Bruce Power Sustainability Report

2024

Bruce Power Sustainability Report 2024

CONTENTS

Indigenous Land Acknowledgement

The Bruce Power site is located within the Saugeen Ojibway Nation Territory, the shared treaty and traditional Territory of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation (Neyaashiinigmiing).

Bruce Power is dedicated to honouring Indigenous history and culture and is committed to moving forward in the spirit of reconciliation and respect with the Indigenous communities we work with. We are committed to strong and respectful relationships with the Saugeen Ojibway Nation (SON), the Métis Nation of Ontario (Region 7), and Historic Saugeen Métis

A message from the Chair

An important part of achieving our vision of powering the future is never wavering as a responsible steward of the environment, being a good corporate citizen, and maintaining excellent governance by integrating strong sustainability principles into Bruce Power's business strategies and operations.

Bruce Power is continuing to contribute to a net zero Canada by 2050 by committing to achieving net zero greenhouse gas (GHG) emissions from its site operations by 2027, making it the first nuclear operator in North America to make such an ambitious commitment.

While the company reliably produces large volumes of emissions-free electricity that is critical to Ontario reducing carbon-emitting sources, Bruce Power is taking the next step to minimize and offset operational emissions including vehicles, machinery, buildings, and equipment to achieve net zero by 2027.

As a leading producer of emissions-free electricity for the province, Bruce Power now offers Clean Energy Credits (CECs) to help Ontario-based corporate electricity customers reach their environmental and sustainability goals.

In a first for the industry, Bruce Power, in collaboration with GHD, created a carbon offset protocol for nuclear generation — focused on capitalizing on clean, low-carbon nuclear powered electricity generation to meet the increasing demands for clean energy sources and to allow consumers and businesses to further decarbonize through electrification in a low-carbon intensity grid.

We also continue our support of local sustainability projects, including the ALUS' New Acre Project, which supports nature-based carbon sequestration opportunities and the protection and enhancement of local ecosystems across 600 acres of projects on agricultural land in Bruce and Grey counties.

At Bruce Power, we maintain a strong commitment to Diversity, Equity, and Inclusion (DE&I) in our workplace and continue on our journey by strengthening and expanding our programs to sustain an accessible and positive environment that provides opportunities for everyone.

We continue to work to build and maintain a positive, long-term relationship with local Indigenous Nations and communities that is based on mutual understanding, respect, and open and honest communication. We also take great pride in the relationships and partnerships we have with our suppliers, who are an integral part of our business and who we work closely with to ensure our core values are aligned.

We have a strong Sustainability Program focused on meaningful disclosure, continuous improvement and alignment with best practices in an evolving industry. Bruce Power is proud to be an industry leader in shaping a sustainable future while playing an important role in securing clean energy for tomorrow.

James Scongack,
Chair of the Bruce Power Environment
and Sustainability Oversight Committee

Executive summary

The 2024 edition of Bruce Power's Sustainability Report focuses on quantitative disclosure for 33 of our Sustainability Program KPIs. Our performance in each of these areas is monitored year over year, ensuring alignment with industry best practices and aiming for continuous improvement. We ensure that our quantitative disclosure in the public space is meaningful, assured and has rigorous methodology allowing for others to learn from our journey and inspire personal action.

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

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 our performance to achieve protection by driving strategic research and innovation through collaborations with industry and community. Together, environmental monitoring and assessment verifies that emissions and effluents resulting from site operations have a minimal impact on the surroundings. Environmental safety and responsibility are woven into all aspects of the company's nuclear safety culture, and Bruce Power commits to meet or exceed all relevant legal and voluntary environmental requirements. In addition to our net GHG emissions reduction targets, all other Environmental KPI targets were met in 2023, with the exception of conventional waste diversion.

PEOPLE AND SAFETY

Safety is our number one 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.

In 2023, Bruce Power adopted Severe Injury Rate (SIR) as the corporate metric for safety performance. As a result, we saw improvements in SIR for utility employees from 0.12 to 0.00 and for contract employees from 0.08 to 0.00. Bruce Power's commitment to continually improve our safety culture is unwavering and is strategically learning from potentially serious events to build capacity into our systems.

In the ever-evolving nuclear industry, Diversity, Equity, and Inclusion (DE&I) are at the forefront of our organizational goals. We know that to maintain our commitment to performance excellence, to continue to innovate we need to leverage the diversity of talent, provide adequate resources, and cultivate a culture of belonging; where everyone feels invited to contribute and participate.

In 2023, 32 per cent of people hired into permanent roles in our organization were women, 22 per cent were racialized peoples, 4 per cent were Indigenous Peoples, and 5 per cent were people with disabilities. Through Bruce Power's Diversity Recruitment Strategy, we are committed in continuing to hire qualified talent from underrepresented groups and attract the best talent in the market.

Environmental safety and responsibility are woven into all aspects of the company's nuclear safety culture, and Bruce Power commits to meet or exceed all relevant legal and voluntary environmental requirements.

PRODUCTS AND SERVICES

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. At the Request for Proposal (RFP) evaluation phase, Supply Chain takes into consideration a variety of sustainability 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. In 2023, 87 per cent of our services and materials were spent in Canada and 59 per cent of our services and materials were sourced from suppliers in the Indigenous Relations Supplier Network.

COMMUNITY

At Bruce Power, we are proud to deliver clean, reliable, low-cost nuclear power to families and businesses across Ontario and cancer-fighting medical isotopes across the globe. Many of our employees have lived in Bruce, Grey and Huron counties for decades, and we are proud to have been an active member of the business community since 2001. We have the privilege to contribute to the community and encourage our partners to do the same. Bruce Power invests more than $2.5 million annually to support initiatives that focus on health and wellness, youth development, minimizing environmental impacts, community engagement, and Indigenous youth development, cultural, recreational and educational programming. In 2023, the company provided $4,140,400 in total value of sponsorships and donations.

ABOUT BRUCE POWER

Bruce Power is an electricity company based in Bruce County, Ontario. We are powered by our people. Our 4,200 employees are the foundation of our accomplishments, and we are proud of the role they play in safely delivering clean, reliable nuclear power to families and businesses across the province and life-saving medical isotopes around the world. Bruce Power has worked hard to build strong roots in Ontario and is committed to protecting the environment and supporting the communities in which we live. Formed in 2001, Bruce Power is a Canadian-owned partnership of TC Energy, OMERS, the Power Workers' Union and The Society of United Professionals. A majority of our employees are also owners of the business.

Welcome on behalf of the Environment and Sustainability Oversight Committee

In 2020, Bruce Power formed the Environment and Sustainability Oversight Committee. This top leadership-level governance was the next natural step in taking our company's sustainability efforts to the next level. As a committee, we are dedicated to the integration of sustainability monitoring and goals based on Environmental, Social, and Governance (ESG) criteria 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.

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 sustainability principles into our business strategies and operations. Our aim is to continuously improve our performance in each of these areas to exceed industry, stakeholder and interested parties' standards. We are committed to maintaining transparency and accountability in our monitoring and reporting, and to implementing actions and initiatives that drive real, tangible benefits. As leaders we commit to driving our sustainability 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
EVP, Operational Services and Chief Development Officer and Committee Chair

Chris Mudrick
EVP, Chief Nuclear Officer

Kevin Kelly
EVP, Finance & Chief Financial Officer

Karen Smith
VP, and Chief Human Resources Officer

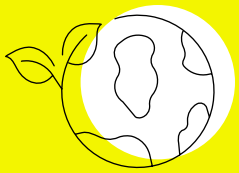
Eric Chassard
EVP, Projects and Engineering

Brian Hilbers
SVP and Chief Administrative Officer

Michael Rinker
VP, Regulatory, Environment, Sustainability

Pat Dalzell
VP, Corporate Affairs & Market Development

Danielle La Croix
Senior Director, Environment, Sustainability and Net Zero



An important part of achieving the company's vision of powering the future is never wavering as a responsible steward of the environment, being a good corporate citizen and maintaining excellent governance by integrating strong Environmental, Social, and Governance (ESG) principles into Bruce Power's business strategies and operations.

We aim to continuously improve performance in each of these areas to exceed industry and stakeholder standards and expectations.

Our Approach to Sustainability

Our Sustainability Program takes guidance from industry best practices and global standards. The Sustainability Program focuses on four key areas — Environment, People and Safety, Products and Services, and Community. We have a responsibility to both the environment and society to implement sustainable and responsible business practices and to foster a culture of equality. We recognize these practices can be achieved while ensuring the continued delivery of energy to the province at an affordable rate.

The Sustainability Program is led by the Environment, Sustainability and Net Zero Division, which reports quarterly to the Environment and Sustainability Oversight Committee. The Bruce Power Board of Directors (the Board) approves the strategy and governance related to Environment, Social, and Governance (ESG) matters, and performance is reported quarterly to the Board. This governance and oversight ensure the integration of ESG monitoring and goals into the long-term business strategy, and that due consideration is given to social and environmental trends that could impact the company's short-, medium- and long-term operations.

Bruce Power is committed to continuous improvement, clear quantitative and qualitative disclosure of our Sustainability-related performance, and actions that drive real, tangible benefits in the short- and long-term.

Bruce Power drives performance related to the Sustainability Program's Key Performance Indicators (KPIs) through its annual Management Incentive Program (MIP).

SUSTAINABILITY RATINGS AND ASSURANCE

Continuing the trend of year-over-year improvement, Bruce Power has achieved its lowest (most favourable) risk rating of 12.6, maintaining a 'Low Risk' ESG Rating from leading third-party ESG rating agency Morningstar Sustainalytics. This rating placed our company third globally in the sub-industry category of "Independent Power Production and Traders," and in the top four per cent in the "Utilities" industry covered by Morningstar Sustainalytics.

The ESG Risk Rating combines an assessment of a company's exposure to industry specific ESG issues and how well a company is managing those risks through suitable policies, programs, and initiatives.

Bruce Power's strong ESG Risk Rating also earned it a place on **Sustainalytics' 2024 list**[1] as ESG Industry Top Rated and ESG Regional Top Rated, recognizing the company as a top performer in its respective industry and region. This is the second consecutive year that Bruce Power has been included on these Top-Rated lists by Morningstar Sustainalytics.

In line with our commitment to ensuring that the public disclosure of our sustainability performance is meaningful, assured, and has rigorous methodology, we obtain third-party limited assurance for KPIs related to greenhouse gas (GHG) emissions as well as two of our People and Safety KPIs related to the representation of women and visible minorities in our workforce in this year's report.

Bruce Power has issued $1.7 billion in Green Bonds to date.

GREEN FINANCING

Green Financing Framework

Bruce Power's Green Financing Framework[2] (the Framework), facilitates the alignment of business and financing activities to support and drive a more sustainable future. The Framework guides issuances of Green Bonds for eligible investments. Eligible investments are investments associated with the company's Life-Extension Program, Project 2030, and potential investments in new nuclear installations. With the 2023 update of the Framework, Bruce Power includes new nuclear technologies as an eligible green expenditure, a positive step forward in aligning with Canada's climate and environmental priorities, while supporting nuclear as a vital part of Canada's clean energy future.

Bruce Power's updated Framework received a **Second Party Opinion**[3] from S&P Global Ratings, a leading provider of second party opinions on green financings, under the Shades of Green analytical approach, formerly part of CICERO. S&P Global Ratings assessed the Framework as 'Medium Green.' S&P Global Ratings indicated that the Framework is Aligned with the Green Bond Principles issued by the International Capital Markets Association (ICMA), 2021 **(with June 2022 Appendix 1)**[4] and the Green Loan Principles issued by the Loan Market Association (LMA), the Loan Syndications and Trading Association **(LSTA)**[5] and the Asia Pacific Loan Market Association (APLMA).

Green Bonds

Bruce Power has issued $1.7 billion in Green Bonds to date, including the inaugural issuance of $500 million in 2021, a global first for nuclear power, $600 million in 2023, and $600 million in early 2024. The company's **Green Bond Report**[6] provides information on the allocation and impact of Green Bond proceeds related to the 2021 and 2023 issuances. The next impact report will be released mid-2024.

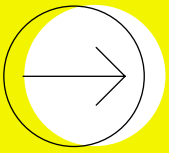
Sustainability Linked Loan

Bruce Power's Sustainability Linked Loan (SLL) is structured with sustainability performance measures linked to reducing GHG emissions and increasing gender and visible minority diversity. The performance results must be verified by a third-party agency at a set frequency as per the terms of the SLL. In recognition of its ongoing commitment to a robust, sustainability strategy, in early 2024, Bruce Power extended the SLL to 2027 (greenhouse gas emissions metric) and 2029 (diversity metrics).

Sustainability Linked Deposit

In Q1 2024, to further demonstrate its sustainability commitments to stakeholders, Bruce Power entered into a new Sustainability Linked Deposit agreement (SLD) for reference years 2023 to 2027. The SLD arrangement is structured with the same sustainability performance measures as the SLL, and, similar to the SLL, results must be verified by a third-party agency.


SAFETY
FIRST
PELICAN



Materiality refers to an organization's significant economic, environmental, and social impacts, or issues that substantively influence the assessments and decisions of stakeholders. Material metrics are developed to measure and monitor aspects that are relevant to an organization with respect to stakeholder interest and the company's ability to influence and drive improvements. 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.

Materiality

HOW WE ASSESS MATERIALITY

Bruce Power has identified 12 main areas of materiality, with Corporate Governance being the overarching structure for our Sustainability Program, and the remaining aspects of materiality falling within our four pillars of sustainability: Environment, People and Safety, Products and Services, and Community.

Our materiality assessment is based on a wide variety of sources, including, but not limited to: our enterprise risk management system, 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 Power Reactor Operating Licence renewal process, and third party risk rating analyses.

Bruce Power will be undertaking a comprehensive Materiality Assessment in 2024 to ensure that our Sustainability Program and reporting continues to address issues and topics that are important and relevant to the business and key stakeholders while continuing to align with industry requirements and best practices.

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

SUSTAINABILITY METRICS AND DISCLOSURE

In 2023, Bruce Power's Sustainability Program included 49 internal KPIs and targets to measure our sustainability performance and to be integrated into business decisions. These KPIs were developed based on guidance from the United Nations Sustainable Development Goals (UN SDGs), Sustainability Accounting Standards Board (SASB), Task Force on Climate Financial Disclosures (TCFD), the Global Reporting Initiative (GRI), and our own materiality assessment. At this time, Bruce Power is not claiming full conformance to any of the listed standards or frameworks, rather, we have used each standard and framework to guide disclosure based on materiality.

This annual Sustainability Report focuses on quantitative disclosure for 33 of our Sustainability Program KPIs. For these KPIs, we illustrate year over year performance and performance against set targets. We ensure that our disclosures in the public space are meaningful, assured and have rigorous methodology allowing for others to learn from our journey and inspire personal action.

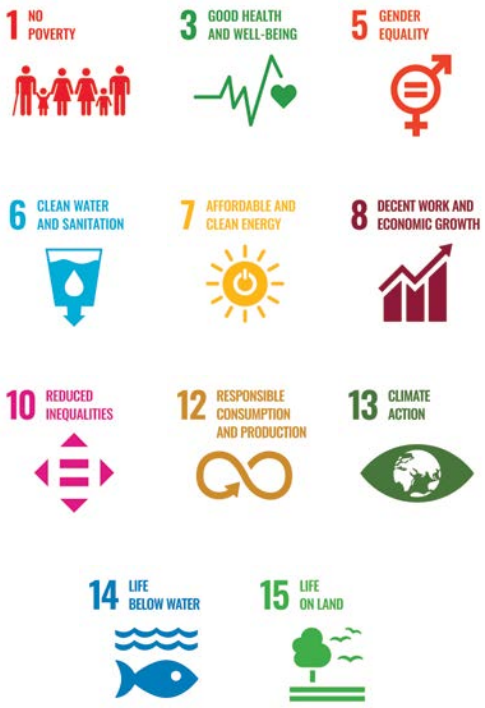
We continue to monitor best practices and regulatory requirements with regards to Sustainability reporting, disclosure, and performance on both an industry and a global scale, evolving our approach as necessary.

THE UNITED NATIONS' 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

As part of our Sustainability Program, we routinely review the United Nations Sustainable Development Goals (UN SDGs) to understand the goals which are relevant to our business, how we can connect them to our ongoing sustainability efforts, and how to evolve our strategy to be a global contributor. Bruce Power has identified 11 UN SDGs that we believe will have the greatest influence in guiding our ongoing efforts. These have been incorporated into our KPIs and are identified throughout this report.

We acknowledge that the goal of **Life Below Water**[7] (UN SDG 14 is focused on conserving and sustainably using the oceans, seas and marine resource for sustainable development) does not explicitly state Freshwater, however, the Great Lakes are one of the largest aquatic ecosystems and are vitally important to North America. We undertake significant efforts to ensure the protection of Lake Huron, local watersheds, and the broader Great Lakes ecosystem. These efforts are outlined within the "Environment" section of this report.

The 11 relevant UN SDGs for Bruce Power



The Bruce C Project

Impact Assessment

Bruce Power is evaluating the feasibility of expanding its nuclear fleet, to create an option for future electricity planning. This Project, which is referred to as “Bruce C,” will evaluate the impact of potentially adding up to 4,800 megawatts (MW) of nuclear capacity on the existing Bruce Power site located in the Municipality of Kincardine, Ontario, Saugeen Ojibway Nation Territory. The company is advancing this process with a focus on Indigenous and public engagement and will provide multiple opportunities for input both in-person and virtually.

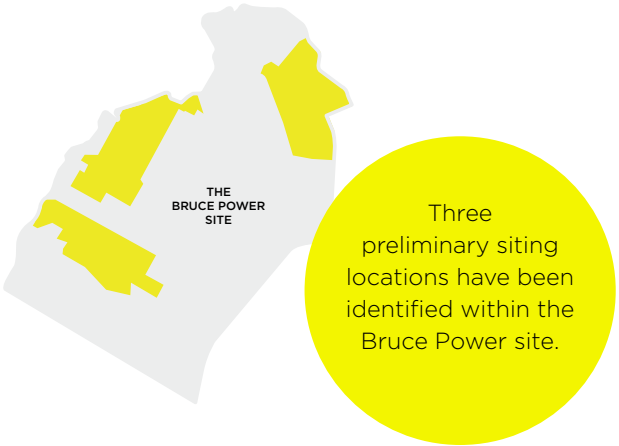
HISTORY OF EXCELLENT ENVIRONMENTAL PERFORMANCE

Bruce Power has well-established and regulatory-approved environmental monitoring programs that focus on the local area around the facility, including neighbouring communities and Lake Huron. The Bruce Power site has been extensively studied and characterized. Since Bruce Power took over operations of the Bruce Power site in 2001, Environmental Assessments and ongoing environmental protection programs, including the periodic Environmental Risk Assessment, have been conducted at key licensing and operational milestones. With the completion of each of the above Environmental Assessments, progressively more environmental data has been collected for the Bruce Power site. The company's strong commitment to excellence has yielded excellent environmental performance, and Environmental Risk Assessments continually show the operation of the facility has little-to-no impact on human and ecological health. This conclusion is supported by evidence independently collected by the federal and provincial governments which monitor and measure concentrations of contaminants in the environment near Bruce Power. Bruce Power anticipates that such a wealth of information will have a similar benefit during the Impact Assessment for the Bruce C project towards understanding of the impacts of new nuclear development on site. During the impact assessment process, determination of the environmental impacts of selecting the new facility location (siting process) and new nuclear technology are carefully considered during the planning stage for Bruce C.

