

A photograph of three scientists in waders working in a wetland. One scientist stands holding a clipboard, while two others are crouched in the water, one holding a clipboard and the other a sample. In the background, a large industrial power plant with multiple smokestacks is visible. The entire image is overlaid with a blue-to-green gradient.

Sustainability Report 2022

Our Bright Future

A message from Mike Rencheck, President and Chief Executive Officer

Ample affordable energy, combined with climate change, is one of the most pressing challenges of our time.

We face a huge task of continuing to create and provide energy, improve living standards, and protect the environment. These conditions are not mutually exclusive, with countries, cities, businesses, and individuals taking tangible and ambitious actions.

The nuclear industry can play a leadership role to provide clean, reliable, and affordable energy at a large scale in the fight against climate change and the push towards Canada's Net Zero 2050 target.

Bruce Power is on the leading edge of safely providing clean, reliable and affordable power – 24/7 – that is carbon-free in its generation. We are committed to strengthening communities and protecting the environment for present and future generations.

In 2021, Bruce Power announced several initiatives, including a commitment to Net Zero from our site by 2027, increasing the generation output, and unveiling the Carbon Offset Coalition, a Net Zero carbon reduction community partnership program.

Bruce Power Net Zero Inc. explores commercial business opportunities that leverage the carbon-free advantages of nuclear to enable complementary technologies to help Ontario transition to decarbonized energy systems. This new entity, launched in 2021, will focus on projects such as storage, carbon offsets, renewables, hydrogen, and electrified transportation. Further, the issuance of \$500 million in Green Bonds, is a global first for nuclear power and recognizes the critical role the technology plays in fighting climate change.

In addition to our efforts supporting the fight against climate change, we continue to build on programs and initiatives in other areas related to the Environmental, Social, and Governance (ESG) aspects of our business.

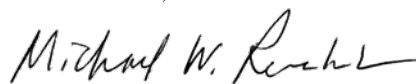
We are leading the way in nuclear medicine through the production of life-saving medical isotopes that are used to help fight cancer and keep hospitals safe and clean.

We are fostering a strong connection with Indigenous communities and other under-represented groups through meaningful partnerships, employment for skilled workers, and training opportunities. We have adopted a strong commitment to diversity and inclusion and have a plan in place to ensure this commitment results in meaningful action. We are powered by our people and committed to our communities.

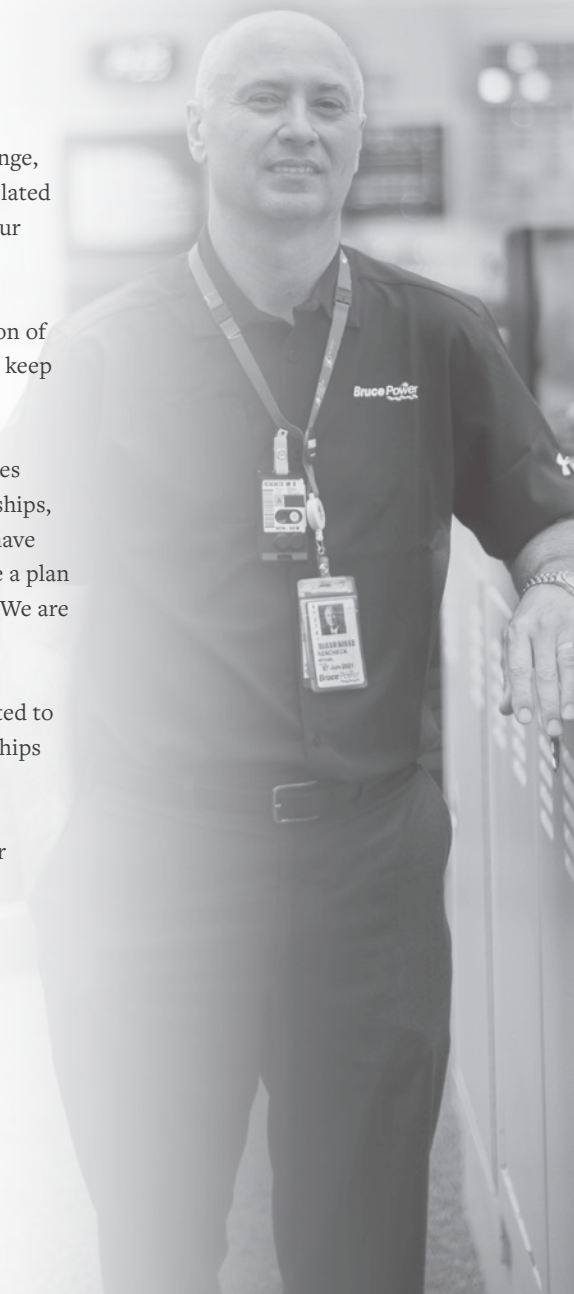
We are proud to shape a carbon-free, sustainable future, and excited to share more about Bruce Power's innovative projects and partnerships that will make it happen.

I encourage you to read the pages ahead and learn more about our sustainability journey.

Mike Rencheck,



President and CEO, Bruce Power





Welcome, on behalf of the Environment and Sustainability Oversight Committee

In 2020, Bruce Power formed the Environment and Sustainability Oversight Committee. This leadership-level governance was the next natural step in taking our ongoing Environmental, Social, and Governance (ESG) efforts to the next level. As a committee, we are dedicated to the integration of ESG monitoring and goals into our long-term business strategy, and that due consideration is being given to social and environmental trends that could impact the company's operations.

What is ESG?

Environmental, Social, and Governance (ESG) criteria are a set of standards for a company's operations that socially conscious investors use to screen potential investments. Environmental criteria consider how a company performs as a steward of nature. Social criteria examine how it manages relationships with employees, suppliers, customers, and the communities where it operates. Governance deals with a company's leadership, audits, and internal controls.

At Bruce Power, excellence means collectively living our common values, demonstrated through our behaviours, using our tools to achieve the results we want for the business — Safe. Reliable. Securing Tomorrow.

An important part of securing tomorrow is being responsible stewards of the environment and corporate citizens while maintaining excellent governance by integrating strong ESG principles into our business strategies and operations. Our aim

is to continuously improve our performance in each of these areas to exceed industry and stakeholder standards.

As leaders we commit to driving our ESG goals with forward-thinking innovation, making decisions for the greater good, and in doing so, strive to make the world a better place.

Bruce Power Environment and Sustainability Oversight Committee

James Scongack, *Chair of the Committee and Chief Development Officer and EVP, Operational Services*

Chris Mudrick, *EVP and Chief Nuclear Officer*

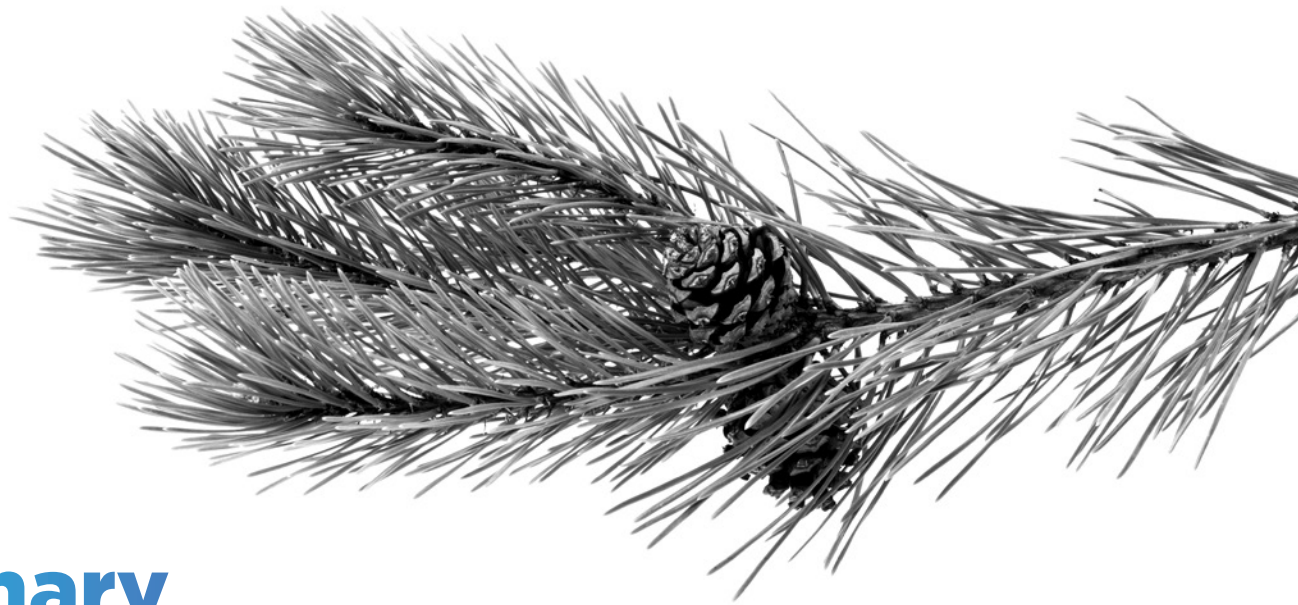
Kevin Kelly, *EVP, Finance, and Chief Financial Officer*

Cathy Sprague, *EVP, Human Resources*

Brian Hilbers, *Vice President, Strategy and Chief Legal and Risk Officer*

Eric Chassard, *EVP, Projects & Engineering*

Danielle LaCroix, *Senior Director, Environment, Sustainability & Net Zero*



Executive Summary

In 2020, Bruce Power took a major leap in the evolution of how we talk about ESG within our company and externally. Our approach is evolving from a once very public facing qualitative narrative to a quantitative narrative. In 2021, our sustainability reporting continued to build on a more quantitative and formalized approach that included the refinement of existing ESG Key Performance Indicators (KPIs), the addition of new KPIs, and the establishment of performance targets.

The 2022 edition of Bruce Power's Sustainability Report focuses on quantitative disclosure for 23 of our ESG Key Performance Indicators (KPIs) and targets. For 15 of these KPIs, performance targets have also been set, where our current performance in each of these areas can be compared against and tracked year over year. We also share qualitative progress to KPIs in other areas of our ESG program.

Bruce Power's approach to sustainability is integrated across the organization and builds on well-established and existing efforts which have significant positive impacts on our local community, and on a wider scale as we support provincial and federal carbon reduction goals, while contributing to economic growth, innovation and environmental protection. Our sustainability program has always and continues to focus on four key areas: Environment, People and Safety, Products and Services, and Community.

Environment

As emphasized in our Mission statement, the protection of the environment is a key priority of our business. We strive for excellence, to exceed all regulatory requirements and commitments, and to have a net positive impact in our surrounding environment and community. We have a mature Environmental Management System, and a strong monitoring and risk assessment program to demonstrate no adverse impacts. Beyond this, we have developed KPIs to ensure we are monitoring and driving strong performance with ambitious targets in the less-regulated elements of our environmental protection program. To support the fight against climate change, in 2021 we placed a focus on updates to our greenhouse gas (GHG) emissions quantification approach and inventory,

the announcement of our Net Zero 2027 commitments and development of our Net Zero Strategy. Bruce Power's commitment to Net Zero GHG emissions will be achieved following the initiatives identified in our Net Zero Strategy, which we expect to be revised and further detailed in future years as technological advancements provide further opportunities. In 2021, our five per cent net Scope 1 and Scope 2 GHG emissions reduction target was achieved.

We remain committed to environmental protection in all areas of our business, to minimizing our environmental footprint and to driving adaption to climate risk in our site and community. In addition to our net GHG emissions reduction targets, all other Environmental KPI targets were met in 2021, with the exception of waste diversion. There was a slight decrease in diversion due in part to changes in the number of workers on

site during COVID-19, which impacted amounts of material generated in some recycling streams. New waste reduction and diversion initiatives are planned for 2022 to continually improve performance in this area.

People and Safety

At Bruce Power, providing a safe and healthy workplace is at the heart of everything we do. We are committed to our number one value of Safety First in the prevention of workplace injuries and ill health. We live this value in every decision we make.

We encourage an environment where we learn from any issues at all levels of the company. Our goal is to ensure everyone goes home safely at the end of their shift. In 2021, we continued to focus on our Industrial Safety Accident Rate for site and contract employees seeing a 0.03 per cent and 0 per cent, respectively.

Bruce Power is committed to employing a diverse workforce. We have defined diversity as the acknowledgment and appreciation that each individual has unique perspectives and life experiences.

In 2021, 34 per cent of hires into non-traditional roles (trades, maintenance, and operations) were filled by women, meeting our target for this KPI. The company will continue to focus on increasing the number of women into roles where they are traditionally underrepresented along with members of visible minorities, persons with disabilities, Indigenous peoples and lesbian, gay, bisexual and transgender/ transsexual people.

Products and Services

Bruce Power works closely with our suppliers to make sure they understand and are aligned with our core values. Responsible sourcing including local sourcing is a key focus and incorporated into our agreements with new suppliers.

As part of the RFP evaluation phase, Supply Chain takes a variety of ESG factors into consideration. Suppliers are expected to support and respect human rights, diversity and equal opportunity within the workplace, comply with labour laws and regulations, and provide information on safety and environmental metrics.

Preference is given to suppliers with a local presence as well as those which have documented local Indigenous components of their business. In 2021, 85 per cent of our services and materials were spent in Ontario and 59 per cent of our services and materials were sourced from suppliers in the Indigenous Relations Supplier Network.

Community

At Bruce Power, we rely on the support and commitment of the surrounding communities and everyone who lives here. We have the privilege of contributing to the community and encourage our partners to do the same.

With the ongoing COVID-19 pandemic, non-profit and other community organizations needed our support more than ever. Bruce Power continued to provide support where it was needed most, contributing to community organizations and events, mental health organizations, youth development opportunities, food banks, women's shelters and more. We also played a leadership role in supporting public health and the province in the historic vaccination efforts.

In 2021, the company provided \$2,060,000 in total value of sponsorships and donations.

Our Sustainability Program has always and continues to focus on four key areas:



Environment



People & Safety



Products & Services



Community

2021 HIGHLIGHTS

5%

net Scope 1 and Scope 2
GHG emissions reduction target
was achieved

85%

of our services and materials were spent
in Ontario and 59% of our services and
materials were sourced from suppliers in the
Indigenous Relations Supplier Network

34%

of hires into non-traditional
roles (trades, maintenance, and
operations) were filled by women,
meeting our target for this KPI

\$2,060,000

in total value of sponsorships
and donations was provided
by Bruce Power



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About Bruce Power

We provide safe, reliable, clean energy to businesses and families across Ontario, as well as life-saving medical isotopes to the world's health-care community. We power the future.

Our Mission

Our Mission at Bruce Power is to safely provide clean, affordable, reliable power and life-saving medical isotopes while strengthening our communities and protecting the environment to secure tomorrow.

We are committed to providing clean energy, minimizing our environmental footprint and supporting environmental protection. The energy that we provide powers progress and supports improved quality of life, and it is our responsibility to deliver electricity needs to the highest environmental, social and governance standards

We put Safety First

Bruce Power and our employees are committed to protecting the safety of our people, our plant, and the environment. Every decision reflects our number 1 value of Safety First. Safety is engrained in our culture, because we all want to protect each other and the communities we call home.

Safety is personal. We all count on each other to ensure everyone goes home safely at the end of their shift. It's about our commitment to following procedures and working safely. Every step. Every time. Every day.

To learn more about Bruce Power and its Board of Directors visit:
www.brucepower.com/about-us/board-of-directors/

We power more for less

Bruce Power is the source of 30 per cent of Ontario's electricity at 30 per cent less than the average cost to generate residential power. Our site is home to eight units, capable of generating enough clean, reliable, low-cost electricity to power one in three homes, hospitals, schools and businesses in Ontario. We also help save lives by providing a reliable source of medical isotopes for the world's health-care community.

