



Canadian Nuclear  
Laboratories

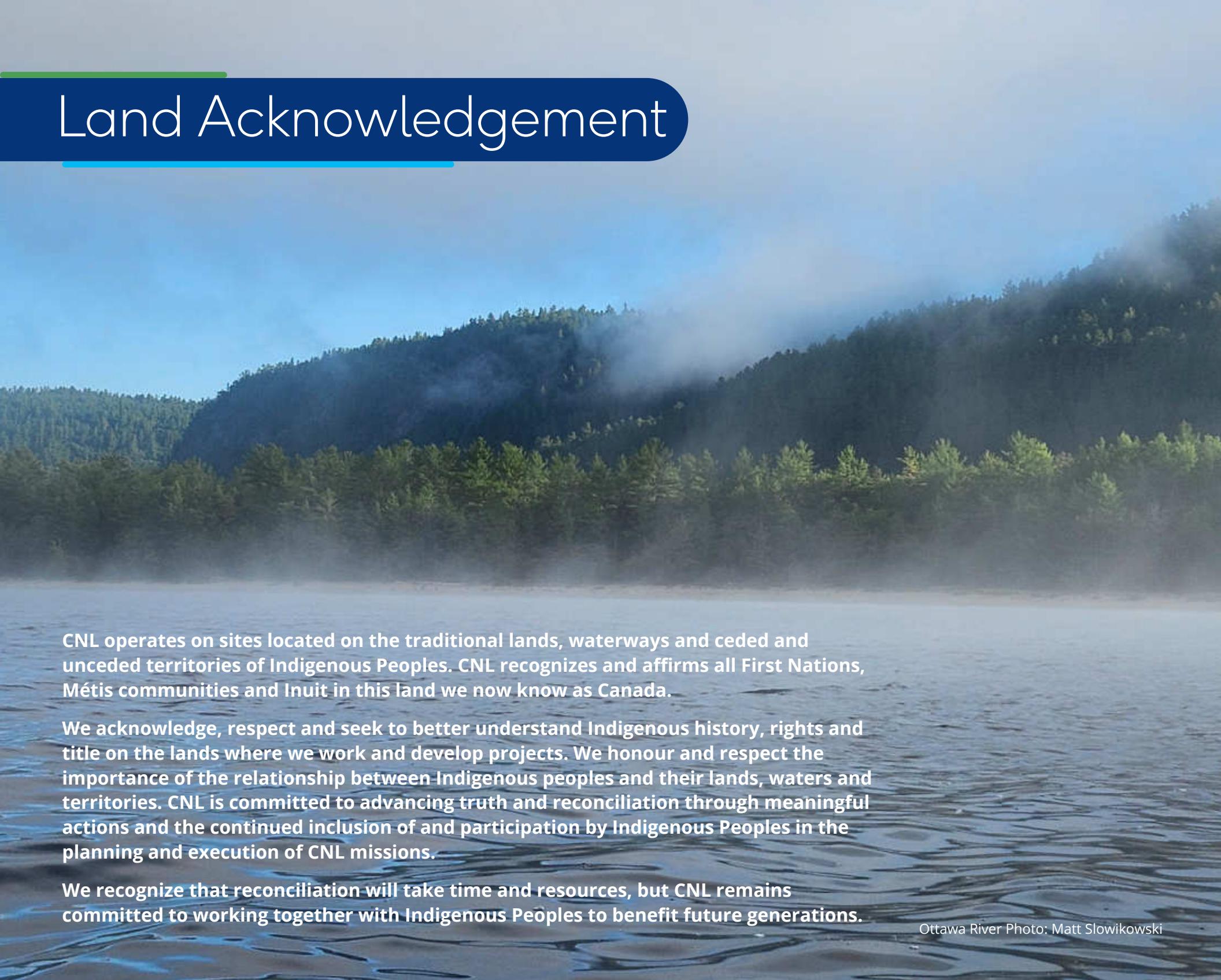
Laboratoires Nucléaires  
Canadiens

# Built to Innovate

## 2025 Sustainability Report



# Land Acknowledgement



CNL operates on sites located on the traditional lands, waterways and ceded and unceded territories of Indigenous Peoples. CNL recognizes and affirms all First Nations, Métis communities and Inuit in this land we now know as Canada.

We acknowledge, respect and seek to better understand Indigenous history, rights and title on the lands where we work and develop projects. We honour and respect the importance of the relationship between Indigenous peoples and their lands, waters and territories. CNL is committed to advancing truth and reconciliation through meaningful actions and the continued inclusion of and participation by Indigenous Peoples in the planning and execution of CNL missions.

We recognize that reconciliation will take time and resources, but CNL remains committed to working together with Indigenous Peoples to benefit future generations.

Ottawa River Photo: Matt Slowikowski

# Contents

<b>Introduction</b>	<b>4</b>
About This Report	4
Who We Are	5
Leadership Messages	8
<b>Sustainability at CNL</b>	<b>10</b>
Delivering Value Through Vision 2030	10
Our Sustainability Strategy 2025-2028	12
Our Sustainability Performance	14
Relationships with Indigenous Nations, Communities and Organizations	18
Stakeholder Engagement and Impact	22
Risk Management	27
<b>Environmental Stewardship</b>	<b>28</b>
Climate Action and Resilience	30
Environmental Remediation & Waste Management	35
Ecosystem Services	42
<b>People and Communities</b>	<b>48</b>
Health and Safety	50
Diversity, Equity, Inclusion and Accessibility	56
Talent Attraction and Retention	61
Community Engagement and Public Safety	64
<b>Responsible Management</b>	<b>68</b>
Business Model Excellence	69
Effective Leadership	75
<b>Our Commitment Continues</b>	<b>78</b>
Appendix A. Sustainability Data Table	80
Appendix B. GRI Index	84
Appendix C. TCFD Index	91

# Introduction

## About This Report

### Scope

This Report outlines Canadian Nuclear Laboratories' (CNL) performance on key sustainability priorities across our operations for the fiscal year ending March 31, 2025. Most data shown is reported according to the fiscal year; data reported on calendar year is noted as such. Now in its fifth edition, the Report reflects our continued commitment to transparency and accountability in how we manage sustainability issues. CNL issues a Sustainability Report

### Reporting Standards

This Report is prepared in reference to the Global Reporting Initiative (GRI) standards, the Sustainability Accounting Standards Board (SASB)<sup>1</sup> standards and the Task Force on Climate-related Financial Disclosures (TCFD), which is now part of the International Sustainability Standards Board (ISSB). We are monitoring the Canadian Sustainability Standards

### Statement on Forward-looking Information

This Report includes forward-looking information and forward-looking statements about our sustainability performance, goals and targets. These forward-looking perspectives are based on assumptions, information,

annually. Past reports can be accessed on [our corporate website](#).

This Report focuses on the corporate sustainability of CNL's operations and covers the treatment of environmental, social and governance topics of material importance to CNL, its shareholders, client, Indigenous Nations, communities and organizations, commercial customers, local communities, and other stakeholders.

Board's (CSSB) recently issued Canadian Sustainability Disclosure Standards (CSDS), which have been built from the standards issued by the ISSB. Please see Appendix A for our data supplement with relevant metrics and GRI, SASB and TCFD Content Index.

beliefs, plans and aspirations as of the date this Report was published. This may be subject to change going forward based on, among other things, economic and market conditions, budgets, and the regulatory and policy landscape.

# Who We Are

CNL is Canada's national nuclear laboratory and a global leader in nuclear innovation. Together with Atomic Energy of Canada Ltd (AECL), CNL has a history spanning over 70 years of experience in advancing nuclear technologies for peaceful and innovative applications. Established in 2014 under a Government-owned Contractor-operated (GoCo) model, CNL assumed full operational responsibility on behalf of Atomic Energy of Canada Limited (AECL).

Guided by our Mission and Values as illustrated in Figure 1, our purpose is to advance nuclear science and technology for a clean, healthy and secure world. We are guided by three strategic priorities of national importance to the Government of Canada and AECL, and of commercial importance to our customers:

- Restoring and protecting the environment
- Advancing clean energy technologies
- Contributing to the health of Canadians

As shown in Figure 2, CNL manages nine (9) sites across Canada on behalf of AECL. Our main campus, the Chalk River Laboratories (CRL), is Canada's largest federal science and technology complex, with expertise spanning clean energy research, medical isotope production and environmental remediation. CNL also manages some of the country's most complex decommissioning and environmental remediation projects, the largest being the Whiteshell Laboratories Restoration Project (WL) and the Port Hope Area Initiative (PHAI).

Through AECL's Federal Nuclear Science and Technology (FNST) Work Plan, CNL supports the collective interests of 14 federal departments and agencies in areas such as health,



**Chalk River Campus, CRL**

energy, nuclear safety and the environment. We also play an important role in connecting academia, industry and government to accelerate innovation.

CNL operates in a highly regulated environment and complies with a range of legislative and regulatory frameworks administered by a number of authorities, including the Canadian Nuclear Safety Commission (CNSC), Technical Standards and Safety Authority (TSSA), Environment and Climate Change Canada (ECCC), and Employment and Social Development Canada (ESDC), among others. Visit our website to learn more about us.





Canadian Nuclear Laboratories | Laboratoires Nucléaires Canadiens

## MISSION

- Restoring and protecting Canada's environment by reducing and effectively managing nuclear liabilities;
- Providing the world with sustainable energy solutions including the extension of reactor operating lifetimes, hydrogen energy technologies, and fuel development for the reactor designs of tomorrow;
- Together with partners, demonstrating the commercial viability of advanced reactor designs, including small modular reactors;
- Working collaboratively with medical/educational institutions and pharmaceutical companies to pioneer new Alpha therapies for cancer treatments that save countless lives; and
- Leveraging our capabilities for commercial success in Canadian and international markets.

## VALUES



Figure 1. CNL's Mission and Values

**4,400**  
EMPLOYEES  
(approximate total workforce)

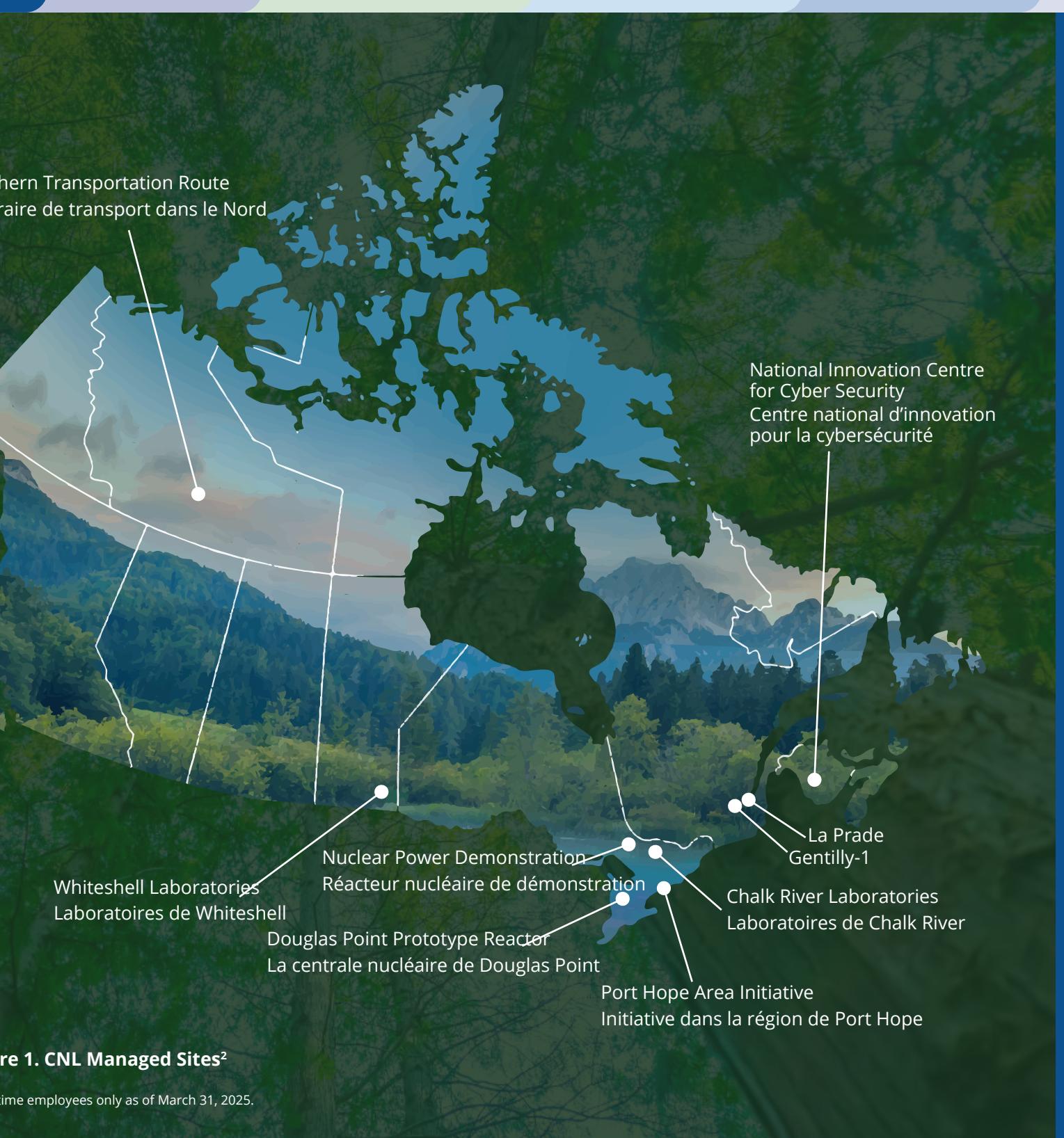
**9**  
MANAGED SITES

**30+**  
AGREEMENTS WITH  
INDIGENOUS  
NATIONS,  
COMMUNITIES &  
ORGANIZATIONS

**9**  
PARTNERSHIPS  
WITH UNIVERSITIES

**70 YEARS**  
OF EXPERTISE

**14**  
FEDERAL  
DEPARTMENTS  
& AGENCIES  
SUPPORTED



# Leadership Messages

## Message from the President & Chief Executive Officer

As I near the end of my tenure as President and Chief Executive Officer (CEO) of CNL, I want to share what a privilege it has been to lead an organization whose employees care so deeply about pursuing more responsible operations at Canada's national nuclear laboratories. Working together across the sites CNL manages, we've made meaningful progress in shepherding sustainability through an environmental, social and governance lens, nurturing a culture that supports its people, local communities and the environment.

Sustainability has always been central to CNL's vision. In 2024-25, we saw accelerated progress in our sustainability journey with the opening of CNL's Sustainability Office and a coordinated effort to integrate sustainability into our projects, programs and culture. We are proud of our collective progress toward our ambitious sustainability targets and the commitment shown across CNL to embrace our refreshed Sustainability Strategy. I applaud the entire CNL team for this progress, because it is fundamental to our success today and in the future.

As Canada's national nuclear laboratories, our commitment to sustainability impacts and adds value to every area of our business whether it is making informed decisions in our projects to realize cost-savings through life-cycle investments, cultivating a more attractive workplace for a new

generation of employees, contributing to meaningful reconciliation with Indigenous Peoples, or securing the trust of communities surrounding the sites that we manage. Sustainability has a profound impact on everything we do, big and small.

In closing, I look forward to CNL's ongoing strong focus on sustainability both within its operations and, together with AECL, as a sustainability leader in the nuclear sector. I encourage CNL to seize the opportunity to share best practices in sustainability with nuclear and adjacent industries, and to work collaboratively with diverse interests to propel the growth of nuclear innovation as a clean, safe and responsible approach to building a stronger Canada. A dedicated focus on sustainability will only strengthen CNL's impact as Canada's national nuclear laboratories.

Jack Craig  
CNL President & Chief Executive Officer



## Message from the Chief Sustainability Strategy Officer

As I enter my second year as CNL's Chief Sustainability Strategy Officer, I am proud of the ambition and steady progress we are making in our sustainability journey, as evidenced in this report. Among many highlights, our Sustainability Strategy marks a new step in CNL's approach to sustainability. The Sustainability Strategy will guide our approach toward more sustainable operations across all of CNL's managed sites by establishing measurable goals for environmental, social and governance areas of importance and identifying metrics to track CNL's performance. To oversee implementation and strengthen governance, CNL established its first Sustainability Office, which will serve as a centre of expertise to integrate sustainability across CNL's departments, sites and projects. Together, these accomplishments have strengthened the foundation of CNL's sustainability program, creating the conditions for accelerated impact over the coming years.