SITING PROCESS OF BRUCE C

The Project will be sited entirely within the existing fenced and secured 932-hectare Bruce Power site. During the Pre-Planning Phase of Bruce C, Bruce Power commenced a siting process to support a thorough understanding of potential constraints and opportunities at the Bruce Power site. The siting process was completed to support conceptual layout development and evaluate suitable areas for potential development. The siting process allowed for an objective, transparent and rigorous understanding of the Bruce Power site relating to land footprint suitability and will provide foundational information that will assist with future engagement with Indigenous Nations and Communities and local communities regarding siting.

The outcome of the above-described siting process was a site suitability map and three preliminary siting locations identified within the Bruce Power site. Siting will be informed by environmental and engineering studies, as well as input from Indigenous Nations and Communities.



TECHNOLOGY-NEUTRAL APPROACH

The Impact Assessment will use a technology-neutral approach, which involves the consideration of multiple technologies and designs that can result in the implementation of a combination of reactors on the Bruce Power site if their technical characteristics fit within the Plant Parameter Envelope (PPE). A PPE is a set of design parameters relevant to the Bruce C's pathways of effects on the environment and is used to define an evolving project as part of a bounding approach. The design parameters are defined by all technologies under consideration, therefore acting as a conservative surrogate for the final reactor design and is bounding for all technologies. The bounding parameters of the PPE will inform the pathways of effect on health, social, cultural, and economic conditions, as well as input from Indigenous Nations and Communities, will be carried through the impact assessment.

COMMUNITY INVOLVEMENT DURING THE PRE-PLANNING PHASE OF THE BRUCE C PROJECT

Bruce Power has a long history of engaging and supporting local communities surrounding the Bruce Power site and will continue to engage Indigenous Nations and Communities and with various interested parties, including workers, partners, municipalities, governments, and the public throughout the Impact Assessment process. As part of relationship development through consultation and engagement, Bruce Power aims to facilitate the following with external interested parties and government with respect to Bruce C project development and regulatory processes:

- Understanding of the Bruce C project details, how it will contribute to the province of Ontario's decarbonization goals, and regulatory process and requirements.
- A clear demonstration of how participation is reflected in processes and regulatory submissions.
- Support of community sustainability and benefits to the province of Ontario and country from the Project.

On July 5, 2023, interested parties from local municipalities, Indigenous Nations and Communities, unions, suppliers, industry organizations and media were invited to attend a press conference on the Bruce Power site. Ontario's Minister of Energy held a press conference to publicly announce Bruce Power's intent to advance the long-term planning and consultation work required to explore nuclear expansion on the Bruce Power site. To date, Bruce Power has completed a number of public engagement activities including Bruce C project information events, industry trade show presentations and information booths, presentations to local municipal governments, municipal government delegations, and other media events related to the Project.

INDIGENOUS ENGAGEMENT AND PARTICIPATION

Bruce Power's relationships with local Indigenous Nations and Communities are of the utmost importance and as such, Bruce Power remains committed to meaningful consultation, engagement and collaboration in shaping the future of the Bruce Power site and ensuring participation in and benefit from any future development. Bruce Power acknowledges that Indigenous Knowledge related to the Project is an important component of the Impact Assessment for Bruce C. As part of engagement and relationship development, Bruce Power aims to facilitate:

- Understanding of the Bruce C Project details, regulatory process and requirements.
- Greater organizational awareness and understanding of each Indigenous Nation and Community's interests, concerns, and priorities with respect to consultation and engagement on Bruce C Project development and regulatory processes.
- Collaborative development of consultation and engagement processes, the assessment approach, and mitigation/management measures.
- A clear demonstration of how participation of Indigenous Nations and Communities is reflected in processes and regulatory submissions.
- Potential benefits for Indigenous Nations and Communities from the Bruce C Project, such as training, jobs, and procurement opportunities.

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 our performance to achieve protection by driving strategic research and innovation through collaborations with industry and community.

Environment

KPI	Standard(s) guidance is taken from *	2019 Baseline	2021	2022	2023 Target	2023 Actual	2024 Target
Scope 1 GHG Emissions (tCO_2e)	SASB IF-EU110a.1, GRI-305-1, TCFD	6,946	7,813	8,087	See Net GHG Emissions	5,279	See Net GHG Emissions
Location-based Scope 2 Emissions[1]	SASB IF-EU110a.2, GRI-305-2, TCFD	15,381	14,201	15,808		15,615	
Market-based Scope 2 Emissions		15,381	14,201	15,808		11,465	
Carbon Offsets Retired (tCO_2e)	See Methodology	N/A	804	4,360		0	
Retired Clean Energy Credits (CECs)/ Renewable Energy Credits (RECs) allocated to market-based Scope 2 electricity emissions (tCO_2e)[2]		N/A	0	0		4,150	
Net Greenhouse Gas Emissions - Scope 1 and 2 Emissions, Carbon Offsets Retired, Clean Energy Credits Retired (tCO_2e)[3] [4]		22,327	21,210	19,535	16,745 (25% reduction from 2019 baseline)	16,744	13,954 (37.5% reduction from 2019 baseline)
Scope 3 GHG Emissions ($MtCO_2e$)	GRI-305-3	0.88	N/A	0.83	No target	0.60	No target

1 We apply the GHG protocol Scope 2 Guidance and report our scope 2 emissions using both market-based and location based-methods. Based on current operations, the results for the location-based and market-based methods are equivalent for 2019 - 2022.

2 The energy generation technology from which the CECs are derived is nuclear power with an emission rate of 0 Mt CO_2e/MwH

3 Net GHG emissions are the product of scope 1 emissions, applied VERs and market-based scope 2 emissions. The goals/targets are based using the market-based scope 2 calculation method.

4 Residual mix emission factors for the Ontario IESO grid are not publicly available.

** Bruce Power does not claim to conform to any of the standards identified, rather guidance has been taken from those standards identified. Sustainability reporting 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.*

KPI	Standard(s) guidance is taken from *	2020	2021	2022	2023 Target	2023 Actual	2024 Target
Number of Trees Planted Annually Supported by Bruce Power's Environment & Sustainability Fund	See Methodology	21,661	36,610	22,400	≥ 5,000	7,370	≥ 5,000
Ontario Grid Emissions Avoidance via Bruce Power Annual TWh Generation (tCO_2e)	See Methodology	20,726,400	20,310,220	17,997,309	17,159,242	17,807,396	19,448,824
Total Value of Environment & Sustainability Fund Assigned	See Methodology	$375,200	$320,000	$400,000	$400,000	$512,150	$400,000
Weight of Conventional Waste Generated (MT)	GRI-306-3	1,827.5	2,051.4	2,597.1[5]	No target	2,286.9	No target
Conventional Waste Diversion Rate (%)	GRI-306-3	69.8%	69.0%	71.2%	≥ 71%	69.1%	≥ 71%
Hazardous Waste Diversion Rate – Oil Recycling (%)	GRI-306-3	N/A	24%	87%	≥ 30%	70%	≥ 50%
Net Water Consumption from Lake Huron (million cubic meters)	GRI-303-5	2.2	2.1	2.1[6]	≤ 2.3	1.9	≤ 2.3
Total Water Drawn from Lake Huron (million cubic meters)	GRI-303-3	9,409	8,637	8,940	≤ 11,645.3	9,348	≤ 11,645.3
Total Water Returned to Lake Huron (million cubic meters)	GRI-303-4	9,406	8,634	8,937	No target	9,346	No target
Annual Dose to Public	CSA N288.1	1.8 µSv/yr	1.6 µSv/yr	2.4 µSv/yr	< 10 µSv/yr	1.4 µSv/yr	< 10 µSv/yr
Net Land Preservation vs Disturbance (Hectares)	See Methodology	New Indicator			≥ 40	54.5	≥ 40
Invasive Species Management (Phragmites) in Baie du Doré	See Methodology	New Indicator			Phragmites eradicated or population density is low	Phragmites eradicated or population density is low	Phragmites eradicated or population density is low
Sitewide Environmental Health Index (EHI)	See Methodology	90%	91%	93%	≥ 90%	94%	≥ 92%

5 2022 performance for this indicator has been updated based on corrected data

6 Number updated due to data correction

** Bruce Power does not claim to conform to any of the standards identified, rather guidance has been taken from those standards identified. Sustainability reporting 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.*

Together, environmental monitoring and assessment verifies that emissions and effluents resulting from site operations have a minimal impact on the surroundings. Environmental safety and responsibility are woven into all aspects of the company's nuclear safety culture, and Bruce Power commits to meet or exceed all relevant legal and voluntary environmental requirements.

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

In 2023, Bruce Power successfully completed an ISO 14001 re-registration audit, during which our Environmental Management System (EMS) was deemed effective, and auditors identified several strengths with no non-conformances. New to the audit this year was what's called the Intertek Maturity Model, and of the six areas rated, we received the highest rating in the following categories: Management, Internal Audit, Operational Control and Resources.

Our commitment to protecting the environment is further outlined in **Bruce Power's Environment & Sustainability Policy**[8] which establishes guiding principles and environmental expectations for employees and those working on behalf of Bruce Power. The policy includes a description of sustainability principles, addresses work in strategic research and innovation, and demonstrates our commitment of meeting or exceeding requirements.

Bruce Power is in the early stages of developing a cumulative effects assessment to understand impacts on values in the area. These values are not limited to environment and will include those related to socioeconomics and Indigenous rights. The cumulative effects assessment will leverage existing expertise (historic and current environmental monitoring program and associated studies), new expertise through research projects with the Nuclear Innovation Institute (NII) and academia, and engagement with communities including impacted municipalities, The Saugeen Ojibway Nation (SON), The Historic Saugeen Métis (HSM), and The Métis Nation of Ontario (MNO). Many frameworks and guidelines exist for assessing cumulative effects; Bruce Power will incorporate strengths and avoid common downfalls with a goal of developing a comprehensive cumulative effects assessment to inform decision making for projects and mitigation measures.

Our efforts and initiatives outlined in the Net Zero Strategy and Greenhouse Gas report sections help to support the following UN Sustainable Development Goals: Affordable and Clean Energy, Climate Action

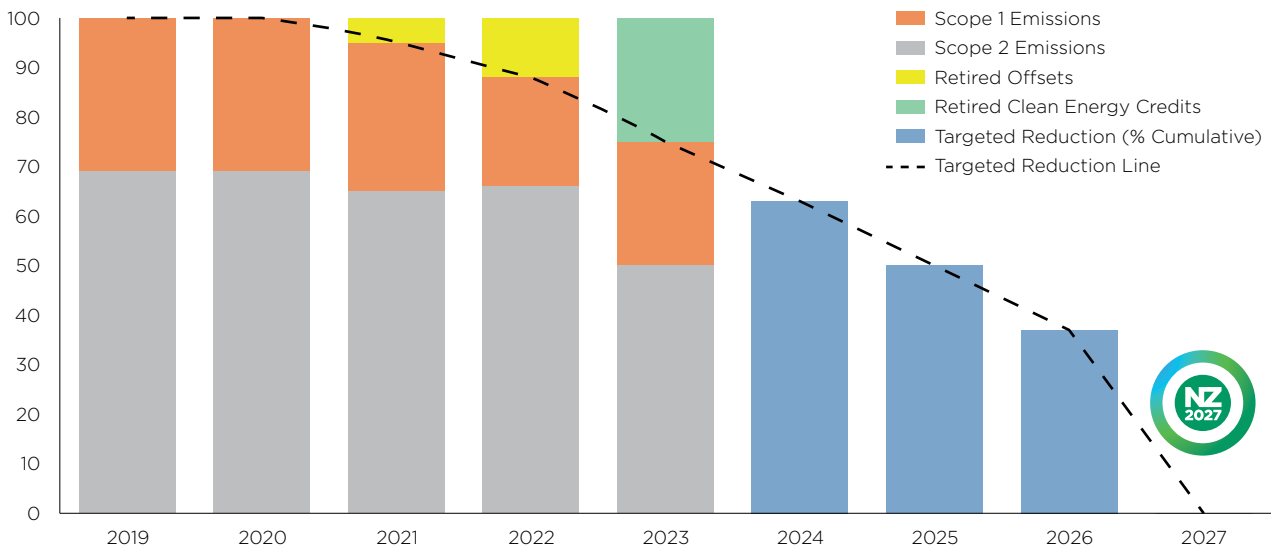
NET ZERO STRATEGY

Bruce Power is continuing to contribute to a net zero Canada by 2050 by committing to achieving net zero greenhouse gas (GHG) emissions from its site operations by 2027, making it the first nuclear operator in North America to make such an ambitious commitment.

While the company reliably produces large volumes of emissions-free electricity that is critical to Ontario reducing carbon-emitting sources, Bruce Power is taking the next step to ensure it minimizes and offsets emissions from routine undertakings such as vehicles, machinery, buildings, and equipment to achieve net zero by 2027.

Our Net Zero 2027 target accounts for all direct and indirect GHG emissions that occur from sources that are owned or controlled by the company (Scope 1 and Scope 2 emissions). To drive continued progress towards this Net Zero target, increasing emission-reduction targets were 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%

Our Net Zero 2027 Strategy outlines how emissions reduction targets will be achieved and our structured approach to supporting both Provincial and Federal Climate Change goals. This strategy includes reducing or avoiding GHG emitting sources through the optimization of building use on site, 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 and leveraging Clean Energy Credits through the Ontario Clean Energy Credit Program.

For more information on Bruce Power's Net Zero Strategy and Initiatives and updates on our action plan to support Ontario and Canada's climate change goals, please see our **Net Zero Strategy**[9] document and our **Road Map to Net Zero**[10] event video.

Clean Energy Credits (CECs)

As a leading producer of carbon-free electricity for the province, Bruce Power now offers Clean Energy Credits (CECs) to help Ontario-based corporate electricity customers reach their environmental and sustainability goals. CECs are electronic credits that businesses can purchase from Ontario's clean energy generators, including nuclear operators, to offset carbon emissions from their operations to achieve voluntary environmental goals.

Building upon the success of Ontario's CEC 2023 program, Bruce Power continues to offer CECs from incremental generation output for the vintage year of 2024.

For more information and contact, please visit **www.brucepower.com/cec**[11]

BREAKDOWN OF GREENHOUSE GAS EMISSIONS

Bruce Power met greenhouse gas (GHG) emissions reduction targets in 2023 and continues to work on the implementation of on-site operational initiatives as well as partnering with local carbon sequestration and offset projects to support further reductions. In addition, Bruce Power registered with the Ontario Clean Energy Credit Program. Through the program, Clean Energy Credits (CECs) from nuclear power generation were allocated towards the emissions resulting from our electricity consumption to support us in meeting our Net Zero targets.

In 2023, our 25 per cent GHG emission reduction target was met, with net emissions totaling 16,744 tCO_2e. Reductions were achieved through the combination of operational emissions-reduction initiatives, as discussed further below, and by transferring and retiring 148,216 MWh (equivalent to the avoidance of 4,150 tCO_2e) of CECs.

By meeting our 2023 net GHG reduction target, the emissions reduced are equal to 1,710 passenger vehicles or 1,307 homes' energy use for one year.

Bruce Power's GHG emissions intensity, based on power generated and net emissions, has continued to decrease from 2021. In 2023, GHG emissions intensity was 0.40 tCO_2e/GWh, down from 0.46 tCO_2e/GWh in 2022.

Scope 1 and 2 GHG Emissions

Bruce Power's Scope 1 and Scope 2 GHG inventory is maintained in alignment 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 our emergency standby generator testing routines, and other 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 vapours from minor equipment leaks, or planned purges and venting.

The construction emissions generated on site from sources owned or controlled by Bruce Power during our life extension work are captured in our Scope 1 calculations and reflected in those numbers.

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

In 2023, our 25 per cent GHG emission reduction target was met, with net emissions totaling 16,744 tCO_2e.

and consumed by Bruce Power. In 2023, Bruce Power registered with Ontario's Clean Energy Credit Program to purchase CECs from the generation of nuclear power. Scope 2 emissions for 2023 were calculated using the location-based and market-based method where the market-based method was calculated using an emission rate of 0 Mt CO_2e/MWh for CECs derived from nuclear 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 emissions are from activities from our supply chain that support Bruce Power operations, Life Extension work, or a consequence of the activities of Bruce Power, but occur from sources not owned or controlled by Bruce Power.

In 2021, an initial screening exercise on 2019 data was completed to determine which Scope 3 emission categories were relevant to Bruce Power and to complete a baseline calculation to quantify emissions. We continued to build upon this work, calculating our Scope 3 emissions inventories for 2022 and 2023.

In each year, purchased goods and services accounted for the majority of Bruce Power's Scope 3 emissions. Other emission sources include fuel and energy-related activities that are not counted in Scope 1 or 2 emissions, waste generation, business travel, and employee commuting. In 2023, our total Scope 3 emissions were 0.60 M tCO_2e. The decrease in emissions from previous years is largely due to the change in emission factors used in calculations for purchased goods and services.

Efforts are being undertaken to improve data collection to refine the conservative assumptions used in the current Scope 3 calculation methodologies. Improved data will help to better identify where Bruce Power can influence reductions in Scope 3 emission sources.

In 2023, we began the process of assessing the disclosure of greenhouse gas emissions and reduction targets by our top suppliers through a desktop research exercise and directly requesting voluntary disclosure of this information. We plan to continue to engage with our suppliers to drive the adoption of science-based emission reduction targets and look to set our own internal supplier engagement target.

Bruce Power's actions to address Scope 3 emissions include:

- Engaging with our supply chain division and top suppliers to attain detailed GHG emissions data on products and services to improve Scope 3 emission calculation accuracy.
- Engaging with our top suppliers on committing to GHG emissions and energy reduction initiatives, setting targets, and monitoring progress.
- Improving Scope 3 data collection from operational processes and data sources including waste generation and disposal, employee commuting, and other business travel.

