACTION AND RETENTION

Our talent management framework focuses on attracting and retaining highly-skilled and motivated employees who are strongly committed to our success and future direction.

Over the course of the past two years, we have undertaken a comprehensive gender equity and diversity and inclusion review of our corporate recruitment process. This resulted in a number of recommendations for enhancements that will help to further encourage a diverse pool of candidates and ensure an equitable process. These enhancements have been incorporated into our recruitment standards, including templates and tools to take diversity and inclusion considerations into account throughout the hiring process.

In 2018, we also continued to focus on providing meaningful training and development opportunities to our employees, including offering the Leadership Fundamentals Program to new supervisors from various parts of our organization and supporting registrations for a group of early- to mid-career employees in the Women in Science, Engineering, Trades, and Technology (WinSETT) Leadership Program. Additionally, we provided a number of professional development speakers and panel sessions through our employee resource groups.



A photograph of two workers in safety gear. On the left, a woman with blonde braids wears a yellow hard hat, safety glasses, and an orange high-visibility vest over a grey hoodie. On the right, a man wears a yellow hard hat with a headlamp, safety glasses, and an orange high-visibility vest over a dark jacket. They are both smiling. In the background, there are blurred industrial structures and a red circular saw blade is visible in the lower foreground.

OUR TRUE  
STRENGTH COMES  
FROM OUR PASSIONATE,  
DEDICATED TEAM OF  
EMPLOYEES WHO  
ARE COMMITTED  
TO THE PEOPLE OF  
THIS PROVINCE.



Being an engaged, valued corporate citizen is a priority for us. We live this value by supporting organizations in the communities in which we work and where our employees live. We also encourage and support our employees to give back to their communities in Newfoundland and Labrador.

# COMMUNITY

## PRIORITIES

- Community Investment Program
- Economic Impact
- Customer Satisfaction
- Stakeholder Engagement and Indigenous Partnerships



We supported organizations in the communities where we operate and where our employees live



Through our Employee Giving Program, employees donated more than \$18,000 to not-for-profits across the province



We continued to see increases in our revenue, operating profit, and total assets year-over-year



More than 4,660 workers from across the province helped us reach 96% construction completion on the Muskrat Falls Project



Enhanced customer satisfaction:  
**89%** of residential customers satisfied



## COMMUNITY INVESTMENT PROGRAM

Corporate social responsibility is a big part of shaping positive relationships with our customers, our communities, and the province. We make every effort possible to be a valued corporate citizen and to improve the quality of life for people throughout the province. This means actively supporting organizations in the communities where we operate and where our employees live.

Under our Community Investment Program (CIP) we make charitable donations to registered not-for-profits throughout Newfoundland and Labrador, while also supporting some of our province's most vulnerable with in-kind support and volunteerism.

Through our Community Investment Program we support the following pillars:

### OUR FOCUS



**YOUTH LEADERSHIP & ANTI-BULLYING INITIATIVES**



**DIVERSITY & INCLUSION**



**SCIENCE, TECHNOLOGY, ENGINEERING & MATH (STEM) EDUCATION**



**HEALTH & SAFETY**



**ENVIRONMENTAL EDUCATION**

These pillars complement our core values and business priorities, while supporting youth—the future leaders and workforce of our province.



Above: Employees volunteering during Acts of Kindness Week.

### EMPLOYEE GIVING

We have some of the most giving employees in the province. Whether it be volunteering their time and expertise, or hosting a fundraiser, they are always there to give back. Employee bake sales are one of the most successful fundraising activities, with single bake sales often raising close to \$1,000 in just a few short hours, and all funds donated to a not-for-profit.

In addition to these fundraising efforts, our employees participate in our Employee Giving Program, which allows employees to donate a portion of their paycheck to a charity of choice each pay period.