At its core, sustainability is about making responsible choices that positively affect environment and social outcomes and create lasting value for all those who have a stake in CNL's plans, operations and outcomes. We do this across our managed sites by taking concrete steps to reduce our greenhouse gas emissions, protect nature and biodiversity, keep our employees safe and position them for success. It also means transforming the way we work to align our investments, talents and capabilities to help confront national challenges in clean energy, public health, energy security and environmental remediation. We have also expanded and deepened relationships with a range of



stakeholders, including our academic partnerships to facilitate the next generation of nuclear talent, and with industry collaborators to support industry-wide priorities for nuclear renewal, innovation and growth. Importantly, our relationships with Indigenous Nations, communities and organizations continue to mature as we work together to find meaningful approaches to reconciliation and to advance mutual priorities collaboratively. Lastly, the trust and goodwill built with communities around our operating sites are key to our success, and we continue to nurture these relationships. At a time when energy security and the energy transition are national priorities, the importance of sustainability to bolster the growth of the nuclear industry, attract much-needed climate finance, and grow the highly skilled nuclear workforce in Canada could not be more important. We are in a nuclear renaissance and CNL's important work in science, innovation, waste management and environmental remediation is well-placed to support broader acceptance, adoption and growth of nuclear energy in Canada and beyond. I believe that we have a unique opportunity to help shape the future of nuclear innovation and growth, and I look forward to the Sustainability Office stepping up to help CNL seize this opportunity.

Dilhari Fernando  
CNL Chief Sustainability Strategy Officer

# Sustainability at CNL

## Delivering Value Through Vision 2030

As we approach Canada's goal of net-zero carbon emissions by 2050, the [Canadian Climate Institute](#) estimates that Canada's demand for electricity will grow to be 1.6 to 2.1 times larger by 2050 than it is today, with most of that electricity needing to come from clean sources. The Climate Institute further estimates that electricity generation capacity will need to be 2.2 to 3.4 times bigger to meet this demand.

There has been a resurgence of interest and investment in nuclear power in Canada and globally, given that nuclear energy offers a clean source of baseload power. As Canada's premier federal nuclear science and technology organization, CNL is supporting and leading efforts to keep the existing fleet of Canada's nuclear reactors up and running while researching

the next frontier in nuclear innovation. By focusing on waste management and environmental remediation, CNL is helping to overcome technical challenges in nuclear waste management - proving that longstanding concerns around nuclear waste, radiation exposure and environmental impacts can be addressed and managed.

CNL offers a unique value proposition that is not replicated elsewhere in Canada, with benefits accruing to Canada and the Canadian nuclear sector. Whether it is conducting cutting-edge research, helping facilitate commercial adoption of innovations or applying capabilities to extend the lifespan of Canada's existing reactor fleet, CNL's work is important to the overall success of the nuclear industry in Canada.



**CNL's strategic direction is guided by Vision 2030 and elaborates CNL's role towards delivering measurable impact in Canada's energy transition, energy security, nuclear safety, health innovation and environmental remediation.**



Ottawa River Photo: Matt Slowikowski

# Our Sustainability Strategy 2025-2028

In 2024-25, informed by maturity assessments of CNL's sustainability program, we updated our strategic approach to sustainability. This refresh allowed us to embrace CNL's commitment and ownership of sustainability while ensuring alignment to AECL's Environment, Social and Governance (ESG) Strategy and the Government of Canada's sustainability priorities.

The Sustainability Strategy provides an overarching framework for the integration of sustainability into CNL's corporate strategy and plans, as well as into its operations, governance, projects and culture. With this refreshed Strategy, CNL is empowered to take full ownership of our commitment to sustainability at the same time as we implement the sustainability priorities and goals provided to CNL by AECL.

CNL's Sustainability Strategy aims to:

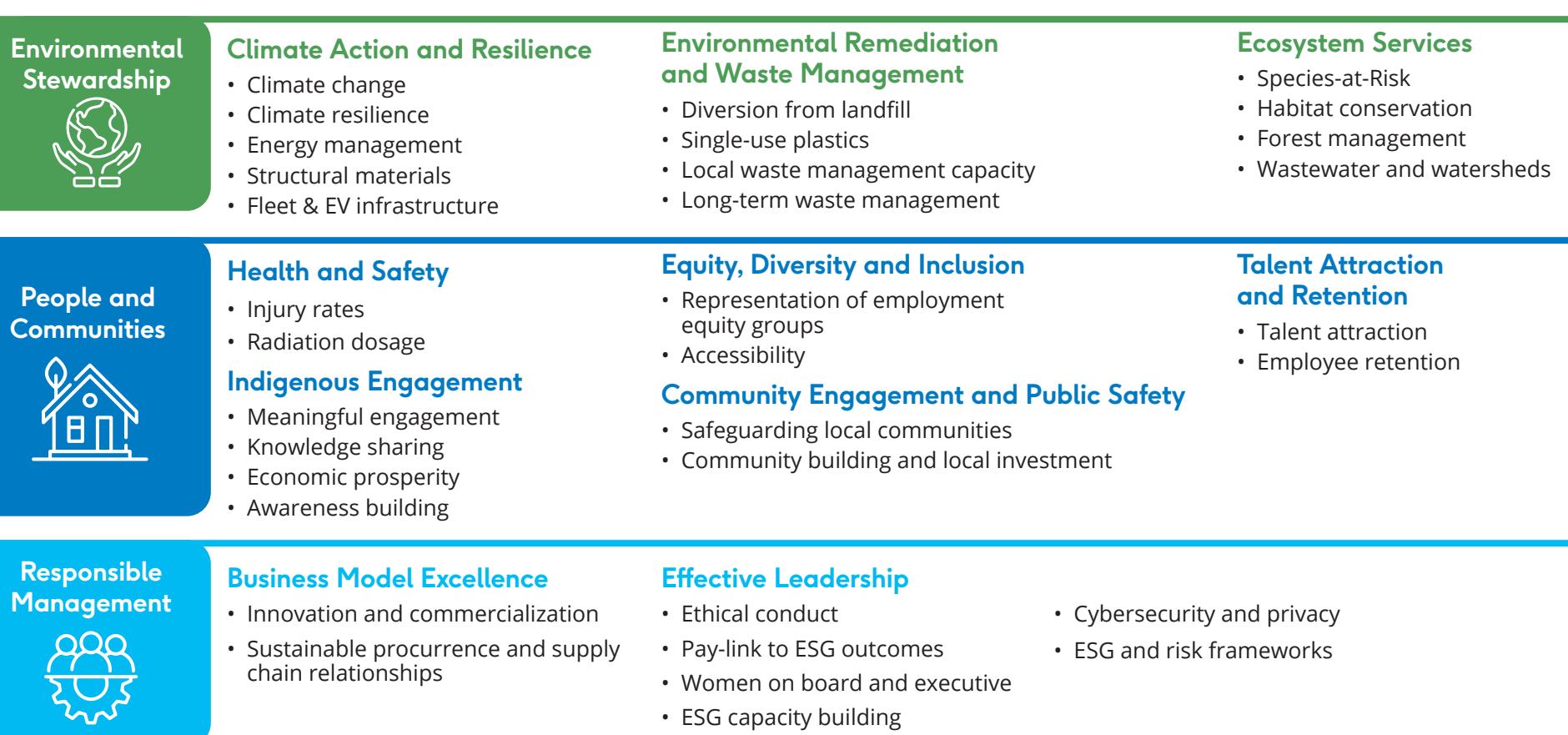
- Articulate our vision and beliefs around sustainability, and build on the sustainability commitments in Vision 2030;
- Recognize and align with AECL and the Government of Canada's sustainability priorities, and the evolving regulatory landscape surrounding sustainability globally;
- Affirm CNL's commitment to the United Nations Sustainable Development Goals (SDGs);
- Focus efforts and resources on CNL's most material areas of impact to drive environmental, economic and social value to our organization, client and stakeholders, and to support good governance; and

CNL's ambition is to leverage sustainability planning and performance to gain **operational and resource efficiency** and enhance relationships for **two-way value generation** that leads to operational betterment.

- 1 Align resources and metrics to areas of sustainability priority.
- 2 Formalize sustainability with clear objectives and socialize across the organization.
- 3 Formalize sustainability governance framework including cross-organizational accountabilities.
- 4 Align with international practices and standards, especially for climate action.
- 5 Engage employees and formalize sustainability integrations into their roles.

**Figure 3. Opportunities to enhance CNL's performance by leveraging sustainability and integrating ESG priorities into operations and relationships.**

CNL's Sustainability Strategy is organized into **3 pillars, 10 priority topics** and **33 managed issues** as illustrated in Figure 4. The treatment of each of these pillars, topics and issues is the focus of the Sustainability Strategy 2025-2028 and informs our approach to sustainability reporting.



**Figure 4. CNL's focus areas and material topics**

As illustrated in Figure 5, CNL has identified eight SDGs where we believe that nuclear innovation, and CNL's role within the nuclear ecosystem, can have a material impact on the quality of life for Canadians and the global community.



**Figure 5. SDGs of focus for CNL where we can have the greatest impact**

## Our Sustainability Performance

# CNL sustainability highlights for 2024-2025



### Environmental Stewardship

- **Reduced Scope 1 and 2 greenhouse gas (GHG) emissions by 53%** from 2005 baseline at Chalk River Laboratories through reducing reliance on high carbon-density fossil fuels, decommissioning buildings, integrating building efficiency enhancements and decarbonization of the Ontario electricity grid
- **Achieved a 36% reduction in energy use intensity (EUI)** at Chalk River Laboratories from our 2015 baseline, surpassing our 2035 target of 30%
- **Diverted 95% of construction and demolition waste** from landfill, surpassing our 2030 waste diversion target of 90%
- **Diverted 91% of conventional (clean, operational) waste** from landfill, surpassing our 2030 waste diversion target of 75%



### Responsible Management

- **Advanced cancer treatment by leading Actinium-225 production** through collaboration with the Sylvia Fedoruk Centre and joint venture with Actineer™ Inc.
- **Refreshed CNL's Sustainability Strategy**, enabling integrated ownership, governance and measurable progress across CNL operations and culture
- **Established a dedicated Sustainability Office**, led by our CSCO, which serves as a consolidated centre of expertise and advice for all departments across CNL
- **Expanded outreach activities** and student engagement resulting in a **twofold increase from partner universities in co-op hires and term extensions** in FY 24-25



### People and Communities

- **81% of planned safety excellence deliverables achieved** to date enhancing safety culture across CNL
- **Participated in over 100 public events** inclusive of local community engagements, industry and trades-specific events and tours
- **Surpassed our Indigenous procurement target of \$15 million by 23%** by the end of the 2024-25 fiscal year - creating economic opportunity for Indigenous-owned businesses, communities, and entrepreneurs

## Key Metrics and Targets

This Sustainability Report showcases how we are advancing on our commitments, goals and targets made during this past year<sup>3</sup>. Table 1 highlights progress towards our priority targets, which form CNL's priority sustainability metrics for the purpose of dashboarding and reporting. For our performance against these priority targets in previous years, refer to Appendix A. In the next reporting cycle, reporting under the Sustainability Strategy 2025-2028 will begin.

Objective	Target	KPI(s)	2024 CY	Status
<b>CLIMATE ACTION AND RESILIENCE</b>				
Achieve net-zero <sup>5</sup> emissions (from 2005 baseline) across all managed sites	By 2040, achieve net-zero emissions across all managed sites (from 2005 baseline)	% of reduction in Scope 1 emissions from 2005 baseline (CRL only)  % of reduction in Scope 2 emissions from 2005 baseline (CRL only)  % of combined reduction in Scope 1 and 2 emissions from 2005 baseline (CRL only)	40% <sup>6</sup>  89% <sup>7</sup>  53%	In progress <sup>8</sup>
Zero-emission vehicles (ZEV) <sup>9</sup> in the light-duty fleet	By 2030, 100% of new light-duty unmodified fleet vehicle purchases will be ZEV  By 2030, 80% of the light-duty fleet will be comprised of ZEVs	% of ZEV purchases and leases (CRL only)  % of ZEV in light duty fleet (CRL only)	4%  9%	In progress
<b>WASTE MANAGEMENT</b>				
Divert non-hazardous operational, construction and plastic waste from landfills through reduction of waste production, reuse and recycling	By 2030, divert at least 75% of clean operational waste from landfills annually  By 2030, divert at least 90% of all construction and demolition waste from landfills annually	% of non-radiological, non-hazardous waste diverted from landfills annually  % of construction and demolition waste diverted from landfills annually (CRL only)	91%  95%	Target met
<b>ECOSYSTEM SERVICES</b>				
Responsibly manage sites and activities to ensure the protection of local wildlife and the environments that surround them	Annually achieve a mortality rate of zero (0) individual animals that are classified as Species at Risk (SAR) <sup>10</sup> in the threatened (THR) or endangered (END) category	# of annual SAR mortalities (THR and END)	5	Target not met
<b>ENERGY EFFICIENCY</b>				
Reduce energy use at CRL	By 2035, reduce EUI <sup>11</sup> at CRL by 30% from a 2015 baseline <sup>12</sup>	% of EUI reduction (CRL only)	36%	Target met

**Table 1. Progress toward priority targets<sup>4</sup>**

<sup>3</sup> The performance data in this table is presented for the 2024 calendar year, and fiscal year, denoted by CY or FY.

<sup>4</sup> Unless otherwise stated, data is company-wide.

<sup>5</sup> At least 90% reduction in Scope 1 and 2 GHG emissions, with the remaining achieved through offsets.

<sup>6</sup> Reporting on Scope 1 and 2 emissions is currently focused on Chalk River Laboratories as our most material site. In 2025-26, we will

be completing a fulsome review of our GHG inventory, accounting methodology and baseline in alignment with the Greenhouse Gas Protocol Corporate Standard. We will be working toward establishing science-aligned pathways and targets for Scope 1 and 2 and introducing a Scope 3 target for relevant categories which cover all CNL operations.

<sup>7</sup> Ibid.

<sup>8</sup> CNL is currently working to reassess its net-zero target in line with the GHG Protocol and planning for science-aligned target setting. More information on these plans is available in the Climate Action and Resilience section of this report.

<sup>9</sup> As defined in the federal *Greening Government Strategy*, ZEVs include battery electric, plug-in hybrid and hydrogen fuel cell vehicles.

<sup>10</sup> As defined in the federal *Species at Risk Act*.

Objective	Target	KPI(s)	2024 CY	Status
<b>DIVERSITY, EQUITY AND INCLUSION</b>				
Increase representation of employment equity groups in CNL's workforce	Increase women in the workforce by 2% by 2027 (from a 2022 baseline)  Increase Indigenous people in the workforce by 1% by 2027 (from a 2022 baseline)  Increase visible minorities in the workforce by 8% by 2027 (from a 2022 baseline)  Increase number of persons with disabilities in the workforce by 5% by 2027 (from a 2022 baseline)	% of increase of women in the workforce  % of increase of Indigenous people in the workforce  % of increase of visible minorities in the workforce  % of increase of persons with disabilities in the workforce	0.5%  0.2%  1.3%  0.1%	In progress
<b>HEALTH AND SAFETY</b>				
Minimize the number of Total Recordable Cases (TRC) <sup>13</sup>	Annual TRC rate of 0.43 or less	Annual TRC rate	0.66	Target not met
Minimize the number of Days Away, Restricted or Transferred (DART) incidents <sup>14</sup>	Annual DART rate of 0.25 or less	Annual DART rate	0.50	Target not met
<b>SUPPLY CHAIN</b>				
Establish sustainable procurement practices that promote environmental, ethical, social and Indigenous objectives and outcomes	Track and report on annual procurement spend (%) on businesses that are local to CNL's managed sites	% of spend on local suppliers (within a 200 km radius of CRL, WL and Port Hope)	57%	In progress
CNL to facilitate economic opportunities for Indigenous-owned businesses	2024-25 Indigenous spend of \$15 million	Spend in CAD on Indigenous suppliers	\$18.5M	Target met
<b>2024 FY</b>				

<sup>11</sup> EUI is derived using the following function:  $EUI = (\sum \text{Energy (electricity)} + \sum \text{Energy (Heating Fuel)}) / \text{Gross Floor Area}$ .

<sup>12</sup> EUI for 2015 was 4.01 GJ/m<sup>2</sup>.

<sup>13</sup> TRC rate means Total Recordable Case Rate: The number of recordable injuries or illnesses by Occupational Safety and Health Administration (OSHA) reporting requirements per 200,000 work hours (100 full-time employees) in any given time frame.