Greenhouse Gas Emissions Avoidance

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 intensive electricity generation. Therefore, for the Emissions Avoidance KPI in this report, the estimated carbon impact resulting from Bruce Power's annual generation, associated with zero direct emissions, is compared with the amount of direct GHG emissions that would result from the same power output being provided by natural gas electricity generation in the Ontario grid.

In 2023, as a result of non-carbon emitting clean electricity generation by Bruce Power, the potential emissions avoided was equivalent to approximately 17.8 million tCO_2e. More detail on this calculation is found in the Methodology section.

Energy and Emission-Reduction Projects and Initiatives

On-Site Initiatives

Emission-reduction projects to increase energy efficiencies and decrease emissions in our on-site operations, buildings, and fleet include:

- Continuing site building-use optimization and decommissioning of buildings that are no longer required to reduce space heating and energy demands.
    - *Two buildings were vacated in 2022 for use-optimization thereby reducing energy and other resource needs*
- Switching building heating systems to more efficient heating sources, including substitution from transported steam (which endures significant line losses) to more efficient natural gas combustion on site.
    - *Two buildings have been converted to more efficient natural gas heating (vs inefficient steam heating), with an additional building being converted to high efficiency HVAC and natural gas starting in 2024*
- Reducing fuel consumption by optimizing of the duration and frequency of standby generator safety system tests.
- Assessing opportunities for fleet electric vehicle (EV) upgrades and fleet use optimization strategies, including fleet size reduction, vehicle sharing, and anti-idling strategies.
- Exploring opportunities for renewable diesel use in fleet vehicles.
- Installation of EV infrastructure for fleet and employee use.
    - *17 EV charging stations on site, with the capacity to charge 34 vehicles*
- Upgrading interior and exterior lighting to LED.
    - *770 fixtures upgraded to LED in 2023*
- Integrating Building Automation Systems (BAS) into buildings allowing temperature to be monitored and adjusted remotely based on occupancy timing and requirements.
    - *BAS will be added to an additional building in 2024*
- Evaluating additional metering opportunities in buildings to measure usage and identify reduction opportunities.
- Building temperature setpoint optimization to reduce energy use while maintaining acceptable occupant comfort.
    - *Initiative began in 2023 and is continuing through 2024*
- Regular inspection and maintenance of refrigeration equipment to reduce leaks of halocarbons.
- Major HVAC replacement projects using refrigerants with lower global warming potentials and zero ozone depletion potential.

As a part of monitoring our performance against our Net Zero 2027 targets, Bruce Power continues to track the results of implemented emissions reduction initiatives. From 2022 to 2023, fuel consumption from stationary equipment (i.e. standby generators) decreased by 53%, resulting in a 2,800 tCO_2e decrease for Scope 1 emissions. Decreases in mobile fuel consumption and reduced refrigerant releases also contributed to a decrease in Scope 1 emissions in 2023. The retirement of CECs in 2023 resulted in a decrease in Scope 2 emissions of 4,150 tCO_2e. A reduction in steam consumption from vacating buildings resulted in a decrease in Scope 2 emissions of 2,450 tCO_2e.

We continue to identify and implement emission reduction initiatives in our operations, however, where further reductions are not achievable in a given year to meet targets, offsets will be utilized, including those generated from more local projects that we have funded under the $1 million Carbon Offset Accelerator Fund.

Carbon Offset Coalition and Carbon Offset Accelerator Fund

To continue to drive towards emission-reduction goals, Bruce Power, through a partnership with the Nuclear Innovation Institute (NII), is supporting Alternative Land Use Services (ALUS) New Acre Project. This local carbon-offset project, funded by the Carbon Offset Accelerator Fund, supports carbon sequestration opportunities and the protection and enhancement of local ecosystems across 600 acres of nature-based projects on agricultural land in Bruce and Grey counties.

In June 2023, ALUS released the first annual progress report on Bruce Power's three-year investment of nearly $1 million towards farmer-delivered nature-based climate solutions that supported to 20 local farmers to establish and maintain 200 acres locally led nature-based projects on marginal land.

In June 2024, ALUS released its second **progress report**[12] recognizing that farmers in Bruce and Grey Counties again met the 200-acre annual target in Year 2, with 22 participants enrolling projects. Preliminary estimates of 2023 projects forecast 860 tonnes of CO_2 emissions removed over five (5) years, subject to site visits and satellite review in 2024.

We saw a reduction in the estimate of carbon offsets generated from the sustainable strategies as ALUS developed a GHG offset protocol which follows a more conservative methodology that includes only a subset of the total available carbon stocks. Development is ongoing to measure additional carbon reservoirs that include soil organic carbon (SOC) for tree and shrub plantings, the above-ground biomass carbon of established grasslands, so these carbon offsets can be adequately quantified.

In addition to providing carbon sequestration, these projects will also enhance local climate resilience, increase farm productivity, and generate additional ecosystem benefits, including:

25%	200%	300%
more bird species than non-ALUS farms	increase in native pollinator diversity	increase in pollinator abundance

In 2023, the partners also launched the first of several innovative technology pilots to advance solutions to estimate incremental carbon reductions from terrestrial sources. The first pilot deployed Albo Climate's remote sensing and machine learning solution to estimate carbon sequestration from trees and shrubs in Grey and Bruce counties. The 2024 growing season (Year 3) will produce an additional 200 project acres.

Please see **our video**[13] for more information on Bruce Power's support of sustainable agriculture, including the New Acre Project.

Nuclear Carbon Offset Protocol Development

In a first for the industry, Bruce Power, in collaboration with GHD, created a carbon offset protocol for nuclear generation, making the announcement as part of the Canadian delegation at the 28th Conference of the Parties of the United Nations Framework Convention on Climate Change (COP28) in Dubai in December 2023.

The focus of the new protocol, which has successfully acquired third-party validation from an accredited body, is to capitalize on clean, low-carbon nuclear powered electricity generation to meet the increasing demands for clean energy sources and to allow consumers and businesses to further decarbonize through electrification in a low-carbon intensity grid. The intention of the protocol is to describe and quantify the carbon offsets generated via the replacement or avoidance of fossil-fuel-generated electricity through additional incremental outputs of existing non-emitting nuclear power generation facilities. Bruce Power's goal is to have carbon offset credits generated, via incremental electricity generation projects implemented at Bruce Power under the P2030 program; verified, by an accredited body; and registered in a reputable registry, such as the CSA GHG Clean Projects Registry, by the third quarter of 2024.

Our efforts and initiatives outlined in the Climate Change report sections help to support the following UN Sustainable Development Goals: Climate Action

CLIMATE CHANGE

Climate-related risks can affect several important aspects of an organization's operational and financial performance. At Bruce Power, we are actively continuing to integrate principles and recommendations from the Task Force on Climate-Related Financial Disclosures (TCFD) to assess and disclose actual and potential impacts of climate-related risks and opportunities on our short, medium, and long-term business strategy.

Governance

Oversight of climate-related risk (i.e., threats and/or opportunities) is incorporated in Board-level governance through the Board's Risk Review Committee. An annual high level climate change risk profile is provided to the Risk Review Committee for review, discussion, and decision on action items as appropriate.

More detailed climate change risk factors are assessed and addressed by management through governance and procedures as defined by Bruce Power's Management System Manual, including safety analysis, engineering, operations, asset management, emergency response, and business planning.

Strategy

The climate change risk profile includes drivers and impacts over the short (one to three years), medium (four to 10 years), and long term (> 10 years).

Changing local, regional, and global environment conditions could have potential negative impacts to Bruce Power's operations, plant, and infrastructure assets. These are described in more detail in the "Risk Management" section of this report. Additionally, local, and global climate change has potential negative impacts to regulatory and financial management factors. There are also several potential positive impacts and opportunities identified, including the Net Zero strategy, sustainable financing, generation of clean energy credits, and trading markets.

Potential threats and opportunities of climate change are included in the business planning cycle, and where significant, are also reviewed with the Board at their annual Strategic Planning session.

Risk Management

Monitoring, Resilience and Adaptation

Bruce Power goes beyond regulatory compliance by driving innovation and strategic research in environmental protection, including assessment and analysis of how the environment is changing and impacting our site and operations. 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 Bruce, Grey, and Huron regions with a focus on municipal and agricultural sectors as we continue to work with Indigenous communities to deliver on improved understanding and potential advanced solutions to build resiliency. Bruce Power is collaborating with NII to create The Climate Project, which is an accessible online hub and outreach program that will serve as a resource for sharing localized scientific research on climate change from sources including academia, governments, Indigenous groups, conservation authorities, NGOs, and industry partners. Specifically tailored to the Saugeen and tri-county region (including Bruce, Grey, and Huron counties), The Climate Project aims to address pressing questions about how climate change is impacting our air, land and water. The data from The Climate Change project will also inform our cumulative effects assessment.

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. Understanding that changing environmental conditions pose a risk to power production resiliency and reliability, Bruce Power has engaged in understanding these risks by tracking environmental trends, contributing to modelling efforts,

participating in programs aimed at characterizing these risks, and disseminating learnings and insight across the company and with our industry peers and stakeholders.

Bruce Power has contributed to modelling the future impacts of climate change to mid-century through two efforts. The first effort, by Golder Associates Ltd (now WSP), consisted of climate change modelling of the specific impacts to Lake Huron, including changes to air temperatures, water temperatures, and water levels. The changes to water temperatures were modelled with and without the effect of Bruce Power operations. The second effort, by the Climate Risk Institute, focused on the broader impacts of a changing climate and how these would affect Indigenous Communities and agricultural activity in the Bruce, Grey, and Huron Counties of SON Territory. These efforts included engagement with Saugeen Ojibway Nation, the Métis Nation of Ontario, and the Historic Saugeen Métis to ascertain the potential impact of predicted climate change effects on habitats and species prioritized by each community.

To better understand how climate change might impact resilience and reliability, Bruce Power is also participating in Electric Power Research Institute's (EPRI) Climate READi (Climate Resilience and Adaptation Initiative) and CHIP (Climate Hazard Information and Projection) programs. These programs aim to develop a common framework for physical climate risk assessment, which includes facilitating climate data analysis and application to enhance planning, design, operation, and infrastructure investment. Representatives from Environment, Engineering, and Risk and Business Strategy serve as technical advisors on behalf of Bruce Power and facilitate the incorporation of EPRI learnings into operational and asset management decisions. Bruce Power is also part of the Board Working Group that will provide strategic guidance on Climate READi objectives and results.

Bruce Power monitors changing environmental conditions, focusing on long-term trends, current conditions, and climate forecasts. The physical climatic variables examined include air temperatures, wind, precipitation, extreme events, ice cover, lake water level and temperature, and risk of condenser cooling water (CCW) blockages due to changing ecological conditions (e.g., fish, mussels, algae). Changing environmental conditions, such as 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 below is a 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

Data collected from meteorological towers on the Bruce Power site over the past 10 years show a statistically significant trend with mean annual air temperature approximately 0.25°C/year. Under the worst-case scenario (Shared Socioeconomic Pathway 8.5) Mean Annual Air Temperature (MAAT) could reach approximately 10°C by 2030 (compared to 7.7°C in 2022). Under this same worst-case scenario, highest daytime temperatures could reach approximately 35°C by 2030 (compared to 32°C in 2022). While this worst-case scenario may not represent the most-likely scenario, air temperatures are expected to increase under all scenarios.

Wind, Precipitation, and Extreme Weather

In our region, the highest wind speeds occur in fall and winter. High variability and high uncertainty prevent accurate forecasting of wind speeds, however current modelling suggests that wind speeds will not change substantially. Local precipitation around Bruce Power is highly variable with approximately 230 mm falling in summer 2021, and only approximately 15 mm falling in summer 2022. Only modest increases in precipitation are projected for the next few decades, however, as extreme weather events are projected to increase, it is expected that the area would experience an increase in the risk of flooding and infrastructure damage caused by high winds and heavy precipitation.

Ice Cover, Water Level, and Water Temperature

Duration of seasonal ice cover has decreased in recent years and is expected to continue to decrease with increased air temperatures. Water levels are decreasing from the high levels experienced in 2019 and 2020 and are expected to continue to decline in the short-term.

Water levels are challenging to accurately model over longer time spans, but high variability is anticipated. Water temperatures in Lake Huron have been increasing over the past few years (3°C over 6 years) and are expected to increase over the next several decades with increasing air temperatures.

Fish, Algae, Mussels, and Other Debris

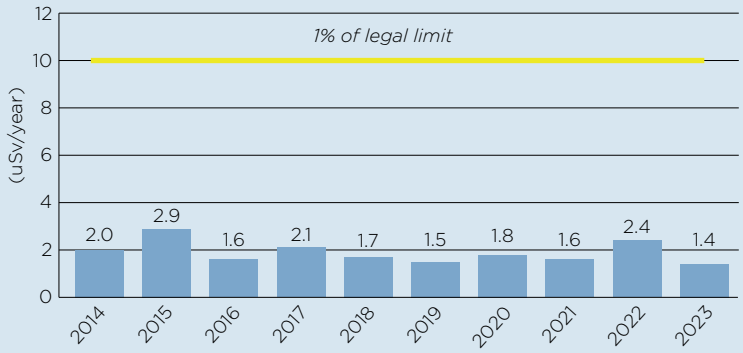
Annual fish impingement has remained relatively stable over the past decade. Currently, more fish are impinged at Bruce A than Bruce B, and impingement rates are higher in the winter months. The annual accumulation of algal and macrophyte biomass was high from 2017-2021, but have decreased over the past couple of years, which may be attributed to changing water levels. Currently, most of the biomass and debris loading is highest from July to December. Terrestrial debris was also high from 2017-2021 and has been decreasing in recent years. Mussel abundances have been variable year to year but are consistently lowest towards the end of winter and into spring, and higher the rest of the year.

DOSE TO PUBLIC

As part of the regulatory requirements, Bruce Power must calculate and report its contribution to radiological exposure dose to members of the public on an annual basis.

For the thirty-second consecutive year, Bruce Power's contribution to the annual dose of a member of the public is less than the lower threshold for significance (less than 10 microsieverts per year) and is considered de minimus.

Dose to Public



Our efforts and initiatives outlined in the Waste Management report section help to support the following UN Sustainable Development Goal: Responsible Consumption and Production

NON-GHG EMISSIONS, EFFLUENTS, AND WASTE

Waste Management

Bruce Power manages many different forms of the waste it generates, 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), conventional waste (destined for landfill), and 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 several initiatives that apply the principles of refuse, reduce, reuse, repurpose, and recycle. 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 waste in a safe and environmentally responsible manner while achieving waste minimization through the application of refuse, reduce, reuse, repurpose, 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
- Ontario Regulation 347, General Waste Management
- Ontario Regulation 103/94, Industrial, Commercial and Institutional Source Separation Programs
- Resource Recovery and Circular Economy Act, 2016 (RRCEA)
- Ontario Regulation 102/94, Waste Audits and Waste Reduction Work Plans
- Ontario Regulation O. Reg. 153, Record of Site Condition
- Transport Canada's Transportation of Dangerous Goods (TDG) Act, 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.

Under the Environment Protection Act, Bruce Power is 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)

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:

- Compostable paper towels
- Boxboard/cardboard
- Food waste
- Yard waste composting
- Batteries
- Office supplies / stationery
- E-waste
- Hard hats
- Styrofoam
- Binders
- Confidential shredding
- Fine white paper
- Mixed paper
- Film plastic
- Wood
- Metal

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 2023, Bruce Power achieved a 69 per cent diversion rate, with approximately 65 per cent of waste material recycled via several different recycling streams and three per cent of material diverted by composting. In 2024, we continue to look for opportunities to improve our waste reduction and diversion performance.

2023 Waste Reduction and Initiatives

- On-site Styrofoam recycling densification program
- On-site binder recycling and reuse program
- Continue to install touchless water bottle fountains across site to ensure water is provided in a more hygienic way that also reduces bottled water waste on-site
- E-waste recycling / reuse relationship with Habitat for Humanity
- Increase waste oil recycling volumes from 24 per cent in 2021 to 70 per cent in 2023
- Initiate a pilot project for alternative ways of composting food prep waste from on-site cafeterias
- Eliminated the use of single use plastics such as straws, coffee stir sticks and plastic cutlery in advance of the regulatory deadline

Bruce Power makes every effort to increase waste diversion when possible. In 2023, additional diversion initiatives on site included e-waste, Styrofoam, binder, and other stationery recycling.

MORE THAN

18.4

METRIC TONNES

of e-waste were recycled by Bruce Power in 2023, including computers, printers, and paper shredders.

69

CUBIC YARDS

(310 kg) of Styrofoam was recycled in 2023 due to a new process to collect Styrofoam on site for densification.

3

medium TerraCycle boxes of stationery items were collected and sent for recycling. TerraCycle has become a global leader in recycling hard-to-recycle materials.

886

were deconstructed for recycling through Bruce Power's binder recycling and reuse program.

444

binders were donated to schools for reuse.

24

cases of cardboard were donated for reuse and 147 kg of scrap metal was recycled from the deconstructed binders.

In accordance with the Single-use Plastics Prohibition Regulations (SUPPR), part of the Government of Canada's comprehensive plan to address pollution, meet its target of zero plastic waste by 2030, and help reduce greenhouse gas emissions, Bruce Power's cafeterias on site eliminated the use of single use plastics including straws, coffee stir sticks and plastic cutlery in 2023.

In addition, Bruce Power worked on increasing waste diversion by improving signage and messaging across site in accordance with the site's Waste Reduction Work Plan, prepared in compliance with Ontario Regulation 102/94, Waste Audits and Waste Reduction Work Plans. New waste diversion bins were set up at several locations across Centre of Site and updated signage was installed. This new signage included pictures of common waste types sold or used on site to help employees determine which waste stream is appropriate to use. Signage updates are usually done annually to keep up with the changes in products and packaging offered on site. Internal communications, including articles in the company newsletter and segments in the monthly safety videos were also used to encourage employees to divert their waste correctly.

Hazardous Waste

Bruce Power's Hazardous Waste Program must 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

Beyond compliance, Bruce Power aims to minimize the generation of hazardous waste and ensure effective and protective life cycle management. Hazardous waste generated on site, such as chemicals, oils, batteries, and fluorescent tubes, are carefully tracked to ensure they are safely disposed of in accordance with applicable regulatory requirements. Bruce Power has an excellent network of external waste vendors certified to carry and/or receive hazardous waste that we work with 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, which align with federal requirements. Bruce Power is currently on track to meet these requirements for removal by December 2025.

Waste Oil Recycling

In 2021, Bruce power committed to developing a 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 2021, approximately 24 per cent (> 105,000 L) of waste oil was recycled through this program instead of going to waste. In 2022, a significant amount of transformer replacement work was performed across the site, and overall, 87 per cent (> 612,000 L) of the waste oil generated was recycled. Due to the success of the program, we have increased our target to 50 per cent of oil to be recycled annually. Despite a significant reduction in transformer work, Bruce Power managed to divert 70 per cent of the oil that was disposed of in 2023.