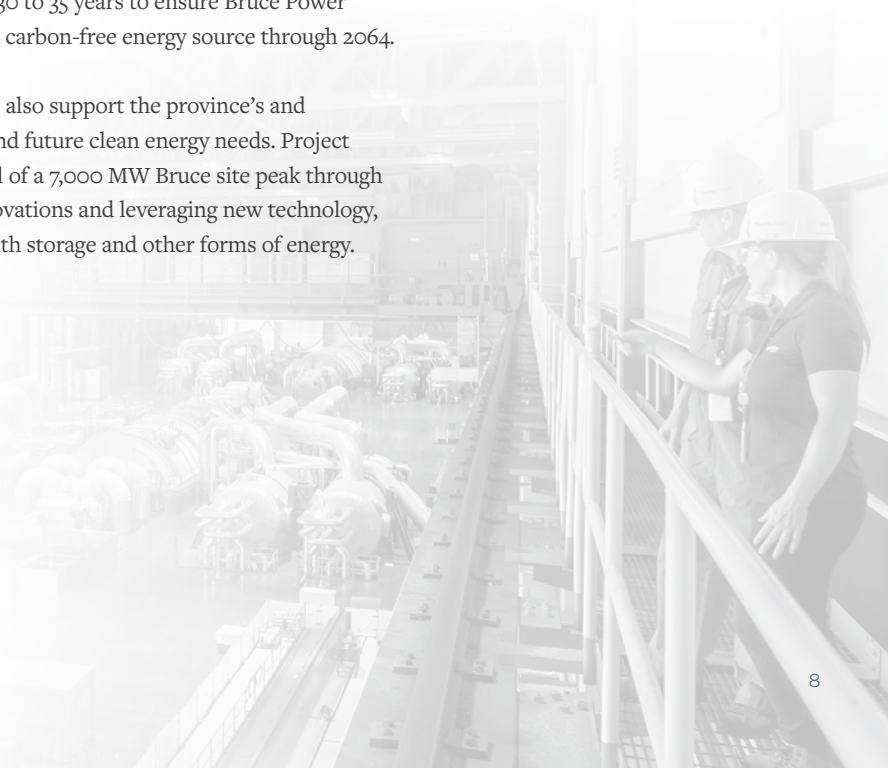
Bruce Power's Life-Extension Program and Major Component Replacement (MCR) Project is one of Canada's largest infrastructure projects and will see Units 3-8 refurbished over the next several years. MCR will extend the operational life of each reactor by 30 to 35 years to ensure Bruce Power continues to provide a reliable and carbon-free energy source through 2064.

Along with MCR, Project 2030 will also support the province's and country's climate change targets and future clean energy needs. Project 2030 is focused on achieving a goal of a 7,000 MW Bruce site peak through continued asset optimization, innovations and leveraging new technology, which could include integration with storage and other forms of energy.



Safety First

Every decision reflects
our number 1 value of
Safety First.



Our Approach to Sustainability

Since our inception as a business in 2001, we have been continuously improving the aspects of Environment, Social and Governance (ESG) in our business operations.

Bruce Power's approach to sustainability is integrated across the organization and builds on well-established and existing efforts which have significant positive impacts on our local community, and on a wider scale as we support provincial and federal carbon reduction goals, while contributing to economic growth, innovation and environmental protection. The Sustainability program is led by the Environment, Sustainability & Net Zero Division, which reports quarterly to the Environment and Sustainability Oversight Committee.



Danielle LaCroix
Senior Director, Environment,
Sustainability & Net Zero

Danielle La Croix is the Senior Director of the Environment, Sustainability & Net Zero Division with more than 15 years of experience in the environmental field. Through her leadership of a team of more than 25 Environmental staff she leads the company's overall development and organization of the ESG program and strategy, including the Net Zero 2027 commitment and ongoing strategy development and implementation.

As the Senior Director she is responsible for the development and implementation of strong governance, oversight and support to ensure environmental protection and drive sustainability in our operations and in our partnerships.

She is responsible for developing and advancing our cross functional ESG program; ensuring the identifications of Key Performance Indicators and Targets, and driving ambitious ESG goals across multiple departments; including Environment, Safety, Human Resources, Finance, Operations, Supply Chain and Government & Community Relations. She is a strong leader in the integration of Climate Change risk into short, medium and long-term business decision-making and has worked closely with the company's Finance team to deliver on key Sustainability linked financial benefits and offerings.



Cherie-Lee Fietsch
Acting Director, Environment
& Sustainability

Cherie-Lee is the Acting Director of the Environment & Sustainability Division at Bruce Power where she leads a strong team of passionate people. Sustainability related initiatives include Land Use and Biodiversity, Interactions with Lake Huron, Invasive Species Control and Climate Change. Her work with industry peers, researchers and consultants to develop solutions and approaches for continued environmental protection result in Bruce Power being a leader in driving innovation. She is active with many community, research and innovation entities and works with local Indigenous communities to incorporate values into monitoring and assessment.



Danielle Short
Director, Talent Management

Danielle is the Director of Talent Management reporting directly to the Executive Vice President of Human Resources. Danielle leads the Talent Acquisition, Talent Management & Leadership Development,

and Diversity, Equity & Inclusion teams. Danielle is responsible for setting direction and strategy for our Talent Management programs including setting ambitious commitments for hiring of talented diverse individuals, providing development programs and resources for employees, and ensuring an inclusive culture at Bruce Power. We are committed to a talented, diverse, and respectful workforce where we celebrate differences and cultivate a culture of belonging; where everyone feels invited to contribute and participate, so that we may benefit from the synergy of our people. We believe our success is built on an equitable, diverse, and inclusive environment where all ideas are valued, all voices are heard, and we can strengthen our communities.

In 2020, Bruce Power's sustainability and ESG reporting strategy evolved from a qualitative narrative to a more quantitative approach, including a commitment to clear, relevant disclosure, and actions that drive tangible benefits in the near term. In 2021, our sustainability reporting continued to build on a more quantitative and formalized approach that included the refinement of existing ESG Key Performance Indicators (KPIs), the addition of new KPIs, and the establishment of performance targets.

In August of 2021, the Bruce Power received its second Environmental Social and Governance (ESG) Risk Rating by the third-party rating agency Sustainalytics, improving our score from medium to low risk and earning the company a spot in the Top 5 within its sub-industry on a global scale.

Materiality

Material metrics are those that are relevant to an organization with respect to stakeholder interest and the company's ability to influence and drive improvements.

How We Assess Materiality

These are identified metrics that have linkages to significant economic, environmental and social impacts. The materiality of a metric will be heightened if it is a concern to stakeholders or partners, as well as areas that the organization has a significant opportunity to influence to drive improvements. At Bruce Power we have 12 main areas of materiality; corporate governance being our overarching structure for the ESG program, and the 11 remaining items of materiality falling within each of our four focus areas.

Our materiality assessment is based on a wide variety of sources including but not limited to; input from public opinion research, routine community polling results, public inquiry information, surveys during stakeholder engagement events, routine engagement with local Indigenous communities, routine discussions with regulatory bodies, intervention submissions during our third-party Power Reactor Operating License renewal process, as well as third party risk rating analyses.

Materiality Approach and Focus

We have developed more than 40 internal Key Performance Indicators (KPIs) and Targets to support our ESG program. These were based on guidance from the United Nations Sustainable Development Goals (UN SDGs), Sustainability Accounting Standards Board (SASB), Task Force on Climate Financial Disclosures (TCFD) and the Global Reporting Initiative (GRI). It is important to note that at this time Bruce Power is not claiming full conformance to any of the standards above, rather has used each standard to guide disclosure based on materiality. In 2021, updates to our greenhouse gas emissions quantification approach and inventory was done in alignment with *The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard* (GHG Protocol).

The 2022 edition of Bruce Power's Sustainability Report focuses on quantitative disclosure for 23 of our ESG KPIs. For 15 of these KPIs, performance targets have also been set, which our current performance in each of these areas can be compared against and tracked year over year. We continue to ensure that our quantitative disclosure in the public ESG space is meaningful, assured and has rigorous methodology allowing for others to learn from our journey and inspire personal action.

As we build upon our ESG program, we continue to monitor best practices with regards to ESG reporting, disclosure and performance on both an industry and a global scale, evolving our approach as necessary. Bruce Power continues to advocate straightforward disclosure criteria in the ESG space, as well as increased emphasis on tangible short, medium and long-term actions result in companies driving improvement with best-available, economically feasible options.

Bruce Power's 12 main areas of materiality

1. Corporate Governance
2. Health and Safety
3. Community Relations
4. Product Governance
5. Business Ethics
6. Human Capital
7. Water Use
8. GHG emissions
9. Non - GHG Emissions
10. Effluents
11. Waste
12. Land Use and Biodiversity



The United Nations' 2030 Agenda For Sustainable Development

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth — all while tackling climate change and working to preserve our oceans and forests.

As part our sustainability strategy, we routinely review the United Nations Sustainable Development Goals (SDGs) to understand which are relevant to our business and how we can connect them to our ongoing sustainability efforts, as well as identify areas of continued opportunity to grow our strategy and be a global contributor within this area. In 2020, Bruce Power identified and committed to 10 SDGs that we believe will have the greatest impact and guide our ongoing efforts.

We wanted to acknowledge that the goal of Life Below Water does not explicitly state Freshwater, however, the Great Lakes are one of the largest aquatic ecosystems and vitally important to North America and we do take significant efforts to ensure the protection of Lake Huron, rivers running into the lake as well as the broader Great Lakes ecosystem. These efforts are identified within our environmental area of focus.

Bruce Power's 10 Sustainable Development Goals

- | | |
|----------------------------------|---|
| 1. No Poverty | 7. Responsible Consumption & Production |
| 2. Good Health & Well-Being | 8. Climate Action |
| 3. Gender Equality | 9. Life on Land |
| 4. Reduced Inequities | 10. Life Below Water |
| 5. Affordable & Clean Energy | |
| 6. Decent Work & Economic Growth | |



Environment

Bruce Power's Environmental Protection Program is built upon an integrated monitoring approach that strives to understand environmental impact, verify environmental protection, and continuously improve by driving research and innovation. Environmental safety and responsibility are woven into all aspects of the company's Safety First culture.

KPIs	Standard(s) guidance is taken from *	2019 Baseline	2021 Target	2021 Actual
Scope 1 GHG Emissions (tCO ₂ e)	IF-EU110a.1, GRI-305-1, TCFD	6,946	See Net GHG Emissions	7,813
Scope 2 GHG Emissions (tCO ₂ e)	IF-EU110a.2, GRI-305-2, TCFD	8,655	See Net GHG Emissions	9,430
Carbon Offsets Retired (tCO ₂ e)	See Methodology	0	TBD	2,422
Net GHG Emissions - Scope 1 and 2, Carbon Offsets Retired (tCO ₂ e)	See Methodology	15,601	5% reduction from 2019 Baseline (14,821 targeted)	14,821
Scope 3 GHG Emissions (MtCO ₂ e) 2019 Data	See Methodology	0.88		

KPIs	Standard(s) guidance is taken from *	2020	2021 Target	2021 Actual
Carbon Removal Via Tree Planting (tCO ₂ e)	See Methodology	15,076	≥ 10,000	28,983
Emissions avoidance via operation (tCO ₂ e) based on TWh	See Methodology	20,726,400	19,200,000	20,310,220
Volume of Conventional Waste Generated (MT)	GRI-306-2	1,827.5	Disclosure	1,974.1
Conventional Waste Diversion rate (%)	GRI-306-2	69.8%	70%	67.7%
Net water consumption from Lake Huron (million cubic meters)	GRI-303-3	2.2	≤ 2.3	2.1
Total Water Drawn from Lake Huron (million cubic meters)	GRI-303-3	9,409	Disclosure	8,637

* Bruce Power does not claim to conform to any of the standards identified; rather guidance has been taken from those standards identified. ESG Metrics have been chosen that reflect items material to our business. As noted we have a larger subset of internal metrics and as our program matures we will continue to add to the metrics that we release into the public domain. Bruce Power remains committed to advocating for more standardized disclosure, and remains committed to staying up to date on policy and frameworks that are attempting to bring more clarity to information that is crucial for disclosure from a financial, environmental and social standpoint.

BRUCE POWER'S

Environment & Sustainability Policy

You can count on Bruce Power to:

- Ingrain a healthy nuclear safety culture which promotes nuclear safety, radiological safety, industrial safety and environmental safety and sustainability;
- Commit to excellence by meeting or exceeding all relevant legal and voluntary requirements to which Bruce Power subscribes;
- Understand our environmental impact and verify environmental protection through monitoring the environment, collaborating with industry and the community, and driving related strategic research and innovation;
- Focus on continuous improvement by adopting applicable industry best practices and requirements of ISO 14001;
- Ensure our business decisions support the application and practice of sustainability principles by protecting, conserving, and restoring our resources through energy conservation, reducing water consumption, supporting waste diversion, and considering product life cycle in our Supply Chain;
- Hold ourselves accountable to prevent pollution through robust management of emissions, effluents and waste, as well as implementation of spill mitigation measures;
- Promote environmental stewardship and awareness at work, in the community, and across Ontario;
- Uphold the trust of the community through open and transparent communication with partners, Indigenous communities, and stakeholders on environmental interests;
- Play a leading role in keeping the air clean and fighting climate change; supporting emissions reduction strategies to achieve a Net Zero Canada by 2050; adopting ambitious net reduction strategies for Bruce Power to achieve Net Zero (GHG); and
- Support partners, communities and organizations to drive innovations and projects to offset and sequester carbon in a real and tangible way.

We are committed to environmental protection in all areas of our business, to minimize our environmental footprint. We have adopted applicable best industry standards, such as the CSA N288 series on environmental management for nuclear facilities, and requirements of ISO 14001 as a framework for achieving continual improvement and sustainable performance excellence.

Bruce Power's Environment & Sustainability Policy reflects our commitment to protect the environment. The policy was updated in 2021 to enhance our commitment to sustainability principles, address work in strategic research and innovation, and to demonstrate our commitment of meeting or exceeding requirements. The Environment & Sustainability Policy establishes guiding principles and environmental expectations for employees and those working on behalf of Bruce Power.

Greenhouse Gas Emissions and Avoidance

We take very seriously our responsibility to provide clean energy and to minimize the carbon footprint of our operations, especially at such a pivotal time for our climate. In 2021, a key focus was on the updates to Bruce Power's greenhouse gas (GHG) quantification approach and inventory, establishing our Net Zero 2027 commitments, and developing our Net Zero Strategy.

Scope 1 and 2 GHG Emissions

In previous reporting, our Scope 1 and Scope 2 GHG emissions were quantified including only emissions produced by on-site activities. In 2021, in partnership with our consultants, Bruce Power expanded our Scope 1 and Scope 2 GHG inventory to better align with the principles and guidance provided in *The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard* (GHG Protocol) developed by The World Resources Institute (WRI) and World Business Council for Sustainable Development. Using an Operational Control approach to define our GHG inventory boundaries, we report on Scope 1 and 2 emissions from operations and facilities that are owned by Bruce Power and/or where Bruce Power has controlling interest from an operational perspective.

Bruce Power's direct (Scope 1) GHG emissions include those that occur from sources that are owned or controlled by Bruce Power. These include:

- Stationary combustion: Combustion of fuels in owned or controlled stationary combustion sources such as boilers and testing of emergency standby generators
- Mobile combustion: Fuel combustion in on-road or off-road mobile combustion sources such as fleet vehicles
- Process emissions: Emissions from physical or chemical processes
- Fugitive emissions: Intentional or unintentional fugitive releases of gases or vapors such as equipment leaks

Bruce Power's indirect (Scope 2) GHG emissions include those that occur from the generation of grid electricity or energy (e.g. steam used for heating) purchased and consumed by Bruce Power.

Scope 3 GHG Emissions

Scope 3 emissions refer to GHG emissions that occur from sources owned or controlled by other entities in Bruce Power's value chain. These are emissions from upstream and downstream activities, such as emissions from our supply chain that support Bruce Power operations, or a consequence of the activities of Bruce Power, but occur from sources not owned or controlled by Bruce Power.

Over the course of 2021, an initial screening exercise was completed to determine which Scope 3 emission categories were relevant to Bruce Power and to complete a baseline calculation to quantify emissions (based on 2019 data). Although Scope 3 emissions are not included in Net Zero 2027 targets, further work is being undertaken in partnership with our consultants to improve the data collection and refine the conservative assumptions used in current estimation methodologies, in order to identify where Bruce Power can influence reductions before setting targets. This addresses the 'upstream' aspects of our Scope 3 emissions; however, we are also evaluating the downstream aspects of our product; non-carbon emitting, clean electricity. We have conducted an assessment of the net positive impact; the avoided emissions from the incremental output that will be generated from investments in our plant through Project 2030 and Life Extension investments through Major Component Replacement, and have determined that our Scope 3 emissions, would be more than 'offset' by our downstream impacts. This is further discussed in the Emissions Avoidance section.

[2021 Annual Environmental Protection Report](#)



Initial Scope 3 emission reduction opportunities identified included focusing on our value chain and collaboration with suppliers to better understand emissions and find reduction opportunities.

Net Zero at Bruce Power

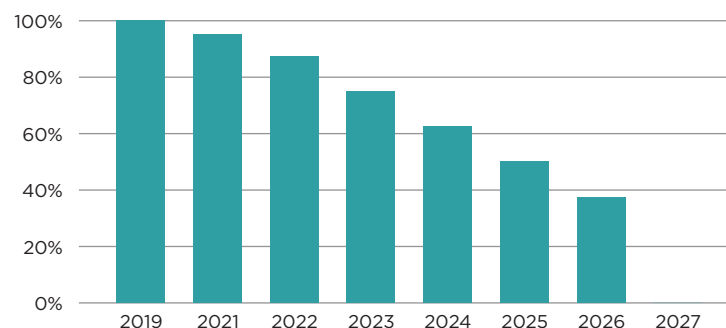
As the impacts of climate change continue to be felt on a global scale, businesses and governments are increasingly focusing on the reduction of GHG emissions as well as supporting investment in efficient, low-carbon solutions to meet global energy needs.