<sup>14</sup> DART stands for Days Away, Restricted or Transferred Case Rate. This is a calculated value that describes the number of recordable incidents per 100 (200,000 work hours) full time employees, which resulted in lost workdays, restricted workdays or job transfer due to workplace injuries or illnesses.

# Relationships with Indigenous Nations, Communities & Organizations

CNL manages projects and operations on Indigenous territories and lands in Alberta, the Northwest Territories, Manitoba, Ontario, Québec and New Brunswick. CNL and AECL share a vision for reconciliation which recognizes, honours and celebrates First Nations, Métis and Inuit peoples, their knowledge, skills and contributions. We are committed to building respectful, reciprocal relationships with Indigenous Nations, communities and organizations. We strive to do this in three ways: through consultation

## Engagement and Knowledge Sharing

CNL is committed to providing Indigenous Nations, communities and organizations with timely information about activities at our sites and the potential impacts on Indigenous and/or treaty rights. CNL also actively seeks Indigenous input on land use, project plans, environmental protection, long-term benefits and economic opportunities.

Our approach to Indigenous engagement is guided by the principles of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Truth and Reconciliation (TRC) Report's Call to Action #92. We also rely on the Canadian Nuclear Safety Commission's (CNSC) regulatory document regarding Indigenous Engagement, which outlines the expectations and guidance for licensees like CNL on how to meaningfully engage with Indigenous Nations, communities and organizations.

CNL has more than 30 agreements with Indigenous Nations, communities and organizations to foster meaningful collaboration, address shared priorities and advance mutual goals like environmental protection and economic development.

with Indigenous Nations, communities and organizations on CNL's plans, projects and priorities; through the integration of Indigenous Traditional Knowledge and worldviews into projects and environmental stewardship and monitoring programs; and through providing opportunities for economic prosperity by way of capacity building, direct employment, and participation in our supply chain by Indigenous-owned companies.



**Délîjé archaeology students participating in work at a CNL site on Great Bear Lake, NWT**

Across our three primary sites, CNL maintains ongoing engagement with Indigenous Nations, communities and organizations at a pace and through methods identified by those Indigenous Nations. Engagements include working group meetings, site visits, presentations, project updates, and participation in forums like the Environmental Stewardship Council and Community Advisory Panel. We go into more details of these forums in the Stakeholder Engagement and Impact section below.

CNL promotes Indigenous participation in on site monitoring by supporting the Indigenous Guardian Programs at WL and CRL through the Sagkeeng Anicinabe Nation-led Niigan Aki program and the Algonquins of Pikwakanagan First Nation-led Neyagada Wabandangaki program. The following spotlights provide a detailed overview of 2024-25 developments in both of these valued programs.



**Guardians from Niigan Aki program taking part in regular monitoring activities at WL**

## **“When [Niigan Aki and CNL] come together, we are among friends.”** Brenda Morrisseau, Niigan Aki Program Manager

Launched in 2022 at the Whiteshell Laboratories, the Niigan Aki program – meaning Land First – is an independent environmental monitoring initiative developed and led by the Sagkeeng Anicinabe Nation (SAN). The program empowers SAN to steward and monitor WL, located on their unceded traditional territory, and to address land concerns through Guardian-led data collection, cultural practices and environmental oversight.

The program was shaped through years of collaboration between SAN, AECL and CNL, particularly in response to the Whiteshell Reactor-1 Decommissioning Project. Together, the parties committed to a long-term, rights-based monitoring approach that integrates Indigenous Traditional Knowledge into CNL's adaptive management systems - enhancing transparency and trust in environmental outcomes.

The program's two-year development phase, which focused on setting up the foundational elements of Niigan Aki, was completed in 2024-25. Within this phase, SAN hired a Manager and a Guardian Coordinator. The program's first Land Guardian and two summer students were hired to support Land Use and State seed planning. Under the mentorship from Niigan Aki, the students conducted community interviews with Elders and Knowledge Holders to help determine which plants and seeds should be used to remediate WL during the Land Use and State phase of the project. The CNL-SAN summer student initiative will continue in 2025-26 to deepen the collaborative work between the SAN and CNL.

Finally, in late 2024-25, Niigan Aki entered its implementation phase of developing a draft Operations Manual, Strategic Plan, Year-4-5 workplan, and established a weekly on-site monitoring schedule with CNL to support knowledge-sharing.

## 2024-25 Developments in the Neyagada Wabandangaki Guardian Program with the Algonquins of Pikwakanagan First Nation

The Neyagada Wabandangaki Guardian Program is grounded in the Algonquin Seven Sacred Teachings and principle-based statements supporting a “good way of life.”

The Neyagada Wabandangaki Guardian Program was set up under the long-term relationship agreement signed in 2023 between CNL, AECL and the Algonquins of Pikwakanagan First Nation (AOPFN). This program establishes regular presence and monitoring by AOPFN Guardians at CNL managed sites within the territory. In 2024-25, a key outcome of this collaboration was the co-development of two formal documents: The Near Surface Disposal Facility (NSDF) Oversight Plan and the AOPFN Site Access Plan for CNL-operated facilities in AOPFN Territory, which support AOPFN’s oversight of the NSDF project. The NSDF Oversight Plan

will guide AOPFN’s involvement through construction, operations and closure/remediation.

In 2024, engagement focused on defining areas for Neyagada Wabandangaki participation in monitoring at CRL and the Nuclear Power Demonstration (NPD) site. Guardians undertook hands-on training regarding biodiversity, effluent, groundwater, and environmental monitoring to support their role.

In 2025-26, development of the Neyagada Wabandangaki Guardian Program will continue, with a focus on enabling AOPFN Guardians to independently monitor at CRL and NPD. CNL remains committed to integrating Algonquin knowledge into project planning, environmental monitoring and cultural programs.

In addition to these Indigenous-led programs, we actively involve Indigenous Peoples in environmental initiatives across our sites. In 2024-25, Indigenous Nations, communities and organizations participated in more than 30 on-site visits focused on environmental monitoring.

For example:

- At WL, we collaborated with the Black River First Nation and Hollow Water First Nation on milkweed monitoring and partnered with the Manitoba Métis Federation for bat

## Economic Prosperity

In 2024-25, approximately 6.6% of CNL’s workforce self-identified as Indigenous, surpassing the representation target of 4.5% set out by Employment and Social Development Canada. Over the course of the past year, we also revised our Indigenous Relations Procurement Strategy to better leverage our annual acquisition of goods and services to drive economic opportunities for Indigenous-owned businesses. Reflecting this commitment, an ambitious longer-term goal was put in place to strive for Indigenous procurement

surveys. With all mentioned groups as well as SAN, we also conducted edible mushroom collection activities.

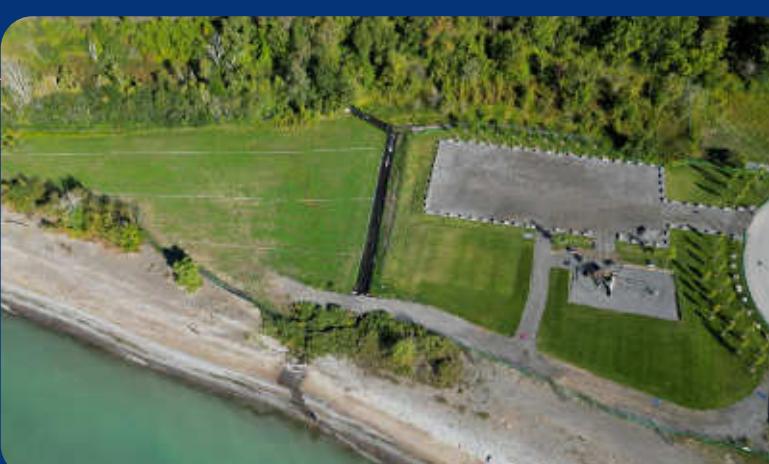
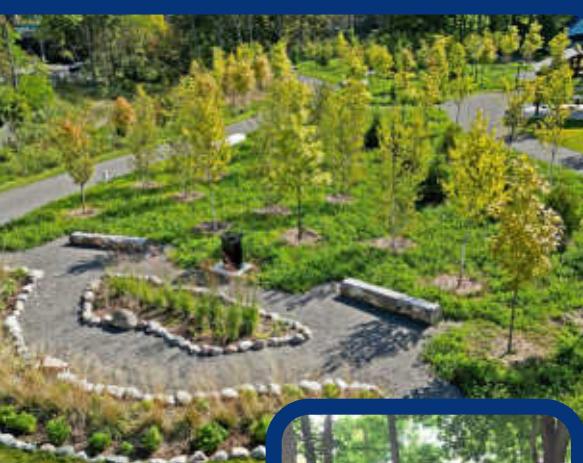
- At PHAI, CNL engaged an Indigenous-owned consulting firm to assess ecological restoration at Port Granby following remediation and develop a framework to support the classification of ecologically distinct areas for long-term monitoring and reporting. We also engaged First Nations in various projects as elaborated in the following spotlight.

totalling 5% of CNL’s procurement spend. In 2024, CNL raised its interim target from \$10 million to \$15 million spend on Indigenous procurement, which we exceeded by 23% at the end of the fiscal year. Each year, based on the planned work and funding available, CNL will establish progressive targets (values or percentages of contracts) awarded to Indigenous-owned businesses with the long-term goal of reaching 5%. For fiscal year 2024-2025, 2.32% of total spend was directed to Indigenous-owned businesses.



## Lions Park Major Site Cleanup

First Nations involvement in the archaeological and cultural heritage oversight of excavation work, as well as input obtained on the restoration and revitalization of this urban parkette and ravine site, including planting native species of vegetation to create a thriving woodlot and sensory garden, as well as the addition of wildlife habitats like bird and bat boxes, and brush piles for insects and small mammals.



## Waterworks West / Alexandre Creek Major Site Cleanup

Extensive engagement and collaboration with First Nations to review and design appropriate landscape and habitat restoration features for this area to enhance wetland ecology and fishery habitat.



## Building Awareness for Reconciliation

CNL encourages opportunities for its employees to deepen their understanding of Indigenous history, worldviews and relationships to the land. These opportunities aim to raise employees’ awareness of pre-colonial treaties, Indigenous law and the legacy of residential schools. In 2024-25, CNL

launched an Indigenous Engagement awareness module, which was completed by over 3,500 staff. Additionally, more than 170 staff participated in day-long cultural awareness training sessions, with more in-community sessions planned for 2025-26.

# Stakeholder Engagement and Impact

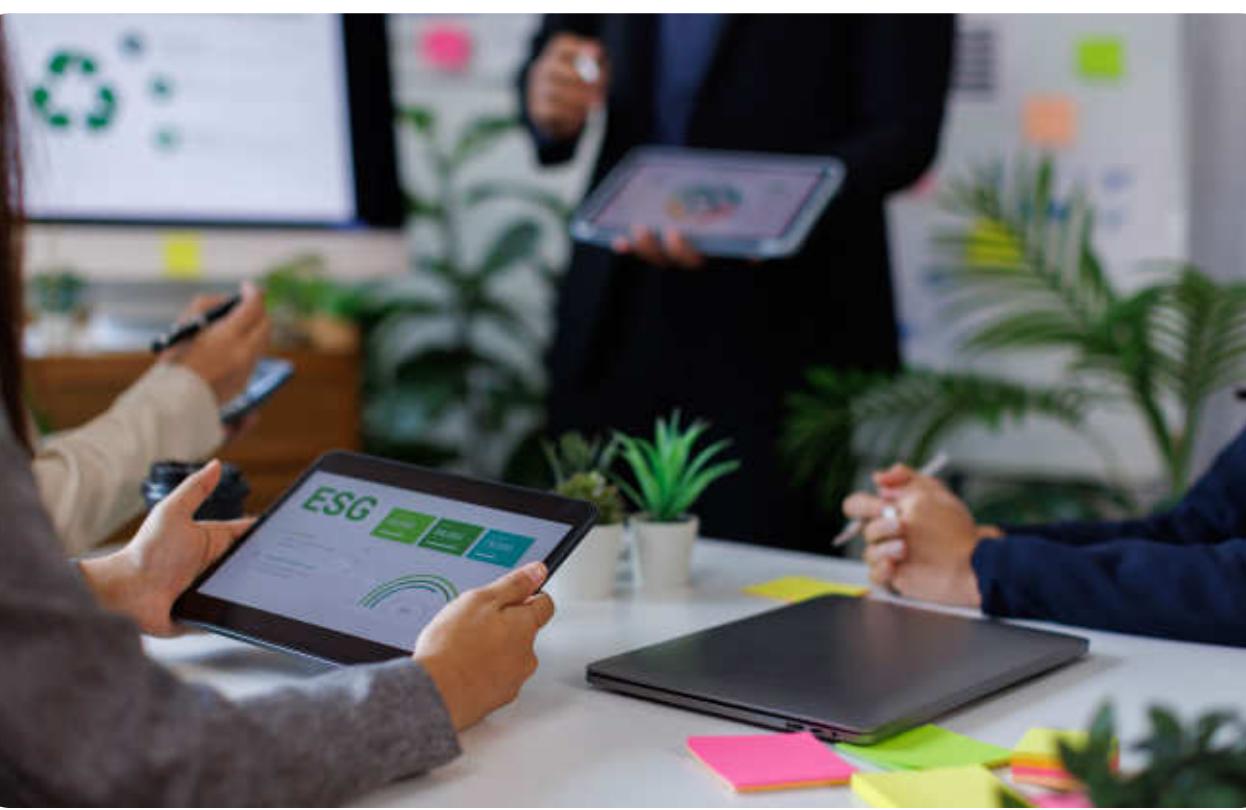
CNL believes in the importance of creating economic, social, and environmental value for those who engage with and have interests in CNL. Table 2 illustrates how we engage with stakeholders to build value.

**Table 2. Creating value for Indigenous Nations, Communities & Organizations, and Stakeholders**

EMPLOYEES	COMMUNITY MEMBERS AND GROUPS	INDUSTRY	GOVERNMENT	ACADEMIC PARTNERS	SUPPLIERS
<b>How we drive economic, social, and environmental value for our stakeholders:</b>					
<ul style="list-style-type: none"> <li><b>Building capacity</b> through employee training, upskilling and meaningful work</li> <li><b>Enhancing health and safety</b> to promote a physically and psychologically safe, inclusive workplace while supporting holistic well-being beyond work</li> <li><b>Diversity, equity, inclusion and accessibility</b> to remove barriers to meaningful inclusion, belonging, and participation, and valuing diversity in all its forms</li> </ul>	<ul style="list-style-type: none"> <li><b>Investing in socio-economic development</b> through employment, procurement, philanthropy and stimulating local entrepreneurship</li> <li><b>Engaging and inviting input</b> from local communities on CNL's projects, initiatives and performance</li> <li><b>Informing communities</b> to support transparency, and awareness, while inviting consultation on matters of our operations.</li> </ul>	<ul style="list-style-type: none"> <li><b>Building capacity</b> for the nuclear sector to grow, innovate and prosper</li> <li><b>Providing services</b> that prolong the longevity and enhance performance of the CANDU reactor fleet</li> <li><b>Establishing partnerships</b> to advance medical isotope production for the health of Canadians</li> </ul>	<ul style="list-style-type: none"> <li><b>Researching and innovating</b> for federal priorities including health, environmental remediation, health and security</li> <li><b>Supporting matters of federal interest</b> through the delivery of the Federal Nuclear Science and Technology (FNST) Work Plan</li> <li><b>Supporting federal goals for climate change</b> by working to decarbonize CNL's operations</li> </ul>	<ul style="list-style-type: none"> <li><b>Catalyzing research and innovation</b> in energy, environmental remediation, health and security</li> <li><b>Collaborating</b> to share knowledge, project costs, pool financial resources, reduce risk, and expedite research</li> <li><b>Investing in talent</b> to develop future nuclear researchers, engineers and trades to address labour gaps</li> </ul>	<ul style="list-style-type: none"> <li><b>Investing in socio-economic development</b> by committing in local companies, goods and services</li> <li><b>Upholding human rights and environmental protection</b> by working directly with our suppliers to maintain and improve standards and expectations</li> </ul>

In addition to regular established communications between CNL subject matter experts and leaders and stakeholders, CNL also has formal platforms to engage with and gather feedback from community members, including:

- The **Chalk River Laboratories' Environmental Stewardship Council** is an independent group established in 2006 to build working relationships and foster open dialogue between various stakeholder groups, local communities and CNL. Meeting three times a year, the Council reviews CNL's environmental practices and strategic initiatives, with topics selected by members based on community interest. Members include municipal officials, interest groups and regulatory bodies, who provide input to ensure that their diverse perspectives are heard and considered in how CNL carries out its missions.
- The **Whiteshell Public Liaison Committee**, which engages with community stakeholders to discuss environmental matters and key projects at the Whiteshell Restoration Project site.
- The **Agreement Monitoring Group**: CNL provides regular project and communications updates to both the Port Hope and Port Granby communities through quarterly meetings of the Agreement Monitoring Group, regular council presentations, newsletters, advertising, and resident notifications.
- The **Port Hope Area Initiative Public Information Exchange** for members of the public to receive information as needed.