Radioactive Waste

Bruce Power manages and fully funds the management of its radioactive waste in partnership with Ontario Power Generation (OPG). Since the 1970s, OPG has responsibly managed radioactive waste from the Bruce A and Bruce B Generating Stations. Waste is currently stored on site by OPG on an interim basis until long-term disposal facilities are established.

Radioactive Waste Management

- All energy-producing industries create waste. The nuclear industry is the only energy-producing technology that takes full responsibility for all of its waste.
- Maintenance and projects (e.g., Major Component Replacement) are planned, to the extent practical, with a focus on minimizing waste generation.
- Initiatives are continually explored and implemented to reduce radioactive waste volumes to be stored and disposed of in the future, thereby working towards minimizing the overall environmental footprint and minimizing costs to Ontario electricity ratepayers.

- Radioactive waste management (e.g., handling, transport, and storage) 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 is advancing long-term solutions for radioactive waste. In Canada, waste generators and waste owners are responsible for the funding, management, and operation of interim and long-term waste management facilities so that future generations of Canadians are not burdened with the cost. Early and ongoing input from Indigenous peoples and Canadians is essential to plan our radioactive waste projects in an open and transparent manner.
- The Nuclear Waste Management Organization (NWMO) is responsible for Canada's plan for the safe, long-term management of used nuclear fuel. Since 2010, the NWMO has been engaged in a multi-year, community-driven process to identify a site where Canada's used nuclear fuel can be safely contained and isolated in a deep geological repository (DGR) which will protect people and the environment for generations. The site selection process is designed to ensure that the site selected is safe, secure, and has informed and willing hosts. Bruce Power supports the NWMO in its activities to build an understanding of the proposed DGR, including the potential benefits and impacts to the host region.
- 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.
- Until a 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.

For more information on Radioactive Waste Management, visit the NWMO website **nwmo.ca**.[14]

Non-GHG Emissions and Effluents

Bruce Power performs extensive modelling of its air emissions for conventional contaminants (i.e., hydrazine, morpholine, sulphur dioxide, manganese) to ensure that releases occur within acceptable limits set by the Ministry of the Environment, Conservation and Parks.

Water effluent characterization and analysis is primarily performed by station chemistry labs, with robust Quality Assurance and Quality Control (QA/QC), for water effluent emissions (including hydrazine, metals, total suspended solids, etc.) to ensure provincial limits are met. Bruce Power also conducts acute lethality testing at specific effluent control points, including the end of the cooling water discharge duct.

The National Pollutant Release Inventory (NPRI) is a legislated, publicly accessible inventory of pollutant releases, disposals, and recycling from industrial, institutional, and commercial facilities. The NPRI is a major starting point for identifying and monitoring sources of pollution in Canada, and in developing indicators for the quality of our air, land, and water. Bruce Power reports on contaminants released to air, water, and land on an annual basis through NPRI and evaluates ways to reduce chemical use and associated emissions as part of pollution prevention plans.

For more information on our non-GHG emissions and effluents, please refer to **Bruce Power's 2023 Environmental Protection Report**.[15]

More than 99.99% of the water drawn by Bruce Power's operations is returned to the lake.

Our efforts and initiatives outlined in the Water Resource report section help to support the following UN Sustainable Development Goal: Clean Water and Sanitation

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 km^3.

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 per cent of the water drawn by Bruce Power's operations is returned to the lake. This process is highly regulated, including provincial permits for water taking and imposing protective limits on water quality for water returned to the lake.

As an operation that takes more than 50,000 litres 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, Bruce B, and Centre of Site (COS).

Bruce Power continued to remain in compliance with all PTTW requirements in 2023. Further information on this can be found in **Bruce Power's 2023 Environmental Protection Report**.[16]

In support of the conservation, protection, management and sustainable use of Ontario's freshwater resources, Bruce Power monitors water usage and reports 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 near site shorelines and the greater region.

In addition to the permitting process, our Environmental Monitoring Program conducts extensive year-round sampling to verify the protection of the 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 (i.e., measurement, sampling, and analysis) ensures that the health of the environment and people are protected and verifies that emissions and effluents from operations result in negligible environmental risks.

In 2023, Bruce Power's net annual water consumption from Lake Huron was 1.9 million cubic meters, staying below our targeted threshold of 2.3 million cubic meters. The reduction in water consumption in 2023 compared to previous years was due in part to a reduction in condensate make-up.

Domestic water is consumed by Bruce Power employees and visitors as drinking water, and it is also used for washing and other sanitation needs. Bruce Power operates a provincially regulated sewage treatment plant on-site, where 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 and is then used to generate electricity in steam- powered turbines. Some of this water is not directly returned to Lake Huron because it is held in each power reactor unit's predominantly closed-loop feedwater system, and a fraction is discharged to the atmosphere as water vapour (steam).

Our efforts and initiatives outlined in the Land Use and Biodiversity report section help to support the following UN Sustainable Development Goals: Life Below Water, Life on Land

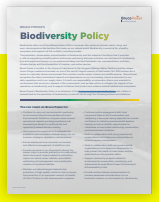
LAND USE AND BIODIVERSITY

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, Bruce Power set an internal target to protect 887 hectares (ha) of high-quality habitat on-site or ensure the protection of an equivalent amount off-site if specific refurbishment support activities required further development on site. This target was established from an Ecological Land Classification study completed in 2017 that demonstrated 55 per cent of the Bruce Power site and surrounding lands (equivalent to 887 ha) was composed of undisturbed forest, open, or wetland habitats.

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 six years to construct a training simulator and create additional parking capacity. At the same time, Bruce Power worked with organizations like the 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.

In early 2024, Bruce Power published an official **Biodiversity Policy**.[17] This policy is an extension of our **Environment & Sustainability Policy**[18] and outlines a commitment to the protection of biodiversity on and off-site through actions and initiatives that preserve and enhance natural habitats and ecosystems.


Biodiversity Policy


Environment & Sustainability Policy

See our policies in full in the Appendix on page 83.

Phragmites australis Removal

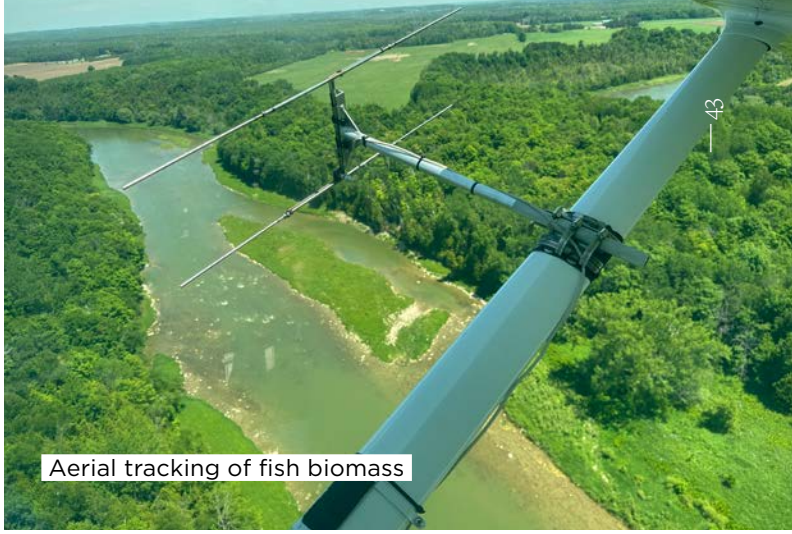
Bruce Power has spent significant effort over the years to protect Baie du Doré, an ecologically sensitive and provincially significant coastal wetland adjacent to the site. Beginning in 2018, Bruce Power partnered with the Invasive Phragmites Control Centre (IPCC) to remove Phragmites australis (Phragmites) 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 high-density invasive Phragmites was established in approximately 60 per cent of the 107 ha wetland. Removal began in 2018 and as of 2023 only two small high-density stands remain in Baie du Doré. Bruce Power and the IPCC will collaboratively remove remaining high-density Phragmites and move into the next phase of management to target low and intermediate-density 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, Ontario. Environmental monitoring is a key component of this work and monitoring of the health of fish and plant populations in Baie du Doré, the Fishing Islands, and Lambton Shores has been ongoing since 2017.

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 has funded and supported the removal of 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 types of fish — from rainbow trout and salmon, that are highly 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.

Phragmites removal in the Fishing Islands



Aerial tracking of fish biomass

Six years of fish biomass monitoring has shown that by removing the Truax Dam, fish production upstream in the Saugeen River has significantly increased.

Six years of fish biomass monitoring has been completed in the river and its upstream tributaries (two years before and four years after the dam was removed). Results from this monitoring show that by removing the Truax Dam, fish production upstream in the Saugeen River has significantly increased, compared to when the dam was in place. Variations in the production occur from year to year, but the highest gains seen so far were in 2022, with 2,365 kg per year. Additional gains in fish production are expected in future years, including the upstream tributaries, such as Otter Creek and the Beatty Saugeen River.

Bruce Power continues to work with many other community groups to improve fish habitat within Lake Huron and inland waterways. 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. Bruce Power provides funding and technical expertise to support the work of the IPCC and its partners. In 2021 the collaboration expanded to include the Historic Saugeen Métis. The combination of western science and Indigenous knowledge has resulted in a well-rounded approach to removing the Phragmites, allowing for endemic vegetation to be restored and important fish-rearing habitat to be maintained. As of the end of the 2022 season, all high-density Phragmites was eradicated from the Fishing Islands. Work continued in 2023 to remove dead standing stalks of high-density stands and to treat and remove low-to-intermediate density stands of Phragmites. Ongoing monitoring throughout this project has demonstrated that high-density stands support lower fish and vegetation diversity compared to intermediate- and low- density stands, reinforcing the need for continued management efforts to prevent the development of high-density Phragmites stands.

The Saugeen Ojibway Nation (SON) and Bruce Power are working to develop possible fisheries offset projects that would benefit the Lake Huron ecosystem in SON Territory. SON has led multiple aquatic monitoring projects throughout their Territory to understand and support aquatic ecosystems, and we hope to build on this work to develop a meaningful project together, with SON Knowledge as our foundation.

Finally, in consultation with the Métis Nation of Ontario, a project plan was drafted in 2023 to improve fish habitat and restore connectivity in Bothwell's Creek, near Leith, Ontario. Bothwell's Creek is a location that the Métis Nation of Ontario has identified as an important area for fishing and recreation, however, a decline in fish spawning has been noticed over the past decade. A decline in habitat quality due to erosion and sedimentation, loss of riparian vegetation, and a build-up of debris (e.g., fallen trees) posing a barrier to fish migration are thought to be the leading causes of the observed decline in fish in the creek. Together with Bruce Power and the Grey Sauble Conservation Authority, the Métis Nation of Ontario propose to remove large debris from the stream to improve stream connectivity and flow and organize community events to plant riparian vegetation along more vulnerable

stretches of the stream bank. The formal project plan was submitted to DFO in October 2023 and has been incorporated into the Bruce Power Fisheries Act Authorization. Bruce Power and the Métis Nation of Ontario are also partnering with Trout Unlimited Canada to conduct water temperature monitoring and redd surveys in Bothwell's Creek to better understand the health of the creek and guide future habitat rehabilitation work.

Partnerships with Community Organizations and Local Government

Bruce Power partners with community organizations and local government on initiatives that have a positive impact on the environment and/or help to better understand the effects of climate change. One example of this is the financial support that Bruce Power provided to the Saugeen Valley Conservation Authority (SVCA) in 2023 to upgrade the Paisley stream gauge monitoring station. Improvements include replacement of outdated and failing equipment, a new well cover and development of a rating curve. The Paisley stream gauge monitoring station is an important element of the SVCA's Flood Forecasting and Warning System.

On-Site Biodiversity Initiatives

Environmental Best Practices

In 2023, Bruce Power has continued working towards the development of an Environmental Best Practices document which aims to support Bruce Power's commitments to reducing the environmental impacts of our operations as stated in our **Environment & Sustainability Policy**[19] and **Biodiversity Policy**.[20]

For the purposes of this document, Environmental Best Practices refers to initiatives, considerations, and environmentally sustainable decision-making that has been proven to be effective in minimizing impacts to the natural environment and local biodiversity. Topics and ideas presented in this document may be employed by Site staff voluntarily, meaning they are not mandatory at this time.

Examples of topics related to on-site biodiversity initiatives include:

- Post-construction re-seeding with native vegetation
- Avoiding incidental habitat creation (in undesirable areas for wildlife habitat)
- Creating and preserving wildlife habitat, nesting areas, and corridors (in desirable areas for wildlife habitat)
- Bird-strike mitigation using anti-bird strike windows (i.e., decals, non-reflective window surfaces)
- Bird-strike mitigation by reducing on-site building lighting at night
- Reduced grass mowing to allow for re-naturalization.

Environmental best practices that have already been successfully carried out on-site are discussed below.

Bird Strike Decals and Lights Out Program

Birds play an important role in various ecosystems, such as pest control, pollination, and seed dispersal. The protection of birds helps with population conservation and maintaining healthy, biodiverse ecosystems. In Canada, window collisions (bird-strikes) kill up to 42 million birds per year and is one of the main sources of human-caused bird mortality. Bruce Power aims to effectively reduce the number of bird-strikes occurring on-site each year, particularly during the spring and fall migrations.

Bird collisions with buildings are a common phenomenon, however, Bruce Power recognizes that window collision bird strikes are often preventable, and there are various companies and resources providing services, strategies, and technologies/products to mitigate this issue. Bruce Power initiated two pilot programs in 2022 to mitigate bird-strikes in which the results were observed in the 2023 spring migration.

'Lights Out' Program

Many birds migrate at night and are attracted to lights from buildings, which can cause them to fly into windows.

Turning building lights off at night can help reduce the number of bird-strikes from light-induced disorientation. In the fall of 2023, Bruce Power initiated a program to turn off interior lights in the B10 Support building between the hours of 9 p.m. and 4 a.m. Reduced night-time lighting resulted in fewer bird strikes with this building than 2022.

Bird-Strike Window Decals

Birds in flight are naturally attracted to the reflection of mirrored windows and can become disoriented, causing them to fly into the building. In 2022, bird-strike window decals were installed on the building identified as having the most significant number of bird strikes (B31 — Bruce Learning Centre) as a pilot program. These window decals display dots in a 2" x 2" spacing pattern to ensure the bird can see the window prior to and/or during flight. In 2023, a different type of decal was applied to windows on additional buildings (B11 – Security/Health Physics Lab and B16 – Supply Chain).

Initial comparison of data before and after applying the decals shows minimal success in reducing bird-strikes but another year of monitoring will be conducted to determine the effectiveness of the program.

Tree Planting

Bruce Power continues to support local tree planting projects through our Environment & Sustainability (E&S) Fund. These planting projects help to support important ecosystem services including the enhancement of local biodiversity and habitats, and erosion control.

Bruce Power has partnered with the Saugeen Valley Conservation Authority since 2018 to expand their seedling planting program. In 2023, Bruce Power funded the planting of 5,000 trees, bringing the total number of trees planted via this partnership to over 213,440. Bruce Power has committed to continue to fund this program through 2025.

In 2023, Bruce Power's E&S Fund also supported the planting of 60 trees as part of habitat enhancement efforts with Kincardine Naturalization Projects, 160 trees with Outdoors Adventures, supporting riparian habitats in the Upper Sydenham River watershed and 2,150 trees with the Penetangore Watershed Group as part of their community tree sale and seedling hand out events.

Through these partnerships, a total 7,370 trees were planted, meeting our 2023 target. In 2024, the Environment & Sustainability Fund continues to support tree planting projects as well as projects that incorporate tree planting as a wider part of habitat restoration and enhancement efforts.

Wildlife Habitat Council Certification

In 2022, Bruce Power attained a Conservation Certification from the Wildlife Habitat Council reflecting the company's environmental leadership, conservation, monitoring, and community engagement efforts in Baie du Doré and Lake Huron. The Bruce Power site was designated Certified Silver and associated projects included fish and habitat monitoring, invasive Phragmites removal, and public education on Phragmites control.

Bruce Power is currently working towards attaining re-certification in 2024.

Environment & Sustainability Fund Partnerships

Through Bruce Power's Environment & Sustainability (E&S) Fund, we continue to support local environment and sustainability-related projects and initiatives. Established in 2015, the E&S Fund seeks opportunities to partner with organizations on initiatives related to:

- Environmental conservation and restoration
- Energy efficiency and carbon emission reduction
- Climate change mitigation and resilience
- Environmental education, awareness, and research

E&S Fund applicants are evaluated to ensure alignment with Bruce Power's environment and sustainability efforts as well as other key priority items, such as the location and the communities supported, with priority given to local initiatives.

In 2023, $512,150 was distributed amongst sponsorship, long-term partnerships, and events. Some of our partnerships supported by the Environment & Sustainability fund include:

PLUG'N DRIVE

Through a five-year funding partnership, Bruce Power continues its commitment in supporting **Plug'n Drive**,[21] a non-profit organization committed to accelerating electric vehicle adoption to maximize their environmental and economic benefits, and the development of Zero Emission Vehicle (ZEV) infrastructure.

THE NATURE CONSERVANCY OF CANADA

Funding provided in 2023 supported the **Nature Conservancy of Canada's**[22] Baptist Harbour Alvar Project. This project site is located on a 24-hectare property near Tobermory and supports some of the rarest alvars in the world. The project supports the protection of an ecologically important habitat that is home to at-risk species such as Hill's thistle, dwarf lake iris, and eastern Massasauga rattlesnake, and serves as an important wildlife corridor for larger animals including black bears and deer.

MUNICIPAL INNOVATION COUNCIL

Funding provided in 2023 supported local municipalities in Bruce County participating in the Municipal Innovation Council's Food Cycler 12-Week Municipal Pilot Program. The pilot program helped the municipalities to explore solutions to divert household organic waste from landfill and to collect valuable data and feedback to integrate into future organic waste diversion programs and initiatives.

HEPWORTH ANGLERS CLUB

Funding provided in 2023 supported Hepworth Anglers Club's Spring Creek Restoration Project, aimed at improving the regional salmonid fishery. Spring Creek supports a highly productive salmonid fishery, and the protection and enhancement of this creek contributes to the health of the Sauble River and Lake Huron. The 2023 activities related to this project included habitat improvements such as spawning area enhancement, creation of fish cover, riparian planting for bank stabilization and stream cooling, as well as fish population and water quality and flow monitoring.