Canada has set a national target to achieve Net Zero GHG emissions by 2050, and in October 2020, Bruce Power showed leadership to support this goal by launching its own Net Zero 2050 (NZ-2050) Strategy, consisting of five pillars:

1. Optimize and leverage existing investments in Canada's largest private-sector infrastructure project to drive further decarbonization.
2. Foster innovation in new energy technologies, including new nuclear and fusion energy.
3. Use nuclear power generation to produce clean fuels and electrify industrial processes and transportation with an historic opportunity to contribute to a national hydrogen and clean fuels strategy.
4. Create an ecosystem of "green collar" jobs, including the nuclear, manufacturing, and energy development sectors with a focus on diversity and more representation from women, visible minorities and Indigenous peoples.
5. Inspire innovation by supporting strong social responsibility and sustainability, and providing contributions to global health, such as life-saving medical isotopes as the world battles COVID-19.

Building upon this strategy, in 2021 Bruce Power launched a number of initiatives, including establishing our commitment to be Net Zero with respect to GHG emissions by 2027. We were the first nuclear operator in North America with such an ambitious commitment. Bruce Power's commitment to achieving Net Zero GHG emissions will account for all direct and indirect emissions that occur from sources that are owned or controlled by the company (Scope 1 and Scope 2 emissions). In an effort to drive continued progress towards this Net Zero goal, increasing emission-reduction targets have been set against a 2019 baseline for the years leading up to 2027, from 2021 through 2027.

Bruce Power Interim GHG Reduction Targets Relative to a 2019 Baseline



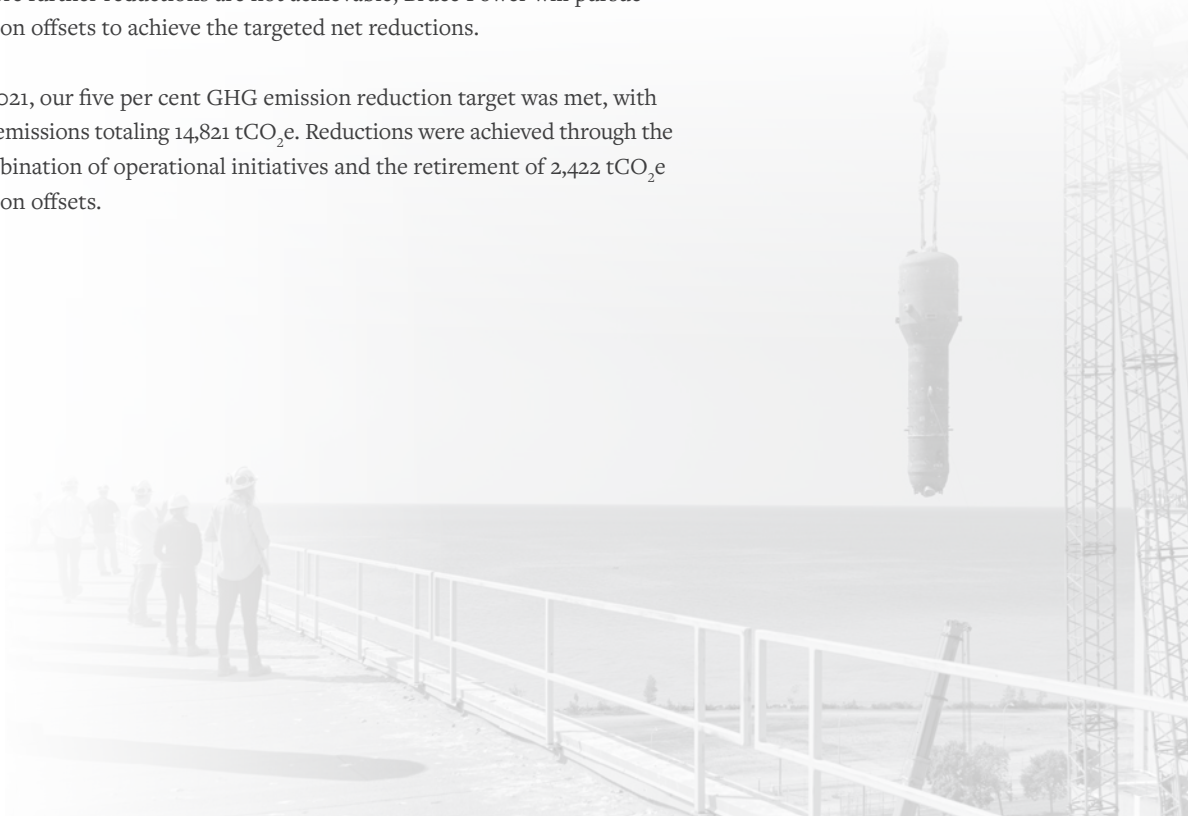
% Reduction	2021	2022	2023	2024	2025	2026	2027
Cumulative	5%	12.5%	25%	37.5%	50%	62.5%	100%

To meet these targets, efforts will be focused on prioritizing emission-reduction projects in our operations, as outlined in our Net Zero Strategy. Where further reductions are not achievable, Bruce Power will pursue carbon offsets to achieve the targeted net reductions.

In 2021, our five per cent GHG emission reduction target was met, with net emissions totaling 14,821 tCO₂e. Reductions were achieved through the combination of operational initiatives and the retirement of 2,422 tCO₂e carbon offsets.



By meeting our 2021 GHG Reduction Target, the emissions reduced from our 2019 baseline are equal to 239 passenger vehicles or 183 homes' energy use for one year.



Bruce Power's Net Zero Strategy

To support our commitment to achieve Net Zero emissions by 2027, Bruce Power is taking steps to reduce and avoid emissions through the development of our Net Zero Strategy, in partnership with our consultants. This strategy includes implementing energy and emission-reduction projects and initiatives in our operations, finding alternatives to high-emission energy sources and, where further reductions are not feasible, pursuing emission offsets.

We have identified that we have the potential to avoid 15 per cent of GHG emissions, reduce 18 per cent using lower carbon fuels, and substitute 36 per cent of emissions for renewable/clean energy. Further details on our strategy can be found in the Bruce Power 2027 Net Zero Strategy document posted on our website.

Specific on-site projects and initiatives identified in the strategy include:

- Electrical and thermal energy efficiency projects including HVAC upgrades and LED lighting upgrades
- Building use optimization and consolidation to reduce space heating demands
- Regular inspection and maintenance of refrigeration equipment to reduce leaks of halocarbons
- Emergency generator testing frequency and duration optimization to reduce GHG emissions
- Transition energy used for building heating from steam generated offsite and incurring significant line losses to more direct and efficient heating on site
- Conducting a Fleet Optimization Study to identify opportunities including electrification and increasing efficiencies in vehicle use and operation. Opportunities identified as part of this study include:
 - Moving a portion of our light duty fleet over to EVs with the potential to save 300 tCO₂e in emissions per year
 - Implementing an idling reduction policy for our fleet, with the potential to save up to 50 tCO₂e emissions per year.
- Leverage carbon offset credits generated in Ontario through well-recognized voluntary programs, and more regional projects supported by the Carbon Offset Accelerator Fund.

Carbon Offset Coalition and Carbon Offset Accelerator Fund

Bruce Power unveiled the Carbon Offset Coalition under partnership with the Nuclear Innovation Institute; a Net Zero carbon reduction community partnership program. In November 2021, Bruce Power announced a \$1 million Carbon Offset Accelerator Fund to support carbon sequestration and offset projects in the Clean Energy Frontier region of Bruce, Grey and Huron counties and throughout Ontario.

The Carbon Offset Coalition is aimed at supporting grassroots Net Zero initiatives, and nature based solutions that will both remove and offset carbon emissions. The goal of the coalition is to bring together Indigenous and non-Indigenous communities, and business and agricultural organizations across southwestern Ontario to support initiatives focused on removing and offsetting carbon from the atmosphere.

The Coalition is part of the company's commitment to produce Net Zero emissions by 2027, while also playing a lead role in supporting a Net Zero Canada by 2050.

A \$1 million Carbon Offset Accelerator Fund was also introduced by Bruce Power, focusing on supporting the projects identified through the Carbon Offset Coalition, along with a partnership Bruce Power has established with Bluesource, a leading North American offset developer, as well as other strategic alliances with a range of organizations.

One of the projects supported through the Carbon Offset Coalition is the New Acre Project with Alternative Land Use Services (ALUS), which involves farmers and ranchers playing a productive role in conservation and sustainability on their own properties. The New Acre Project is focused on 600 acres of nature-based projects on agricultural land across Bruce and Grey counties that will lead to measurable environmental impacts, including greenhouse gas reductions, sequestering opportunities and the protection and enhancement of local ecosystems.

More information on the Carbon Offset Coalition can be found here:

<https://www.carbonoffsetcoalition.com/>



In November 2021, Bruce Power announced a \$1 million Carbon Offset Accelerator Fund to support carbon sequestration and offset projects in the Clean Energy Frontier region of Bruce, Grey and Huron counties and throughout Ontario.

www.carbonoffsetcoalition.com

Tree Planting

In addition to our partnering with local carbon offset and sequestration projects through the Carbon Offset Coalition, Bruce Power continues to support local tree planting projects and initiatives via our Environment & Sustainability Fund. Benefits of tree planting include helping to mitigate climate change through carbon uptake while enhancing natural habitats and providing other ecosystem benefits.

Since 2018, we have been working with Saugeen Valley Conservation Authority to expand their seedling planting program and as of 2021 funded the planting of 181,005 seedlings with a commitment to continue to fund this program through 2025. In 2021, Bruce Power directly supported the planting of 36,610 trees via our partnership with SVCA.

This partnership helped us to achieve our 2021 target of over 10,000 tCO₂e in carbon removal via tree planting efforts. The offsets from these projects that we support are not validated or officially credited. We estimate the value provided from trees planted based on their carbon sequestration potential over their lifetime. Details on this calculation are outlined in this report's Methodology section.

In 2021 and 2022, additional funding was also committed to support tree planting efforts through local organizations including Penetangore Watershed Group and SauGREEN.



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Emissions Avoidance

The generation of electricity is not a simple one dimensional discussion; to appreciate and make informed decisions, a holistic, lifecycle discussion must take place. In the case of the Bruce Power facility operations and annual megawatt hour (MWh) of non-carbon emitting clean electricity generated per year, the potential emissions avoided was equivalent to approximately 20.3 million tCO₂e 2021.

Ontario's electricity grid is deeply decarbonized; however, the capacity of electricity to replace that of the Bruce Power site could not be solely made up by existing renewable capacity or imports from neighbouring electricity grids without the use of more GHG intense electricity forms. Therefore the assumption built into this currently looks at a combined natural gas equivalent GHG comparison factor. More detail on this calculation is found in the Methodology section.

Incremental Clean Electricity — Emissions Avoidance

The previous section discusses the emissions avoided by our current online clean electricity generation, which is part of the existing grid. However, as the demand for electricity is expected to increase in future years, we felt it prudent to assess the value of new or incremental clean electricity output.

The Independent Electricity System Operator (IESO) forecasts this increased demand will be met by an increase in electricity generation/output from the existing natural gas facilities to balance the rising demand with the reduced nuclear supply with facilities nearing end of life¹. As a result of the increase in natural gas generation, the GHG emission intensity of the grid is expected to increase substantially.

Bruce Power's investment in 'new' or incremental nuclear output in a series of power recovery projects under Project 2030 will bring incremental output up by 700 MW, avoiding the GHG emissions that would have been produced by other carbon-emitting sources. The avoided emissions from the initial phase of the project, which will grow site output to 6,750 MW, are estimated to remove almost 450,000 tCO₂e from the grid annually². This becomes equivalent to more than 1,000,000 tCO₂e at the final stages of the power recovery program.

Given that these investments will generate additional clean energy and are forecasted to result in avoided emissions from natural gas generation, it is our opinion that the case is strong for this incremental clean energy output, as well as other clean energy projects, to be considered eligible to register for GHG offsets or clean energy credits with the appropriate offset or registry program.

BrucePower Project2030

Project 2030 will bring output up to 7,000 MW by 2030, this incremental output of 700 MW will result in the avoidance of emissions from increased natural gas generation to support increasing demand.

¹ GHD Limited (GHD) for Bruce Power GHD Limited (2022) The Energy Sector's Role in Net Zero. P. 11

² GHD Limited (GHD) for Bruce Power GHD Limited (2022) The Energy Sector's Role in Net Zero. p. 14

Climate Change

Bruce Power goes beyond regulatory compliance by driving innovation and strategic research in environmental protection. We have worked with multiple partners to better understand climate change impacts and vulnerabilities on Lake Huron with a focus on the area near the facility. We have extended this assessment to the Grey, Bruce and Huron regions with a focus on municipal and agricultural sectors and work with Indigenous communities to deliver on improved understanding and potential advanced solutions to build resiliency.

Bruce Power works with various corporate entities and academic institutions to strengthen its regional understanding of climate change impacts. The information provided below is from climate change projections conducted by Golder Associates which were downscaled to the local region, the Council of the Great Lake Region (CGLR) in partnership with the University of Toronto and the Climate Risk Institute (CRI), and CANDU Owners Group (COG). The work with CGLR was a multi-year study that had three areas of focus (agriculture, municipalities and Indigenous communities), with community workshops held for understanding of key areas of interest. The outcome of this work was a better understanding of current and future climate risks in the region and sharing of infographics and reports that provide a strong basis to build on for future updates. To learn about the climate change study and view results, visit the [Climate Risk Institute's website](#).

A large supply of cooling water is an inherent design requirement for the operation of CANDU reactors and the location of our business along the Lake Huron shoreline results in several unique interactions with the natural environment. Bruce Power monitors changing environmental conditions, focusing current conditions, long-term trends, and predicted changes over the next 30-50 years. Changing environmental conditions, such as high water levels and increased water temperatures, are of particular interest and are compared to the design basis of equipment to verify resilience to extreme weather events.

Provided is a brief summary of the short- and long-term changes in air temperature, ice cover, precipitation, wind, lake water levels, water temperature, and debris loading that Bruce Power currently reviews and

assesses potential impacts, under the suite of Climate Change Metrics. Bruce Power uses this information as part of our evaluation of resilience measures in a forward-looking assessment and is provided here for general sharing of the information with the local community.

Key Environmental Trends

Air Temperature

Climate modelers have high confidence that the mean annual air temperature in our region will continue to rise at an increased rate (1.9–3.9°C warmer by mid-to late-century). We should expect an increase in the frequency of warm temperatures, and given the impact of high ambient temperature on operations, this knowledge requires us to evaluate for any future equipment challenges, or changes to existing trends of employee heat stress days.

Precipitation

The long-term total annual precipitation increased at a rate of 2.7 mm/year over the last 70 years. The rate of increase was highest in the winter, spring and fall. Summer precipitation during 1989-2019 was lower than the preceding period confirming that summers are becoming drier.

Precipitation is projected to increase everywhere in Canada over the 21st century. Our region is expected to receive less summertime precipitation in the future. There is high confidence that the incidence of extreme precipitation events will rise.

Wind

The strongest winds in our region are experienced in the fall and winter months. The frequency of days with wind gusts > 60 km/h has decreased over the last 60 years. Climate projections of future wind patterns have large uncertainty and very little modelling has been completed for our region.

Ice Cover

The duration of lake ice coverage has declined across Canada over the last 50 years due to later ice formation and earlier spring ice breakup.

How is Climate Change information handled within Bruce Power?



Environment Research and Regulatory Team trends and models changing environmental conditions



Information disseminated to Engineering and Safety Analysis teams for evaluation of potential impact on operational equipment and infrastructure



Risk Log Entries related to potential climate change risk are captured in Corporate Risk Log

The fraction of the Great Lakes surface covered in ice has varied considerably through the years as well as the timing of maximum ice coverage.

Water Levels

Sources and sinks of water in Lake Huron are not regulated. Large oscillations have occurred over the last century (range >1.9 m), and it is reasonable to expect steep changes to occur into the future. Water levels in 2020 were at an all-time high over the last century. The last few years were exceptionally wet for the Great Lakes basin. Lake levels have dropped since 2020 and the current level is near the long-term median.

Most regional climate models predict that we will experience decreased ice coverage, and increased evaporation, lake-effect snow and precipitation. The future Net Basin Supply of water to Lake Huron is expected to decrease causing a small decline in lake levels. Current models suggest future water levels will be similar to existing conditions (perhaps lower) and we should be prepared for variability.

Water Temperature

There is no discernible change in Lake Huron water intake temperatures from 1997 to 2020. On a seasonal basis the coolest intake waters are measured in January-March and the warmest conditions occur July-September. The risk of frazil ice formation in future decades may increase as the duration of ice cover in Lake Huron is expected to decrease. Winter readiness continues to be a top priority.