## Public Information Program

Our engagement efforts, guided by our Public Information Program, reach stakeholders through multiple channels, including social media, community events, website updates and industry and stakeholder groups, as shown in Figure 6. Our Public Information Program outlines and supports our disclosure protocols regarding events and developments at our facilities, interactions with community stakeholders, and results of CNL's monitoring programs. The Program was updated in 2024-25 to better reflect our audiences' interests while maintaining compliance with CNSC's [Regulatory Document on Public Information and Disclosure](#).

### REGULAR DISSEMINATION CHANNELS

- CNL's corporate website: [www.CNL.ca](http://www.CNL.ca)
- CNL's Intranet for staff
- Press releases
- CONTACT newsletters (Chalk River and Whiteshell)
- Kids CONTACT newsletters
- PHAI newsletters
- Voyageur newsletters for employees
- Community meetings and events
- Site visits
- Public engagement activities
- Community inquiries/media
- Social medias (Facebook, X.com, YouTube, LinkedIn and Instagram)
- Webinars and presentations
- An annual community webinar hosted by Presidents from both CNL and AECL

### COUNCILS AND INDUSTRY GROUPS

- Chalk River Laboratories Environmental Stewardship Council\*
- Chalk River Laboratories Community Advisory Panel\*
- Whiteshell Public Liaison Committee\*
- \*(Independently facilitated)

- Canadian Nuclear Association
- Conexus Inc.
- Nuclear Environmental Affairs Peer Group
- Environmental Impact Task Team



## Sustainability Oversight and Governance

Sustainability governance at CNL supports accountability to CNL's stakeholders while fulfilling contractual obligations to AECL.

Our approach is guided by the new CNL Sustainability Strategy, framed within CNL's Annual Program of Work and Budget (APWB) and incentivized through the annual Performance Evaluation and Measurement Plan (PEMP).

Over the course of our sustainability journey, we have steadily matured our approach to sustainability, including:

- Issued over 30 news releases to media outlets
- Generated 2.5M+ social media impressions on Facebook, LinkedIn, and Instagram, and increased followers by 23% to over 51K
- Grew website traffic by 15% from the previous year to over 622K+ page views
- Hosted over 50 delegations, including governments, international officials, industry, community and interest groups
- Attended 100+ public and community events
- Delivered 20+ nuclear webinars to Canadian and global audiences
- Presented to 40+ classrooms nationwide
- Hosted 3 weeks of summer camp for students ages 9-12 at CRL
- Continued Girl Guides and Scouts "merit badge" program (see more information in the Community Building and Local Investment section)
- Participated as speakers at major industry events like the Canadian Nuclear Association Conference & Tradeshow, Canadian Nuclear Society Annual Conference, Waste Management Symposia and Women in Nuclear Canada events

sustainability across the organization; and

- Developing a library of guidance documents and standards to help embed sustainability considerations into CNL's projects and operations, with an emphasis on the built environment.

The next phase of governance maturity for CNL is to:

- Expand goals and targets to cover all applicable sites;
- Update, embed and pro-actively integrate sustainability guidance into projects and programs;
- Equip individuals and teams to better understand and integrate sustainability into their roles and projects;
- Continue to align our approaches with global sustainability standards and frameworks;
- Enhance our ESG data systems to more effectively track progress and performance across all managed sites; and
- Adopt science-aligned greenhouse gas reduction targets and a costed plan to guide decarbonization efforts and investments.

### Board Oversight of Sustainability Issues

CNL's Board of Directors is composed of independent directors and interlocking Board representatives<sup>15</sup>. The Board is supported by three committees: the Audit Committee, the Safety Committee, and the Strategy Committee. The Board's Terms of Reference include providing oversight to align CNL's sustainability goals and targets with the organization's strategic and long-term plans and overseeing progress toward achieving those targets.

The Board's Audit Committee receives quarterly updates from the CSSO on progress of the sustainability program and on strategic initiatives. The Board also receives regular updates on CNL's enterprise risks which include sustainability and climate change.

In February 2025, the Board of Directors approved CNL's 2025-28 Sustainability Strategy.

<sup>15</sup> Interlocking board representatives are individuals who serve on the boards of multiple companies or organizations

## Executive Leadership

The President and Chief Executive Officer (CEO) has overall executive accountability for sustainability at CNL. The CEO oversees – and is responsible for – driving the corporate-wide effort to progress toward our sustainability targets, as well as the planning, coordinating, tracking, and reporting of sustainability metrics.

The CEO is supported by other individual members of the Executive Team who are accountable for the achievement of sustainability goals that fall within their scope of responsibility. Members of the Executive Team are supported by Deputy Vice Presidents, Chiefs, General Managers and Directors, who support the attainment of sustainability objectives within their Missions and General Services departments.

The CSSO, reporting to the Chief Financial Officer (CFO), is the Executive Lead for sustainability and works closely with leaders and subject matter experts across the company and across all sites to deliver on the Sustainability Strategy.

At the leadership level, four key decision-making committees

## Management-level Implementation

At the business unit level, there are many roles across CNL that contribute to the development and execution of CNL's Sustainability Strategy, including in Environmental Protection, Energy and Infrastructure, Engineering, Capital, Procurement and Supply Chain, Human Resources, Communications and Corporate Affairs, Health & Safety, and Emergency Preparedness.

## Incentivizing Sustainability

Remuneration for CNL's managers and above are linked in part to the achievement of CNL's sustainability objectives set out in the APWB and PEMP. The 2024-25 fiscal year marked the first year that sustainability formed a topic for incentivization within the PEMP.

ensure that sustainability considerations are embedded into CNL's strategic decision-making. These committees include:

- The **Executive Committee**, which addresses sustainability as part of its strategy and issues management.
- The **Executive Review Team (ERT)**, which addresses sustainability when approving capital projects under CNL's Gating and Sanctioning process.
- The **Asset Management Advisory Committee (AMAC)**, which provides strategic guidance and oversight to CNL's corporate Asset Management program, to support the management of assets in alignment with CNL's Strategic Asset Management Plan (SAMP), corporate strategic plans and objectives including the Sustainability Strategy.
- The **Enterprise Risk Committee (ERC)**, which reviews top risks regularly, conducts annual assessments, and reports key activities to the Board. Sustainability risks and opportunities are assigned to the CFO and CSSO to work with others across the company to address and mitigate.

To support company-wide integration, there are several committees and working groups that complement the leadership-chaired committees detailed above by driving operational implementation, including the **Accessibility Steering Committee** and the **Diversity, Equity and Inclusion (DE&I) Committee**, and various project-based working groups.

CNL's performance objectives for fiscal year 2024-25 included award fees for demonstrating effective execution of sustainability goals, metrics and targets and for establishing its Sustainability Strategy. In future cycles, we aim to strengthen the alignment between performance and sustainability outcomes as part of the incentive program for managers and above.

## Risk Management

### Integration of Sustainability into Risk Frameworks

CNL maintains established procedures at the enterprise, site and project levels to support the identification, assessment and management of sustainability-related risks throughout our operations.

In 2024-25, we reviewed and revised our top sustainability-related risks and opportunities at the enterprise level and integrated these risks, along with mitigation measures, into the CNL Risk Registry; these risks are summarized in Table 3. This work is evergreen, and we will continue to assess the evolution of our sustainability risks, mitigation measures and financial and business implications throughout 2025-26.



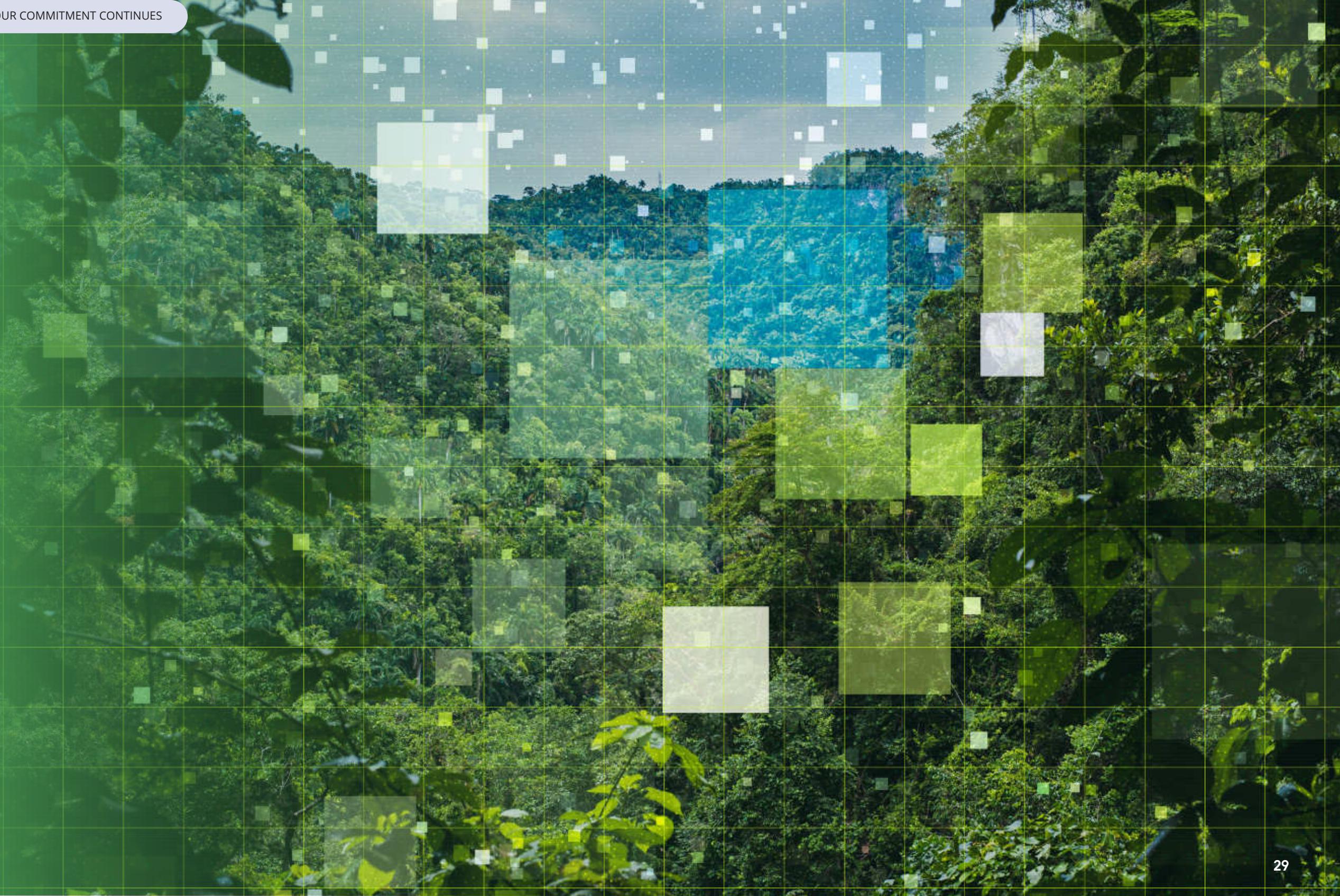
RISK	RISK OR OPPORTUNITY	DESCRIPTION
Opportunities for managing climate-related issues	Opportunity	Increased regulatory and public scrutiny on accountability and managing climate-related issues could result in additional opportunities for CNL to leverage its S&T program, technical capabilities and expertise.
Physical risk of climate change	Risk	The risk that CNL operations will be interrupted, our assets damaged or destroyed and our employees put at risk due to climate change events (e.g. extreme weather, wildfires, floods).
Risk of not meeting climate change targets	Risk	The risk that CNL will fall short of operational alignment and/or investments needed to meet our climate change targets.
Reputational risk and loss of social licence to operate	Risk	The risk that CNL will erode trust and damage our reputation with right-holders and stakeholders due to a lapse in one or more material sustainability issues.
Risk of not meeting sustainability requirements	Risk	The risk that CNL will not meet sustainability requirements mandated by AEC and the Government of Canada, and as set out in the CNL Sustainability Strategy.

**Table 3. CNL's top sustainability-related opportunity and risks (enterprise level)**

# Environmental Stewardship

At CNL, climate mitigation, adaptation and resilience underpin and reinforce the importance of advancing nuclear technology in service of a cleaner, safer and more sustainable future. As Canada faces increasing climate-related risks and pressures to enable the transition to clean energy, CNL is well positioned to support the Government in achieving its net-zero objectives and “made in Canada” energy solutions. Moreover, in our mission to remediate legacy nuclear liabilities, CNL is helping to restore communities and reshape the narrative that nuclear energy is clean, safe and environmentally responsible.

CNL aligns its climate and environmental efforts with the Government of Canada’s *Canadian Net-Zero Emissions Accountability Act* and the *Greening Government Strategy* (GGS), which outline a government-wide approach to reducing GHG emissions and increasing resilience across federal operations through measurable action in areas such as energy use, fleet management, climate-resilience and sustainable procurement. These principles are reflected in CNL’s Sustainability Strategy and executed through a series of programs, including procurement, capital, energy and fleet management, and environmental protection.



# Climate Action and Resilience

## Net-Zero by 2040

Our current vision and ambition is to achieve net-zero emissions by 2040 (from a 2005 baseline) across all managed sites<sup>16</sup>. As of December 31, 2024, CNL had already achieved a 53% reduction in Scope 1 and Scope 2 combined emissions at CRL compared to its 2005 baseline. We have made significant progress toward this target, but we understand that there is more to be done, including mitigating additional carbon emissions that may accrue from CNL's growth plans.

To continue mitigating GHG emissions across our operations, key actions identified within our Sustainability Strategy include:

- Striving to construct new buildings and major retrofits to be net-zero or net-zero ready;
- Continuing to phase out fossil fuels and increasing our use of clean electricity;
- Examining the feasibility of on-site clean energy generation and exploring other appropriate arrangements (such as power purchase agreements);
- Decarbonizing our buildings by reducing embodied and operational carbon in new builds and major retrofits through aligning with green building standards, selecting



low-carbon building materials and construction processes, and installing building automation systems, among other approaches;

- Decarbonizing our light-duty fleet and installing Electric Vehicle (EV) charging infrastructure; and,
- Supporting climate resilience by conducting appropriate climate stress tests and designing enhancements that will withstand extreme weather and chronic climate stress events.

Over the past fiscal year, we updated the Low Carbon Operations Plan (LCOP) for CRL to gain insights on CNL's carbon reduction journey to date and to inform decision making around potential future GHG reduction strategies and the remaining gap to achieve our GHG emissions targets.

## Costing our Decarbonization Pathway: The LCOP for Chalk River Laboratories

The Low Carbon Operations Plan (LCOP) outlines completed, planned (both funded and unfunded), and aspirational activities that impact GHG emissions at CRL. The purpose of the LCOP is to illustrate CRL's carbon reduction journey from 2005 to date, and to forecast carbon emissions based on future funded and aspirational projects. Some of the decarbonization projects modeled in the LCOP include:

- Transitioning from the existing steam heating system to a low-temperature hot water system fuelled by clean energy;

In 2025-26, we plan to build on the LCOP to develop a comprehensive Climate Plan to more clearly plan how we will achieve net-zero by 2040. This Climate Plan will:

- Complete a fulsome review of our GHG inventory, accounting methodology and baseline in alignment with the Greenhouse Gas Protocol Corporate Standard for Scope 1 & 2;
- Identify material Scope 3 categories and start to build out our inventory;

## GHG Emissions Performance

We measure our GHG emissions across all managed sites for Scopes 1 and 2 for each calendar year<sup>17</sup>. Our Scope 1 GHG emissions are calculated in accordance with the Federal Government's Greenhouse Gas Reporting Program (GHGRP) for all AECL-owned properties operated by CNL, and Scope 2 emissions are calculated using guidance from the GHG Protocol Corporate Standard.