Keystone Species Plant Pick-Up event

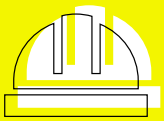
Plug'n Drive electric vehicle test drive event

E-waste collection event

Sustainability and Stewardship Events

Throughout 2023, Bruce Power held several environment-focused engagement events for employees and the local community:

- Through our partnership with the Bruce County Museum & Cultural Centre, a **virtual Earth Week program** was offered for students and the community. The eco-themed program included two video presentations with a focus on species at risk, their role in local habitats and biodiversity, and actions that can be taken to protect them.
- An **e-waste collection event** was held for staff to drop off old or broken electronics to be collected by Habitat for Humanity, who ensure proper recycling, while generating funds that support building homes for families and communities.
- Environmentally-themed **Lunch and Learn webinars** were offered to staff on our company's waste reduction and diversion initiatives, and on an introduction to electric vehicles
- In June, a **Keystone Species Plant Pick-Up event** was held for staff. This event focused on offering "keystone native plants" to help support local biodiversity and promote awareness on gardening to support wildlife.
- In May, Plug'n Drive held an **electric vehicle (EV) test drive event** at Bruce Power Visitors' Centre. The event featured test drive activities for employees and the public, and Plug'n Drive ambassadors were on hand to provide information on EVs and answer any questions.



People and Safety


NO MATERIAL
SHALL BE STORED
OR PILED WITHIN
1.8M (6ft)
OF AN OPENING
DANGER
NO SMOKING
OR
OPEN FLAMES

KPI	Standard(s) guidance is taken from *	2019 Baseline	2020	2021	2022	2023 Target	2023 Actual	2024 Target
% of Women Relative to the Workforce	GRI- 405-1	21.4%	21.1%	21.8%	21.8%	≥ 22.3%	22.7%	Indicators updated in 2024
% of Visible Minorities Relative to the Workforce	GRI- 405-1	7.8%	8.1%	9.0%	9.5%	≥ 9.8%	11.4%	

KPI	Standard(s) guidance is taken from *	2020	2021	2022	2023 Target	2023 Actual	2024 Target
Women Hired	GRI- 405-1	24%	34%	36%	≥ 32%	32%	Indicators updated in 2024
Women Hired into Non-Traditional Roles	GRI- 405-1	24%	34%	32%	≥ 30%	31%	
Visible Minorities Hired	GRI- 405-1	12%	20%	20%	≥ 22%	22%	
Severe Injury Rate (SIR)	SASB IF-EU-320a.1	New indicator			0.00	0	0.00
Contractor - Severe Injury Rate (C-SIR)	SASB IF-EU-320a.1	New indicator			0.00	0	0.00
Fatality Rate -Employees	SASB IF-EU-320a.1	0	0	0	0	0	0
Fatality Rate -Contractors	SASB IF-EU-320a.1	0	0	0	0	0	0
Emergency Preparedness - Annual # of Drills/Response Exercises	SASB IF-EU-540a.2	75	113	115	≥ 75	96	≥ 75
Emergency Preparedness - % Emergency Response Organization-qualified Staff Above Minimum Requirements	SASB IF-EU-540a.2	117%	119.4%	119.9%	≥ 115%	119.5%	≥ 115%

** Bruce Power does not claim to conform to any of the standards identified, rather guidance has been taken from those standards identified. Sustainability reporting 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.*

Our efforts and initiatives outlined in the following report sections related to Diversity, Equity and Inclusion help to support the following UN Sustainable Development Goals: Gender Equality, Decent Work and Economic Growth, Reduced Inequalities

DIVERSITY, EQUITY, AND INCLUSION

In the ever-evolving nuclear industry, Diversity, Equity, and Inclusion (DE&I) is at the forefront of our organizational goals. We know that to maintain our commitment to performance excellence, to continue to innovate and seek new ways to expand medical isotope production, and to actively support the global fight against climate change, we need to leverage the diversity of talent, provide adequate resources, and cultivate a culture of excellence through belonging and inclusion; where everyone feels invited to contribute and participate to their fullest potential, so that we may benefit from the synergy of our people. Our people are our greatest resource, having a diverse and talented workforce will allow us to power the future.

OUR DIVERSITY, EQUITY, AND INCLUSION STRATEGY

Our robust DE&I program is overseen bi-monthly by our DE&I Executive Steering Committee to ensure our value of social responsibility is embedded into our corporate governance, employee life cycle and community outreach. This has ultimately strengthened our DE&I Strategy which focuses on three pillars: **Talent**, **Culture**, and **Community**. Since the inception of the DE&I Steering Committee, there have been many improvements made within the organization, which are summarized below.

TALENT

We are committed to attracting, developing, and retaining the best talent. We remain focused on shifting the composition of our workforce and fully leveraging the potential of our people.

As an organization, we recognize the importance of strengthening the diversity of our leadership. We remain committed to reviewing our talent programs, including promotions, succession planning, and leadership development, to ensure we are creating equitable opportunities and experiences that are inclusive and lead to growth opportunities for our employees. Our highlights from 2023 include:

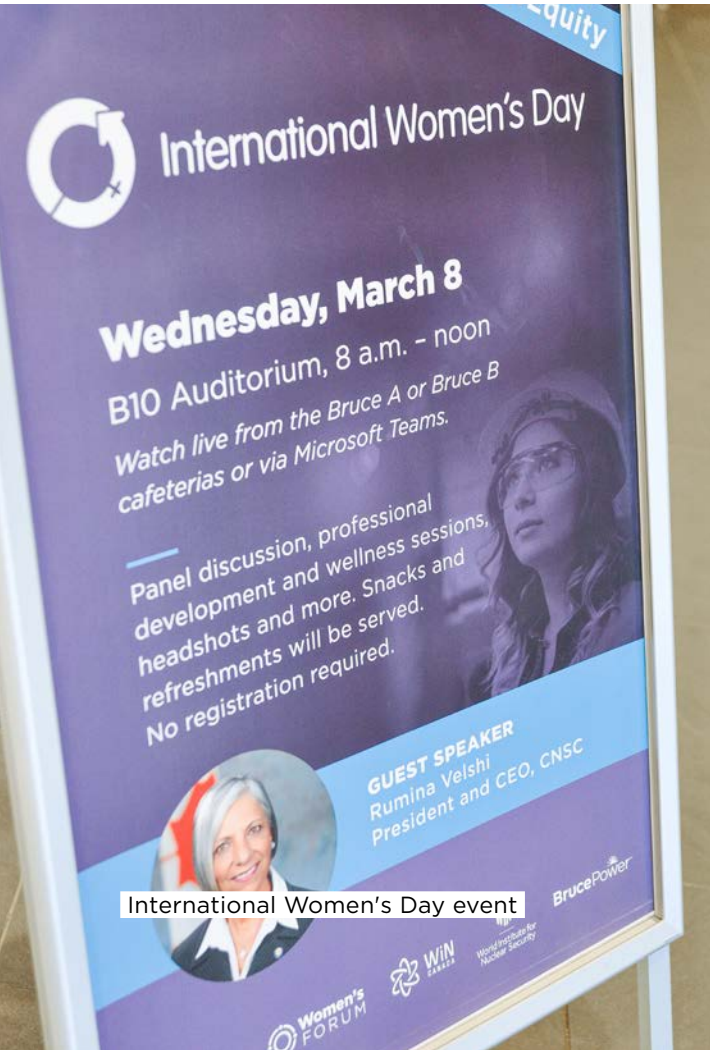
- Executed the Diversity Recruitment Strategy which met the commitments to hire qualified talent from underrepresented groups and attract the best talent in the market. Our leadership teams played a pivotal role in ensuring they were considering and selecting from diverse pools of talent.
    - *In 2023, 32 per cent of people hired into permanent roles in our organization were women, 22 per cent are racialized peoples, 4 per cent are Indigenous Peoples, and 5 per cent are people with disabilities. To challenge our unconscious bias, we leverage data from our Employment Equity Report to identify gaps for certified representation to ensure we were challenging ourselves to hire top qualified talent.*
- Ensuring diverse employees are fairly represented in our training and development programs — 41 per cent of participants in our nominated leadership development programs were from equity deserving groups.
- Completed structural changes to our stations to ensure Women's washrooms are available on every elevation to support the diversity of our workforce.
- Private Lactation rooms — three to support mothers in the workplace.
- All leaders (over 900+) received training on inclusive leadership behaviours and providing psychologically safe workplaces.
- Four Leadership Development Seminars were crafted to equity deserving groups. These sessions were supported through consult and guidance from our Employee Resource Groups and were available to all staff looking for development opportunities.
- The Bruce Power Indigenous Employment Program focuses on attracting, developing, supporting, and retaining our Indigenous talent to remove barriers in employment and take meaningful action in reconciliation. In 2023, our Indigenous Employment Program supported 41 Indigenous People hired into the nuclear sector.
- In support of our staff who identified through Diversio with a mental health condition, we continued to drive and evolve our Healthy Workplace Programming. This year, we extended Canada's Mental Health week in May, providing a month-long campaign with weekly programming filled with outreach, lunch and learns, webinars, and resources.
- Enhanced Workday Self Identification questionnaire, which helps to measure progress and build out programming that support our staff, allows employees to now identify: their gender identity, race/ethnicity, and disability. All employees' personal information is privacy-protected and confidential.
- Partnership with Canadian Union of Skilled Workers (CUSW) and Georgian college to provide pre-apprentice electricians programming to support full enrollment in skilled trades apprenticeships.
- Conducted 41 rotational opportunities amongst leaders in the business to gain and carry over knowledge across the business to support innovation.
- Developed the Bruce Power Early Childhood Education Scholarship program, awarding $65,000 to 13 local students to obtain their certification. This program will support retaining and developing top talent while simultaneously addressing a barrier our employees face outside of the workplace.
- Inclusive leadership training was provided to our Union Team Leads. This training program was delivered through various learning platforms to include examples to manage the diversity of our staff and enhance leadership competency.

Lactation room at Bruce Power

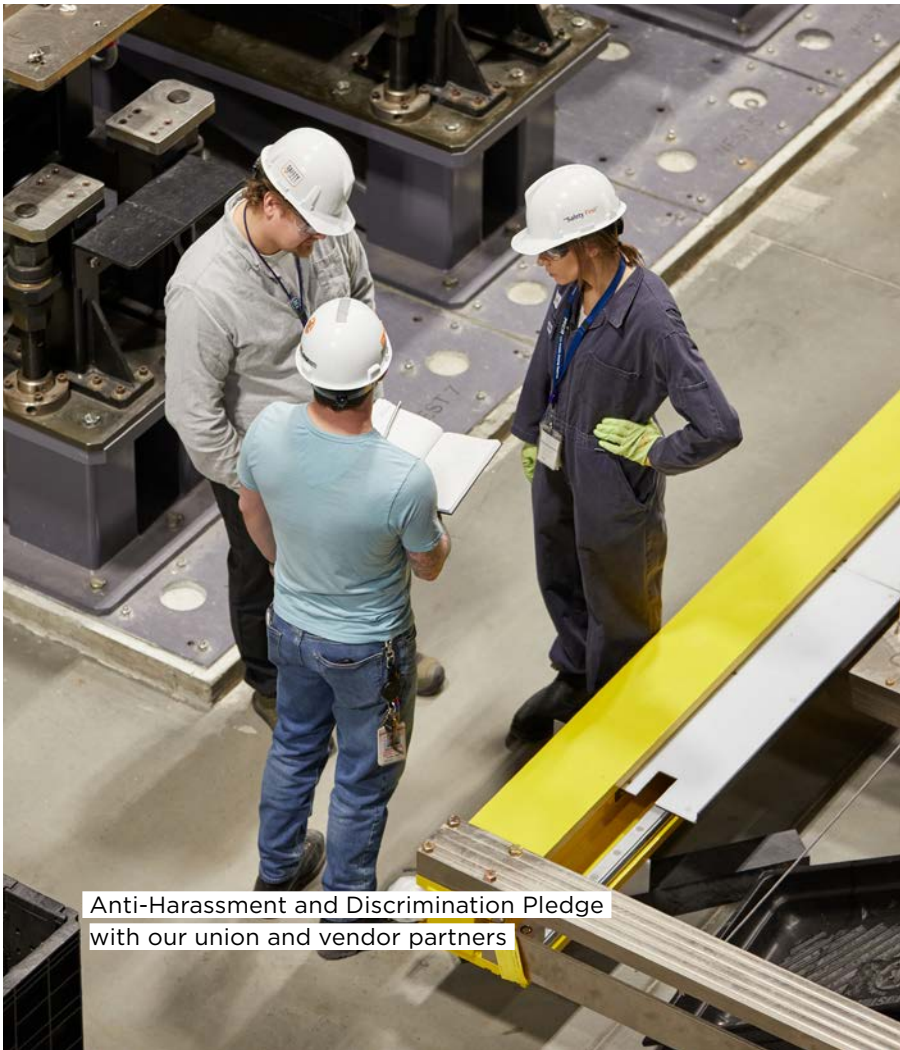
Support for skilled trades apprenticeships

Recipients of Bruce Power's Early Childhood Education Scholarship program

Indigenous Peoples' Day at Bruce Power with local members of the community



International Women's Day event



Anti-Harassment and Discrimination Pledge with our union and vendor partners

CULTURE

Fostering an inclusive work environment where employees feel valued for their uniqueness and are recognized for their individual differences, talents, and skills, is critical to Bruce Power's success. We are committed to a Healthy Nuclear Safety Culture where respect is evident and, opinions are valued and hold a high level of trust. To achieve this, we provide educational and cultural awareness opportunities with a variety of resources throughout the year. We are committed to integrating inclusive leadership traits into our development programs to build the capacity of our leaders and hold each other accountable to our behaviours. The result will strengthen our leaders, elevate performance, and ensure accountability for a respectful and inclusive work environment. In 2023, we:

- Established a corporate **Diversity Equity & Inclusion Policy**[23] signed by our CEO. The policy is visible in our corporate cafeteria, on our internal website for employees, and our external website for the public and potential future employees to review.
- Nine additional Reflection rooms added across site as we recognize a private space for personal reflection, meditation, and prayer contribute to our employees' wellbeing.
- Created our Anti-Harassment and Discrimination Pledge in partnership with our union and vendor partners.
- Removed contractor label on proximity cards and email displays to ensure we are one team focused on the success of our site priorities.
- Removal, ongoing monitoring, and reporting avenue created to address graffiti across site.
- Continuously updated DE&I resources to support staff as they build competency and confidence to engage in DE&I programming and initiatives. On a monthly basis, resources are created and provided to leaders through HR to assist with our learning journeys and monthly discussions with our recruitment team.
- Our Healthy Workplace programming has hosted seven events, 10 on-demand sessions, and on-site counselling to provide education and awareness for topics such as suicide prevention, mental health, and financial webinars, which all contribute to a healthy work-life balance and the well-being of our staff.
- In collaboration with Women in Nuclear (WiN)-Bruce Chapter and the Women's Forum, International Women's Day was not only a success but was also our first ever hybrid event with broadcasting delivered to both stations from the jam-packed audience in the B10 Auditorium. This event reached over 750 people with the capability to provide in-person, remote, and view recording options. A variety of programming to include leadership development, women's health, a fireside chat with President Velshi of the CNSC, shared experiences through our very own employee discussion panel and networking opportunities.
- In honour of International Women's Day, the Women's Forum, our Employee Resource Group, launched a promotional **video**[24] to spotlight and bring awareness to the contributions of women on our path to excellence.
- We are making a deliberate effort to recognize our nuclear professionals from across our organization for their contributions to the Bruce Power business. Our goal was to recognize members of our team monthly. We excelled and spotlighted 15 individual nuclear professionals.
- June is Indigenous History Month and Bruce Power celebrated with several events on-site and in the community. We were honoured to have local members of the community come to drum and dance with us in recognition of Indigenous Peoples' Day.
- As part of our actions towards Truth and Reconciliation, copies of "Sometimes I Feel Like A River," written by Danielle Daniel and illustrated by Josee Bisaillon were donated to local elementary schools and libraries in Bruce and Grey Counties.
- Launched an awareness campaign to end gender-based violence through 16 days of activism in alignment with the nations call to actions and the White Ribbon campaign. This campaign highlights December 6th as the National Day of Remembrance and Action on Violence Against Women and is designated to the engineering women who lost their lives in the Montreal massacre in 1989. White ribbon pins, open discussion and community resources were provided to staff during this time.

Free Pride pins for employees

Build a Dream career fair event

Red Dress Day display

EMPLOYEE RESOURCE GROUPS

Bruce Power leverages the support and guidance of our Employee Resources Groups (ERGs). These ERGs are groups of volunteer employees, with similar backgrounds, that have formed communities within the workplace and act as a resource for both group members and the organization. Our ERGs offer members opportunities for personal and professional growth, networking, and community outreach. We have three employee resource groups: **Gender Sexuality Alliance (2SLGBTQAI+ community), Indigenous Network,** and **The Women's Forum.** Together, we work to drive the DE&I strategy, overcome challenges, and be advocates for an inclusive and respectful work environment. Achievements that we have accomplished together include:

- Renovated and redesigned the washrooms in our Stations to support all gender identities.
- Collaborated with our Leadership Development department to create four leadership development webinars to highlight our Leadership Development programs and the importance of diversity in these programs. These webinars provided content that supports education, professional development, diverse membership, and engagement.
- Supported the enhancement of our Human Resources Information System to build out a Self-Identification Questionnaire that supports our legislative reporting, measures progress, and builds out programming that supports our staff.
- Provided insights to the barriers of parents in the workforce, which helped establish the Bruce Power Early Childcare Education Scholarship program.
- Contributed to the planning and execution of our International Women's Day celebration. Our ERG members supported the planning and promotion of the event and participated in the half day festivities to provide insights from lived experiences, education on inclusive leadership, and tangible actions for staff to support inclusion in the workplace.
- Provided educational support to increase cultural awareness through a campaign focused on Orange Shirt Day and the impacts of the Canadian residential schools. Shirts designed by a local Indigenous artist were available for employee purchase, and employees were encouraged to wear these shirts on September 30th, the National Day for Truth and Reconciliation in Canada.

Multicultural Day event

Indigenous Peoples' Day Powwow

Orange bracelets and stickers were also distributed across the organization for employees to continue to voluntarily promote the cause throughout the year.

- Supported a book donation to local elementary schools and libraries in Bruce and Grey Counties. The purpose of this effort was to bring age-appropriate education and awareness to readers on the history of Canadian residential schools.
- Through participation and collaboration, our employee groups helped to build out foundational financial programming to support marginalized groups who historically did not have access to the financial management system. The webinar focused on saving, spending and borrowing, providing suggestions of simple behavioural changes that could support personal financial goals.
- Planned and hosted an on-site Powwow, which provided staff the opportunity to experience and learn about Indigenous culture. The Powwow included local artists, vendors, and members from the local Indigenous communities.
- Worked as ambassadors to support inclusion initiatives for the 2SLGBTQAI+ community in the local municipalities and counties. This included, but was not limited to, representing at local municipal council meetings, participating in parades, and hosting exhibitor booths to support community inclusion efforts.
- Volunteered to support recruitment efforts in local career fairs that support nuclear pipelines in Skilled Trades, Emergency Services, STEM, and leadership. Members of these forums participated in discussion panels, engaged students at exhibitor booths, and shared their career journeys to provide students with insights into the nuclear industry.
- Volunteered at the Kincardine Multicultural festival. This event exposes community members to cultures and ethnicities residing in the local municipality to further support inclusion efforts in our local communities.