Climate change is projected to increase water temperatures and the depth of vertical mixing. Increased air temperatures in the winter and spring are expected to cause earlier spring warming and greater heating of deeper water. Climate warming is expected to increase lake temperatures near Bruce Power by an average of 1.3°C to 2.3°C under median and extreme

warm climate change scenarios. Under the extreme cold scenario, water temperatures would be slightly lower than current conditions.

Future lake temperature increases will be gradual. Sudden and sustained temperature increases are not expected. Natural variability will continue to occur and we will experience warmer and cooler years. Lake water levels do not significantly impact water temperature under any future climate scenario.

Condenser Cooling Water Blockage Risks from Fish, Algae, Mussels and Other Debris

Our ability to understand, quantify and predict the amount and timing of fish, algae, mussel and other debris is a top focus for our company. High volumes of algae, mussels, terrestrial debris or fish can occur at any time of the year. Continued maintenance and improvement of travelling screens, bar screens and fish monitoring equipment is very important so that debris can be removed and prevented from blocking Condenser Cooling Water (CCW) flow. WANO SOER 2007-2 Cooling Water Blockage effectiveness reviews are conducted every two years. This includes understanding changing environmental conditions, such as debris loading (i.e. fish, algae, mussels, and other debris).

The dynamic nature of Lake Huron is evident in debris loading trends, with algae loading highest between July and December and mussel loading generally increasing in recent years. Fish impingement remains low, is monitored daily, and remains well below annual limits set by the Fisheries Act Authorization. The authorization requires offsets of annual losses by increasing fish production in the watershed and this is in progress with monitoring post the Truax Dam removal, joint Coastal Waters Monitoring Program with Saugeen Ojibway Nation, and developing projects with Indigenous communities.



There is no discernible change in Lake Huron water intake temperatures from 1997 to 2020.



Non-GHG Emissions, Effluents and Waste

Waste Management

Bruce Power manages many different forms of waste including hazardous waste (oils, chemicals, lighting lamps and ballasts – some of these are recycled), recyclable waste (glass, plastic, metal, cardboard, paper, wood, batteries, and electronics), organic waste (compost), and landfill waste. Bruce Power also manages radioactive waste in partnership with Ontario Power Generation (OPG).

As part of our Waste Management program, Bruce Power complies with all waste regulations and requirements of the relevant federal, provincial, and municipal authorities. Further, Bruce Power continues to take an active role to reduce all forms of waste. From an environmental and financial standpoint waste reduction is good for our company and the community in which we reside. Our philosophy employs a whole life-cycle approach in that we reduce waste at the consumer level, generate less waste at the company level, find opportunities to reuse products (on site, off-site donations, or sell them at auction), and implement recycling programs that are available in the ever-changing recycling market. To minimize the amount of waste sent to landfill each day, Bruce Power has implemented a number of initiatives that apply the principles of reduce, reuse, recycle, and recover. Wherever its fate, each waste stream generated at Bruce Power is processed and disposed of in a safe and environmentally-responsible manner and at a minimum, in compliance with all applicable regulations.

Conventional Waste

The primary objectives of the Conventional Waste Program are to process conventional wastes in a safe and environmentally responsible manner while achieving waste minimization through the application of reduce, reuse, recover, and recycle principles. Bruce Power's Conventional Waste Program ensures that safety is the paramount consideration guiding decisions and actions by complying with all regulatory requirements, including:

- The Ontario Environmental Protection Act [R-58]
- Ontario Regulation 347, General Waste Management [R-120]

- Ontario Regulation 103/94, Industrial, Commercial and Institutional Source Separation Programs [R-121]
- Ontario Regulation 102/94, Waste Audits and Waste Reduction Work Plans [R-122]
- Ontario Regulation O. Reg. 153, Record of Site Condition
- Transport Canada's Transportation of Dangerous Goods (TDG) Act [R-123], when transferring waste to a landfill

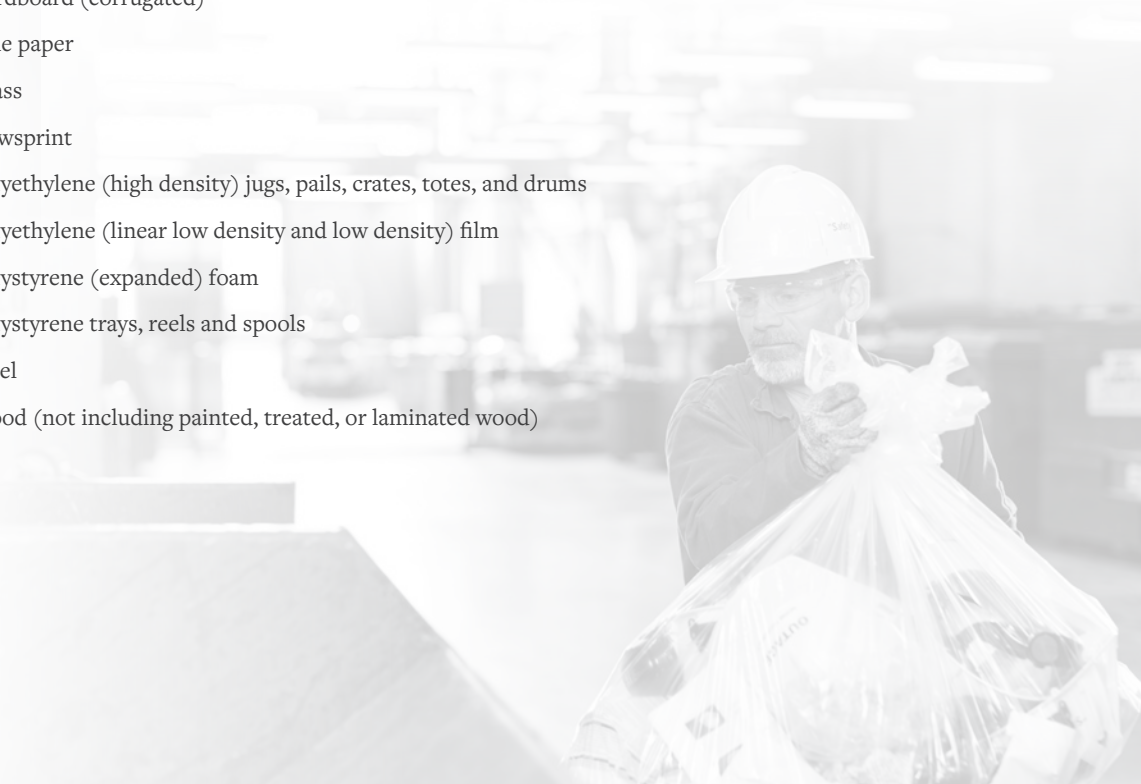
Management of conventional waste includes all non-hazardous and non-radiological items: recyclables, compost, and waste destined for landfill, as defined in Ontario Reg. 103/94 [R[1]121].

Under the Environment Protection Act, Bruce Power is considered to be a large manufacturing establishment and is mandated to have recycling programs in place for the following materials:

- Aluminum
- Cardboard (corrugated)
- Fine paper
- Glass
- Newsprint
- Polyethylene (high density) jugs, pails, crates, totes, and drums
- Polyethylene (linear low density and low density) film
- Polystyrene (expanded) foam
- Polystyrene trays, reels and spools
- Steel
- Wood (not including painted, treated, or laminated wood)

Bruce Power manages many different forms of waste:

- **hazardous waste**
- **recyclable**
- **organic**
- **landfill**
- **radioactive**
(in partnership with OPG)



The Conventional Waste Program at Bruce Power demonstrates our values of uncompromising high standards by not only meeting regulatory requirements, but by going above and beyond by implementing 16 additional source separation programs on site, including but not limited to:

- Compostable paper towels
- Boxboard
- Food waste
- Yard waste composting
- Battery
- Office supplies
- E-waste
- Hard hats

As per Ontario Reg. 102/94, Bruce Power must also perform an annual conventional waste audit completed by a third-party vendor. The auditor's assessments consistently show that Bruce Power is performing well in comparison to other large industrial facilities. In 2021, Bruce Power achieved a 68 per cent diversion rate, with approximately 63 per cent of waste material recycled via several different recycling streams and five per cent of material diverted by composting. This did not meet our targeted reduction rate of 70 per cent, and this was due in part to changes in site worker population during COVID-19, which impacted amounts of material generated in some recycling streams. The reduced implementation of, and oversight on, diversion initiatives, during the pandemic may have also been a factor. In 2022, we continue to look for opportunities to improve our waste reduction and diversion performance.

2022 Waste Reduction and Diversion Initiatives

- Revamp the on-site Styrofoam recycling program
- Transition to biodegradable disinfecting wipes
- Install touchless water bottle fountains across site to ensure water is provided in a more hygienic way and reduce bottled water waste on site
- E-waste recycling / reuse relationship with Habitat for Humanity

- Installing waste bin sensors on a trial period to obtain more accurate data on waste volumes and waste vendor services
- Continuing to make progress on eliminating all low level Polychlorinated Biphenyls (PCBs) on site by 2025, in compliance with regulations

Hazardous Waste

The primary objective of Bruce Power's Hazardous Waste Program is to comply with applicable federal, provincial and municipal laws and regulations as well as corporate requirements affecting the generation, handling, storage and disposal of hazardous waste while ensuring the health and safety of personnel, the public and the environment. These regulations include:

- The Ontario Environmental Protection Act
- Ontario Regulation 347, General-Waste Management
- Ontario Regulation 362, Waste Management-PCBs
- Canadian Environmental Protection Act, PCB Regulations (SOR/2008- 273)
- Environment Canada, Compliance Promotion Guide on PCB Regulations Requirements

Hazardous wastes, such as chemicals, oils, batteries, and fluorescent tubes, generated on site are carefully tracked to ensure all hazardous waste is safely disposed of in accordance with all applicable regulatory requirements. Bruce Power has an excellent network of external waste vendors (certified to carry and/or receive hazardous wastes) who frequently work with us to dispose of all our hazardous waste streams in an industrially and environmentally safe manner.

The Hazardous Waste Program also includes the management and oversight of the Polychlorinated Biphenyls (PCB) phase out on site, aligning with federal requirements. Bruce Power is currently on track to meet the requirements by 2025.

As part of our Waste Management program, Bruce Power complies with all waste regulations and requirements of the relevant federal, provincial, and municipal authorities.

Waste Oil Recycling

In 2021 Bruce power committed to developing an oil recycling program for oils and lubricants. The goal of the program was to divert at least 10 per cent of the company's oil waste to a recycling stream. In 2020, after a thorough assessment of our waste oil generation, it was identified that approximately 42 per cent of the oil that was going to waste could actually be recycled.

In 2021, approximately 105,610 litres of oil was recycled through this program instead of going to waste. This represents a diversion of nearly 24 per cent of the oil from the waste stream into the recycling stream.

Radioactive Waste

Bruce Power manages and fully funds the storage and disposal of its radioactive waste in partnership with Ontario Power Generation (OPG). Since the 1970s, OPG has responsibly managed, transported, stored and processed all radioactive waste from the Bruce A and Bruce B generating stations. Waste is currently stored by OPG on an interim basis until long-term disposal facilities are established. A proposal for a deep geologic repository as a permanent disposal facility for Low and Intermediate Level radioactive waste at the Bruce Power site was withdrawn by OPG in 2020. The project cancellation was responsive to an OPG commitment made to local Indigenous communities to not proceed if their consent was not secured. OPG is currently exploring alternate sites and concepts for Low and Intermediate Level radioactive waste disposal.

Nuclear Waste Management

- Nuclear is the only industry that has a plan to manage waste that is fully costed and funded, taking into account the full life cycle of our generation by-products.
- Station maintenance and improvement projects are planned, to the extent practical, with a focus on minimizing waste generation, and any waste to be generated is managed to minimize the volumes to be stored and future disposed of.
- Initiatives are continually explored and implemented to reduce nuclear waste volumes to be stored and future disposed of. These initiatives are driven by the objectives of minimizing the environmental footprint for stored waste and also minimizing costs to Ontario electricity ratepayers.

- Nuclear waste handling is highly controlled and regulated by the Canadian Nuclear Safety Commission, one of the world's most well regarded nuclear regulatory authorities.
- The nuclear industry's waste strategy supports host communities by providing significant economic benefits and jobs.
- Deep Geological Repositories (DGRs) are the world's scientifically accepted method for long-term storage of used nuclear fuel. Many countries which have benefitted from nuclear power for decades are progressing plans for DGRs. Canada interfaces with other countries to share and advance best technologies.
- The Nuclear Waste Management Organization (NWMO) is responsible for Canada's plan for the safe, long-term management of used nuclear fuel, including from new or emerging technologies such as small modular reactors. Until a Used Fuel DGR is constructed and placed into operational service, used nuclear fuel will continue to be safely stored on the sites of Canada's nuclear generating stations, under tight safeguard controls imposed by the Canadian Nuclear Safety Commission and the International Atomic Energy Agency.

Non-GHG Emissions and Effluents

For more information on our Non-GHG emissions and effluents, please refer to our [2021 Environmental Protection Report](#).

Nuclear Waste Management Organization

www.nwmo.ca



Our Water Resource

The Bruce Power site is located within the Saugeen Watershed along the shores of Lake Huron. Lake Huron is the eighth largest lake in the world by volume at 3,540 km³.

The cold, deep water of Lake Huron is Bruce Power's source for domestic needs, including drinking water. It is also used across the site in firewater systems, demineralization plants, and once-through-cooling systems that cool and condense low-pressure steam before it is returned to our boilers. More than 99.99% of the water used on-site is returned to the lake. This process is highly regulated, including provincial permits for water taking and imposing protective limits on water quality for waters returned to the lake.

As an operation that takes more than 50,000 liters of water per day from a lake, river, stream, or groundwater source, Bruce Power must obtain a Permit to Take Water (PTTW) from the Ministry of Environment Conservation and Parks (with a few exceptions). These permits help to ensure the conservation, protection, management, and sustainable use of Ontario's water. A permit will not be issued if the ministry determines that the proposed water taking will adversely impact existing users or the environment. Bruce Power has a separate PTTW for Bruce A (1813-8MLLHG, P-300-2114648110), Bruce B (2233-8MLN8J, P-300-4114675736), and Centre of Site (COS) (1152-8MLPCR, P-300-7116089842). Bruce Power remained in compliance with all PTTW requirements in 2021. Further information on this can be found in [Bruce Power's 2021 Environmental Protection Report](#).

In support of the conservation, protection, management and sustainable use of Ontario's freshwater resources, Bruce Power monitors our water usage and report on daily amounts drawn. Beyond considerations of water quantity management, we are committed to monitoring and ensuring the protection of the quality of water, and our fish habitats in and around our shores and the greater region.

In addition to the permitting process, our environmental monitoring program conducts extensive year-round sampling to verify the protection of our local environment. This includes water temperature and water quality sampling on site and in Lake Huron, and routine monitoring of



soil, sediments groundwater, vegetation and wildlife. Environmental monitoring (measurement, sampling, and analysis) ensures that the health of the environment and people are protected and verifies that emissions and effluents from operations results in negligible environmental risks.

In 2021, Bruce Power's net annual water consumption from Lake Huron was 2.08 million cubic meters, staying below our targeted threshold of 2.3 million cubic meters.

Domestic water is consumed by Bruce Power employees and visitors as drinking water and it is used for washing and other sanitation needs. Bruce Power operates a provincially-regulated sewage treatment plant on-site, and all the domestic water consumed on-site is returned to the lake after treatment.

Some of the water drawn for operational needs at Bruce Power is demineralized on-site where it is used to generate electricity in steam-powered turbines. Some of this water is not directly returned to Lake Huron because a fraction is continuously discharged to the atmosphere as clean water vapour (steam).

More than 99.99% of the water used on-site is used for once through cooling purposes and is returned to the lake.

Land Use and Biodiversity

Bruce Power is home to a diverse natural environment that contains more than 235 species of plants and more than 270 species of wildlife. The protection of these species and the habitats that support them is a priority for our environmental protection program.

In 2020, we set an internal target to protect 887 hectares (ha) of high-quality habitat on site or maintain an equivalent amount off site. This target was established from an Ecological Land Classification study completed in 2017 that demonstrated 55 per cent of the Bruce Power site was composed of undisturbed forest, open, or wetland habitats, totaling 887 ha.

As we prepare for and conduct our Major Component Replacement project, there are times when development is essential to support the continued generation of clean electricity through our Life Extension program. Seven hectares of land was cleared at Bruce Power over the past four years to construct a training simulator and create additional parking capacity. At the same time Bruce Power worked with organizations like Nature Conservancy Canada, Ontario Nature and Bruce Trails Conservancy to acquire and permanently protect over 60 ha of high-quality habitat from future development to compensate for this land clearing, significantly surpassing our target.

Phragmites Removal

Bruce Power has spent significant effort over the years to protect Baie du Doré, an ecologically sensitive and provincially-significant coastal wetland adjacent to the site. Beginning in 2018, Bruce Power partnered with the Invasive Phragmites Control Centre (IPCC) to remove Phragmites australis from Baie du Doré and the nearby Lake Huron shoreline. Invasive Phragmites is Canada's worst invasive plant because it aggressively spreads and degrades the habitat and biodiversity of endemic plants and animals.