**IN 2018, EMPLOYEES DONATED MORE THAN \$18,000 TO NOT-FOR-PROFITS ACROSS THE PROVINCE, INCLUDING KIDS EAT SMART, RONALD MCDONALD HOUSE, A DOLLAR A DAY, HEART AND STROKE, CHOICES FOR YOUTH, AND THE HEALTH CARE FOUNDATION.**

## ACTS OF KINDNESS WEEK: COMING TOGETHER FOR OUR COMMUNITIES

In 2018, we celebrated our eighth annual Acts of Kindness Week which coincides with National Volunteer Week. Acts of Kindness Week is an opportunity for our employees to demonstrate their commitment to giving back to the communities in which we live and operate. This year was no exception; our employees volunteered their time at the following not-for-profits:

- Employees supported breakfast programs through Kids Eat Smart providing children in schools across the province with the energy they need to start their day right.
- Meals were delivered to 70 people by employees who volunteered with Meals on Wheels (inset).
- Through Ronald McDonald House, employees volunteered with the Just Like Nan's and Home for Dinner programs, baking homemade goodies and cooking hearty dinners for families staying at the house here in St. John's.
- At the Gathering Place and Single Parents Association, employees took inventory and sorted through donations.
- Employees participated in a blood drive to help stock the blood banks at Canadian Blood Services on Wicklow Street.



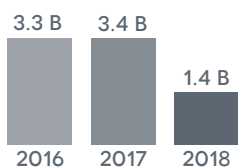
- Employees from our Bishop Falls office visited Exploits Manor seniors home to serve lunch and play bingo with the residents. Some of our musically-talented employees in Bay d'Espoir entertained the residents at Greenwood Manor with a live music performance.
- A company-wide food drive helped fill the shelves at the Community Food Sharing Association.
- Employees also delivered furniture with Home Again Furniture Bank. Holyrood led a furniture drive and organized a bake sale, raising \$700 for the organization.

Whether it's volunteering with local not-for-profit organizations, donating to local foodbanks, or buying a coffee for a co-worker, we believe every act of kindness, big or small, makes a difference.

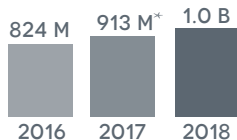
## ECONOMIC IMPACT

Making a positive impact and building local capacity in the communities in which we operate is a priority for all of our lines of business. It is our focus every single day. We continue to see increases in our revenue, operating profit, and total assets year-over-year and we continue to invest in our electricity system to ensure safe and reliable electricity is available for the people of Newfoundland and Labrador.

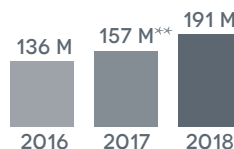
We are well positioned to begin delivering power from the Muskrat Falls Generating Station, across our new transmission assets, to homes and businesses on the island in late 2019. As we move closer to first power, we are also focused on finding all reasonable measures to manage costs and minimize the impact on electricity rates for customers. This is something that every single employee at the company is focused on.



**CAPITAL INVESTMENTS**



**REVENUE**



**OPERATING PROFIT**

\* Previously reported as \$930 million, adjusted following the application of IFRS 15 effective January 1, 2018.

\*\* Previously reported as \$169 million, adjusted following the application of IFRS 15 effective January 1, 2018.

## SKILLED NEWFOUNDLANDERS AND LABRADORIANS POWERING OUR PROVINCE

In 2018, more than 4,660 workers came together from communities across the province to apply their skills and expertise to help us reach 96% construction completion on the Muskrat Falls Project. Thanks to their hard work and dedication, we reached numerous construction milestones this year.

We are proud that in 2018 the total number of Newfoundlanders and Labradorians working on our project included more than 600 women and over 450 workers who identified as Indigenous.

It is not just our talented workforce which has contributed to the Muskrat Falls Project. Local communities and businesses have also played a significant role over the years.