Employees at a local Pride parade

COMMUNITY INITIATIVES

Bruce Power is committed to supporting an inclusive culture in partnership with our communities, suppliers, and trade unions. We recognize our role in being a leader to support this transformation and will utilize our relationships to drive diversity, equity programming, and initiatives to support social developments that promote inclusion.

- Our Indigenous Employment Program includes local outreach activities, assistance navigating our application process and guidance on resume development. We continue to focus on growing Indigenous talent for employment opportunities directly with Bruce Power, as well as indirectly with our suppliers, contractors and unions. This program supports our organization's journey towards truth and reconciliation (TRC#92).
- To ensure our suppliers are in alignment with Bruce Power's commitment to DE&I, we continue to manage supplier scorecards through our Supply Chain organization. Suppliers are measured on key performance indicators related to diversity, equity and inclusion and Indigenous relations. As we progress on our inclusion journey, it is important to elevate and support our partnerships along the way and ensure our suppliers and partners have a visible commitment to DE&I.
- We partnered with other organizations in the nuclear sector to form the Nuclear Against Racism Committee. Throughout the year, this Committee provides educational resources and programming to eradicate racism in the nuclear industry. Last year the Committee, hosted a webinar on Systems of Oppression, which was attended by over 100 participants in the nuclear sector.
- Created and hosted a social media charity campaign to recognize individuals who identified as Black for their contributors in the nuclear industry. For every like, comment, or share, a dollar was donated to two non-profit organizations that support the communities: Black Women in Motion and the Black Youth Helpline and & Children Services. The campaign generated a total of $4,800 in donations.
- Partnered with Build a Dream to host a local career exposition in partnership with our suppliers and trades unions to support women students looking for career opportunities in skilled trades, STEM, emergency response, and leadership. Over 350 local students leveraged the opportunity.
- Continually refresh our sponsorship funds to diversify and recalibrate the communities and networks that we serve. This also allows us to ensure we continue to support local equity deserving events, such as WiN Canada, women's shelters, local community living supporting people with disabilities, Grey County Black Heritage Society, Multicultural Festival, Community Pride events, and Habitat for Humanity.
- Partnered with Ontario Tech University to provide an internship program aimed at attracting women into roles traditionally dominated by men. This partnership aligns with our global commitment to the Equal by 30 campaign and the Electricity Human Resource Canada Leadership Accord on DE&I. In 2023, we welcomed four new co-op students into a four-month full-time paid placement to gain exposure and experience in the nuclear sector.

- Partnered with WiN, a non-profit resource group for individuals in the nuclear industry, to support their initiative. WiN provides updates on the nuclear sector, drives programming, and drives initiatives that support the industry, networking, and leadership development opportunities. In 2023, we sponsored 61 individuals from various management levels and divisions across the organization.
- Increased our appearance in the communities to support equity deserving groups in support of our workforce such as the Kincardine Multicultural Day; Huron, Kincardine and Owen Sound Pride parades; local Indigenous community Powwows; fish fries; and the Kincardine Afro-Caribbean Awards banquet.
- Provided support to suppliers and trade vendors on their inclusion journey by sharing best practice, lessons learned, and encouraging community engagement with our local Indigenous communities through career fairs.
- Supported the development of coding and STEM programming into the local Indigenous School Board.
- Supported sponsorship funding and events in partnership with Skills Ontario and Build a Dream, who run programs that support occupational pipelines thus introducing youth to a variety of roles in the nuclear industry.

In 2023, Bruce Power was proud to receive several awards:

2024 CANADA'S BEST DIVERSITY EMPLOYERS

Waterstone CANADA'S MOST ADMIRED CORPORATE CULTURES 2023

CANADA'S TOP EMPLOYERS FOR YOUNG PEOPLE 2024

2024 SOUTHWESTERN ONTARIO'S TOP EMPLOYERS

Progressive Aboriginal RELATIONS GOLD LEVEL
Canadian Council for Aboriginal Business

CANADA'S BEST EMPLOYERS FOR DIVERSITY Forbes 2023

CANADA'S BEST EMPLOYERS Forbes 2024

ETHICS

Bruce Power has a separate and independent Code of Conduct Office that is dedicated to maintaining an ethical workplace culture through education, advice, and workplace investigations. The Code of Conduct, Supplier Code of Conduct ("the Codes of Conduct") and our Code of Conduct Principles 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. These documents are reviewed and updated on a regular basis to ensure that they are aligned with best practices.

The Codes of Conduct applies to everyone at Bruce Power, including our employees, complementary staff, executive team, and Board of Directors and Board Committee members. Similarly, the Supplier Code of Conduct applies to our contractors and suppliers, including their owners, employees, agents, partners, and subcontractors who provide goods and/or services to Bruce Power. We expect our suppliers to have a system in place to ensure compliance with Bruce Power's applicable policies and procedures.

As stated in the Joint Pledge with our supplier and union partners, Bruce Power pledges and demonstrates to our teams, colleagues, and to the nuclear industry, our commitment to creating and maintaining a respectful, discrimination, harassment, and violence -free workplace. 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 Codes of Conduct standards.

We always strive for excellence and do our jobs 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, and other ad hoc training including bystander intervention training and providing education and support on how to report concerns. Bruce Power provides a variety of avenues for individuals, both internal and external to Bruce Power, to report ethical concerns. These reporting methods include internal contacts within the Bruce Power Code of Conduct Office and an externally managed hotline and website which includes the ability for individuals to make anonymous reports.

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.

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

ANTI-CORRUPTION

Bruce Power promotes 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. As noted above, all interactions with Government Officials are required to be tracked and communicated to the Code of Conduct Office, who regularly reports these activities to both the Federal and Provincial Governments in transparency, in accordance with the legal requirements to do so.

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 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, and schools and students.

OCCUPATIONAL HEALTH AND SAFETY

At Bruce Power, we are continually focused on improving, while maintaining, our Safety First value. In 2023, the focus was to enhance Bruce Power's Safety Management programs to reflect a risk-based approach to Safety. Bruce Power continues to work towards modernizing the meaning of safety performance. Initiatives continue site-wide to build on the foundation of a risk-based approach to hazard recognition and mitigation and serious injuries and fatalities (SIF) prevention.

In 2023, Bruce Power adopted Severe Injury Rate (SIR) as the corporate metric for safety performance to emphasize the risks faced by employees that could lead to serious, life-altering, or life-ending events. As a result, we saw improvements in SIR for utility employees from 0.12 to 0.00 and for contract employees from 0.08 to 0.00.

Bruce Power's commitment to continually improve our safety culture is unwavering and is anchored by strategically learning from potentially serious events in an effort to build capacity into our systems. This is done through our Operating Experience (OPEX) process that looks at events on-site and in the industry in general. By proactively working together, we ensure that health and safety is the paramount consideration that guides all of our decisions and actions. We look forward to learning from past experiences and consistently achieving the highest safety standards.

For more information, view **Bruce Power's Occupational Health and Safety Policy**.[25]

See our policies in full in the Appendix on page 83.

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.

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 carries 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 (called the Huron series), which includes internal and external stakeholder participation (e.g., federal, provincial and municipal agencies) to test an integrated response to the **Provincial Nuclear Emergency Response Plan**.[26] The most recent provincial exercise was Exercise Huron Endeavour which was a three-day exercise involving many internal and external stakeholders including Federal, Provincial and Municipal emergency responders.

50 drills and at least one major exercise are completed every year by Bruce Power.

In 2023, a two-day corporate exercise was held which involved the CNSC, Provincial Emergency Management Organization (EMO), and the Municipality of Kincardine. This exercise was based on an extreme severe weather event damaging a station and the rest of site. The exercise was designed to specifically test the response of technical experts who would respond to mitigate a severe accident on-site as well as testing the interoperability, co-ordination, command and control and communications between the various response organizations. The CNSC performed an inspection of the emergency response capability during this exercise, with no major findings. Bruce Power has established succession planning for on call Emergency Response Organization (ERO) that allows rotations of the Emergency Management Centre (EMC) positions to exist as a development opportunity for high performers within Bruce Power. In 2023, there were 26 new on-call ERO members trained and qualified.

Products and Services


Safe. Reliable. Securing Tomorrow.

KPI	Standard(s) guidance is taken from *	2020	2021	2022	2023 Target	2023 Actual	2024 Target
% of services and materials sourced from suppliers in the Indigenous Relations Supplier Network	See Methodology	59.0%	59.0%	62.0%	≥ 65%	59%	≥ 65%
% of services and materials spent in Ontario	GRI-203-2, GRI-201-1	85.2%	86.4%	83.1%	≥ 88%	78.1%	≥ 88%
% of services and materials spent in Canada	GRI-203-2	91%	92.1%	90.5%	≥ 90%	87.2%	≥ 90%

** Bruce Power does not claim to conform to any of the standards identified, rather guidance has been taken from those standards identified. Sustainability reporting 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.*

Our efforts and initiatives outlined in the following report sections related to Procurement, Supplier Engagement and Economic Development help to support the following UN Sustainable Development Goal: Decent Work and Economic Growth

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**[27] 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)**[28] 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, are working to ensure local Indigenous communities are able to participate fully in the business development, procurement, and economic activities taking place at the Bruce Power site.

Our Indigenous Procurement Policy outlines parameters for Indigenous-owned and percentage employed suppliers for our Strategic and Preferred Suppliers. Request for Proposal (RFP) scoring criteria works to make Indigenous businesses more competitive and scoring guidelines give points to businesses that are Indigenous-owned and operated with a focus on the PAR pillars. In conjunction with this approach, Bruce Power uses the IRSN as a conduit to further develop

relationships and business opportunities for Indigenous owned businesses and the supplier community. The end goal, beyond business development, is to find creative ways increase Indigenous suppliers working for Bruce Power through the supplier base, as partners, sub-contractors, or related avenues.

BUILDING STRONG RELATIONSHIPS WITH INDIGENOUS COMMUNITIES

Leveraging procurement objectives and the IRSN mandate, Bruce Power continues to work directly with Makwa Development Corp to continue to develop a mutually beneficial relationship in support of building, maintaining, and strengthening a positive relationship with the Saugeen Ojibway Nation (SON). In addition, Bruce Power continues to support the growth of the Indigenous business footprint within the Bruce Power supply chain and continues to work with eSupply Canada, to develop strong commercial relationships.

At the 2024 Canadian Nuclear Association Conference, Bruce Power announced a new approach to supplier engagement and Indigenous relations, focused on *Community Engagement, Employment, Training, and Cultural Awareness* (together, the "**Engagement Principles**"). In Q2 2024, Bruce Power will work with our Indigenous partners and our suppliers to develop this initiative for full implementation in January 2025.

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**[29] 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 2023, 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, 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.

Bruce Power works in close partnership with the Nuclear Innovation Institute (NII) through its Clean Energy Frontier Program to promote economic and community development in the region, and to ensure that the community benefits from Bruce Power's operations including an Annual Economic Summit to bring leaders from across the region together to discuss, collaborate and promote new ideas to benefit Bruce, Grey, and Huron counties.

In 2023, the NII undertook a Nuclear Sector Sustainability and Growth Study – akin to a Business Retention and Expansion study but specific to the regional nuclear supply chain. Findings from this study were presented to economic development staff and to Bruce Power. Findings were also shared via delegations to Councils across the region.

Bruce Power and NII were active at the Economic Development Council of Ontario's Queen's Park Day in November 2023. While at Queen's Park, staff from Bruce Power and NII connected with leaders in the office of the Minister of Economic Development, Job Creation and Trade and actively promoted the region to key decision makers.

In collaboration with Bruce Power, NII obtained funding in 2023 through the Rural Economic Development (RED) program to augment its capacity specifically when it comes to marketing the region as the Clean Energy Frontier – this work will be undertaken throughout 2024.

In collaboration with Bruce Power, Clean Energy Frontier staff at NII actively support:

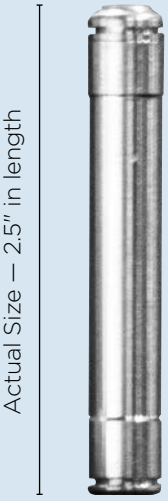
- Promoting the region as a leader in clean energy through marketing and engagement initiatives.
- Supporting economic development and investment attraction across the tri-county region.
- Increasing awareness of clean energy initiatives amongst elected officials and the public.

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 makes 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 (IPS) was installed with the ability to produce Lutetium-177. This innovative system offers unprecedented capacity of radiopharmaceuticals and supports Ontario in establishing itself as a global hub for medical isotopes. Looking ahead, Bruce Power entered into a Memorandum of Understanding (MOU) with Boston Scientific and other potential partners to explore the feasibility of producing cancer-fighting Yttrium-90 (Y-90) in its reactors.

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.



A target containing Ytterbium-176 is sent into Bruce Power's Isotope Production System (IPS) and irradiated in the reactor core to become Lutetium-177, a cancer-fighting medical isotope.

Learn more in **Bruce Power's Isotope publication**.[35]

Members of Saugeen Ojibway Nation during a tour of the Isotope Production System

Cobalt-60 and Lutetium-177

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

In October 2023, Bruce Power successfully completed a harvest of Cobalt-60 during a planned outage in Unit 8 and executed the installation of system innovations to increase the production of Cobalt-60 for the next harvest to meet the growing demands of the world market.

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 pharmaceutical grade Lutetium-177 for subsequent distribution to health-care facilities worldwide.

As cancer treatments using lutetium-177 become more commonplace, Bruce Power and its partners are working on further enhancements to the IPS to ensure reliable production capacity to meet the growing demand for this powerful cancer-fighting isotope, which is being successfully used in various clinical and commercial radio-pharmaceutical cancer treatments.

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 program through to 2064, it provides a long-term, reliable supply of 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 scale up to support the medical community as it innovates in the future.

Bruce Power and Isogen issued an **Expression of Interest (EOI)**[30] 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 helping both Bruce Power and Isogen understand isotope demand and gather information that could be used in planning around future IPS functionality and investments in opportunities such as Y-90 production.

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.

In December 2023, Bruce Power and SON celebrated the first full year of commercial operation of the IPS, resulting in full equity benefit of the partnership to SON communities. Bruce Power and SON also began discussions in 2023 on expansion opportunities for continued growth of the **Gamzook'aamin aakoziwin partnership**.[31]

BRUCE POWER NET ZERO INC

Bruce Power Net Zero Inc. (BPNZ) is focused on unlocking the potential of other complementary technologies to nuclear including storage, renewables, hydrogen, and electrified transportation to achieve a Net Zero future. Bruce Power Net Zero Inc. also operates a 9-Megawatt wind farm located in Tiverton. The BPNZ wind farm was the first commercial wind farm in Ontario. Bruce Power Net Zero Inc. is owned jointly by TC Energy and OMERS.

Hydrogen

Bruce Power and the potential for future hydrogen production from nuclear power was recognized in Ontario's Low-Carbon Hydrogen Strategy, which was released in April 2022. Non-emitting nuclear generation provides a significant competitive advantage for the Province of Ontario in developing a low-carbon hydrogen economy and Bruce Power innovation can enable that opportunity.

Due to its many advantages and applications, some estimates suggest hydrogen could be used to eliminate up to 25 per cent of greenhouse gas (GHG) emissions in Ontario. To capitalize on this potential, it begins with recognizing our clean energy advantages. In Ontario, thanks in large part to clean power from the province's nuclear sector, the electricity grid that supplies our homes and businesses with power is more than 90 per cent carbon free. This presents the province with a strategic advantage in comparison to other jurisdictions.

Bruce Power signed a Memorandum of Understanding (MOU) with companies within the Clean Energy Frontier region of Bruce, Grey, and Huron counties – Bruce Power Net Zero Inc., Greenfield Global, Hydrogen Optimized, and Hensall Co-op completed a feasibility study to determine opportunities for hydrogen production using this optimized output enabled by Project 2030.

As the demand for low-carbon hydrogen continues to grow over the next decade, Bruce Power could be positioned to provide an increasing supply of both clean electricity and low-carbon hydrogen to meet the changing needs of Ontarians throughout the Clean Energy Transition. Bruce Power is unlocking the potential of using optimized output generated from Project 2030 and will be able to optimize its supply of both clean electricity and hydrogen based on the market conditions and demand for both products over the coming decades.

Supporting and Growing the Hydrogen Innovation Ecosystem

The province announced in February 2023 that it would invest a total of CAD$15 million over the next three years to kickstart and develop opportunities for hydrogen to be integrated into Ontario's clean electricity system, including hydrogen storage. The fund is administered by Ontario's Independent Electricity System Operator (IESO) and will focus on the opportunities for hydrogen to serve as a clean alternative fuel for transportation and other end uses.

Announced in October 2023, a new study by Kinectrics and FuelCell Energy, supported by Bruce Power, will explore the potential to produce hydrogen using electricity generated by clean, reliable, and affordable nuclear power.

The proposed project is a feasibility study for a Hydrogen Hub in Toronto and will assess the potential of producing hydrogen through electrolysis, powered by a surrogate heat source to simulate a nuclear power plant and explore the use of solid oxide fuel cells for power generation and as a clean fuel source for vehicles. The study will evaluate the economic feasibility, including installation, maintenance and operation costs of hydrogen production, storage, distribution, and power generation infrastructure and aims to provide insights into the opportunities and challenges of hydrogen in the electricity system.

By exploring the potential of using nuclear energy as a low-carbon source for hydrogen production through solid-oxide fuel cells, the project establishes an approach that not only demonstrates the ability to manage grid reliability, peaking power, and surplus generation locally, but also demonstrates a scalable approach that can be deployed at nuclear generating stations in Ontario.

The feasibility is set to be completed in June 2024.

Please see our **video**[36] for more information on Bruce Power Net Zero Inc.

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 that is incorporated into all of our agreements with new suppliers. More than 60 suppliers have established offices in Bruce, Grey and Huron counties (more details can be found on the **Economic Development and Innovation Initiative**,[32] and the **Working with Bruce Power**[33] 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 considers companies which have documented local Indigenous components of their business, which would then score higher than at the provincial and national levels. The scoring criteria and overall RFx evaluation process is being revised and enhanced to better incorporate principles of diversity, equity, and inclusion, and Indigenous economic participation, with full implementation expected in Q1 2025.