Vegetation surveys completed in 2014 found that invasive Phragmites was established in approximately 60 per cent of the 107 ha wetland. Between 2018 and 2021, Bruce Power and the IPCC removed Phragmites from approximately 52 ha of the coastal wetland making a significant reduction in its presence. We have moved into the next phase of management to

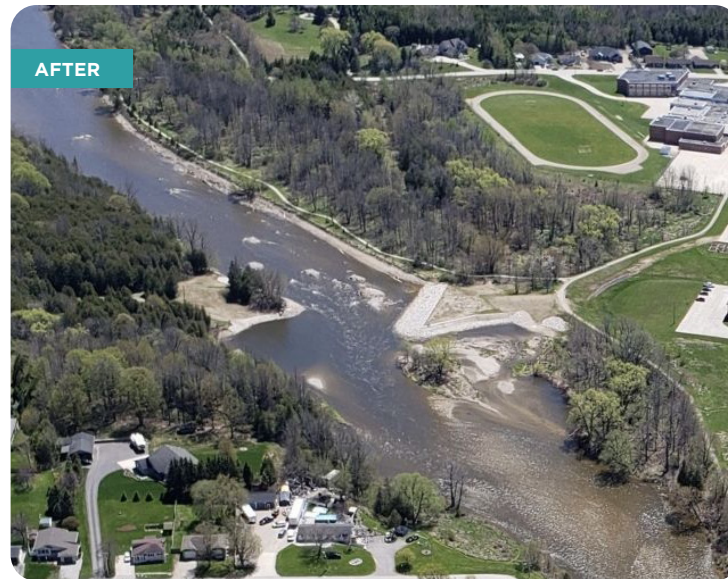
target sparsely populated Phragmites areas and prevent high-density areas from re-emerging for the long-term.

In addition to Baie du Doré, Bruce Power has supported the IPCC and many other groups and Indigenous communities with Phragmites control along the Lake Huron shoreline from the Fishing Islands near Oliphant south to Lambton Shores, ON. Environmental monitoring is key component of our work and the health of fish and plant populations in Baie du Doré, the Fishing Islands and Lambton Shores has been ongoing since 2017.



In 2014, surveys of Baie du Doré found that invasive Phragmites was established in approximately 60 per cent of the 107 ha wetland.





Preliminary results from monitoring show that by removing the Truax Dam, fish production upstream has increased by over 1,500 kg per year, with further production increases expected over future years.

Fisheries Improvement Initiatives

Bruce Power is a proud supporter of many fishery enhancement initiatives across Ontario. As part of its Fisheries Act Authorization, Bruce Power helped to remove the Truax Dam in Walkerton, Ontario so that fish in the Saugeen River could freely pass upstream. This was the largest dam removal in Ontario in recent times and helps all fish and aquatic invertebrates from rainbow trout and salmon that are so sought after by anglers from around the world, to smaller fish like minnows, shiners, dace and chub that inhabit important ecological niches within the Saugeen River.

Four years of fish biomass monitoring has been completed in the river and its upstream tributaries (two years before and two years after the dam was removed). Preliminary results from this monitoring show that by removing the Truax Dam, fish production upstream has increased by over 1,500 kg per year. This is a minimum estimate, and additional fish production is expected in future years, especially in upstream tributaries such as Otter Creek and the Beatty Saugeen River.

Bruce Power continues to work with many other community groups to improve inland fish habitat and within Lake Huron. Since 2017, Bruce Power has supported a large effort to remove dense pockets of Phragmites from approximately 110 ha of the Fishing Islands, a culturally- and environmentally-rich coastal wetland habitat that is threatened by invasive Phragmites. This area contains important fish-rearing habitat and removal of Phragmites so that endemic vegetation can re-emerge is an important rehabilitation step.



On Site Biodiversity Initiatives — Reduced Grass Mowing

In 2022, Bruce Power developed a reduced grass mowing strategy that balances site safety and aesthetics with enhanced environmental sustainability. While it is important that some grassed areas adjacent to roadways are maintained for traffic safety, Bruce Power identified 37,000 m² of grassed areas that will be left to grow naturally, representing a 34 per cent reduction in landscape areas that need to be mowed each season.

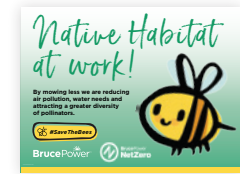
Key environmental benefits of the reduced grass mowing strategy include:

- Annual greenhouse gas reductions of approximately 10 tonnes of CO₂ equivalent due to decreased use of landscaping equipment and fuel consumption
- Enhanced wildlife habitat that provides new pollinator areas and habitat linkages/corridors
- Promotes increased diversity of wildlife, especially natural vegetation
- Increases available overwintering habitat for amphibian and reptiles

Wildlife Habitat Council Certification

Bruce Power currently holds a Wildlife Habitat Council (WHC) Conservation Certification for our continued stewardship efforts in the Baie du Doré. The Baie du Doré project includes efforts to control and reduce the highly invasive plant species, *Phragmites australis* with a goal of increasing the diversity of natural shoreline vegetation and allow the re-establishment of natural habitat.

Bruce Power is in the process of re-applying for WHC Conservation Certification in 2022, including the submittal of additional monitoring programs and new habitat conservation initiatives along with updates on our existing Baie du Doré project.



Bruce Power identified 37,000 m² of grassed areas that will be left to grow naturally, representing a 34 per cent reduction in landscape areas that need to be mowed each season.



Environment & Sustainability Fund Partnerships

Through Bruce Power's Environment & Sustainability (E&S) fund, we continue to support local environmental initiatives. Established in 2015, the E&S fund focuses allocation of resources to initiatives in the areas of:

- Conservation & Preservation;
- Education, Awareness & Research and;
- Restoration, Remediation & Quality Improvement.

In the selection process for E&S fund applicants, we look to align with Bruce Power's environmental KPIs as well as other key priority items, such as the location and the communities supported, with priority given to initiatives within Grey, Bruce and Huron counties. This scoring system is intended to help enhance and inform decision making, and ensure funding is focused on local community initiatives while aligning to our environmental and sustainability efforts as a business.

\$320,000

was distributed amongst sponsorship, long-term partnerships and events in 2021.

In 2021, approximately \$320,000 was distributed amongst sponsorship, long-term partnerships and events. Some of our partnerships through the Environment & Sustainability fund include:

Earth Week educational webinars with Bruce County Museum & Cultural Centre

During Earth Week, free webinars are offered to students and the community to learn from local experts who share their knowledge on a variety of environmental topics. Follow up challenges are also provided that include activities related to the webinar topics for hands-on experience.

Upper Sydenham River Habitat Enhancement with Outdoor Adventures

This initiative consists of a variety of fisheries habitat projects on the Upper Sydenham River. Projects include enhancing spawning sites and cover structures in the stream and enhancing riparian habitat through tree and shrub planting along the river corridor.

Huron Fringe Birding Festival

The Huron Fringe Birding Festival is a major driver of ecotourism in Bruce and Grey Counties, educating attendees on birds, birding and nature in Ontario through a variety of outings and events. Valuable environmental monitoring data is also collected over the duration of the festival to contribute to the eBird database on bird abundance, distribution and conservation status.

Lake Huron Coastal Centre Coast Watchers Program

Coast Watchers is a citizen science program designed to engage community volunteers along Lake Huron. Volunteers are trained to observe the coast and record environmental data through weekly measurements. This program helps to engage citizens with the monitoring and protection of their coast and the data collected is shared with partnering organizations and government agencies.



People & Safety

KPIs	Standard(s) guidance is taken from *	2019 Baseline	2021 Target	2021 Actual
% of Women Relative to the workforce	GRI- 405-1	21%	22%	22%
% of Visible Minorities Relative to the workforce	GRI- 405-1	8%	9%	9%
KPIs	Standard(s) guidance is taken from *	2020	2021 Target	2021 Actual
Women hired into Non-Traditional Roles	GRI- 405-1	24%	≥ 20%	34%
Women promoted into Non-Traditional Roles	GRI- 405-1	26%	≥ 20%	32%
Visible Minorities hired	GRI- 405-1	12%	≥ 12%	20%
Industrial Safety Accident Rate (ISAR) Site	IF-EU-320a.1	0.02	≤ 0.00	0.03
Industrial Safety Accident Rate (ISAR) Contractors	IF-EU-320a.1	0.08	≤ 0.00	0
Fatality rate Employees	IF-EU-320a.1	0	0	0
Fatality rate Contractors	IF-EU-320a.1	0	0	0
Emergency preparedness — Annual # of drills/response exercises	IF-EU-540a.2	75	65	113

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Diversity, Equity and Inclusion

Bruce Power is committed to employing a diverse workforce. We have defined diversity as the acknowledgment and appreciation that each individual has unique perspectives and life experiences. By embracing and respecting these visible and invisible differences, we create an environment where each employee feels empowered to achieve their best. Our commitment is enhanced through our Diversity, Equity & Inclusion (DEI) Steering Committee, which ensures the company lives this value every day.

In 2020, we maintained our GOLD certification, held since 2014, from the Progressive Aboriginal Relations Program (PAR) through the Canadian Council for Aboriginal Business (CCAB). Our Indigenous Employment program includes local outreach activities, assistance navigating our application process, and guidance on resume development. We also expanded Indigenous presence within our supplier, contractor and union workforces.

In 2021, Bruce Power implemented the Walking Together Program to increase Indigenous cultural awareness and engagement at Bruce Power. This employee-focused program builds on all Indigenous programs including cultural awareness education that will recognize the importance of meaningful and sustainable Indigenous relationships. The Program highlights existing Indigenous programs and activities for employees to directly participate in and provides resources, such as directories and event calendars, to encourage increased community participation opportunities.

Bruce Power continues to integrate diversity, equity and inclusion into our business with: the continued evolution of our Diversity Strategy; evolving our Recruitment Strategy to include Diversity, Equity and Inclusion at every stage; and through the signing of the Leadership Accord on Gender Diversity. The Leadership Accord on Gender Diversity is a public commitment by employers, educators, unions and governments to promote the value of diversity, equity and inclusion in their organizations. The Accord provides a platform to create a culture of equality and inclusion, while facilitating opportunities for women in traditionally male-dominated roles. At Bruce Power, we have placed a business focus on hiring, promoting and developing females in non-traditional roles.

Additionally, we have focused on the integration of diversity, equity and inclusion into our employer branding, new hire orientation, and our Leadership Development programs. Through our Diversity, Equity and Inclusion committee, we sponsor and participate in many events which include local Multicultural Day, community Pride events, International Women's Day celebrations and the annual National Indigenous Peoples Day celebration.

Pledge to Continue Commitments to Fight Racism

In June of 2020, Bruce Power CEO Mike Rencheck joined other CEOs and made a statement to band together to fight racism in all its forms. The signing of the Black North initiative takes that commitment one step further as we commit to the actionable goals outlined in this pledge, which move toward ending anti-black systemic racism and creating opportunities for underrepresented groups. In addition, we are excited to be working with NPX on a Nuclear Against Racism commitment, which will include a partnership of companies in the industry to make impactful change together.

We are proud to be continuing this important work and remain committed to ensure we are listening, learning and teaching one another as we move forward as an inclusive and respectful organization. You will continue to see updates as we track progress towards the goals outlined in the Diversity, Equity and Inclusion program specifically including the Black North pledge and Nuclear Against Racism commitments.

Canada Best Diversity Employers

In March of 2022, Bruce Power was once again named one of Canada's Best Diversity Employers in recognition of its exceptional workplace diversity and inclusiveness programs. The Canada's Top 100 Employers Project 2022 Best Diversity Employers list has recognized the company for its Diversity, Equity and Inclusion program, which incorporates diversity at every stage, from new hires to career advancement opportunities.

As a signatory of the Leadership Accord on Gender Diversity in the electricity industry, Bruce Power made a public commitment to promote the value of diversity, equity and inclusion in the organization. The Accord provides a platform to create a culture of equality and inclusion, while facilitating opportunities for women in traditionally male-dominated roles.

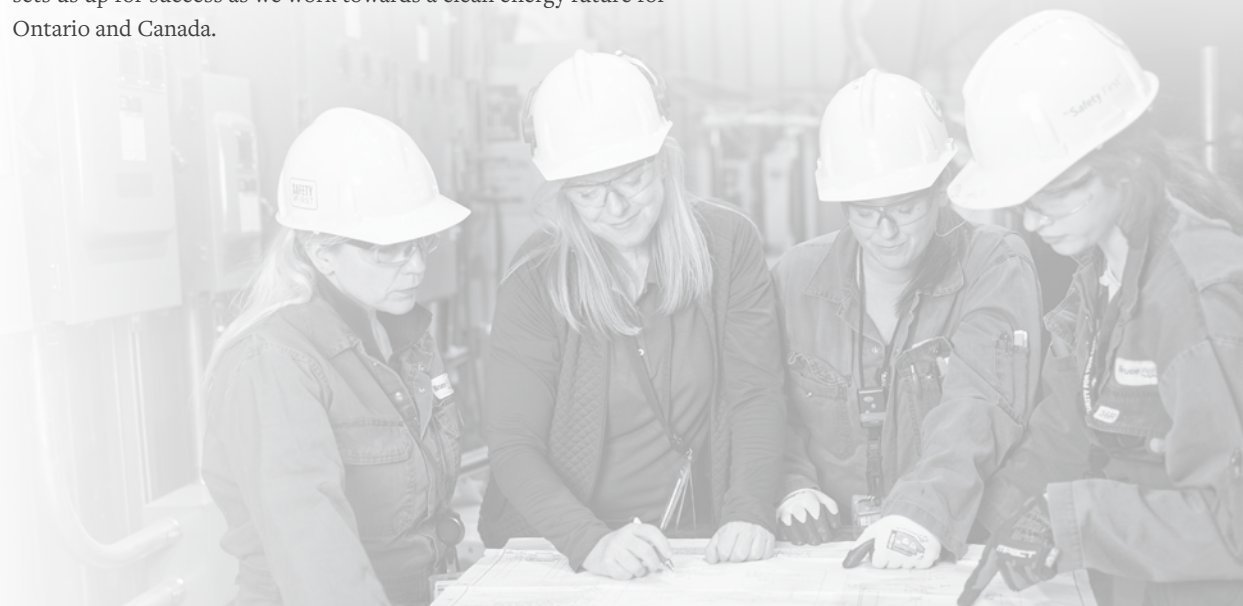
To that end, women represented 34 per cent of our permanent hires and 32 per cent of hiring and promotions into non-traditional roles (trades, maintenance, and operations) were filled by women in 2021, a large increase from five years ago. The company will continue to focus on increasing the number of women into roles where they are traditionally underrepresented along with members of visible minorities, persons with disabilities, Indigenous peoples and lesbian, gay, bisexual and transgender/transsexual peoples.

Building a more diverse and inclusive workforce is good for business. With more perspectives comes greater creativity and innovation, which sets us up for success as we work towards a clean energy future for Ontario and Canada.



In March of 2022, Bruce Power was named one of Canada's Best Diversity Employers in recognition of its exceptional workplace diversity and inclusiveness programs.

In May 2021, Bruce Power was presented with the 2021 Workplace Diversity, Equity and Inclusion Champion Award by Electricity Human Resources Canada



Ethics

Bruce Power's Code of Conduct applies to the Board of Directors, Board Committee members, employees and all complementary staff. Bruce Power Contractors and Suppliers must adhere to the Supplier Code of Conduct.

The Code of Conduct and Supplier Code of Conduct ("the Codes of Conduct") set the expectations for acceptable behaviour both at Bruce Power and while performing work for or on behalf of Bruce Power at other locations. The Codes of Conduct help to maintain the ethical workplace culture that we have worked hard to establish. At Bruce Power, ethical values like integrity, respect, honesty and transparency matter, and they are reflected in the daily actions of our workers, and our company policies and procedures.

Workers are expected to act with integrity and treat each other with respect, and deal with colleagues, customers, suppliers, partners, owners, shareholders and the community ethically and responsibly. We believe every employee has the right to a safe work environment, free from harassment, discrimination and retaliation. We expect all individuals to behave in a manner that meets or exceeds Bruce Power's values, which we adhere to through our Code of Conduct standards.

We always strive for excellence and do our job to the best of our ability to ensure the interests of Bruce Power, our local communities, our colleagues and the environment are safeguarded. We perform our duties in accordance with all applicable laws, regulations and other legal and business requirements, as well as observing company policies, procedures and rules.

Bruce Power ensures that all workers accessing site are properly trained by requiring the completion of Code of Conduct Training.

Political Donations, Government Lobbying and Political Activity

Lobbying-related activities are managed by the Corporate Affairs Division for federal, provincial and municipal governments, and the required reporting of these activities is overseen by the Bruce Power Code of Conduct Office. These activities and those registered as Lobbyists on

behalf of Bruce Power are also reported annually to the Bruce Power Code of Conduct Oversight Committee.