## CUSTOMER SATISFACTION

Every hour, every day, the people and businesses of this province count on us to provide a reliable and safe supply of electricity. The service we provide helps keep communities—large and small—working all over Newfoundland and Labrador. Behind the scenes, Hydro employees work diligently to make sure our customers can carry on with their daily activities. We take our work and our responsibility seriously, and we are proud of the role we play in the province's growth and development. Most importantly, our customers are the driving force behind our focus on quality improvement.

Early in the project, while working with governments and Labrador Indigenous groups, we recognized the need to build local capacity in Labrador where the majority of the project was being built. Seven years ago, the Labrador Aboriginal Training Partnership was established to support education and training initiatives to help Labrador Indigenous people gain the skills and qualifications needed for employment opportunities with the project. To date, more than 1,100 Indigenous people have been employed by the project.

We provide safe and exciting work and business opportunities to the dedicated, hard-working Newfoundlanders and Labradorians who help make up our team on the Muskrat Falls Project.

RESIDENTIAL  
CUSTOMER  
SATISFACTION

89%



We conduct surveys with our customers every second year to gauge satisfaction with service and current company practices, as well as to identify opportunities for improvement.

In addition, once a month we carry out transactional surveys to ask our customers how we performed with respect to a recent interaction they had with us. Late in 2018, we also embarked on a customer satisfaction survey with our industrial customers.

AT HYDRO, WE KNOW  
HOW MUCH THE  
CUSTOMERS AND  
COMMUNITIES WE SERVE  
COUNT ON US EVERY DAY.





## STAKEHOLDER ENGAGEMENT AND INDIGENOUS PARTNERSHIPS

We are dedicated to building strong relationships with the people of the province, Indigenous leaders, and the communities where we operate. We continuously work to develop partnerships that provide long-term benefits for the people of our province.

We worked with nearly 400 local businesses, communities, and organizations in relation to the work activities of the Muskrat Falls Project. Their support has helped us build and strengthen our relationships with communities across the province and have contributed significantly towards progressing the construction project to where it is today.

Some of our work is located near Indigenous communities. To help build lasting relationships with these communities and their members, we are formalizing our relationship through long-term agreements. Through these agreements, we are able to outline how we will work together, communicate with one another, and mutually benefit from our relationship over the life of our projects. We currently have long-term agreements

with Innu Nation, and NunatuKavut Community Council. These agreements provide more certainty for the communities, as well as Nalcor, as our projects develop. Generally, they include mutual commitments to a consultation process, problem solving, ongoing communication, community investment, and accountability and transparency with one another.

We have a Corporate Environmental Management System (EMS) that guides us. Through this system, we develop environmental targets, goals, objectives, and plans to help us maintain a high level of environmental compliance, responsibility, and performance. Through EMS workshops, we identified internal and external issues that affect or could affect environmental performance. We developed stakeholder registers, outlining stakeholder risks and opportunities. This included self-identified interested parties, as well as local Indigenous groups.

## CUSTOMER ENGAGEMENT PROGRAM

In 2018, as part of the Resource Adequacy and Reliability study, Hydro felt it was critical to engage customers and solicit their opinions. The intent of the engagement was to start a dialogue regarding electricity in the province with our customers and stakeholders. We used practices consistent with engagement activities used by other utilities across Canada.

Our customer engagement offered two participation opportunities—a short digital engagement survey on a few focused topics and an option to join a longer-term customer feedback panel. Input was gathered from 2,070 provincial electricity customers in August and September of 2018.

Through our customer engagement initiative, expectations for reliability, cost, customer options, and rate design were gathered and will be used to inform recommendations.

### RELIABILITY

**82%**

believe they receive  
**highly reliable**  
electricity (scores  
7-10; 10-pt. scale).



### CUSTOMER OPTIONS

**63%**

of respondents are highly  
interested in **time-of-use**  
rates (scores 7-10; 10-pt.  
scale).



### CONTINUED ENGAGEMENT

**57%**

are interested in joining  
**Hydro's Electricity**  
Feedback  
Panel.



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