When compared to 2023, CNL experienced a slight increase in both Scope 1 and 2 emissions in 2024. The increase in direct emissions (Scope 1) is primarily due to a recalculation of landfill emissions. The increase in indirect emissions (Scope 2) is attributed to an increase in the Ontario electricity emissions factor rather than to an increase in electricity use by CNL. Table 4 illustrates our GHG emissions across all our managed sites.

SOURCE	UNITS	2024	2023	2022
Scope 1: Total direct GHG emissions	tCO <sub>2</sub> e	26,501	26,355	28,595
Scope 2: Total indirect GHG emissions (location-based)	tCO <sub>2</sub> e	2,958	1,588	1,623
Scope 1 and 2: Total combined direct and indirect emissions	tCO <sub>2</sub> e	29,459	27,943	30,218

**Table 4. CNL's scope 1 and 2 emissions (enterprise level)**

<sup>17</sup> GHG emissions are calculated on a calendar year basis (i.e., January to December, annually).

- Establish science-aligned targets for Scope 1 and 2 and introduce a Scope 3 target;
- Identify decarbonization actions that will help to fill the gap between our current GHG performance and what is needed to achieve net-zero; and,
- Estimate the scale of financial investment and technical capability that will be needed to achieve net-zero.

To date, CNL calculates progress towards its net-zero target only at CRL—CNL's most material site—due to data availability when the 2005 baseline was initially set. Other sites will be incorporated into net-zero reporting in the future, following a review of our baseline year.

## As of December 31, 2024, CRL has seen a 53% reduction of Scope 1 and Scope 2 GHG emissions from a 2005 baseline

This reduction is attributed to steady efforts in reducing our reliance on high carbon-density fossil fuels, decommissioning and taking down buildings and structures, building system enhancements such as LED lighting and energy efficiency, and decarbonization of the Ontario electricity grid. Table 5 illustrates year-over-year changes in GHG emissions for Scopes 1 and 2 for CRL. As shown in Figure 7, the overall trend shows a steady reduction in our carbon emissions at CRL since 2005.

SOURCE	UNITS	2024	2023	2022
Reduction of CRL Scope 1 GHG emissions from 2005 baseline	%	40	39	35
Reduction of CRL Scope 2 GHG emissions from 2005 baseline	%	89	91	91
Reduction of CRL Scope 1 and 2 GHG emissions from 2005 baseline	%	53	54	51

**Table 5. Scope 1 and 2 reductions at CRL compared to 2005 baseline**

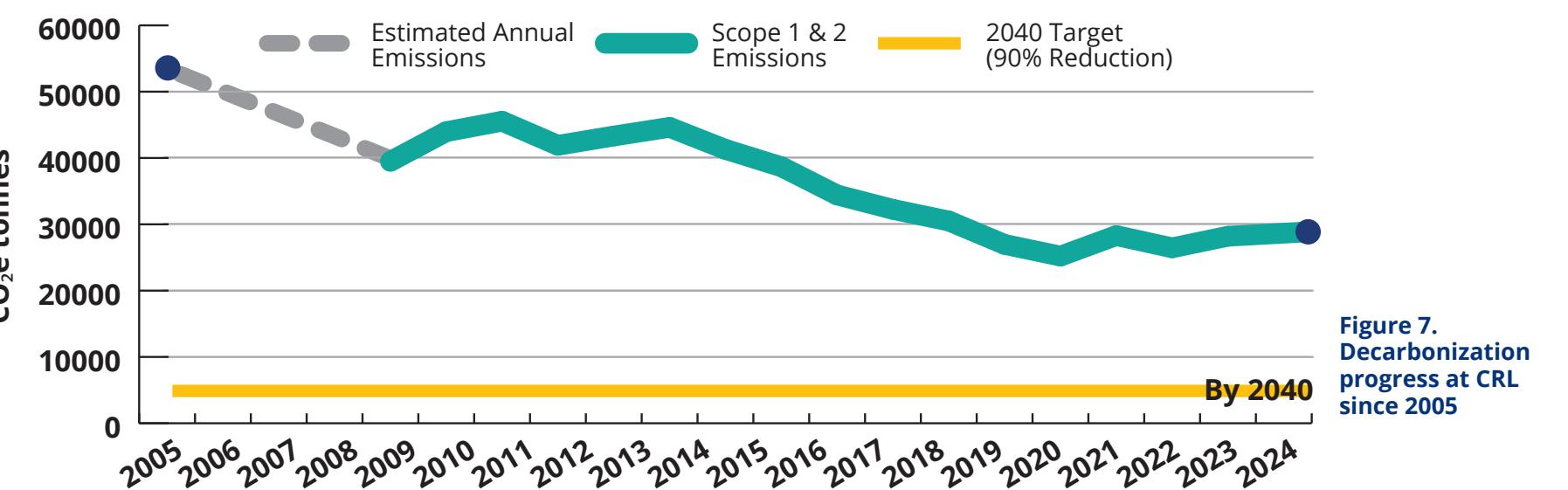


Figure 7.  
Decarbonization  
progress at CRL  
since 2005

## Scope 3

CNL has reported Scope 3 emissions for business travel, employee commuting, upstream assets and downstream assets since 2023, based on available data using guidance from the GHG Protocol Corporate Value Chain (Scope 3)

Standard. While still early in our Scope 3 journey, we plan to expand coverage to support a future science-aligned Scope 3 target by completing a Scope 3 screening assessment in 2025-26 to identify material categories.

## Integrating Climate into our Built Environment

CNL understands that our built assets and infrastructure projects need to be resilient to physical climate risks, be built using low-carbon structural materials and emit as little carbon as possible when in operations.

Our project gating and sanctioning process requires that all major capital and infrastructure projects<sup>18</sup> identify, assess and mitigate climate-related risks as part of the project design, budgets and procurement strategies. This work is guided by the following guidance that were developed by CNL in collaboration with expert advisors:

- The **Life Cycle Carbon Accounting Standard** guides the preparation of Life Cycle Assessments (LCA) and Life Cycle Cost Analyses (LCCA) for all new facilities and uses the insights to inform material choices, design strategies, procurement and budget planning.

climate risk assessments and establishing resilience plans for projects facing high or extreme risks.

- The **Climate Resilience Planning Standard** provides a structured approach to identifying and mitigating both chronic and acute climate-related risks through conducting

The standards guide project managers, engineers and our construction partners to drive measurable impact and spur innovation to incorporate sustainable building principles into CNL projects. For example, following an LCA using product Environmental Product Declarations (EPDs), the ANMRC project used slag cement in the hot cell foundation,

cutting CO<sub>2</sub> emissions by approximately 2.4 million kg while also providing a more stable and tolerant concrete product. Following an LCCA, glycol energy recovery coils were incorporated into the ANMRC design, resulting in a decrease of approximately 254 metric tonnes of CO<sub>2</sub> per year. Finally, during the construction of the ANMRC, CNL switched to Jet

Heaters, a flameless heating technology which helped avoid over 1 million kg of CO<sub>2</sub> emissions during the winter of 2024-25. Despite higher rental costs, the Jet Heaters quickly offset expenses through lower fuel usage, resulting in monthly savings compared to traditional units.

## ANMRC Award: 2024 Sustainable Concrete Project of the Year

In 2024, CNL's Advanced Nuclear Materials Research Centre (ANMRC) project was honored with the Slag Cement in Sustainable Concrete Project of the Year award in the Innovative Applications category. Presented by the Slag Cement Association, this recognition celebrates the creative and forward-thinking use of slag cement, a material known for its durability and reduced environmental footprint, in the construction of the ANMRC. As a blast furnace byproduct, slag replaces Portland cement, which is the largest contributor in concrete to embodied greenhouse and energy usage.

The award highlights CNL's commitment to reducing the carbon intensity of structural materials. This achievement reflects CNL's broader efforts to embed environmental responsibility into every stage of project planning and execution and showcases how the selection of structural materials can support long-term climate goals.



I-r: Jim Xiang - CNL PER, Steve Bemis - CNL Project Manager, Shaw Kalyn - Votorantim, Veronika Grotoska - Bird Construction Project Manager, Pierre Parisien - Heidelberg, Craig Muirhead, CNL Project Leader, Jan Prusinski - Skyway Cement, President of Slag Association

## Energy Management

CNL reports on energy consumption from non-renewable sources, electricity, and energy intensity for the sites we manage on behalf of AECL on an annual basis<sup>19,20</sup>. We also track the reductions in energy consumption achieved at CRL.

We have been working towards our target of a 30% reduction in energy use intensity (EUI)<sup>21</sup> at CRL by 2035 (from a 2015 baseline)<sup>22</sup>. In 2024, the EUI at CRL was 2.64 GJ/m<sup>2</sup> (see Table 6), representing an approximate 36% decrease in EUI from our baseline and indicating that CRL is meeting its EUI target 10 years ahead of schedule.

Despite this achievement, CNL still has work to do. As new facilities are built, we will need to continue efforts on implementing energy efficiencies in processes and infrastructure.

SOURCE	UNITS	2024	2023	2022
CRL Site Energy Use	GJ	464,807.7	496,54.9	551,312.1
CRL Gross Floor Area (GFA)	m <sup>2</sup>	175,835.9	182,423	180,383.6
CRL Site EUI	GJ/m <sup>2</sup>	2.64	2.72	3.05
EUI reduction at CRL from 2015 baseline	%	36	34	26

### Table 6. Energy use intensity at CRL

CNL has several ongoing initiatives to support conservation and efficiency measures at CRL, including:

- implementing a load curtailment initiative (see Battery Energy Storage System spotlight) to conserve electricity use during peak loads in the summer months;
- integrating Building Automation Systems with artificial default detection technology to deliver benefits in energy savings;

- continuing energy performance improvements through proposed projects that focus on energy cost savings, GHG reduction and replacing the aging steam system;
- securing energy meters, sub-meters and modelling software (RETScreen – a software developed by Natural Resources Canada) to help assess and manage clean energy projects at our keeper buildings to more accurately manage and monitor energy consumption data;
- incorporating ISO 50001-aligned metrics into an Energy

Management Dashboard to support monitoring and benchmarking<sup>23</sup>; and,

- decommissioning and demolishing dated and inefficient facilities.

In 2024, we also implemented targeted energy conservation and emission reduction initiatives at Port Hope sites and La Prairie including LED lighting upgrades, HVAC and air conditioning efficiency improvements, temperature and insulation adjustments, and a shift toward hybrid fleet vehicles.

## Battery Energy Storage System at Chalk River Laboratories

Throughout 2024-25, CNL advanced the development of a new Battery Energy Storage System (BESS) at CRL, marking a major step toward improving energy efficiency, reducing GHG emissions and enhancing grid resilience. By the end of the reporting period, construction of the BESS was nearing completion, with the system on track for operational handover in mid-2025.

Once fully integrated, the BESS will store electricity drawn from Ontario's grid during off-peak hours – when demand and costs are lower – and

discharge it during peak periods, helping to reduce site-wide energy costs and support the province's electrical grid. This system is part of a broader strategy that includes smart building automation and load curtailment measures, such as adjusting air conditioning setpoints during high-demand periods. Together, these efforts reflect CNL's commitment to operational sustainability-conscious innovation and demonstrate how infrastructure investments can deliver both environmental and economic benefits.

## Fleet and Electric Vehicle Infrastructure

At CRL, CNL currently operates a fleet of 168 light-duty vehicles, collectively responsible for a total of approximately 470 metric tons of CO<sub>2</sub>e annually. As part of our commitment to reducing our carbon footprint, we are actively transitioning this fleet toward ZEVs<sup>24</sup> to achieve the following goals:

- By 2030, 100% of light-duty fleet vehicle purchases will be ZEV.
- By 2030, the light-duty fleet will comprise at least 80% ZEV.

At present, approximately 9% of our light-duty fleet at CRL is comprised of ZEVs. We remain committed to working towards our 2030 targets as we balance our capital investments, infrastructure requirements and fire risks associated with ZEVs in certain areas of our nuclear facilities. To guide

this transition, in 2025-26, we will refresh our Green Fleet Strategy and our approach to EV charging for CNL's fleet, and take stock of vehicles across all our managed sites. The current Green Fleet Strategy includes initiatives such as the implementation of telematics to track vehicle utilization and gather data on operational efficiency, advanced fuel tracking systems to monitor consumption and identify optimization opportunities, the use of idle control systems on heavy equipment to minimize unnecessary fuel use, and the integration of biofuels as transitional solutions until full electrification becomes feasible across all use cases.

## Environmental Remediation & Waste Management

While over 70 years of research conducted at nuclear sites across the country has brought tremendous benefits to Canadians, these historical activities have also generated radioactive waste that must be addressed. One of CNL's core responsibilities is to responsibly address the legacy waste from earlier decades of nuclear research and development in Canada and remediate these affected areas which span sites across Quebec, Ontario, Manitoba, Alberta and the Northwest Territories. Since 2015, CNL has decommissioned 128 structures and continues to manage major projects such as the Nuclear Power Demonstration Closure Project, the Port Hope Area Initiative Cleanup Project and the Whiteshell Laboratories Closure Project.

In addition to managing legacy waste liabilities, CNL also provides safe, long-term storage for its own waste from operations, as well as historic and current radioactive waste from institutions like hospitals and universities.

CNL is recognized globally for developing technical solutions



Port Hope Long-Term Waste Management Facility

to minimize the long-term environmental and societal impacts of nuclear waste. In turn, these solutions help to clean up communities, support the growth of the nuclear sector, and underscores that, when well-managed, nuclear is a safe and attractive option for future generations.

## Radioactive Waste Management

The responsible management of radioactive waste is essential to both clean up past liabilities as well as to bolster the potential and reputation of nuclear as a clean energy solution. Tried and tested long-term solutions for radioactive waste management is critical for prioritizing the safety and avoiding undue burden for current and future generations. By demonstrating that radioactive waste can be managed safely, sustainably and without harm to the environment or people,

we reinforce nuclear energy's role as a sustainability-aligned, low-carbon investment – building public trust and investor confidence.

The nuclear industry, including CNL classifies radioactive waste into three distinct categories: low-level, intermediate-level, and high-level. Each category presents unique considerations for safe and enduring disposal, underscoring the importance of tailored strategies in waste management planning.

<sup>23</sup> International Organization for Standardization (ISO) standards are internationally recognized frameworks for the implementation and maintenance of management system programs to ensure effective and efficient organizational performance. To learn more about ISO standards, access <https://www.iso.org/standards.html>.

<sup>24</sup> As defined in the Government of Canada *Greening Government Strategy*, ZEVs include battery electric, plug-in hybrid and hydrogen fuel cell vehicles.

In 2024-25, CNL achieved several major milestones related to long-term radioactive waste management at the PHAI and WL project sites:

- PHAI: Safely remediated 120 private properties and road allowances and completed remediation of the Coal Gas and Alexander Street Ravine major and industrial sites under the PHAI Cleanup Project, relocating approximately 430,000 metric tons of waste to the Port Hope Long-Term Waste Management Facility for long-term storage.
- PHAI: Completed restoration of the Chemetron Lagoon and Lions Park industrial sites, so that they may be turned back over to the Municipality of Port Hope for public access.



## Near Surface Disposal Facility (NSDF)

In January 2024, the Canadian Nuclear Safety Commission (CNSC) approved an amendment to the CNL licence, authorizing CNL to begin construction of the NSDF. This engineered containment mound will provide safe, permanent disposal for up to one million cubic metres of low-level radioactive waste, including materials from over 100 legacy buildings, decades of research activities, contaminated lands and operational waste. The facility includes a multi-layer base liner and cover system and a dedicated wastewater treatment plant to safely manage precipitation and administrative buildings.



This regulatory decision followed an extensive environmental assessment process, launched in 2016 and guided by the *Canadian Environmental Assessment Act*. The CNSC concluded that the NSDF is not likely to cause significant adverse environmental effects, provided that all mitigation and monitoring measures are implemented.

Since 2024, there have been ongoing legal proceedings challenging the CNSC decision. CNL stands behind the NSDF as the right, science-based solution. We remain fully committed to the safe, long-term management of Canada's historic and operational waste liabilities and prioritizing open, transparent engagement with Indigenous Nations, communities and organizations, and the public.

- WL: In January 2025, the Whiteshell Reactor-1 Closure Project team submitted their revised draft Environmental Impact Statement to the CNSC, which is a big step in the project's ongoing environmental assessment. Read more [here](#).