We may participate in the political process as an individual, in accordance with our own political views and the laws and regulations governing this activity. In doing so, however, we may not use Bruce Power's name, nor indicate that we represent Bruce Power, unless we have been authorized to do so.

Anti-Corruption

We promote integrity and ethics in all aspects of our business activities. We comply with all applicable laws and regulations on corruption, bribery, prohibited business practices and extortion. Bruce Power prohibits the offering or acceptance of bribes or kickbacks of any kind, whether in dealings with public officials or individuals in the private sector. A bribe is generally defined as a gift or promise of undue reward or payment, financial or otherwise, to influence the behaviour of government officials or business for the purpose of gaining a commercial advantage. A kickback is similar to a bribe, but usually occurs after the fact. We respect our relationship with government employees. As a representative of the company, workers are expected to be aware of and comply with relevant laws and regulations that govern relationships between government, customers and suppliers.

In terms of mitigating against corruption, together with Finance, the Bruce Power Code of Conduct Office regularly conducts fraud risk scenario reviews to review or establish controls to mitigate against the risk of fraud occurring in the business. In addition, past actions have included a fraud risk assessment completed as part of a commercial internal audit, along with a survey of workers

Openness

At Bruce Power, we are dedicated to connecting with the community in an open, transparent and meaningful way. We are committed to conducting business ethically, respectfully, safely and with professionalism at all times. Our company values guide Bruce Power's communications while

At Bruce Power, we are dedicated to connecting with the community in an open, transparent and meaningful way.



respecting the bounds of commercial confidentiality and disclosure obligations of its listed partners. Bruce Power strives to maintain a positive working relationship with those who have an interest in our business. We are committed to open communication with community members, Indigenous communities and other stakeholders, including local residents, government representatives, charities, service clubs, schools and students.

Occupational Health and Safety

Safety is our number 1 value. It means that safety is at the forefront of all we do at Bruce Power – it's a foundation we have built over the last two decades, and it's why we're always applying best practices, innovating, and learning from leading-edge research.

We strive to consistently identify hazards and implement effective controls to prevent injury and protect the physical and mental health of everyone on our site. In 2022, we are enhancing the hazard identification framework to consistently identify and categorize occupational safety events, observations, inspections, and to enhance the structure for Safe Work Planning.

Our goal is to collaboratively learn and build capacity into our systems. By proactively working together, we ensure that health and safety is the paramount consideration that guides our decisions and actions. We look forward to learning from past experiences and consistently achieving the highest safety standards.

COVID-19 response for the safety and health of our people

The health and safety of our employees and communities is paramount. Since the beginning of the COVID-19 pandemic, Bruce Power has continued to work closely with public health officials to ensure the company is aligned and proactive in its safety protocols, including putting a number of safety measures in place at its facilities. We have stayed ahead of all government guidance and worked with our Emergency Response Organization and a number of oversight committees to ensure a coordinated response.

Emergency Preparedness

Bruce Power is prepared for all types of possible emergency events, including the highly unlikely event of a nuclear emergency. This is known as an 'all hazards' approach to emergency planning. While emergency preparedness is part of Bruce Power's Operating License for its generating facilities, Bruce Power recognizes the importance of maintaining a robust and multi-faceted emergency response program as part of its number one value of Safety First as well as social responsibility.

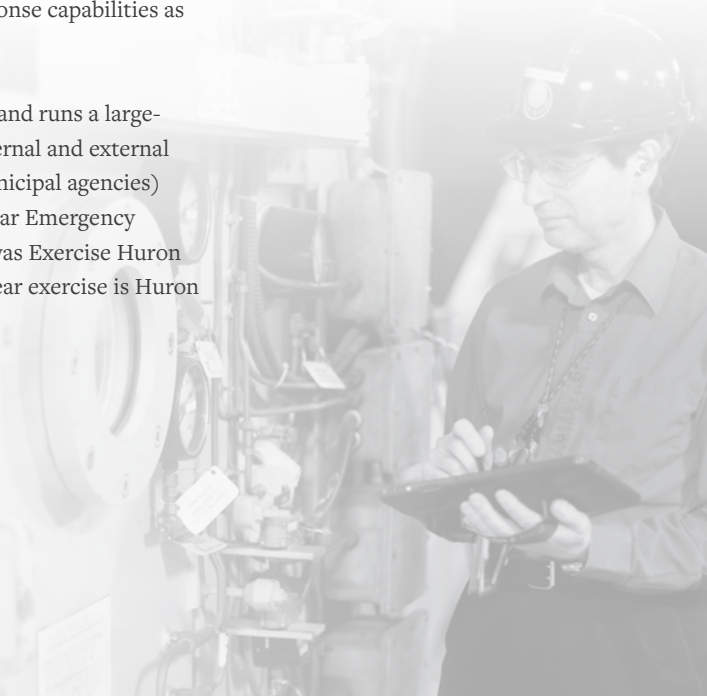
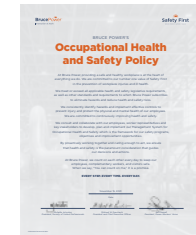
Bruce Power's emergency response program includes complement staff on site (who are on site 24 hours a day, seven days a week), on-call (available 24/7 and can be operational within 90 minutes) and call-in staff who are available to support both the site and the province/municipality during an emergency.

Regulated by the Canadian Nuclear Safety Commission

The effectiveness of Bruce Power's emergency response program is continuously evaluated through a series of drills and exercises. Every year, the company's Emergency Response Organization undertakes over 50 drills and at least one major exercise, which is also evaluated by the Canadian Nuclear Safety Commission (CNSC). In addition, the CNSC carry out routine inspections to ensure the emergency management program meets all regulatory requirements (REGDOC-2.10.1). The CNSC has consistently rated Bruce Power's emergency response capabilities as fully satisfactory.

Since 2012, every three years, Bruce Power organizes and runs a large-scale nuclear emergency exercise, which includes internal and external stakeholder participation (federal, provincial and municipal agencies) to test an integrated response to the Provincial Nuclear Emergency Response Plan. The most recent provincial exercise was Exercise Huron Resilience in October 2019. The next large scale nuclear exercise is Huron Endeavour already being planned for October 2022.

[Bruce Power's Health and Safety Policy](#)



Products & Services



Indigenous Procurement Policy

Bruce Power is proud to be recognized as a Procurement Champion and awarded Progressive Aboriginal Relations (PAR) Gold certification through the Canadian Council for Aboriginal Business (CCAB). We are committed to working with local Indigenous communities to define objectives and targets that will increase participation in contracting and procurement opportunities and developing concrete mechanisms in support of those objectives. Bruce Power's Indigenous Procurement Policy supports the ability to ensure a meaningful, measurable impact on contracting and procurement opportunities for local Indigenous companies as well as greater opportunities for regional and national Indigenous companies.

In June 2017, Bruce Power created the Indigenous Relations Supplier Network (IRSN) as part of our commitment to ensure local Indigenous communities are able to participate fully in the business development, procurement and economic activities taking place on the Bruce Power site. The IRSN is committed to expanding upon our goals to foster meaningful relationships with each community while increasing local First Nations and Métis employment through targeted education and training programs. The network, working in collaboration with Indigenous communities, will include a certification component that will be used to support future contracting opportunities to be implemented in 2022.

KPIs	Standard(s) guidance is taken from *	2020	2021 Target	2021 Actual
% of services and materials sourced from suppliers in the Indigenous Relations Supplier Network	See Methodology	61.5%	Disclosure	59.0%
% services and materials spent in Ontario	GRI-203-2, GRI-201-1	85.9%	Disclosure	85.2%
% services and materials spent in Canada	GRI-203-2	92%	Disclosure	92.1%

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[Bruce Power's Indigenous Procurement Policy](#)



Partnership with Makwa-Cahill

Leveraging procurement objectives and the IRSN mandate, Bruce Power signed a supplier agreement with Makwa-Cahill in 2021. This new partnership is focused on industry fabrication and other strategic opportunities in the energy sector.

Based in Owen Sound, the First Nation-owned venture will undertake fabrication activities for Bruce Power, while creating employment, training and skill development opportunities for local Indigenous communities.

Makwa Development Corp., which is owned by Nawash residents, joined forces with Cahill Constructors Ltd., one of the largest multi-disciplinary construction and fabrication companies in Canada, to create Makwa-Cahill.

Economic Development

In 2016, Bruce Power and the County of Bruce established a regional 'Nuclear Economic Development and Innovation Initiative' to ensure local communities share in the economic benefits generated by Bruce Power's multi-year Life Extension program. In 2020, this initiative evolved into the [Clean Energy Frontier Program](#) funded by Bruce Power and Bruce County through the Nuclear Innovation Institute. Bruce, Grey and Huron counties have formally endorsed the program and a multi-stakeholder Advisory Committee has been established to bring together leaders and organizations from across the region to support investment opportunities and build on existing strengths towards a robust, net-zero economy.

The Clean Energy Frontier Program aims to advance economic development and innovation in the region and to build on the momentum underway by assisting clean energy companies in locating to the area.

The number of major suppliers in Bruce, Grey and Huron counties has grown from 13 in 2016 to more than 60 in 2022 and the Clean Energy Frontier is now one of the more successful non-urban regions in Canada as measured by the size of its economy, average income levels and growth rates. Bruce Power's annual operational spending boosts provincial

gross domestic product (GDP) by an estimated \$3.5 billion and adding in induced economic effects, the company contributes over \$4 billion annually to provincial GDP with more than 90 per cent of the company's supply chain spending occurring in Ontario.

The nuclear energy sector and Bruce Power specifically, is a major contributor to the success of the regional economy and there are many large-scale initiatives underway and being considered for the region that will provide a solid economic foundation for the future while helping Ontario and Canada address its climate change objectives.

The number of major suppliers in
Bruce, Grey and Huron counties has grown from

**13 in 2016 to
more than
60 in 2022**



Isotopes and Business Development

Bruce Power does more than supply 30 per cent of the electricity used by Ontario's families and businesses.

Medical isotopes supplied by Bruce Power are vital resources to the medical community, and the company continues to seek ways to expand the types of isotopes it produces. The sterilization of single-use medical devices using Cobalt-60 is one of the key factors that make the modern health system possible. These items touch on all aspects of health care. Early in 2022, a first of its kind Isotope Production System was installed with the ability to produce Lutetium-177. This innovative system will offer unprecedented capacity of radiopharmaceuticals and support Ontario in establishing it as a global hub for medical isotopes.

By joining forces with the health-care sector and research facilities, nuclear energy producers like Bruce Power can continue delivering life-saving medical isotopes to hospitals around the world – improving the quality of life of millions of people in the process.

Cobalt-60 and Lutetium-177

Four of Bruce Power's reactors produce Cobalt-60, an isotope which sterilizes one time use medical devices and treat complex forms of cancer – including brain tumors – through non-invasive procedures.

Lutetium-177, produced in nuclear reactors, is used in targeted radionuclide therapy to treat neuroendocrine tumors and prostate cancer. This innovative targeted therapy destroys cancer cells while leaving healthy cells unaffected.

How is Lutetium-177 produced?

Lutetium-177 is produced by irradiating Ytterbium-176. The process involves placing Ytterbium-176 source material in special sealed containers that are then conveyed into one of the Bruce Power reactors using the proprietary Isotope Production System (IPS). The IPS was designed and manufactured in Ontario by Bruce Power's partner IsoGen. The resulting Lutetium-177 is then sent for further processing into highly pure pharmaceutical grade Lutetium-177 for subsequent distribution to health-care facilities worldwide.

Why does Bruce Power want to produce isotopes?

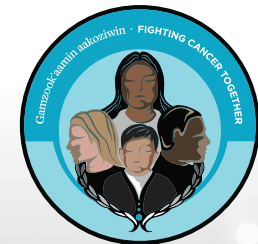
Many research reactors are closing or have reached their end of life. With Bruce Power's life extension through to 2064, it provides long term, reliable supply potential for medical isotopes, leveraging the existing infrastructure at the Bruce Power site. The IPS is a versatile system that can be installed on other Bruce Power units and has the potential to produce other medical isotopes. This flexibility allows Bruce Power to adjust to support the medical community as it innovates in the future.

Bruce Power and Isogen issued an [Expression of Interest \(EOI\)](#) in March of 2022 to solicit information and market opportunities from companies interested in producing medical isotopes at Bruce Power. The EOI is intended to be a first step in securing long-term isotope supply agreements. It is intended to help both Bruce Power and Isogen understand isotope demand and gather information that could be used in planning around future IPS functionality and investments. The current EOI is open through mid-2022.

The Saugeen Ojibway Nation (SON) is also a partner with Bruce Power on the IPS initiative, and together they have created "Gamzook'aamin aakoziwin" which translates to "We are teaming up on the sickness."

SON and Bruce Power have been collaborating on this initiative since 2019 including jointly marketing new isotopes in support of the global fight against cancer, while also working together to create new economic opportunities within the SON territory.

Fighting Cancer Together:
A collaboration between
Saugeen Ojibway Nation
(SON) and Bruce Power
www.fightingcancertogether.ca



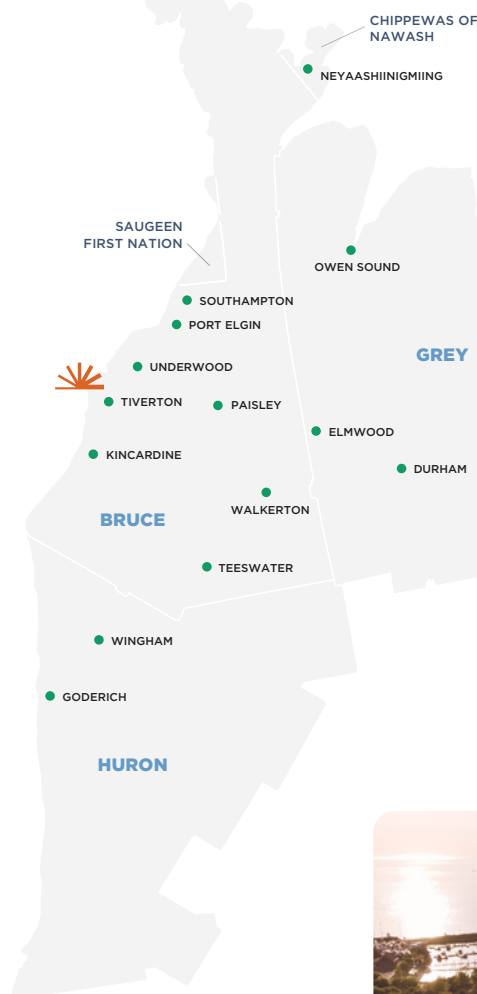
Working with our Suppliers

At Bruce Power, we take great pride in the relationships and collaborative partnerships we have with our suppliers, who are an integral part of our business. We work very closely to make sure they understand and are aligned with our core values. Responsible sourcing including local sourcing is a key focus and incorporated into our agreements with new suppliers. More than 60 suppliers have established offices in Bruce, Grey and Huron counties (for more details, go to the [Economic Development and Innovation Initiative](#), and the [Working with Bruce Power](#) sections of our website). Based on the scoring of the supply chain process, suppliers with a local presence, score higher than those with a provincial, and then national presence. The scoring process also gives consideration to companies which have documented local Indigenous components of their business (which again scores higher than at the provincial and national levels). The current scorecard in use will be amended to include a Diversity, Equity & Inclusion component as a critical trait within the scoring criteria.

Supplier Engagement

At the RFP evaluation phase, Supply Chain will take into consideration a variety of ESG factors, which are weighted according to the nature of the procurement at issue. Bruce Power expects its suppliers to support and respect human rights, Indigenous Relations, Diversity, Equity & Inclusion and provide equal opportunity within the workplace. Suppliers shall ensure all labour practices, wage payments and benefits comply with applicable laws and regulations. Most suppliers are required to register in ISNetworld and maintain the requested information. ISNetworld includes safety related metrics and grading and includes an environmental questionnaire (including questions such as ISO 140001 certification, waste, and spill management plans, etc.). The environmental questionnaire contributes to the supplier's overall rating in ISNetworld. Selected sub-contractors must in most cases secure local economic content and commitment to encourage local economic development and growth of the local communities. Every one of Bruce Power's selected suppliers is required to complete the Bruce Power Code of Conduct training once they have signed an agreement.