Supplier Engagement

At the request for proposal (RFP) evaluation phase, Supply Chain will take into consideration a variety of sustainability 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, and DE&I and to provide equal opportunity within the workplace. Suppliers shall ensure all labour practices, wage payments, and benefits comply with applicable laws and regulations. Additionally, Suppliers enter binding contracts with Bruce Power that require suppliers to conduct business in accordance with the principles of human rights and diversity, and ensure no forced and child labour is condoned, facilitated, or used in their workplaces. Suppliers are required to flow through their contractual obligations with Bruce Power to their sub-suppliers.

Suppliers are required to register in ISNetworld and maintain the requested information; in limited circumstances a supplier may be exempt from ISNetworld registration upon review and approval by a Supply Chain Director. ISNetworld includes safety-related metrics and grading and an environmental questionnaire (e.g., relating to ISO 14001 certification, waste management plans, spill management plans) which contributes to the supplier's overall rating in ISNetworld. 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.

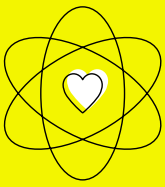
URANIUM FUEL SOURCING

Bruce Power's current uranium contract restricts origins to Canada, Australia, United States, and Kazakhstan based on the known environmental, social, and regulatory standards in those countries. Bruce Power will only consider accepting material from other jurisdictions subject to confirming the environmental, social, and regulatory standards in such jurisdictions meet the "do no significant harm" principle.

In 2023, Cameco and Bruce Power celebrated the extension of their long-term exclusive nuclear fuel supply arrangements through to 2040. This partnership secures decades of Canadian-made nuclear energy that is essential in supporting net zero targets, creating good jobs, and benefitting ratepayers.

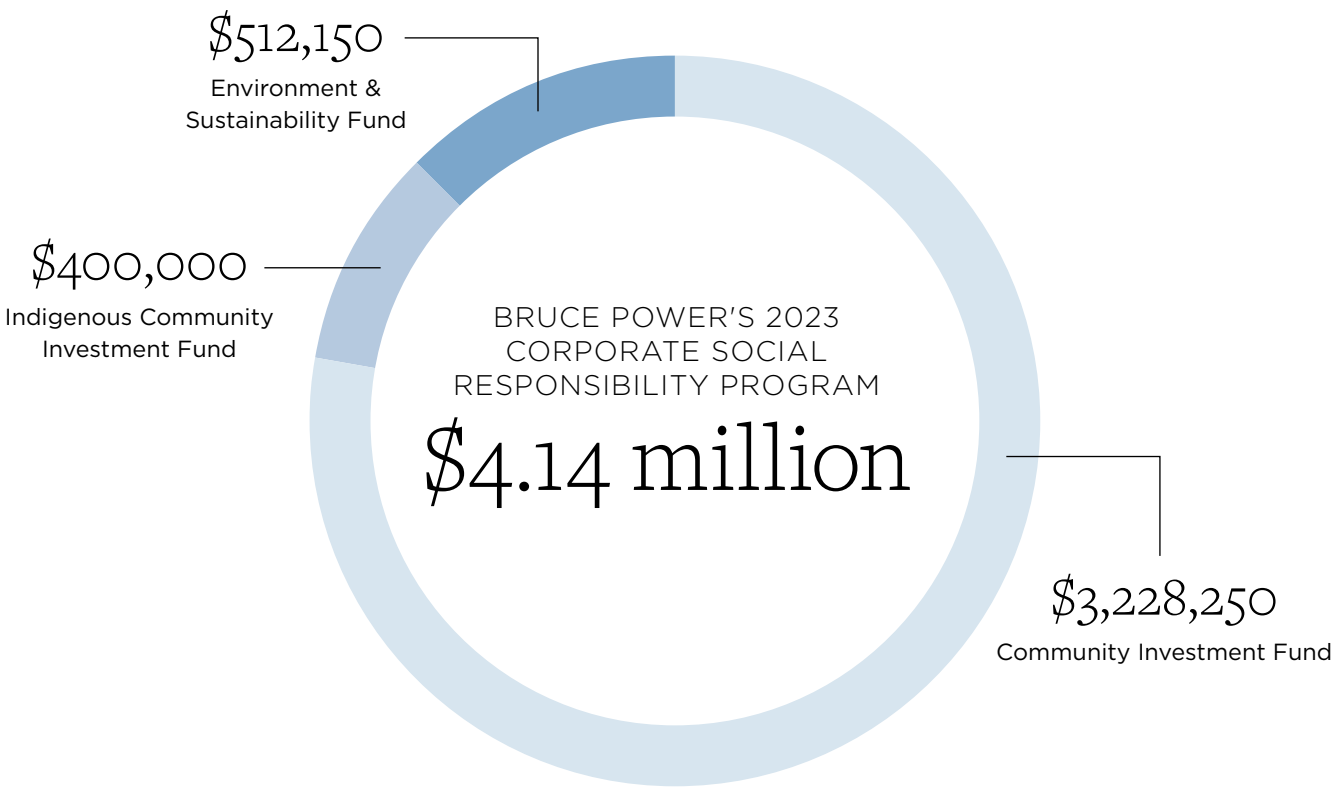
You can learn more about Cameco's Sustainability and ESG program by visiting **Sustainability section**[34] on Cameco's website.

Community



At Bruce Power, we are proud to deliver clean, reliable, low-cost nuclear power to families and businesses across Ontario and cancer-fighting medical isotopes across the globe. Many of our employees have lived in Bruce, Grey, and Huron counties for decades, and we are proud to have been an active member of the business community since 2001.


Bruce Power™
ucePower™



KPI	Standard(s) guidance is taken from *	2020	2021	2022	2023 Target	2023 Actual	2024 Target
Total Value of Sponsorships & Donations	See Methodology	$4,000,000	$2,060,000	$2,060,000	≥ $2,500,000	$4,140,400	≥ $2,500,000

** Bruce Power does not claim to conform to any of the standards identified, rather guidance has been taken from those standards identified. Sustainability reporting 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.*

Our efforts and initiatives outlined in the Community section help to support the following UN Sustainable Development Goals: No Poverty, Good Health and Well-being

We have the privilege to contribute to the community and we encourage our partners to do the same. Bruce Power invests upwards of $2 million annually to support initiatives that focus on health and wellness, youth development, minimizing environmental impacts, community engagement, and Indigenous youth development, cultural, recreational, and educational programming.

In 2023, due to a combination of heightened needs in the community and a year when the company outperformed its business plan, Bruce Power was able to address some additional requests for support in the community and close off some of our long-term commitments to allow us to accommodate additional needs in future years. This may not always be possible; however, it was greatly appreciated by a number of charitable organizations feeling the effects of tough economic times.

Some initiatives that Bruce Power was proud to support in 2023 include:

- **The Saugeen Sparks Training Centre:** Bruce Power donated $100,000 to assist the Centre with startup costs, ultimately providing opportunities for youth and adults to explore skilled trades through skills training programs and community partnerships, leading to diverse employment.
- **The Kincardine and Community Health Care Foundation:** Bruce Power completed its $1.5 million commitment to the Foundation's Building Health Care for Generations campaign, focusing on revitalizing and enlarging critical areas of the Kincardine hospital, as well as the hospital's ongoing medical equipment needs.
- **Holiday giving:** Over $170,000 from Bruce Power and Suppliers was distributed to local community organizations around the holiday season, contributing to toy and hamper drives, food banks, women's shelters, warm winter clothing for children, Indigenous community clothing drives, and families in need across the region.

INTERESTED PARTIES

Our identification of interested parties is guided through our ISO 14001 system and is defined as someone who has an interest in the performance of the business and can influence objectives. Bruce Power's 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.

Bruce Power consistently commissions Ipsos to conduct independent polling 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, communication with residents, community outreach, and awareness and interest in specific topics related to Bruce Power's operations.

Polling in October 2023 found nearly all respondents continue to have confidence that the nuclear facility operates safely (96 per cent), feel that Bruce Power is involved with the community in a positive way (95 per cent), and agree Bruce Power is a good community citizen (96 per cent). 90 per cent of residents feel familiar with Bruce Power and 87 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 of Bruce, Grey, and Huron counties is home to Bruce Power, more than 60 nuclear-related companies, the 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 and Medical Professional Shortage

In 2023 alone, Bruce Power invested over $2.38 million into health and wellness initiatives in the community and partnered with the Municipalities of Saugeen Shores and Kincardine with the goal 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.

Physician and healthcare 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.

From 2019-2023, Bruce Power contributed $3.91 million to local hospital foundations with $1.5 million to the Kincardine and Community Hospital Foundation; $250,000 each being allocated to the Bruce Peninsula Health Services Foundation, the Saugeen Memorial Hospital Foundation, and the Owen Sound Regional Hospital Foundation; and $100,000 each 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 and District Hospital Foundation.

These commitments continue 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 residents and visitors.

Increased Cost of Living and Housing

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, Bruce, Grey, 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 that 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 into 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 region in both the immediate and longer term.

In partnership with the Nuclear Innovation Institute's (NII) Clean Energy Frontier Program, Bruce Power is working collaboratively with Bruce, Grey, and Huron counties to better understand the housing challenges and how we can support access to housing. Representatives from Bruce Power and the NII met with staff for the Associate Minister of Housing in late-2022. After sharing background and noting the concern due to lack of housing, the Minister's office suggested that the Clean Energy Frontier Program continue to engage with their office regarding housing needs across the region. They were particularly interested in any insights that could be produced as part of the program's ongoing Nuclear Sector Sustainability and Growth Study.

The annual Clean Energy Frontier Summit, hosted by Bruce Power, Bruce County, and the NII, brings together elected officials from Bruce, Grey, and Huron counties, local Indigenous communities, nuclear sector supply chain representatives, education sector representatives, municipal staff, and economic development stakeholders to share strategies toward sustainable growth. During the Summit, roundtable discussions considered housing and the consensus is that there is a need to advocate together for funding from all levels of government for housing; encourage municipalities to add infrastructure capacity to proactively support growth; review municipal processes and set best practices and higher standards of service; and streamline approvals and reduce red tape.

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 2023, 44 members of Bruce Power's supply chain donated $685,000 to Bruce Power's Supplier Sponsorship Program, in support of non-profit organizations that focus on Indigenous youth, health and wellness organizations, Canadian veterans, food banks, and hospital foundations.

NUCLEAR INNOVATION INSTITUTE

Bruce Power continues to partner with NII Explore to support their inclusive, accessible programming and initiatives across multiple platforms in the areas of science, technology, engineering, and math, as well as nuclear-related learning. NII Explore is targeted primarily at students in Bruce, Grey, and Huron counties, and local Indigenous communities.

To learn more about Bruce Power's partnership with the NII, visit **www.nuclearinnovationinstitute.ca**.[37]

Methodology

The purpose of the methodology section is to provide open and transparent information on the boundaries of how each Sustainability Key Performance Indicator (KPI) within the tables of this report are calculated. It is important to note that as the Sustainability reporting requirements and best practices continue to evolve and become more standardized; we anticipate that calculation adjustments may be required to ensure alignment. This includes preparing our reporting for alignment with International Financial Reporting Standards (IFRS) S1 and S2. Any adjustments will be communicated in future reporting.

At Bruce Power we currently 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 Sustainability 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 noted standards 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 Sustainability KPIs.

Scope 1 and Scope 2 Greenhouse Gas Emissions (tCO_2e)

Approach and Boundary

Bruce Power's quantification approach to GHG emissions 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, and process 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. Scope 2 emissions are calculated using the location-based and market-based method where the market-based method was calculated using an emission rate of 0 Mt CO_2e/MWh for Clean Energy Credits (CECs) derived from nuclear power.

The GHG inventory base year is used as a basis for setting and tracking progress towards GHG targets. Based on a review of Bruce Power's scope 1 and scope 2 GHG emissions between 2015 and 2020, a base year of 2019 was selected as the emissions during that year were considered to be normal following the removal of the steam plant.

The following cases shall trigger recalculation of base year emissions:

- Structural changes in the reporting organization (i.e., change in ownership or control of emissions generating activities, and outsourcing and insourcing of emitting activities).

- Changes in calculation methodology, improvements in the accuracy of emissions factors, or activity that would result in a significant (5 % or more) change in emissions.

The inventory base year is not recalculated for organic growth/decline, in out/in-sourcing activities previously accounted for in different scope.

Emission Factor References

Scope 1 emissions: Canada's Greenhouse Gas Quantification Requirements, Intergovernmental Panel on Climate Change Assessment Report, US EPAs Mandatory Greenhouse Gas Reporting Rule 40 CFR.

Scope 2 emissions: National Inventory Report (NIR) for Canada, The Climate Registry's Default Emission Factors, Canada's Greenhouse Gas Quantification Requirements.

Net Greenhouse Gas Emissions - Scope 1 and 2 Emissions, Carbon Offsets Retired, Clean Energy Credits Retired (tCO_2e)

Boundary

Net GHG Emissions refers to total Scope 1 and market-based Scope 2 emissions minus any retired carbon offsets or clean energy credits each 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 each year, a specific number of purchased carbon offsets or Clean Energy Credits (CECs) are retired to make up the difference and ensure that the target is met. Annual emission reduction targets are set using the market-based method.

Scope 3 GHG Emissions ($MtCO_2e$)

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 and/or 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

- Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities. U.S. Environmental Protection Agency
- 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

Number of Trees Planted Annually Supported by Bruce Power Environment & Sustainability Fund

Approach and Boundary

Tree planting projects are currently funded by Bruce Power's Environment & Sustainability (E&S) Fund. These projects include those related to long-term partnership and those that apply for sponsorship through the E&S fund in a given year or years.

At the end of each year, tree planting projects supported by the E&S Fund are followed up with to verify that tree planting occurred and to validate how many trees were planted supported by the funding provided. Tree numbers are then logged internally for our records and reporting.

Ontario Grid Emissions Avoidance via Bruce Power Annual TWh Generation (tCO_2e)

Previous Methodology

This methodology is applied to 2020 and 2021 data for this KPI.

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, and decommissioning; and long-term waste storage.

It is assumed that annually the actual Terawatt hour (TWh) output that Bruce Power generates would be replaced in totality by the combined natural gas. The equation looks at a normal year to determine 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.

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.

Current Methodology
This methodology is applied to 2022 and 2023 data for this KPI.

The quantification of GHG avoidance associated with Bruce Power's annual generation, associated with zero direct emissions, considers the annual TWh generated by the Bruce Power site, excluding deemed generation.

Since the current IESO forecast assumes any increase in electricity demand is met by natural gas electricity generation, this annual output associated with zero direct emissions, is compared with the amount of GHG emissions that would result from the same power output being provided from natural gas electricity generation in the Ontario grid, instead of nuclear.

Data is sourced annually from Government of Canada's National Inventory Report (NIR) to calculate the greenhouse gas intensity of electricity generated from natural gas in Ontario for this comparison. The annual output of Bruce Power (TWh) is then multiplied by the greenhouse gas intensity of natural gas electricity generation (g CO_2e/kWh) to determine the annual amount of greenhouse gas emissions avoided via electricity generated by Bruce Power.

It is of note that the NIR data represents direct emissions from the generation plant only and does not include wider lifecycle emissions, such as extraction, processing, and fuel transport, which results in inherently higher generation intensity values.

Total Value of Environment & Sustainability Fund Assigned

The Environment & Sustainability (E&S) Fund typically contains a $400,000 budget, distributed amongst long term partnership agreements, sponsorship, and general operating and maintenance of the external facing Environment & Sustainability Program initiatives. Depending on the year, the amount available to be distributed to E&S fund applicants can vary.

Applicants to Bruce Power's E&S Fund submit funding applications via the Sponsorium platform, linked from the Bruce Power website. Submitted applications are ranked on the Sponsorium platform, as well as evaluated internally by the E&S Fund Program Lead and peers from the Environment & Sustainability Division, on applicability and alignment to the fund objectives. Funding recommendations are then presented to Bruce Power's Environment & Sustainability Oversight Committee for ratification.

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

Boundary
A third-party vendor conducts an annual site review and conventional waste audit 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 an approximate 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 landfill to the total weight of all waste material generated, expressed as a percentage.

Hazardous Waste Diversion Rate – Oil Recycling (%)

Boundary
The oil recycling program, established with the hazardous waste vendor, includes drummed and bulk (totes or larger) transformer oil, turbine lubricating oils, or other lube oils but does not include fuel oils. Generally, recyclable oil assumes < 10% water, no solids, no PCBs, no silicone, and < 1000 ppm halogens. Operators will bulk oil into drums and totes, and it may be required to put it through an oil water separator to reduce the water percentage. After off-site shipment of the recyclable oil occurs, the recycling vendor will sample the oil upon receiving it and will notify Bruce Power if contamination is found in the oil.

Calculations
The hazardous waste diversion rate is calculated by taking the total volume of oil disposed of in bulk and dividing it by the volume confirmed recycled by the hazardous waste vendor to achieve 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 and scope for Bruce Power is to minimize Domestic Water production via domestic water consumption enhancement and 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 Drawn from Lake Huron (million cubic meters)

Boundary and Calculation
Total water withdrawn from Lake Huron is calculated using the Permit to Take Water (PTTW) annual reports for Bruce A, Bruce B, and Centre of Site. Each site has its own system to calculate and estimate daily intake volumes as approved by Ministry of Environment Conservation and Parks.

Total Water Returned to Lake Huron (million cubic meters)

Boundary and Calculation
Total Bruce Power water discharged 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 and estimate daily intake volumes.

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

Annual Dose to Public

The dose to public is calculated using guidance as per CSA N288.1. For full description of methodology please see the annual **Bruce Power Environmental Protection Report**.

Net Land Preservation vs Disturbance (Hectares)

In 2017, a third-party consultant performed an Ecological Land Classification assessment of the Bruce Power site and surrounding areas and reported that approximately 55% (887 hectares) of land was undisturbed and capable of supporting a diverse level of biodiversity.

Bruce Power strives to maintain this biodiversity by targeting a net positive balance of at least 40 hectares of land preserved or conserved offsite through the Environment & Sustainability Fund versus land disturbed onsite for development projects.

Land disturbance and potential habitat degradation on-site is tracked through the Environmental Impact Workflow (EIW) process (which is a tool in Bruce Power's Environmental Management System). The EIW characterizes the environmental risk of projects and specifies mitigation measures to be taken.

Invasive Species Management (Phragmites) in Baie du Doré

Baie du Doré is a Provincially Significant Wetland located just north of Bruce Power on the shore of Lake Huron. In 2014, an assessment of this wetland found that invasive Phragmites had become established in approximately 60 per cent of the wetland. Invasive Phragmites crowd out native vegetation, reduce plant diversity, and generally provide poor habitat and food supplies for wildlife. In 2017, Bruce Power, OPG, and the Invasive Phragmites Control Centre joined forces to remove Phragmites from the wetland. Between 2017 and 2022, the team targeted high and intermediate density stands, successfully restoring an area of about 60 hectares. Annual assessment and treatment of Phragmites continues.