In alignment with the Government of Canada's endorsement of the *Integrated Strategy for Radioactive Waste*, CNL is placing increased focus on advancing long-term disposal solutions for Intermediate-Level Waste (ILW) and non-fuel High-Level Waste (HLW). For example, CNL is supporting the Nuclear Waste Management Organization's (NWMO) mandate to develop an approach for the long-term care of Canada's used nuclear fuel. This collaboration between CNL and NWMO, to inform the design and licensing of deep geological repositories<sup>25</sup>, involves:

- developing specialized inspection tools to assess the integrity of dry storage canisters and fuel baskets; and
- conducting post-irradiation examinations on some of the oldest used CANDU fuel in dry storage.

CNL is also assisting NWMO in preparing for the unique challenges posed by the storage and disposal of used fuel from small modular reactors. Through participation in the *OECD-NEA Joint Project on Waste Integration for Small and Advanced Reactor Designs (WISARD)* project, CNL is helping evaluate the performance of novel fuel types under storage conditions. Additionally, ongoing research into gas generation and the long-term behaviour of spent fuel in wet storage is providing independent data to support NWMO's licensing efforts with the Canadian Nuclear Safety Commission. The initiatives detailed in this section reflect CNL's strategic shift toward long-term disposal solutions and complement our broader mandate to reduce Canada's nuclear waste liabilities through active cleanup and decommissioning.

Over the next decade, CNL will further reduce Canada's nuclear waste liabilities through the construction of the Modernized Combined Electrolysis Catalytic Exchange (MCECE) facility. Proposed for the Chalk River campus, MCECE

will safely process used heavy water for reuse in nuclear and other industries.

## Integrated Waste Strategy

At CNL, we manage three types of waste as illustrated in Figure 8. The vast majority of our waste is clean (non-radioactive) waste that is generated through operations, followed by hazardous waste and radioactive waste. CNL's Integrated Waste Strategy outlines our comprehensive approach to managing all classes of waste across CNL-operated sites. The Strategy aligns with national policy objectives and emphasizes safe, secure, and sustainable practices throughout the entire waste lifecycle.

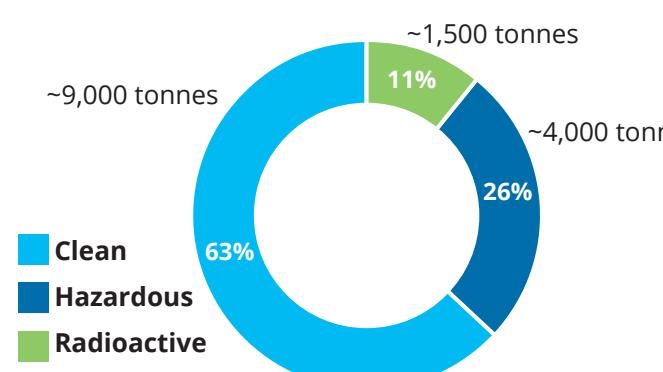


Figure 8. The types of waste generated at CNL sites

## Managing Waste Using our Integrated Waste Strategy

CNL manages waste through a comprehensive and integrated strategy that aligns its waste hierarchy – Prevent, Reduce, Reuse, Recycle, Dispose, as detailed in Figure 9 – with tailored lifecycle disposition pathways for each waste class. This approach begins with proactive planning to avoid waste generation and extends through rigorous characterization, clearance, and diversion processes that maximize reuse and recycling opportunities. As iterated in Figure 10, clean and non-radiological hazardous wastes are directed to third-party facilities for reuse, recycling, processing and/or disposal. Radioactive low-level waste is consolidated and processed for future disposal in purpose-built facilities such as the proposed NSDF, while intermediate - and high-level wastes are prepared for long-term containment in appropriate facilities, including proposed national deep geological repositories, or managed in situ at legacy sites. Liquid radioactive waste is treated to minimize secondary waste and discharged only after verification. By integrating regulatory compliance, infrastructure optimization and continuous improvement, CNL ensures safe, efficient, and environmentally responsible waste management across all project phases.

Hierarchy Steps	Waste Strategy Examples
PREVENT	<ul style="list-style-type: none"> <li>• Avoid generation of wastes</li> <li>• Planning for decommissioning at the design stage</li> <li>• Minimizing the use of single-use disposables</li> </ul>
REDUCE	<ul style="list-style-type: none"> <li>• Segregation of waste classes and streams</li> <li>• Prioritizing the durability and reusability of equipment</li> </ul>
REUSE	<ul style="list-style-type: none"> <li>• Reusing concrete and ground materials on-sites</li> <li>• Reusing surplus equipment</li> <li>• Treating heavy water for reuse</li> <li>• Utilizing mobile systems that can be used at multiple projects/sites</li> </ul>
RECYCLE	<ul style="list-style-type: none"> <li>• Recycling of metals, plastics, paper products, wood products</li> <li>• Off-site metal melt processing of LLW metals</li> </ul>
DISPOSE	<ul style="list-style-type: none"> <li>• Landfill disposal of demolition waste</li> <li>• Future disposal of LLW in the Near Surface Disposal Facility</li> <li>• Proposed disposal of used fuel of the national Deep Geological Repository</li> </ul>

Figure 9. Waste hierarchy at CNL with examples

<sup>25</sup> For more information on proposed sites for deep geological repositories in Canada, please see the NWMO's website accessible at <https://www.nwmo.ca/New-projects#>

Class of Waste	Key Elements of the Strategy	Lifecycle Disposition Pathways
Clean Waste	<ul style="list-style-type: none"> <li>Implementing radiological and hazardous substances clearance processes for impacted or potentially impacted materials to enable the disposal of non-radiological wastes and non-hazardous wastes</li> <li>Increase recycling opportunities as available</li> </ul>	<ul style="list-style-type: none"> <li>Reuse, recycling or disposal through third-party (off-site) facilities</li> </ul>
Hazardous Waste (Non-Radiological)	<ul style="list-style-type: none"> <li>Characterizing wastes for handling, storage, transportation and/or further processing</li> <li>Implementing radiological clearance processes for impacted or potentially impacted materials</li> <li>Ensuring that compliance with regulations provides the foundation for lifecycle management processes</li> </ul>	<ul style="list-style-type: none"> <li>Reuse, recycling, processing and/or disposal through third-party (off-site) facilities</li> </ul>
Radioactive Low-Level Waste (Solid)	<ul style="list-style-type: none"> <li>Characterizing wastes, for radiological and non-radiological contaminants for handling, storage, transportation and future disposal</li> <li>Processing and packaging to meet storage, transportation and disposal requirements</li> <li>Implementing waste diversion approaches to minimize waste volumes requiring storage or disposal</li> <li>Consolidating waste at the Chalk River campus</li> <li>Time-phasing waste generation from cleanup work (decommissioning and environmental remediation)</li> </ul>	<ul style="list-style-type: none"> <li>Disposal in the proposed Near Surface Disposal Facility</li> <li>Long-term management in the Port Granby and Port Hope Long-Term Waste Management Facilities</li> <li>Proposed in-situ disposal for the NPD and WR-1 Facilities</li> </ul>
Radioactive Intermediate-Level Waste (Solid)	<ul style="list-style-type: none"> <li>Utilizing existing infrastructure and assets where suitable</li> <li>Developing and implementing new capabilities (facilities and technologies) for optimized lifecycle management and enabling future clean-up work</li> <li>Incorporating industry best practices and innovations as part of a fit-for-use approach at CNL</li> <li>Driving continuous improvement to improve safety, effectiveness and efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Disposal in the recommended national Deep Geological Repository</li> <li>Proposed in-situ disposal for the NPD and WR-1 Facilities</li> </ul>
Radioactive High-Level Waste (Solid)	<ul style="list-style-type: none"> <li>Developing and implementing new capabilities (facilities and technologies) for retrieval, processing, storage, and transportation to accelerate the remediation of legacy facilities</li> <li>Consolidating waste at the Chalk River campus</li> <li>Conditioning and stabilization of research reactor fuels to meet disposal Waste Acceptance Criteria</li> </ul>	<ul style="list-style-type: none"> <li>Proposed disposal in the national Deep Geological Repository</li> </ul>
Radioactive Liquid Waste	<ul style="list-style-type: none"> <li>Characterizing waste for radiological and non-radiological contaminants</li> <li>Optimizing the amount of waste that are treated and compliantly discharged</li> <li>Minimizing secondary waste and post-processed waste from Radioactive Liquid Waste treatment</li> <li>Utilizing existing infrastructure and adding new capabilities/facilities for Radioactive Liquid Waste</li> </ul>	<ul style="list-style-type: none"> <li>Solidified waste to be managed as Low-Level Waste or Intermediate Level Waste</li> <li>Discharge of treated liquids verified to meet effluent discharge limits</li> </ul>

**Figure 10. Waste classes at CNL with key elements of the waste strategy and lifecycle disposition pathways**

We benchmark our waste management practices both internally and externally to support alignment with national and international best practices. In 2024-25, we conducted benchmarking trips by visiting international peers, including the U.S. Environmental Protection Agency's Office of Legacy Management's sites located in Grand Junction, Colorado and Canonsburg, Pennsylvania. Internally, we enhance learning

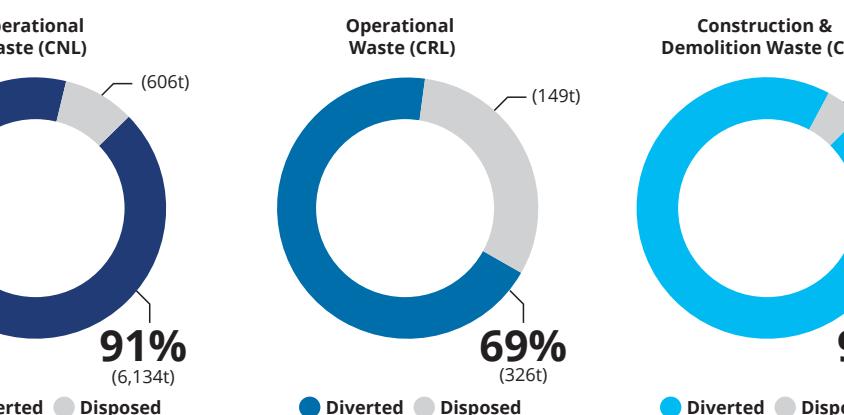
and professional development through benchmarking initiatives like the two-day technical exchange at the PHAI, where representatives from across CNL sites participated in immersive site tours and knowledge-sharing sessions to deepen their understanding of the PHAI's innovative approaches and foster cross-functional collaboration.

## Diversion from Landfill and Single-use Plastics

While the management of radioactive waste is a critical component of CNL's mission, most waste generated at CNL is clean conventional waste from routine operations and from demolition and construction activities.

CNL has set the following organizational targets for the diversion of clean conventional waste from landfills, with a goal to fully achieve them by 2030 or sooner:

- Annually diverting at least 75% by weight of conventional operational waste from landfills.
- Annually diverting at least 75% by weight of plastic waste from landfills.



**Figure 11. Waste diversion and disposal at CNL (January to December 2024)**

To make progress towards our conventional waste targets, we undertook several initiatives during 2024-25:

- Completed a plastics feasibility study that revealed that plastic diversion rates improved significantly after materials were processed through the Waste Assessment Facility. The study identified key areas for improvement, particularly in waste sorting accuracy.
- Conducted a series of self-assessments and waste surveillances to enhance oversight, optimize and continuously improve waste management processes.
- Implemented new soil management requirements to reduce excess soils from construction and remediation projects. As of December 2024, 2,640 m<sup>3</sup> (approx. 5,280 t) of soil was tracked for potential re-use, supporting higher construction and demolition waste diversion rates.
- Collaborated across the organization to establish the Sustainable Procurement Tools Working Group, aimed at advancing procurement practices that support circular economy and material reuse. The group promotes waste diversion by tracking items from the beginning of their life cycle.

CNL promotes circularity by reusing assets within the company, working with partners to recycle materials and by selling surplus assets. See more circularity initiatives in the following spotlight.

## Adopting a Culture of Circularity at CNL

CNL is incorporating circularity principles and practices into our activities. As shown in Figure 12, circularity is a philosophy that reduces waste by keeping resources in use by re-using, repairing and recycling.

Our approach begins by maximizing the use of materials already on-site. For example, construction and demolition activities generate concrete, wood, metal and other building materials. Rather than sending these to landfill, CNL processes and reuses them wherever possible – including nearly 100% of concrete from demolished buildings, 3,000 wooden pallets, over 12,000 kgs of interlock bricks, and nearly 690,000 kg of metal and concrete from a decommissioning project, this past year.

Teams across CNL also reuse, repurpose, recycle and sell equipment, materials and other items that would have otherwise gone to landfill. Materials such as metals, drywall, wood, plastic, batteries, glass and porcelain are sorted and sent to specialized partners for recycling or repurposing. Repurposed products are often used back on our sites, further closing the loop.

CNL uses online auction platforms designed specifically for government, educational and related public service agencies to sell surplus or used assets such as equipment, materials, furniture, fixtures and even large items like cranes and garbage trucks. This generates revenue, diverts products away from landfill and extends the life of assets.

At the centre of this work is our Waste Analysis Facility (WAF) which sorts and assesses products for reuse, recycling or appropriate disposal. Given CNL's focus on sustainable operations, staff at the WAF have fostered a culture of circularity and are empowered to identify new and innovative opportunities for reuse and recycling, helping CNL to save money, reduce carbon emissions and foster a sustainability-minded culture.

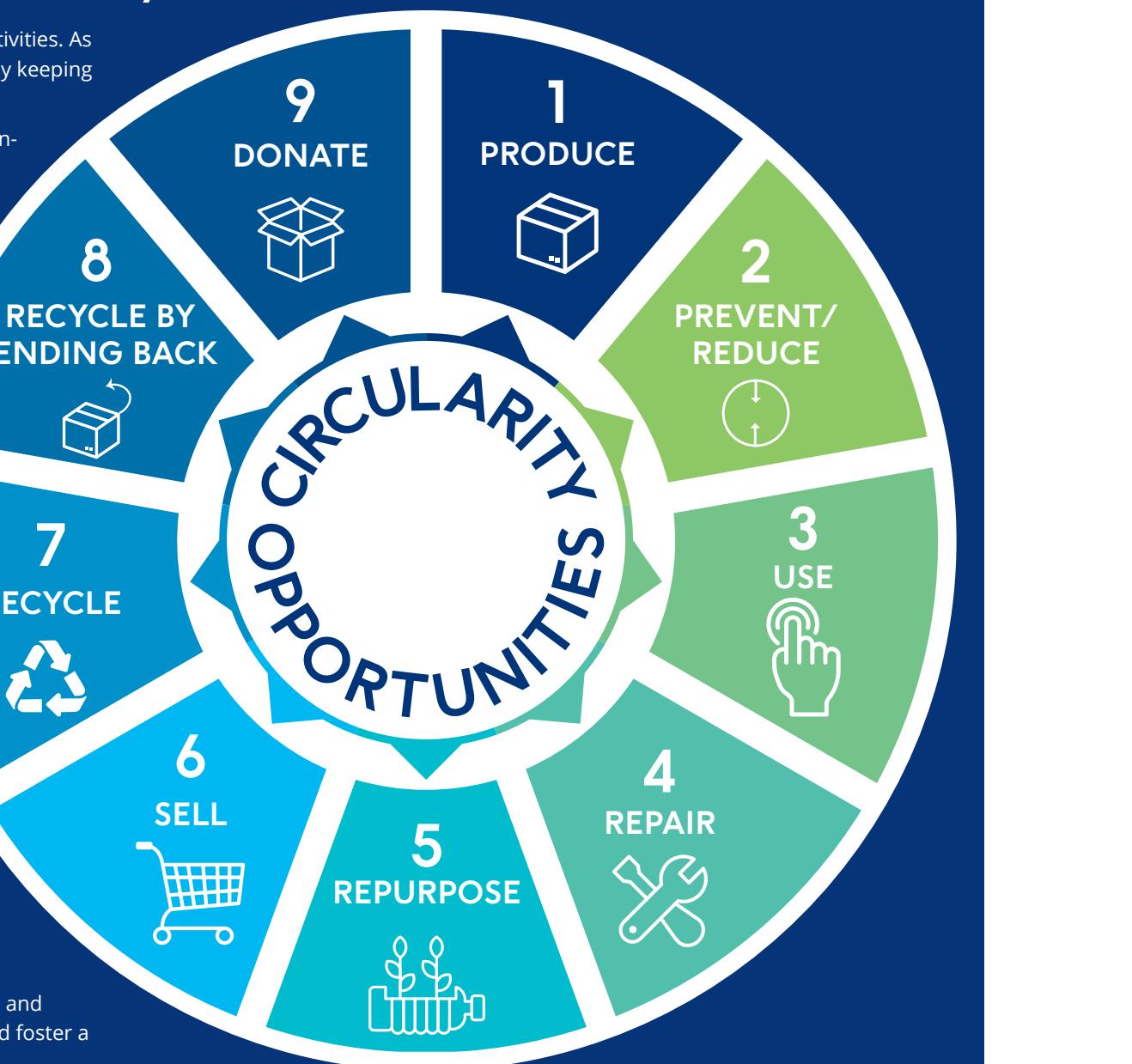


Figure 12. Examples of how the circular economy can be supported

## Chalk River Laboratories Waste Diversion Project

The Waste Diversion Project at CRL marked the safe and successful demolition of the Nuclear Facilities Operations Building, a legacy structure originally built between 1946 and 1952. As one of our largest decommissioning projects of 2024, the demolition of the structure resulted in a 95% waste diversion rate. The demolition process was executed in four key phases: characterization, hazard abatement, building isolations, and final demolition. Extensive radiological and environmental assessments confirmed the waste could be classified as clean, and asbestos was safely removed. Thanks to meticulous planning and collaboration across teams, the project concluded efficiently and safely. The success of this initiative sets a precedent for upcoming demolitions, reinforcing CNL's commitment to sustainable site management and legacy facility decommissioning.