2022 MAJOR SUPPLIERS



62 major suppliers

14 communities

3 counties and 1 First Nations community

52	BRUCE COUNTY	7	GREY COUNTY
22	KINCARDINE	1	ELMWOOD
1	PAISLEY	1	DURHAM
19	PORT ELGIN	5	OWEN SOUND
11	SOUTHAMPTON	2	HURON COUNTY
1	TEESWATER	1	GODERICH
6	TIVERTON	1	WINGHAM
1	UNDERWOOD	1	NAWASH FIRST NATION
1	WALKERTON	1	NEYAASHIINIGMIING

COMPARISON

2016 MAJOR SUPPLIERS	13	BRUCE COUNTY
13 major suppliers	7	KINCARDINE
3 communities	4	PORT ELGIN
1 county	2	TIVERTON

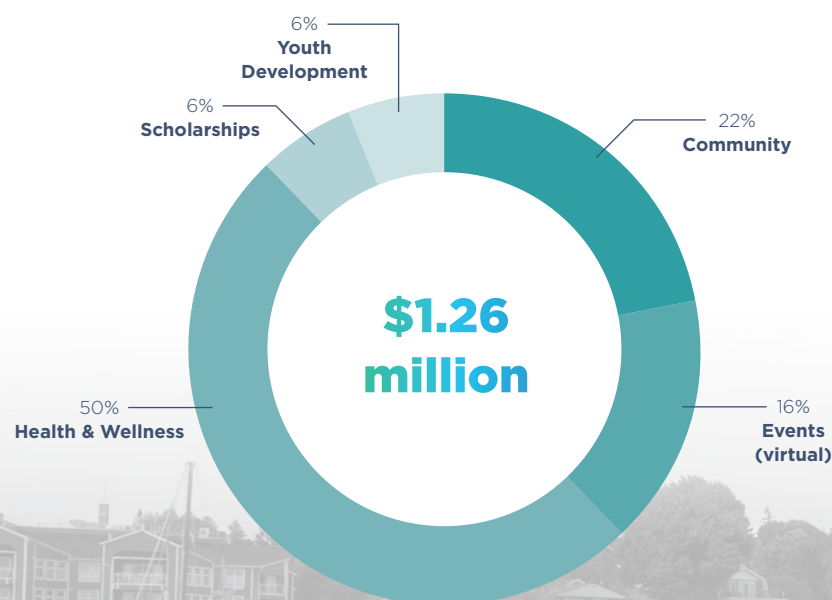


Community

KPI	Standard(s) guidance is taken from *	2020	2021 Target	2021 Actual
Total Value of Sponsorships & Donations	See Methodology	\$4,000,000	≥ \$2,500,000	\$2,060,000

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BRUCE POWER'S COMMUNITY INVESTMENT PROGRAM 2021



At Bruce Power, we are proud to deliver clean, reliable, low-cost nuclear power to families and businesses across Ontario and life-saving medical isotopes across the globe. But we can't do it alone. We rely on support and commitment of the surrounding communities and everyone that lives here. We have the privilege to contribute to the community and encourage our partners to do the same.

With the ongoing COVID-19 pandemic, non-profit and other community organizations needed our support more than ever. Bruce Power continued to provide support where it was needed most, contributing to community organizations and events, mental health organizations, youth development opportunities, food banks, women's shelters and more. We also played a leadership role in supporting public health and the province in the historic vaccination efforts.

In 2021, we were there to support the great work that is being done to improve lives, protect the environment, celebrate culture, encourage education and build healthy communities in Grey, Bruce and Huron.

Our Stakeholders

Our identification of stakeholders is guided through our ISO 14001 system. A stakeholder is someone who has an interest in the performance of the business and can influence objectives. A stakeholder can also be defined as “Interested Parties.” Bruce Power stakeholders/interested parties include, but are not limited to: workers, pensioners, residents of communities surrounding the Bruce Power site, Indigenous Peoples, local and regional governments, organized labour and provincial building trades, media, economic interest groups, provincial and federal government decision makers, government representatives, charities, service clubs, schools and students.

Every one to two years, Bruce Power commissions independent polling by Ipsos to understand and track attitudes and opinions from residents in Bruce, Grey, and Huron counties. The polling looks at a number of topics and issues, including support for nuclear, familiarity and impressions of Bruce Power, communications with residents, and awareness and interest in specific topics related to Bruce Power's operations.

Polling in February 2022 found nearly all respondents (94 per cent) continue to have confidence that the nuclear facility operates safely, feel that Bruce Power is involved with the community in a positive way (92 per cent), and agree Bruce Power is a good community citizen (92 per cent). Eight in 10 residents feel familiar with Bruce Power and 86 per cent of those residents have a favourable impression, saying they feel ‘excellent,’ ‘very good’ or ‘good’ about the company.

Community Issues Identified

Through our Materiality assessment, we identified key areas important to the community that we continue to work collaboratively to address.

Economic and Employment Issues

The Clean Energy Frontier Region, including Bruce, Grey and Huron counties, is home to Bruce Power, more than 60 nuclear companies, the Ontario Nuclear Innovation Institute (NII) and key electricity transmission lines that are connected to the fastest growing parts of the province, all bolstered by strong community support.

Given the company's multi-billion dollar investment program, and a strong focus on establishing a local presence for its nuclear supply chain, Bruce Power has committed to bringing good jobs and economic development to the region, while establishing a local hub to lead Canada's next generation of nuclear technology.

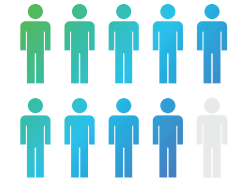
Health Care/Medical Professional Shortage

Over the last 10 years, Bruce Power has invested approximately \$1 million dollars and partnered with the municipalities of Saugeen Shores and Kincardine in efforts to attract physicians to our communities to ensure excellent health care for our residents and that local emergency departments remain open. We acknowledge and congratulate the communities for their commitment to health care and investments in local infrastructure including medical clinics.

Given the Municipality of Kincardine's decision in 2020 to move toward a different model for physician recruitment, we felt it is a natural time to draw our previous arrangement to a close and reassess the best way we can help attract physicians on a regional basis.

Physician and health-care worker recruitment is a continuous cycle in an ever-changing landscape, and we will continue supporting local municipalities in their search for medical professionals. We remain committed to continuing to offer spousal employment when possible to assist with attracting incoming doctors. We also recognize that physicians need access to state-of-the-art facilities. For this reason, and aside from the Physician Recruitment Program, Bruce Power remains committed to investing in health care infrastructure.

In 2019, Bruce Power made a \$1.45 million commitment over five years to hospital foundations across Grey, Bruce and Huron counties. In 2021, Bruce Power expanded this commitment to \$1.8 million over five years to local hospital foundations with \$250,000 each being allocated to the Bruce Peninsula Health Services Foundation, the Saugeen Memorial Hospital Foundation, and the Owen Sound Regional Hospital Foundation; \$150,000 to the Kincardine and Community Health Care Foundation; and



“Nine in 10 residents in Bruce, Grey and Huron counties believe Bruce Power contributes to the community in a positive way (92 per cent).”

2022 Ipsos polling results



Over the last 10 years, Bruce Power has invested approximately \$1 million dollars and partnered with the municipalities of Saugeen Shores and Kincardine in efforts to attract physicians

\$100,000 apiece to the Clinton Public Hospital Foundation, the Wingham District Hospital Foundation, Alexandra Marine & General Hospital Foundation, Walkerton & District Hospital Foundation, Meaford Hospital Foundation, Chesley & District Health Services Foundation, Centre Grey Health Services Foundation, Durham Hospital Foundation and Hanover & District Hospital Foundation.

In 2022, Bruce Power increased its commitment to \$1.5 million to the Kincardine and Community Health Care Foundation in support of its Hospital Redevelopment Campaign, with an additional \$500,000 committed from Bruce Power suppliers.

This commitment continues to support the efforts of the foundations to provide the latest equipment and services while recognizing the important work and services provided by local hospitals to local residents and visitors.

Increased Cost of Living and Housing

In August 2019 we announced a partnership with the Municipality of Kincardine to support Bruce County Housing Corporation's 35 new residential units in the municipality. The new development provides more accessible and affordable housing for existing residents and people moving to the Kincardine area.

The development includes a new service hub for Bruce County's Human Services department, which aligns with the County's strategic direction to improve efficiency and services to its residents.

In 2020, Bruce Power sponsored and participated in the Saugeen Shores Attainable Housing Task Force which examined the housing situation in the community and made 25 recommendations aimed at addressing the issue.

In March, 2022, Bruce Power wrote to The Honourable Ahmed Hussen Minister of Housing and Diversity and Inclusion to highlight concerns over the growing housing affordability problem in rural communities across Canada and, in particular, Grey, Bruce and Huron counties. The letter pointed out the federal government had previously referenced the establishment of an affordable housing fund for rural and Indigenous communities, and we affirmed our belief there is an opportunity to accelerate this program. The letter noted that as a private-sector organization Bruce Power is creating positive economic activity and tax revenues and the re-investment of some of these proceeds in critical areas such as this is important to rural and Indigenous communities. Given the government's clear direction to increase funding to address this issue, we requested the government accelerate these policy and financial commitments to address rural housing affordability by partnering with our region to implement these investments beginning in Budget 2022 to our local communities in Bruce, Grey, and Huron counties in both the immediate and longer term.

In March, 2022, Bruce Power wrote to The Honourable Ahmed Hussen Minister of Housing and Diversity and Inclusion to highlight concerns over the growing housing affordability problem in rural communities across Canada and, in particular, Grey, Bruce and Huron counties.

25

recommendations aimed at addressing the housing situation in the community were made through the Saugeen Shores Attainable Housing Task Force which Bruce Power sponsored and participated in.





3 million

pieces of Personal Protective Equipment donated to frontline workers, businesses, Indigenous communities and schools — the largest announced donation from a private-sector business in Canada.



Supporting our Communities during COVID-19

As one of the founding members and Co-Chair of the Ontario Chamber of Commerce Vaccination Support Council, Bruce Power joined Ontario's private sector in bringing forward resources and logistical expertise to support public health and all levels of government in the province's historic vaccination efforts.

Bruce Power brought together a coalition of organizations, unions and businesses to establish and support hockey hub mass vaccination centres across the province. The hockey hub mass vaccination model was developed by the Grey Bruce Health Unit, and financial, logistical, and volunteer support was provided by Bruce Power and its partners.

Bruce Power has made a number of notable contributions to ensure the health and safety of the community during the COVID-19 pandemic.

- More than 3 million pieces of Personal Protective Equipment donated to frontline workers, businesses, Indigenous communities and schools — the largest announced donation from a private-sector business in Canada.
- More than 47,000 vaccines administered at a Bruce Power sponsored hockey hub vaccination centre in Brampton during only 19 clinic days (daily average >2,500).
- \$60,000 in funding to support hockey hub clinics in Haldimand-Norfolk, Hamilton, and Toronto.
- Financial and logistical support for vaccination clinics in Grey, Bruce and Lambton counties and logistical support for clinics in Waterloo Region and Halton Region.
- Set up a 36-bed recovery centre in partnership with Saugeen First Nation in response to a community outbreak.
- 50 thermal monitors donated to recreation facilities and Indigenous communities to assist with pre-entry screening.
- \$15,000 to Huron Chamber of Commerce for rapid test distribution

Bruce Power's role in helping Ontario during the fight against the COVID-19 health crisis and in its vaccination efforts was recognized by Premier Doug Ford, Solicitor General Sylvia Jones, and public health and government officials across the province.

"I want to thank our public health units, hospital partners, and frontline health care workers for their leadership throughout this pandemic, as well as organizations like Bruce Power and their many partners, who have committed to supporting Ontarians through this vaccination effort. These organizations coming together with public health to establish this hub is a demonstration of the true Ontario spirit."

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Huron Shores Hospice

Bruce Power has been a proud supporter of the Huron Shores Hospice, which provides quality end-of-life care, at no cost, to residents of Saugeen Shores, Kincardine, Huron-Kinloss and surrounding areas. It is a community-funded organization, located within Tiverton Park Manor in Tiverton, Ontario.

In 2021, Bruce Power announced \$25,000 donation to the Hospice, as well as a \$55,000 donation to the organization on behalf of the company's nuclear supply chain partners which was announced at the Huron Shores Hospice virtual hike event.

Bruce Power Supplier Sponsorship

We are fortunate to have supplier partners who share our commitment to the communities in which we live, work and play. In 2021, more than 30 members of Bruce Power's supply chain donated over \$570,000 to Bruce Power's supplier sponsorship package, in support of non-profit organizations that focus on Indigenous youth, health and wellness organizations, Canadian veterans and local Legions, food banks, and hospital foundations.



Nuclear Innovation Institute (NII)

Bruce Power continues to partner with the Nuclear Innovation Institute (NII) to provide educational programming for hundreds of local students.

In 2021, Bruce Power sponsored a Science in the Classroom programming from NII, to help lighten the load of teachers by bringing fun, interactive STEM learning to more than 180 classrooms remotely across Grey, Bruce and Huron counties. Covering the Ontario science curriculum, the programming featured three two-week sessions for students from kindergarten to Grade eight.

Bruce Power also sponsored NII's virtual Best Ever March Break Camp for ages 7 to 12; its Mission to Mars spring break challenge for high school students; and co-sponsored the Science in Summer program which delivered hands-on STEM experiments to more than 1,000 students, on topics like flight, engineering, space, energy and more.

To learn more about Bruce Power's partnership with the Nuclear Innovation Institute (NII), visit: www.nuclearinnovationinstitute.ca



Bruce Power continues to partner with the Nuclear Innovation Institute (NII) to provide educational programming for hundreds of local students.



Methodology

The purpose of the methodology section is to provide open and transparent information on the boundaries of how each Key Performance Indicator (KPI) within the tables of this report are calculated. It is important to note that as the ESG reporting requirements and best practices continue to evolve and become more standardized; we anticipate that there may come a time when calculation adjustments may need to be made. Any adjustments will be communicated in future reporting.

At Bruce Power we have 12 main areas of materiality with corporate governance being our overarching structure and the 11 remaining items falling within each of our four focus areas. We have developed a subset of ESG KPIs and Targets based on guidance from the United Nations Sustainable Development Goals (UN SDGs), Sustainability Accounting Standards Board (SASB), Task Force on Climate Financial Disclosures (TCFD) and the Global Reporting Initiative (GRI). It is important to note that at this time Bruce Power is not claiming full conformance to any of the standards above rather has used each standard to guide disclosure based on materiality. Outlined below is how we are currently calculating performance and progress for each of our ESG KPIs.

Scope 1 and Scope 2 Greenhouse Gas Emissions (tCO₂e)

Approach and Boundary

Bruce Power's approach to GHG emissions quantification approach was developed to align with the principles and guidance provided in *The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard* (GHG Protocol) developed by The World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).

Bruce Power utilizes the Operational Control Approach to set greenhouse gas (GHG) inventory organizational boundaries. These boundaries include facilities where Bruce Power has, at least, a controlling interest from an operational perspective or at best, the facility is owned entirely by Bruce Power. In cases where Bruce Power has operational control but does not wholly own facilities, these facilities will be included in the inventory.

Direct and indirect GHG emissions are included in the scope of the Bruce Power's GHG Inventory:

Scope 1: Direct GHG emissions – Direct GHG emissions occur from sources that are owned or controlled by Bruce Power including stationary combustion, mobile combustion, process emissions and fugitive emissions.

Scope 2: Indirect GHG emissions – Indirect GHG emissions occur from the generation of purchased electricity, steam and heating/cooling consumed by Bruce Power. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organizational boundary of the company.

Emission Factor References

Scope 1 emissions: Canada's Greenhouse Gas Quantification Requirements, IPCC AR-4, GHGRP 2017 Guidelines

Scope 2 emissions: National Inventory Report (NIR) for Canada, 2021, The Climate Registry's Default Emission Factors

Net Greenhouse Gas Emissions - Scope 1 and 2, Carbon Offsets Retired (tCO₂e)

Boundary

Net GHG Emissions refers to total Scope 1 and Scope 2 emissions minus any retired carbon offsets in a given year. Annual emission reduction targets are set against a 2019 baseline as part of Bruce Power's Net Zero Strategy. If an emission reduction target is not met by operational initiatives in a given year, a specific number of purchased carbon offsets are retired to make up the difference and ensure that the target is met.

Scope 3 Greenhouse Gas Emissions (tCO₂e)

Approach and Boundary

Scope 3 emissions are a consequence of the activities of Bruce Power, but occur from sources not owned or controlled by Bruce Power. Of the 15 categories of Scope 3 emissions defined by the GHG Protocol, Bruce Power tracks 12 that are relevant to operations:

- Purchased Good and Services
- Capital Goods
- Fuel and Energy related activities (not included in Scope 1 or 2)
- Upstream Transportation
- Waste Generated in Operations
- Business Travel
- Employee Commuting
- Downstream Transportation and Distribution (medical isotopes)
- Processing of Sold Products (medical isotopes)
- Use of Sold Products (medical isotopes)
- End of Life treatment of sold products (medical isotopes)
- Downstream leased assets (buildings)

Currently, Bruce Power is estimating a large proportion of Scope 3 emissions using the spend-based method, which takes economic value of goods/services and multiplies by an average emission factor. As Scope 3 emission categories are more difficult for organizations to quantify than Scope 1 or 2 emissions due to the wide range of sources, categories, vendors, etc., emissions estimates vary depending on the data source utilized.