The goal of this initiative is to eradicate Phragmites from Baie du Doré, if possible, or at least control the population to a low density.

Each year, Bruce Power reports on the status of Phragmites management in Baie du Doré, using the density of Phragmites (high, intermediate, low, absent) as a measure of success.

Sitewide Environmental Health Index (EHI)

Environmental Health Index (EHI) is a measure of overall environmental health at Bruce Power as defined by compliance, performance, continuous improvement, and oversight assessment metrics. EHI is calculated monthly for each facility (Bruce A, Bruce B, and Center of Site) and also trended on a year-to-date basis. In 2023, a change to the EHI methodology occurred and the metric is now reported on a rolling 12-month average for site.

% of Women Relative to the Workforce

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

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

Women Hired

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

Women Hired into Non-Traditional Roles

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

Visible Minorities Hired

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

Severe Injury Rate (SIR)

A frequency rate based on the number of Severe Injuries for Bruce Power personnel per 200,000 hours worked.

Contractor - Severe Injury Rate (C-SIR)

A frequency rate based on the number of Severe Injuries for Contractor personnel per 200,000 hours worked.

Fatality Rate Employees

A frequency rate based on the number of Fatalities for Bruce Power personnel per 200,000 hours worked.

Fatality Rate Contractors

A frequency rate based on the number of Fatalities for Contractor personnel per 200,000 hours worked.

Emergency Preparedness — Annual Number of Drills / Response Exercises

An annual drill and exercise schedule is prepared in the final quarter of the previous year. A draft drill and exercise schedule goes through various levels of approvals before the final approval from the Senior Vice President, Operational Services and Business Development. 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. 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).

The drills and exercises are tracked on a weekly basis and the drill and exercise program is managed by a dedicated resource in the Department (Drill/Exercise Developer).

Emergency Preparedness — % Emergency Response Organization-Qualified Staff Above Minimum Requirements

For the Emergency Response Organization (ERO), we aim to maintain a number of qualified staff for each position at 120 per cent to ensure there will always be people trained and qualified to respond. This is the metric identified as Business Flexibility. This metric is derived from the ERO Training Scorecard which is produced and distributed monthly to ensure adequately trained and qualified staff are available to fulfill the ERO positions. The ERO training scorecard is reviewed monthly and there is a follow-up with individuals and their supervisors for anyone who loses their ERO qualifications.

% 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.

% of 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.

% of 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 & Donations

Boundary

A guiding document BPET-09-16 spells out our philosophy and budget regarding social responsibility, 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

ENVIRONMENT

KPI	Standard(s) guidance is taken from *	2019 Baseline	2021	2022	2023 Target	2023 Actual	2024 Target
Scope 1 GHG Emissions (tCO_2e)	SASB IF-EU110a.1, GRI-305-1, TCFD	6,946	7,813	8,087	See Net GHG Emissions	5,279	See Net GHG Emissions
Location-based Scope 2 Emissions[1]	SASB IF-EU110a.2, GRI-305-2, TCFD	15,381	14,201	15,808		15,615	
Market-based Scope 2 Emissions		15,381	14,201	15,808		11,465	
Carbon Offsets Retired (tCO_2e)	See Methodology	N/A	804	4,360		0	
Retired Clean Energy Credits (CECs)/ Renewable Energy Credits (RECs) allocated to market-based Scope 2 electricity emissions (tCO_2e)[2]		N/A	0	0		4,150	
Net Greenhouse Gas Emissions - Scope 1 and 2 Emissions, Carbon Offsets Retired, Clean Energy Credits Retired (tCO_2e)[3] [4]		22,327	21,210	19,535	16,745 (25% reduction from 2019 baseline)	16,744	13,954 (37.5% reduction from 2019 baseline)
Scope 3 GHG Emissions ($MtCO_2e$)	GRI-305-3	0.88	N/A	0.83	No target	0.60	No target

1 We apply the GHG protocol Scope 2 Guidance and report our scope 2 emissions using both market-based and location based-methods. Based on current operations, the results for the location-based and market-based methods are equivalent for 2019 - 2022.

2 The energy generation technology from which the CECs are derived is nuclear power with an emission rate of 0 Mt CO_2e/MwH

3 Net GHG emissions are the product of scope 1 emissions, applied VERs and market-based scope 2 emissions. The goals/targets are based using the market-based scope 2 calculation method.

4 Residual mix emission factors for the Ontario IESO grid are not publicly available.

** Bruce Power does not claim to conform to any of the standards identified, rather guidance has been taken from those standards identified. Sustainability reporting 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.*

ENVIRONMENT

KPI	Standard(s) guidance is taken from *	2020	2021	2022	2023 Target	2023 Actual	2024 Target
Number of Trees Planted Annually Supported by Bruce Power's Environment & Sustainability Fund	See Methodology	21,661	36,610	22,400	≥ 5,000	7,370	≥ 5,000
Ontario Grid Emissions Avoidance via Bruce Power Annual TWh Generation (tCO_2e)	See Methodology	20,726,400	20,310,220	17,997,309	17,159,242	17,807,396	19,448,824
Total Value of Environment & Sustainability Fund Assigned	See Methodology	$375,200	$320,000	$400,000	$400,000	$512,150	$400,000
Weight of Conventional Waste Generated (MT)	GRI-306-3	1,827.5	2,051.4	2,597.1[5]	No target	2,286.9	No target
Conventional Waste Diversion Rate (%)	GRI-306-3	69.8%	69.0%	71.2%	≥ 71%	69.1%	≥ 71%
Hazardous Waste Diversion Rate – Oil Recycling (%)	GRI-306-3	N/A	24%	87%	≥ 30%	70%	≥ 50%
Net Water Consumption from Lake Huron (million cubic meters)	GRI-303-5	2.2	2.1	2.1[6]	≤ 2.3	1.9	≤ 2.3
Total Water Drawn from Lake Huron (million cubic meters)	GRI-303-3	9,409	8,637	8,940	≤ 11,645.3	9,348	≤ 11,645.3
Total Water Returned to Lake Huron (million cubic meters)	GRI-303-4	9,406	8,634	8,937	No target	9,346	No target
Annual Dose to Public	CSA N288.1	1.8 µSv/yr	1.6 µSv/yr	2.4 µSv/yr	< 10 µSv/yr	1.4 µSv/yr	< 10 µSv/yr
Net Land Preservation vs Disturbance (Hectares)	See Methodology	New Indicator			≥ 40	54.5	≥ 40
Invasive Species Management (Phragmites) in Baie du Doré	See Methodology	New Indicator			Phragmites eradicated or population density is low	Phragmites eradicated or population density is low	Phragmites eradicated or population density is low
Sitewide Environmental Health Index (EHI)	See Methodology	90%	91%	93%	≥ 90%	94%	≥ 92%

5 2022 performance for this indicator has been updated based on corrected data

6 Number updated due to data correction

** Bruce Power does not claim to conform to any of the standards identified, rather guidance has been taken from those standards identified. Sustainability reporting 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.*

PEOPLE AND SAFETY

KPI	Standard(s) guidance is taken from *	2019 Baseline	2020	2021	2022	2023 Target	2023 Actual	2024 Target
% of Women Relative to the Workforce	GRI- 405-1	21.4%	21.1%	21.8%	21.8%	≥ 22.3%	22.7%	Indicators updated in 2024
% of Visible Minorities Relative to the Workforce	GRI- 405-1	7.8%	8.1%	9.0%	9.5%	≥ 9.8%	11.4%	

KPI	Standard(s) guidance is taken from *	2020	2021	2022	2023 Target	2023 Actual	2024 Target
Women Hired	GRI- 405-1	24%	34%	36%	≥ 32%	32%	Indicators updated in 2024
Women Hired into Non-Traditional Roles	GRI- 405-1	24%	34%	32%	≥ 30%	31%	
Visible Minorities Hired	GRI- 405-1	12%	20%	20%	≥ 22%	22%	
Severe Injury Rate (SIR)	SASB IF-EU-320a.1	New indicator			0.00	0	0.00
Contractor - Severe Injury Rate (C-SIR)	SASB IF-EU-320a.1	New indicator			0.00	0	0.00
Fatality Rate -Employees	SASB IF-EU-320a.1	0	0	0	0	0	0
Fatality Rate -Contractors	SASB IF-EU-320a.1	0	0	0	0	0	0
Emergency Preparedness - Annual # of Drills/Response Exercises	SASB IF-EU-540a.2	75	113	115	≥ 75	96	≥ 75
Emergency Preparedness - % Emergency Response Organization-qualified Staff Above Minimum Requirements	SASB IF-EU-540a.2	117%	119.4%	119.9%	≥ 115%	119.5%	≥ 115%

** Bruce Power does not claim to conform to any of the standards identified, rather guidance has been taken from those standards identified. Sustainability reporting 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.*

PRODUCTS AND SERVICES

KPI	Standard(s) guidance is taken from *	2020	2021	2022	2023 Target	2023 Actual	2024 Target
% of services and materials sourced from suppliers in the Indigenous Relations Supplier Network	See Methodology	59.0%	59.0%	62.0%	≥ 65%	59%	≥ 65%
% of services and materials spent in Ontario	GRI-203-2, GRI-201-1	85.2%	86.4%	83.1%	≥ 88%	78.1%	≥ 88%
% of services and materials spent in Canada	GRI-203-2	91%	92.1%	90.5%	≥ 90%	87.2%	≥ 90%

COMMUNITY

KPI	Standard(s) guidance is taken from *	2020	2021	2022	2023 Target	2023 Actual	2024 Target
Total Value of Sponsorships & Donations	See Methodology	$4,000,000	$2,060,000	$2,060,000	≥ $2,500,000	$4,140,400	≥ $2,500,000

** Bruce Power does not claim to conform to any of the standards identified, rather guidance has been taken from those standards identified. Sustainability reporting 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.

Date: April 22, 2021

Signed by: Michael W. Rencheck, President and Chief Executive Officer

BRUCE POWER'S BIODIVERSITY POLICY

Biodiversity refers to all the different kinds of life in one area—the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world. Biodiversity is essential for a healthy ecosystem and supports all life on Earth, including humans.

The protection, conservation and restoration of biodiversity and the important functions that it provides is vital to supporting a healthy planet and human well-being. Business activities can contribute to biodiversity loss and negative pressures on ecosystems including land and freshwater use, overexploitation, pollution, climate change and the introduction of invasive, non-native species.

Bruce Power is located on the shores of Lake Huron in the Saugeen Ojibway Nation Territory and the unique Huron Fringe coastal environment on one of the world's largest sources of fresh water. Our 930-hectare site is home to a naturally diverse environment that contains a wide variety of plant and wildlife species. Bruce Power recognizes the direct and indirect impacts and dependence on our surrounding natural environment in our daily operations and in our supply chain. It is both our responsibility as corporate citizens and essential to our business that we act as a steward of the environment, and we take action to mitigate the impacts of our operations on biodiversity and to support initiatives that protect and enhance natural habitats and ecosystems.

Bruce Power's Biodiversity Policy, an extension of our Environment & Sustainability Policy, outlines a commitment to the protection of biodiversity on and off site through actions and initiatives that preserve and enhance natural habitats and ecosystems.

You can count on Bruce Power to:

Continue to carry out environmental monitoring on and around the site through Bruce Power's Environmental Protection Program which ensures operational impacts are being monitored and assessed and allows for continual risk and opportunity-based decision making.

Work across the organization to integrate the protection and restoration of biodiversity into our business strategies, operations, and processes.

Ensure employees have resources on humane and effective management of wildlife on site.

Provide resources to on-site projects during the design stage to provide guidance on incorporating items into project scopes related to minimizing impact on natural areas, habitats, and wildlife; optimizing soil management; and avoiding the creation of unnatural habitats.

Maintain our internal target related to the protection of high-quality habitat on site or ensure the protection of an equivalent amount of habitat off site if further on-site development is required.

Continue routine engagement with local Indigenous Nations and Communities, and integrating a two-eyed seeing approach to increase confidence in collective environmental decision making, as well as identify opportunities to collaborate on ecosystem monitoring, conservation, and enhancement initiatives.

Work in collaboration with non-governmental organizations and Indigenous communities on invasive species management.

Work in collaboration with non-governmental organizations and Indigenous communities to help protect the health of Lake Huron and the watershed our site operates within.

Support community projects related to environmental conservation, monitoring, and stewardship through Bruce Power's Environment & Sustainability Fund.

Provide routine internal communications to increase awareness and education on our business's reliance on, and impacts to, biodiversity.

BRUCE POWER'S OCCUPATIONAL HEALTH & SAFETY POLICY

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 meet or exceed all applicable health and safety legislative requirements, as well as other standards and requirements to which Bruce Power subscribes to eliminate hazards and reduce health and safety risks.

We consistently identify hazards and implement effective controls to prevent injury and protect the physical and mental health of our employees. We are committed to continuously improving health and safety.

We consult and collaborate with our employees, worker representatives and key stakeholders to develop, plan and implement our Management System for Occupational Health and Safety which is the framework for our safety programs, objectives and improvement opportunities.

By proactively working together and caring enough to act, we ensure that health and safety is the paramount consideration that guides our decisions and actions.

At Bruce Power, we count on each other every day to keep our employees, complementary workers, and visitors safe. When we say, "You can count on me," it is a promise.

EVERY STEP. EVERY TIME. EVERY DAY.

Date: November 15, 2021

Signed by:

Michael W. Rencheck, President and Chief Executive Officer

Michelle Johnston, President, Society of United Professionals

Jeff Parnell, President, Power Workers' Union

BRUCE POWER'S DIVERSITY EQUITY & INCLUSION POLICY

Together, we power the future. 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 demonstrate this through:

- Utilizing and relying on our Excellence Model by collectively living our values and Bruce Power behaviours;
- Providing a safe, healthy and inclusive workplace for every person on our site by treating others with dignity and respect — it's at the heart of everything we do;
- We embrace and encourage our employees' differences in age, color, disability, ethnicity, family or marital status, gender identity or expression, language, national origin, physical and mental ability, political affiliation, race, religion, sexual orientation, socio-economic status and other characteristics that make our employees unique;
- Listening and engaging with our diverse communities and valuing teamwork with our diverse suppliers and partners;
- Our commitment to attracting, developing and retaining the best talent through the engagement of our people. We remain focused on shifting the composition of our workforce and fully leveraging the potential of our people;
- Recognizing the importance of strengthening the diversity of our leadership and our overall workplace;
- Remaining committed to reviewing our talent programs, including promotions, succession and leadership development, to ensure we are creating equitable opportunities and experiences that are inclusive and lead to growth opportunities for our employees;
- Seeking diverse opinions, recognizing the value of diversity of thought and challenging the status quo. To achieve this, we provide educational opportunities for our employees on inclusive behaviours and the value of diversity while continuing to seek input to ensure our programs and practices reflect the values of our employees;
- Integrating inclusive leadership into our development programs to build the capacity of our leaders and hold each other accountable to our behaviours.
- The result will strengthen our leaders, elevate performance and ensure accountability for a respectful and inclusive work environment;
- Developing strong employee resource groups and effective communication, and sharing our progress, success and learnings along the journey;
- Exhibiting conduct that reflects inclusion during work, at work functions on or off the work site, and at all other company-sponsored and participative events;
- Our commitment to growing the capacity of the talent in our communities and attracting and retaining diverse talent to our area. This will further strengthen the economy and development in our region; and
- Recognizing our role in being a leader to support this transformation and utilizing our supplier relationships to drive diversity initiatives and support social development to promote inclusion for all.

Signed by:

Michael W. Rencheck, President and Chief Executive Officer

Endnotes

1 https://www.sustainalytics.com/corporate-solutions/esg-solutions/top-rated-companies

2 https://www.brucepower.com/green-financing-framework/

3 https://www.spglobal.com/ratings/en/research/pdf-articles/231122-second-party-opinion-bruce-power-l-p-s-2023-green-financing-framework-101589818

4 https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/

5 https://www.lsta.org/content/green-loan-principles/

6 https://www.brucepower.com/publications/2022-green-bond-report/

7 https://www.globalgoals.org/goals/14-life-below-water/

8 https://www.brucepower.com/what-we-do/a-cleaner-tomorrow/environment-policy/

9 https://www.brucepower.com/wp-content/uploads/2022/06/Our-2027-Net-Zero-Strategy.pdf

10 https://www.youtube.com/watch?v=EQzIt4VBzfc

11 https://www.brucepower.com/cec/

12 https://alus.ca/wp-content/uploads/2024/05/2024-Bruce-Power-Year-2-Progress-Report-Final-For-Public-Release-2024-05-29.pdf

13 https://www.youtube.com/watch?v=UlKR1FUU4hw

14 https://www.nwmo.ca/

15 https://www.brucepower.com/wp-content/uploads/2024/05/B-REP-07000-00016-R000-Master.pdf

16 https://www.brucepower.com/wp-content/uploads/2024/05/B-REP-07000-00016-R000-Master.pdf

17 https://www.brucepower.com/what-we-do/a-cleaner-tomorrow/biodiversity-policy/

18 https://www.brucepower.com/what-we-do/a-cleaner-tomorrow/environment-policy/

19 https://www.brucepower.com/what-we-do/a-cleaner-tomorrow/environment-policy/

20 https://www.brucepower.com/what-we-do/a-cleaner-tomorrow/biodiversity-policy/

21 https://www.plugndrive.ca/

22 https://natureconservancy.ca/en/

23 https://www.brucepower.com/careers/diversity-and-inclusion-bak/diversity-equity-inclusion-policy/

24 https://youtu.be/Y2WvDASSApU?si=1dGGhQfaCQkXHyIn

25 https://www.brucepower.com/safety-first/occupational-policy/

26 https://www.ontario.ca/document/pnerp-implementing-plan-bruce-nuclear-generating-station

27 https://www.brucepower.com/become-a-supplier/indigenous-procurement-policy/

28 https://www.brucepower.com/indigenous-relations-supplier-network/

29 https://www.nuclearinnovationinstitute.ca/clean-energy-frontier

30 https://www.brucepower.com/isotopes/isotope-eoi/

31 https://www.fightingcancertogether.ca/

32 https://www.brucepower.com/become-a-supplier/clean-energy-frontier/

33 https://www.brucepower.com/become-a-supplier/

34 https://www.cameco.com/about/sustainability

35 https://www.brucepower.com/wp-content/uploads/2023/02/220549A_IsotopePublication_R001-AX.pdf

36 https://www.youtube.com/watch?v=fZ5lL4a8MVM

37 https://www.nuclearinnovationinstitute.ca/

P.O. Box 1540 Tiverton, Ontario, Canada N0G 2T0
www.brucepower.com 519-361-7777