Decommissioning of the Nuclear Facilities Operations Building at CRL

# Ecosystem Services

Across our sites, we are actively working to protect ecosystems, endangered species and their habitats and wildlife. CNL approaches ecosystem protection through responsible land management practices that incorporate Indigenous Knowledge and worldviews and fulfill our requirements under federal legislation and regulations. For more information on our collaboration with Indigenous Nations, communities, and organizations on ecosystem protection, please refer to the Engagement and Knowledge Sharing section.

## Environmental Assessments

CNL conducts environmental reviews for all work that requires the identification and assessment of environmental aspects related to our activities and operations. For major projects – such as the NSDF – that fall under federal regulations like the *Impact Assessment Act* or the *Canadian Environmental Assessment Act*, more comprehensive environmental assessments are carried out based on the type and scope of the project. These assessments are a regulatory requirement and form a critical part of the licensing process<sup>26</sup>,

## Long-term Routine Monitoring to Protect Species at Risk

At CRL, long-term monitoring of biodiversity plays an important role, both in understanding how land use and environmental factors influence local ecosystems and in aligning with requirements like Canadian Standards Association (CSA) N288.4 standard, *Environmental monitoring programs at nuclear facilities and uranium mines and mills*.

The Biodiversity Monitoring Program at CRL is designed to track species abundance, distribution and trends over time across Chalk River's diverse habitats. This science-based



**CNL Tree Planting Event**

ensuring that potential environmental impacts are thoroughly identified, evaluated, appropriately managed and monitored over time, while also ensuring that CNL continues to operate in a responsible and transparent manner. Furthermore, CNL implements controls for environmental aspects of our operations and projects that are assessed as having a high potential impact or likelihood of occurrence.

approach helps identify potential operational impacts on biodiversity, enables adaptive management and supports continuous improvement in environmental stewardship. Monitoring is also often required as a condition of federal legislation and regulations. Due to Chalk River's large size and varied terrain, the Biodiversity Monitoring Program incorporates a range of surveys and is continuously evolving to respond to changes in site activities, regulatory requirements and observed ecological patterns. We monitor

<sup>26</sup> Licensing process detailed [here](#).

in both aquatic and terrestrial environments, capturing data on reptiles, amphibians, birds, mammals, invasive species and the interactions between wildlife and site infrastructure. Examples include:

- **Turtles:** Monitored endangered Blanding's Turtles through basking and nesting surveys and biennial trapping, using shell notching for mark-recapture analysis.
- **Forest Songbirds:** Conducted acoustic surveys every five years at 34 locations at CRL to assess species presence and distribution.
- **Amphibians:** Deployed acoustic recorders at 49 points

## Blanding's Turtle Road Mortality Mitigation Plan

Several turtle species in Ontario, including the endangered Blanding's Turtle, are at risk due to habitat loss and fragmentation. Blanding's Turtles face increased vulnerability due to their extensive overland movements each year<sup>27</sup>. At CRL, road traffic is a primary threat, significantly increasing the risk of injury or mortality, especially in areas where roads intersect with wetlands and in roadside ditches, which attract female Blanding's Turtles during the nesting period<sup>28</sup>. Since 2009, CNL has been collecting data on Blanding's Turtles to inform mitigation efforts and is now implementing a comprehensive Road Mortality Mitigation Plan aimed at reducing road-related fatalities and improving habitat connectivity to support the long-term sustainability of the species. Mitigation measures to reduce Blanding's Turtle road mortality include:

- Installing turtle crossing systems, or eco-passages, in turtle hotspots with exclusion fencing that directs turtles toward culverts, allowing them to safely cross under roads.
- Creating nest habitats, which are located near eco-passages to provide suitable nesting habitats and help prevent female turtles from migrating in search of nesting sites.
- Implementing an employee awareness program – including education, road signage and reduced speed limits near wetland habitats – which educates staff about species at risk, conservation efforts, and proper procedures for encountering or reporting species.
- Prohibiting maintenance activities, such as grading and vegetation removal in roadside ditches, in turtle hotspots during the nesting period.



To ensure the effectiveness of the mitigation measures outlined, several monitoring efforts, including remote cameras and weekly road surveys, are in place to evaluate the success of reducing turtle road mortalities. Findings from the 2024 eco-passage data indicate that a variety of species, including Blanding's Turtles, are successfully utilizing the eco-passages. CNL is committed to continuously improving these efforts through adaptive management, incorporating advancements such as solar panels to ensure camera battery longevity and AI technology to efficiently process photo data. CNL aims to ensure the long-term effectiveness of its strategies, with a strong commitment to ongoing protection and conservation of Blanding's Turtles and other wildlife at the site.

<sup>27</sup> ECCC (Environment and Climate Change Canada). 2018a. Recovery Strategy for the Blanding's Turtle (*Emydoidea blandingii*), Great Lakes / St. Lawrence population, in Canada. Species at Risk Act Recovery Strategy Series. ECCC Ottawa: vii+ 59 p. Available at: [Species at Risk Public Registry website](#)

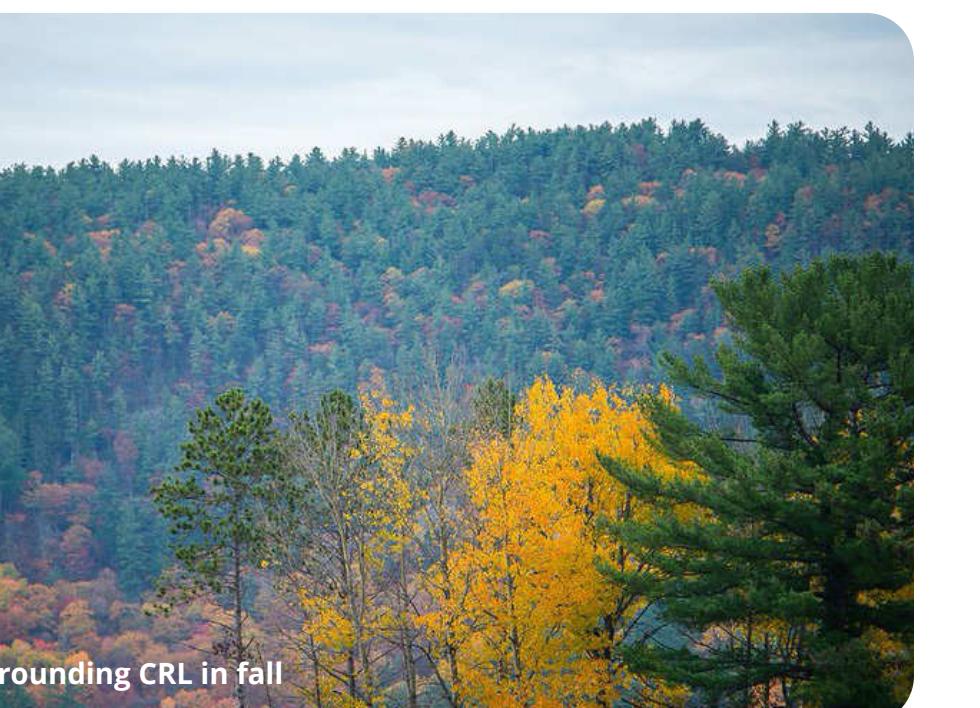
<sup>28</sup> Ibid.

# Forest Management

CRL's Forest Management Plan aims to manage 2,690 hectares of forest land around the Chalk River campus. The plan supports forest regeneration, forest health, fire management, climate resilience, ecosystem services and preservation and enhancement of wildlife habitats, including for species at risk.

In 2024, a forest carbon analysis using the Canadian Forest Service's Carbon Budget Model revealed that the forests within CRL store approximately 2.4 million metric tons of carbon, with projections showing increasing carbon sink capacity over the next century. Our forests are not only beautiful, but they provide ecosystem services and nature-based solutions that can help to meet our carbon reduction goals.

Another primary objective of the Forest Management Plan is to minimize fire risk and reduce fuel loads through a managed approach that mimics natural disturbance patterns and strategically harvests older, declining tree stands that contribute to fuel accumulation. This managed approach not only reduces wildfire risk but also improves habitat quality by establishing young regenerating forests that provide essential browse for wildlife. It also increases the representation of early successional tree species like the white birch and poplar, which thrive in disturbed, open habitats but are currently underrepresented due to decades of fire suppression and forest protection. Beyond its ecological role, white birch holds cultural significance due to its traditional use in canoe construction, making its renewal an intersection of habitat value and cultural heritage. Poplar trees provide a combination of roosting sites and foraging opportunities for a variety of bat species, many of which are at risk in Ontario.



Forest surrounding CRL in fall

Their structural characteristics and open canopy conditions help meet critical habitat needs for bats.

For the first time this year, we have leveraged Light Detection and Ranging (LiDAR) technology at CRL to produce high-resolution elevation models and identify groundwater features. This data, validated through on-the-ground verification efforts, has allowed for more accurate forest description mapping and the development of management prescriptions that guide the sustainable harvesting and renewal of forest stands while protecting or creating conditions to support key ecological values.

Implementation of the Forest Management Plan occurs through detailed annual work plans that incorporate essential elements such as field validation, management prescriptions, compliance monitoring, operational supervision, strategic scheduling and systematic reporting. The success of this initiative relies heavily on collaborative partnerships, particularly with federal neighbors such as the Petawawa

Research Forest, where we maintain active cooperation on various forestry initiatives. This science-based approach to forest management demonstrates CNL's commitment to

environmental stewardship while providing tangible benefits for climate change mitigation, biodiversity conservation, and ecosystem health.



## Professionals in forest stewardship and biodiversity conservation

### Professional Leadership in Sustainable Forest Management

CNL engages qualified professionals to lead the management of its material sustainability issues. In the area of forest management, this responsibility is held by Elizabeth (Liz) Cobb, Registered Professional Forester (RPF). With nearly four decades of experience in forest management across both government and private sectors, Liz leads the implementation of CNL's Forest Management Plan for the 2,690

hectares of forest surrounding the Chalk River campus. Her work

supports key objectives including forest regeneration, fire risk reduction, biodiversity conservation, and climate resilience through carbon



sequestration. In addition to her operational leadership, Liz contributes to sector capacity-building. She is a Level 2 Provincial Tree Marker and Compliance Inspector, a mentor through the Ontario Professional Foresters Association, and a part-time professor in the Forestry Technician Program at Algonquin College. Her contributions to sustainable forestry were recently recognized with the Ross Silversides Forestry Award from the Eastern Ontario Model Forest. Through Liz's leadership, CNL ensures that our forest management practices are grounded in science, aligned with stakeholder expectations, and contribute meaningfully to environmental stewardship and climate action.



### Advancing Biodiversity Through Field-Based Research and Collaboration

Biodiversity efforts at CNL are led by Meghan Murrant and a team of biologists. Since joining CNL in 2014, Meghan has played a key role in the development and implementation of the Biodiversity Monitoring Program on the Chalk River site. The work conducted by Meghan and the rest of the team focuses on the study and protection of native bat species, local turtle populations, and chimney swifts, to name a few. Conducted largely in partnership with academic institutions, this research has helped fill

critical knowledge gaps and inform conservation efforts both within and beyond CNL's operations. Through Meghan's leadership, CNL ensures that its biodiversity practices are grounded in science, responsive to ecological risks, and aligned with broader commitments to environmental stewardship and sustainable land management. CNL's biodiversity program is closely linked to our forest management efforts. Together, Liz, Meghan and the biodiversity team ensure that forest stewardship and biodiversity conservation are integrated across the 2,690 hectares of forests that comprise the Chalk River campus. This collaboration supports key sustainability objectives, including habitat protection, climate resilience, and ecosystem regeneration.



## Water and Wastewater Management

Effective water and wastewater management is essential to protecting local ecosystems and supporting the health and wellbeing of the communities where we operate. We annually monitor and report on water intake, water consumption and incidences of non-compliance related to water from seven facilities across Ontario, Manitoba and Quebec, none of which are located in an area of water stress<sup>31</sup>. Our reporting and

conservation efforts focus largely on our CRL and WL sites, as they are our most material sites for water management.

CRL sources water from the Ottawa River, Corry Lake, and groundwater for use across the site as service water (primarily for domestic and lab use), process water (for cooling pumps and boilers), and fire water (stored for emergency use only).

WL draws from the Winnipeg River for fire suppression, cooling, sanitation and misting during decommissioning. Total water withdrawn across all CNL sites in 2024 was 9,453 megalitres (ML), a decrease of 42.8% compared to 2023. While total water withdrawn at CRL remained stable year over year, over 90% less water was withdrawn at WL in 2024, compared to 2023. In 2023, WL used significantly more water than normal due to firefighting training and fire response equipment testing. Further, an error was identified in the recording of water intake at WL, resulting in an over-estimation of water intake for the years 2021 to 2023. This error cannot be recalibrated retroactively.

CRL and WL sites return most of their water to the Ottawa and Winnipeg Rivers, respectively, through controlled discharge systems. At CRL, service, process and fire water are largely returned to the Ottawa River. At WL, water is discharged via two main monitoring locations: the lagoon and the stormwater system. Both sites maintain robust environmental monitoring programs to track effluent quality and minimize environmental impact, including a centralized GIS-based Environmental Data Management System and annual internal and external audits. Specific to wastewater, CNL conducts various routine assessments to evaluate whether radiological or non-radiological contamination has occurred.

In 2024, CNL experienced three incidents of water-related non-compliance. The first incident occurred in early 2024, when results of CNL's routine sampling at Chalk River Laboratories' Sanitary Sewage Treatment Facility exceeded an "acute lethality test" in February<sup>30</sup>. Upon discovery, CNL notified all relevant regulatory agencies, initiated an investigation to identify the cause of the disruption, and issued a Community Information Bulletin to notify the surrounding community. CNL then implemented mitigation and operational control measures, including procurement of a third party to complete a toxicity evaluation and review all facility operations, increased toxicity testing, organization-

wide training and communication to support staff education, and bi-weekly progress reports to ECCC. CNL confirmed that the exceedance was not related to radiological contaminants and did not pose a threat to the environment or the public. By June 2024, CNL had confirmed that the Chalk River Laboratories' Sanitary Sewage Treatment Facility had returned to compliance and has since resumed normal operations with no further regulatory exceedances. CNL has implemented an action plan to mitigate against future incidents, including better oversight, improved sanitary drainage practices and infrastructure upgrades.

There were also two reportable events associated with pH levels at WL that were identified as part of our routine monthly effluent analyses through our Whiteshell Environmental Protection Program. To better understand this exceedance, CNL added an additional monitoring location upstream of the site on the Winnipeg River and increased the frequency in which pH measurements are being collected. These results indicated that there were no environmental impacts on the Winnipeg River, aquatic life or the public as a result.



Ottawa River Photo: Matt Slowikowski

<sup>29</sup> Water metrics are calculated on a calendar year basis (i.e., January to December, annually).

<sup>30</sup> Under the Wastewater Systems Effluent Regulations, effluent is considered acutely lethal when at 100% concentration (undiluted) it kills more than 50% of the rainbow trout subjected to it during a 96-hour period. Source: [Government of Canada](#).