Emission Factor References

Quantis Greenhouse Gas Protocol Scope 3 Screening Tool and Carbon Offset Emission Factors Handbook

Carbon Offset Emission Factors Handbook (alberta.ca)

Greenhouse gas reporting: conversion factors 2019 - GOV.UK (www.gov.uk)

GHG Emission Factors Hub | US EPA

National Inventory Report (NIR) for Canada, 2021

Carbon Removal via Tree Planting (tCO₂e)

Boundary

Bruce Power's Carbon Removal via Tree Planting Calculation is based on the guidelines outlined within the Tree Canada Foundation document entitled "What Trees can do to Reduce CO₂" (March 1999). Within this document, two calculations for Carbon Removal are offered as an estimate of how to calculate tree planting efforts: Lifetime Carbon Removal and Annual Carbon Removal.

Bruce Power uses the Lifetime Carbon Removal calculation for rural planting based on the Tree Canada Foundation Document.

Calculation

Number of trees planted = annual # funded by Bruce Power * 95 per cent (this incorporates the assumption of a 5 per cent death rate or a 95 per cent survival rate).

Lifetime carbon removal = Number of trees planted / 4.4*1⁴⁴/12

*note that 44/12 is the ratio of the mass of a CO₂ molecule to the mass of carbon atom in each CO₂ molecule.

Assumptions

Only consider the number of trees planted in this calculation, not the type of tree.

We do not visually verify that trees have been planted, but rather trust the confirmation of the organizations that purchased trees via Bruce Power funding.

We assume that 5 per cent of all trees die, so a survival rate of 95 per cent.

Process in Creating the Boundary

We recognize that CO₂ removal via tree planting is still a very active discussion in the scientific community and also recognize that there are multiple ways to calculate the benefit of tree planting. We also acknowledge that there is not one specific guidance document that is accepted globally. In the absence of a definitive requirement or guidance we are using a simple calculation to share our efforts in this space. We are not using tree planting as a certified carbon offset, but rather want to demonstrate that our effort for carbon removal has been happening for many years. We also want to lend continued support to the importance of tree planting in addition to officially credited offsets in the carbon removal dialogue.

References Built into this Calculation

1. <https://www.nrcan.gc.ca/climate-change/impacts-adaptations/climate-change-impacts-forests/forest-change-indicators/tree-mortality/17785>
2. https://www.fs.fed.us/nrs/pubs/gtr/gtr_nrs158.pdf United States Department of Agriculture Urban Tree Mortality: A Primer on Demographic Approaches
3. Trees Canada (March 1999) What trees can do to reduce CO₂
4. <http://www.tenmilliontrees.org/trees/>
5. n.d.) Urban Forestry Network. Retrieved from: <http://urbanforestrynetwork.org/benefits/air%20quality.htm>

Emissions Avoidance via Operation (tCO₂e) based on TWh

Boundary

Bruce Power's Avoided Emissions are based on the guidelines outlined within the working paper by the World Resources Institute, Estimating and Reporting the Comparative Emissions Impacts of Products. Within the GHG Protocol, the working paper offers a neutral framework for estimating and disclosing both positive and negative impacts. This calculation uses the "attributional estimation approach" which takes the difference in total life-cycle GHG emissions between our company's product and the emissions of combined natural gas, an alternative product for the province of Ontario. Based on our electricity grid make up, natural gas would be the most logical choice of replacement in a situation where nuclear was not available to the grid. Lifecycle emissions are used from the Intergovernmental Panel on Climate Change Life Cycle Assessment 2014, the life cycle emissions for nuclear power includes Uranium mining, enrichment, and fuel fabrication, plant construction, use, decommissioning and long-term waste storage.

It is assumed that annually the actual TWh output that Bruce Power generates would be replaced in totality by the combined natural gas. The equation looks at in a normal year what the emissions would be from a lifecycle standpoint from nuclear, and then what they would be alternatively from combined natural gas and subtracts the nuclear from the combined natural gas to create the avoided emissions value.

Bruce Power acknowledges that this approach ignores market mediated effects, and that this calculation is relatively simple estimation approach.

Process in Creating the Boundary

It is recognized that there are varying degrees in which a company can calculate the emissions avoidance. Results can vary based on the scope of each study. For example, one study could define Lifecycle, and include waste management

and treatment in scope while some exclude waste (World Nuclear Organization (July 2011). Comparison of Lifecycle Greenhouse Gas emissions of Various Electricity Generation Sources). To not over inflate the benefit of avoided emissions, the calculation created for Bruce Power uses combined natural gas which has lower lifecycle emissions than a traditional natural gas value by nearly 40 per cent.

Adherence Criteria

Relevance: Ensure that the comparative assessment appropriately reflects the GHG effects of the assessed product (in relation to the base case) and serves the decision-making needs of users and stakeholders.

Completeness: Include all life-cycle GHG emissions (under an attributional approach) or all changes in emissions arising from the assessed product (consequential approach) in the assessment.

Consistency: Use consistent accounting approaches, data collection methods, and calculation methods for the assessed product and base case.

Transparency: Provide clear and complete information to allow stakeholders to assess the credibility and reliability of the results, especially related to key methodological issues, such as the choice of the base case.

Accuracy: Reduce uncertainties as far as possible.

Volume of Conventional Waste Generated (MT) and Diversion Rate (%)

Boundary

A third-party vendor conducts a site review and conventional waste audit annually for Bruce Power. The annual Waste audit is conducted to achieve compliance with *Ontario Regulation 102/94: Waste Audits and Waste Reduction Work Plans (Ontario Regulation 102/94)* set by the Ministry of the Environment, Conservation and Parks (MECP).

During the conventional waste audit, the vendor weighs and analyzes a more than 24-hour sample of waste that consists of all the non-hazardous, solid waste generated from regular activities at the site, including waste destined for reuse, recycle, compost, and disposal. This is done to determine the amount, nature, and composition of the waste generated. The vendor also analyzes data on total conventional waste streams shipped off site by licensed waste haulers for the year. The results of the conventional waste audit are used to assess the site's waste diversion efforts as well as the capture rate (effectiveness) of the recycling and composting programs. The approved Waste Audit Report is posted on the Environment intranet homepage for all site employees to review and is filed annually into internal records.

Calculations

The diversion rate refers to the portion by weight of all material diverted from disposal to the total weight of all waste material generated, expressed as a percentage.

Net water consumption from Lake Huron (million cubic meters)

Boundary

Net consumption of Lake Water by Bruce Power is very small fraction of the total water taken (drawn) from the Lake Huron. Greater than 99.99 per cent of Intake water is discharged back to the Lake (environment).

Drinking water is the only water that is consumed by Bruce Power. Demineralized water is also produced by Bruce Power using lake water, but majority is returned to the lake with the remainder returned to the atmosphere in the form of steam. The major opportunity/scope for Bruce Power is to minimize Domestic Water production via domestic water consumption enhancement/improvements.

Calculation

To calculate net water consumption, site-wide (Bruce A, Bruce B and Central site) sewage volumes are subtracted

from site wide raw water usage volumes for domestic water and condensate make up (demineralized water). Although demineralized water is returned to the environment, it is included in this metric for conservatism.

Total water discharged to Lake Huron (million cubic meters)

Boundary

Total Bruce Power water discharge to Lake Huron is equal to total water intake minus net water consumption. The intake water is calculated using Permit to Take Water (PTTW) Annual Reports for Bruce A, Bruce B and Central Site. Each site has its own system to calculate / estimate daily intake volumes.

Environment Officers verify the PTTW data against PTTW limits and the reports submit to Ministry of Environment Conservation and Parks.

% of Women Relative to the workforce

Boundary

This metric is the percentage of the workforce self-identified as women reported as part of Employment Equity annual reporting (WEIMS).

% of Visible Minorities Relative to the workforce

Boundary

This metric is the percentage of the workforce self-identified as visible minorities reported as part of Employment Equity annual reporting (WEIMS).

Women Hired into Non-Traditional Roles

Boundary

This metric is reported and tracked confidentially through the Talent Management Team and comprised of data from Workday.

Women promoted into Non-Traditional Roles

Boundary

This metric is reported and tracked confidentially through the Talent Management Team and comprised of data from Workday.

Visible Minorities Hired

Boundary

This metric is reported and tracked confidentially through the Talent Management Team and comprised of data from Workday based on self-identification of employees.

Industrial Safety Accident Rate (ISAR) Site

Boundary

For Bruce Power employees, injuries are reported and documented as per BP-PROC-00059, Event Response and Reporting and Condition Records are entered into Maximo. Injury Classifications and data management are controlled through SharePoint using the CANDU Owners Group (COG) Guideline for Recording & Measuring Occupational Injury / Illness Experience (COG GL 2012-01). Exposure Hours (hours worked) to generate the rate are collected through Tempus. Each month the data is verified by a peer.

Industrial Safety Accident Rate (ISAR) Contractors

Boundary

For Contractors, injuries are reported and documented as per BP-PROC-00059, Event Response and Reporting and Condition Records are entered into Maximo. Injury Classifications and data management are controlled through SharePoint using the CANDU Owners Group (COG) Guideline for Recording & Measuring Occupational Injury / Illness Experience (COG GL 2012-01). Exposure Hours (hours worked) to generate the rate are collected

through Tempus and ISNetworld Site Tracker for contractor management. Each month the data is verified by a peer.

Fatality Rate Employees

Boundary

For Bruce Power employees, injuries are reported and documented as per BP-PROC-00059, Event Response and Reporting and Condition Records are entered into Maximo. Injury Classifications and data management are controlled through SharePoint using the CANDU Owners Group (COG) Guideline for Recording & Measuring Occupational Injury / Illness Experience (COG GL 2012-01). Exposure Hours (hours worked) to generate the rate are collected through Tempus. Each month the data is verified by a peer

Fatality Rate Contractors

Boundary

For Contractors, injuries are reported and documented as per BP-PROC-00059, Event Response and Reporting and Condition Records are entered into Maximo. Injury Classifications and data management are controlled through SharePoint using the CANDU Owners Group (COG) Guideline for Recording & Measuring Occupational Injury / Illness Experience (COG GL 2012-01). Exposure Hours (hours worked) to generate the rate are collected through Tempus and ISNetworld Site Tracker for contractor management. Each month the data is verified by a peer.

Emergency Preparedness - Annual Number of Drills / Response Exercises

Boundary

An annual drill/exercise schedule is prepared in the final quarter of the previous year. A draft drill/exercise schedule goes through various approvals before the final approval from the VP of Site Services. The annual drill and exercise program covers all required regulatory, qualification and proficiency improvement opportunities to ensure emergency response is maintained to a high standard at the Bruce Power

site. This is typically in excess of 100 scheduled events. The drill and exercise program is fully funded by Bruce Power which on occasion also pays for the involvement of external subject matter experts to assist (e.g. Kinectrics).

% of services and materials sourced from suppliers in the Indigenous Relations Supplier Network

Boundary

This metric is derived from a summation of the amounts paid to suppliers. This data is collected from reporting tools managed by the Supply Chain Analytics Team. The supplier payment data is compiled from Bruce Power's Enterprise Asset Management System. Identifying markers for suppliers that are part of Bruce Power's IRSN are entered into Bruce Power's Enterprise Asset Management System and then reviewed and updated regularly by the responsible Supply Chain procurement personnel to capture changes in IRSN participation.

Calculation

% of services and materials sourced from suppliers in the IRSN = sum of the \$ value of services and materials sourced from suppliers in the IRSN / sum of the \$ value of services and materials sourced from all suppliers.

% services and materials spent in Ontario

Boundary

This metric is derived from a summation of the amounts paid to suppliers. This data is collected from reporting tools managed by the Supply Chain Analytics Team. The supplier payment data is compiled from Bruce Power's Enterprise Asset Management System. Identifying markers for geography are input by the responsible Supply Chain procurement personnel.

Calculation

% of services and materials spent in Ontario = sum of the \$ value of services and materials paid to suppliers in Ontario / sum of the \$ value of services and materials paid to all suppliers.

% services and materials spent in Canada

Boundary

This metric is derived from a summation of the amounts paid to suppliers. This data is collected from reporting tools managed by the Supply Chain Analytics Team. The supplier payment data is compiled from Bruce Power's Enterprise Asset Management System. Identifying markers for geography are input by the responsible Supply Chain procurement personnel.

Calculation

% of services and materials spent in Canada = sum of the \$ value of services and materials paid to suppliers in Canada / sum of the \$ value of services and materials paid to all suppliers.

Total Value of Sponsorships and Donations

Boundary

A guiding document BPET-09-16 spells out our philosophy and budget and social responsibility is one of our four core values. Bruce Power's Corporate Social Responsibility Program consists of five components, each with assigned budgets within Corporate Affairs in the approved Business Plan. Funds allocated for these may be adjusted depending on broader business needs.

Appendix

Bruce Power ESG Key Performance Indicators

Environment

KPIs	Standard(s) guidance is taken from *	2019 Baseline	2021 Target	2021 Actual
Scope 1 GHG Emissions (tCO ₂ e)	IF-EU110a.1, GRI-305-1, TCFD	6,946	See Net GHG Emissions	7,813
Scope 2 GHG Emissions (tCO ₂ e)	IF-EU110a.2, GRI-305-2, TCFD	8,655	See Net GHG Emissions	9,430
Carbon Offsets Retired (tCO ₂ e)	See Methodology	0	TBD	2,422
Net GHG Emissions - Scope 1 and 2, Carbon Offsets Retired (tCO ₂ e)	See Methodology	15,601	5% reduction from 2019 Baseline (14,821 targeted)	14,821
Scope 3 GHG Emissions (MtCO ₂ e) 2019 Data	See Methodology	0.88		
KPIs	Standard(s) guidance is taken from *	2020	2021 Target	2021 Actual
Carbon Removal Via Tree Planting (tCO ₂ e)	See Methodology	15,076	≥ 10,000	28,983
Emissions avoidance via operation (tCO ₂ e) based on TWh	See Methodology	20,726,400	19,200,000	20,310,220
Volume of Conventional Waste Generated (MT)	GRI-306-2	1,827.5	Disclosure	1,974.1
Conventional Waste Diversion rate (%)	GRI-306-2	69.8%	70%	67.7%
Net water consumption from Lake Huron (million cubic meters)	GRI-303-3	2.2	≤ 2.3	2.1
Total Water Drawn from Lake Huron (million cubic meters)	GRI-303-3	9,409	Disclosure	8,637

* Bruce Power does not claim to conform to any of the standards identified; rather guidance has been taken from those standards identified. ESG Metrics have been chosen that reflect items material to our business. As noted we have a larger subset of internal metrics and as our program mature we will continue to add to the metrics that we release into the public domain. Bruce Power remains committed to advocating for more standardized disclosure, and remains committed to staying up to date on policy and frameworks that are attempting to bring more clarity to information that is crucial for disclosure from a financial, environmental and social standpoint.

People and Safety

KPIs	Standard(s) guidance is taken from *	2019 Baseline	2021 Target	2021 Actual
% of Women Relative to the workforce	GRI- 405-1	21%	22%	22%
% of Visible Minorities Relative to the workforce	GRI- 405-1	8%	9%	9%
KPIs	Standard(s) guidance is taken from *	2020	2021 Target	2021 Actual
Women hired into Non-Traditional Roles	GRI- 405-1	24%	≥ 20%	34%
Women promoted into Non-Traditional Roles	GRI- 405-1	26%	≥ 20%	32%
Visible Minorities hired	GRI- 405-1	12%	≥ 12%	20%
Industrial Safety Accident Rate (ISAR) Site	IF-EU-320a.1	0.02	≤ 0.00	0.03
Industrial Safety Accident Rate (ISAR) Contractors	IF-EU-320a.1	0.08	≤ 0.00	0
Fatality rate Employees	IF-EU-320a.1	0	0	0
Fatality rate Contractors	IF-EU-320a.1	0	0	0
Emergency preparedness — Annual # of drills/response exercises	IF-EU-540a.2	75	65	113

* Bruce Power does not claim to conform to any of the standards identified; rather guidance has been taken from those standards identified. ESG Metrics have been chosen that reflect items material to our business. As noted we have a larger subset of internal metrics and as our program mature we will continue to add to the metrics that we release into the public domain. Bruce Power remains committed to advocating for more standardized disclosure, and remains committed to staying up to date on policy and frameworks that are attempting to bring more clarity to information that is crucial for disclosure from a financial, environmental and social standpoint.

Products and Services

KPIs	Standard(s) guidance is taken from *	2020	2021 Target	2021 Actual
% of services and materials sourced from suppliers in the Indigenous Relations Supplier Network	See Methodology	61.5%	Disclosure	59.0%
% services and materials spent in Ontario	GRI-203-2, GRI-201-1	85.9%	Disclosure	85.2%
% services and materials spent in Canada	GRI-203-2	92%	Disclosure	92.1%

Community

KPI	Standard(s) guidance is taken from *	2020	2021 Target	2021 Actual
Total Value of Sponsorships & Donations	See Methodology	\$4,000,000	≥ \$2,500,000	\$2,060,000