# People and Communities

CNL is dedicated to fostering and sustaining meaningful relationships where we work and live. This includes our workforce, the communities and Indigenous territories where we operate, our business partners, and the broader public. We acknowledge our fundamental responsibility to maintain the highest standards of safety and well-being for our employees, contractors and visitors to our facilities, while simultaneously providing protection and safety to our neighboring communities.



## Health and Safety

In 2024-25, CNL made steady progress to advance safety and wellness through our Safety Excellence Strategy. In support of the Strategy's 15 priorities (see Figure 13), we successfully delivered 31 targeted actions as of March 2025, contributing



Figure 13. Priorities of the Safety Excellence Strategy and Implementation Plan

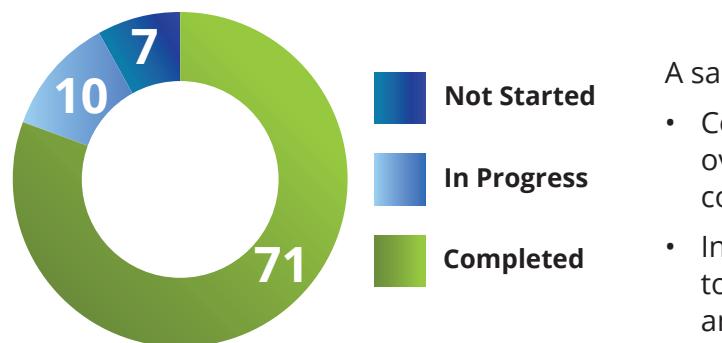


Figure 14. Safety Excellence Initiative actions (as of March 2025)

A sample of key health and safety initiatives advanced in 2024-25 include the following:

- Conducted an organization-wide Psychological Health & Safety survey which indicated overall improvement compared to results from the work environment assessment completed in 2023.
- Introduced the Community Safety Academy, in collaboration with local first aid providers, to offer free safety education for community members and their families in Chalk River and the surrounding area.
- Held 19 Visible Leadership Workshops with 260 participants across the organization, resulting in the formation of the Visible Leadership Support Group.

- Supported multiple business lines, missions and sites in launching or sustaining safety recognition programs.
- Relaunched the Rules to Live By campaign, with a renewed focus on promoting safety both at work and at home.
- Introduced the Walk in My Shoes event as part of the Safety Excellence Initiative's work to design a

leadership mentorship program with safety excellence as the cornerstone. The program aims to build trust and understanding, create an open space to share experiences, and see what a typical workday looks like for our team members on both sides. The event was designed to encourage leaders and staff to experience each other's workday realities.

## Compilation of quotes from “Walk in My Shoes” event

*“A structured opportunity for team members and leaders to step into each other's roles, share daily experiences, and foster mutual understanding.”*

*“An interactive exchange between senior leaders and team members designed to open lines of communication and build empathy across roles.”*

*“A two-way learning experience where leaders and individual contributors gain firsthand insight into each other's challenges and contributions.”*



*“A program that encourages curiosity, openness, and mutual respect by allowing participants to learn directly from one another's daily work realities.”*

## Visible Leadership Support Group

CNL launched major visible leadership initiatives, including Visible Leadership Workshops hosted by the Safety Excellence Team. The workshops consisted of sessions where current or aspiring people leaders had the opportunity to learn and discuss the meaning and importance of Visible Leadership and its application with their respective teams. Throughout 2024-25, 19 workshops were held with

260 participants across the organization. In response to the strong interest shown by participants, the Visible Leadership Support Group was established as an informal forum for ongoing peer engagement. The group facilitates discussions with interested staff, focusing on topics identified by people leaders, including communication, emotional intelligence, conflict resolution, and other leadership competencies.

CNL monitors employee injury rates through metrics such as: Total Recordable Cases (TRC)<sup>31</sup>; Days Away (DA)<sup>32</sup>; Days Away, Restricted or Transferred (DART)<sup>33</sup>; and, Near Miss Frequency Rate (NMFR<sup>34</sup>). In 2024-25, NMFR declined compared to the previous year due to stronger awareness and oversight, while DA rates remained stable. At the same time, as shown in Figure 15, both TRC and DART rose to 0.66 and 0.50 respectively, up from 2023-24 levels. To address these increases, an organization-wide safety pause was conducted

in November and December 2024. Area-specific presentations were delivered to all employees through their managers to raise awareness of the concerning trend and to encourage greater situational awareness. Through meaningful conversations, teams were encouraged to reflect on actions and identify steps that can be taken to prevent future injuries. There has been a significant reduction in the trend of recordable injuries since the safety pause with a decrease of 75% from January to end of March 2024. CNL continues to



## Outstanding recovery of Whiteshell (WL) Fire Operations

In April 2023 following an assessment of the WL Fire Protection Program, the WL site was placed into a safe stand down state. No injuries occurred, and there were no impacts to the public nor the environment, however as a precaution, non-essential work was paused while a phased restart process was developed and implemented. As of September 2024, CNL resumed operations at WL.

The WL Fire Protection team, supported by the CNL Fire Protection Program, implemented a year-long recovery plan. This fiscal year, the WL fire chief and team made no less than heroic efforts to rebuild the team, and build up capacity through training and skills development, and new equipment acquisitions. The recovery plan involved:

- Realigning the WL Fire Protection organisation to separate from the traditional organisation that was combined with the WL Security team.
- Recruiting an excellent team of managers and firefighters.
- Establishing a thorough training and practice exercise program that meets and exceeds NFPA and CNL corporate standards.
- Procuring new firefighting equipment to meet modern standards.
- Updating approximately 100 procedures and supporting documents.
- Implementing sustainable corrective actions to address numerous long-standing non-compliances.

This experience highlighted the importance of internal assessments, clear communication, and ongoing attention to safety infrastructure and performance – areas that will continue to be a focus moving forward.

Importantly, the fire services team has been re-built in a way as to add value to



WL and the surrounding community. The accomplishment of the outstanding recovery by the entire team over the past year has enabled WL to emerge from the stand down a stronger site underpinned by more capable fire, security and emergency response organizations.

More information can be found at:

Part 1: <https://youtu.be/26NnLdASagw?si=o09vuS2wmP4e9YIb>

Part 2: <https://youtu.be/ZzLUTi-bXw?si=CPNMs9ghG74S9Lpy>

<sup>31</sup> Total recordable incidents are injuries which exceed some low level of medical treatment.

<sup>32</sup> Days away is the number of cases with one or more days of work lost due to occupational injury or illness divided by the total number of hours worked over a certain period of time, normalized for 100 full time employees (200,000 work hours).

<sup>33</sup> Days away, restricted or transferred rate is the number of recordable incidents per 200,000 work hours which resulted in lost workdays, restricted workdays or job transfer due to workplace injuries or illnesses.

<sup>34</sup> Near Miss Frequency Rate is the number of near miss events, per 200,000 hours worked.

focus on injury prevention and situational awareness and is committed to achieving a further reduction in the number of injuries across the organization.

In preparation for future ISO 45001 conformance, CNL improved the effectiveness of its Conventional Health and Safety Program by preparing a standard describing CNL's Health and Safety Management System. A new position was added to improve the collection and analysis of data as well as production lagging and leading safety metrics. CNL continues work on the development of a 'live' safety dashboard for trend and opportunity identification. on the development of a 'live' safety dashboard for trend and opportunity identification.

## Radiation Dose to Workers

The CNL Radiation Protection Program is essential to safeguarding employees and contractors by controlling exposure, strengthening safety awareness, and providing appropriate training. Through established measures such as time limitation, distance, and shielding, this program mitigates risks, ensures compliance with regulatory requirements, and supports the safe and responsible use of radioactive materials and sources.

In 2024-25, CNL continued to strengthen its Radiation Protection Program, maintaining alignment with regulatory requirements and advancing best practices in radiation safety across its sites. Compliance with workers dose requirements was maintained (as shown in Table 7) and confirmed through a series of targeted reviews, program enhancements and annual reporting. Through the use of advanced monitoring systems, data analysis tools, and regular reporting, CNL tracks and manages radiation exposure with precision. A "Managers Radiation Protection Report" is prepared and provided to all CNL managers to provide up-to-date information on radiation dose metrics, reinforcing our commitment to transparency and proactive management.

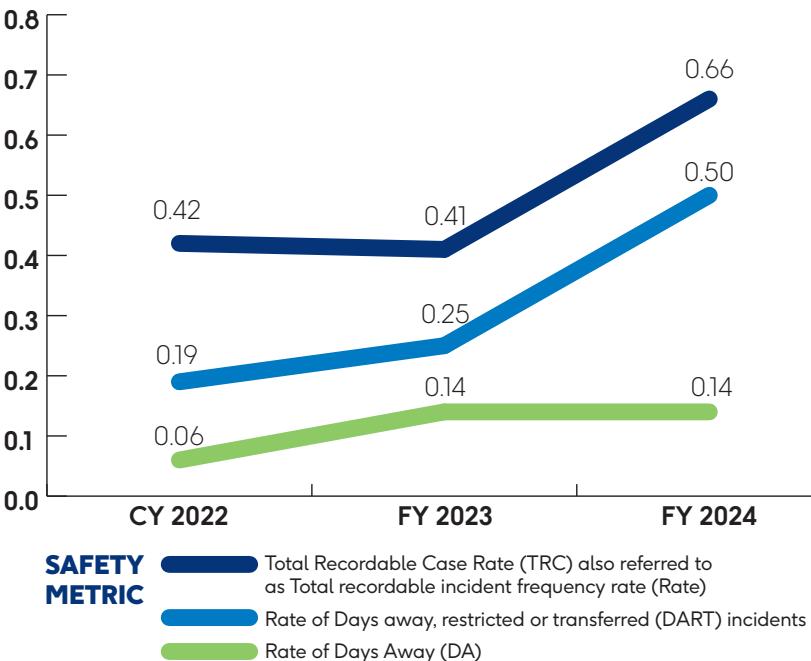


Figure 15. Safety metrics performance

RADIATION PROTECTION STATISTICS	FY 2024-2025
% of employees and contractors who receive radiation doses in excess of CNSC regulatory dose limits	0% (zero)
% employees who receive radiation doses below established CNL Action Levels <sup>35</sup>	100%
% contractors who receive radiation doses below established CNL Action Levels <sup>36</sup>	100%

Table 7. Radiation protection statistics

CNL conducted a self-assessment as part of an internal review to ensure that regulatory requirements were appropriately mapped to CNL's radiation protection program requirements and implementing procedures. As part of the review, CNL carried out 14 implementation assessments – 11 at CRL and 3 at WL – focused on planning and control of radiation work, radiological work permitting and radiological hazard warning sign procedures. These assessments resulted in both

<sup>35</sup> An action level is an internal level below regulatory limits that is set for reporting and investigation.

<sup>36</sup> Ibid.

assurance of program implementation as well as actions for program improvement. In addition, a benchmarking activity was completed at Ontario Power Generation to evaluate the use of simulation equipment in radiation protection training, and a report was produced with findings and recommendations to inform future training enhancements.

Other key improvements made to the radiation protection program in 2024-25 include:

- Updated the radiation protection program requirements document following an independent third-party assessment.
- Developed a new radioactive source database to track all radioactive sources across CNL sites, addressing findings from the 2023 Security Program quality audit.
- Created a corrective action plan to restore compliance with mandatory review periods for radiation protection program documentation.

## Employee Engagement and Well-being

### Employee Wellness

In 2024-25, we continued to implement our 10-Year Health and Wellness Strategy, with a strong focus on delivering accessible and impactful wellness initiatives.

To ensure psychological health is embedded in our culture and practices, we align our efforts with the *National Standard of Canada for Psychological Health and Safety in the Workplace*<sup>37</sup>. We offered a one-day *Mental Health First Aid* training course to our emergency responders and expanded access to the *Working Mind* training - developed by the Mental Health Commission of Canada - by offering sessions both remotely and in person to build knowledge and reduce stigma around mental health in the workplace. We continue to offer the *Being a Mindful Employee* course, which introduces employees to the principles of a psychologically safe workplace, as outlined by the Canadian Centre for Occupational Health and Safety.

Additional employee wellness initiatives carried out in 2024-25 include:

- Updated the Multiple Dosimetry Procedure to ensure consistent and accurate reporting of lens of the eye doses, addressing a CNSC finding related to dose reporting requirements.
- Updated protocols and safety processes with specific focus on enhancing our off-site emergency response program, including introducing new software solutions for more efficient and less resource-intensive responses.

Throughout 2024-25, CNL also remained actively engaged in industry collaboration through its participation in the Conexus - formerly called the CANDU Owners Group - radiation protection peer group, which identified addressing national radiation protection skills shortages as a key focus in 2024. A working group of industry leaders was formed to define core competencies in training, with progress on this initiative expected to continue into 2025.

- Developed and distributed weekly wellness newsletters to over 500 wellness ambassadors across the organization.
- Continued our partnership with Evernew Recovery and Rehabilitation, which provides on-site Athletic Therapy treatments at CRL that support physical wellness among staff.

The initiatives pursued in 2024-25 complement a suite of existing programs, including the Wellness Program, the

### Fostering a Respectful Work Environment and Preventing Harassment

CNL is committed to fostering a workplace environment that is free from all forms of harassment and violence. In 2025, we reviewed and enhanced our Workplace Harassment and Violence Prevention Program with the aim of implementing a multi-faceted approach to workplace safety and respect and ensuring stronger alignment with current legislation and industry-leading practices. As part of this strategic initiative, all employees participated in targeted refresher training designed to deepen their understanding of workplace harassment prevention, reinforce positive workplace behaviours and ensure thorough compliance with our updated policies.

A cornerstone of this new multi-faceted approach is our mandatory e-learning course on Harassment and Violence Prevention, which employs scenario-based learning techniques to present real-world situations that help employees effectively recognize, prevent and respond to



potential instances of harassment or violence. With a three-year renewal cycle, the training program is designed to ensure that critical knowledge and skills regarding harassment and violence remain current and readily applicable.

### Employee Recognition

CNL's employee recognition programs celebrate the dedication, innovation and long-standing service of its workforce. At the heart of this effort is the Awards of Excellence, a corporate program that honours individuals and teams whose contributions have advanced CNL's mission across science, technology, safety and operations. In 2024, over 100 employees were recognized at the annual ceremony for achievements ranging from the development of

cutting-edge medical isotopes and reactor decommissioning strategies to safety innovations and Indigenous engagement. Awards were presented in two categories: the D.F. Ferguson Discovery Award, which highlights technical innovation and research excellence, and the Distinguished Merit Award, which recognizes operational impact, partnership development and environmental leadership.

Further, in 2024, we also re-launched the Peer Recognition Program which provides a way to recognize the small but critical efforts from across the CNL team. This unique peer-to-peer program allows those closest to the work to nominate a peer for recognition for daily exceptional effort or a significant accomplishment or milestone.

In addition, CNL is planning to revitalize its Long Service Recognition Program in 2025-26 to honour employees who have reached 25 or 40 years of service. The next celebration will recognize employees who reached service milestones between 2019 and 2025. Together, these programs reflect CNL's commitment to fostering a culture of appreciation and celebrating the people who drive its success.

CNL is proud to celebrate the outstanding accomplishments and community-focused spirit of its employees, recently highlighted by the Port Granby Project's recognition as a finalist for the 2024 Brownie Award in the Sustainable

Remediation category. This national honour underscores the innovation, technical excellence, and environmental leadership demonstrated by the team in safely relocating 1.3 million tonnes of contaminated soil from the shores of Lake Ontario and restoring the site for future use as a nature reserve. The project not only met complex technical goals but also fulfilled community aspirations, including the integration of Indigenous knowledge into future land co-management planning.

CNL management regularly recognize when employees go above and beyond while completing their role. The Silver Shovel awards acknowledge exceptional contributions by members of the PHAI team. The award which can be peer nominated has already been shared five times to recognize staff excellence in the last 18 months. In addition, PHAI introduced the Good Catch award in 2024 for staff and contractors to recognize when work performance exceeds expectations.

## Diversity, Equity, Inclusion and Accessibility

Our dedication to Diversity, Equity, Inclusion, and Accessibility is integrated into CNL's operational framework; our commitments are anchored in our core values, explicitly stated in our Code of Conduct, and form essential elements of both our Vision 2030 and Sustainability Strategy.

As of December 2024, 2,038 CNL employees, identified as members of one or more of the four designated groups – Women, Members of Visible Minorities, Indigenous Peoples, and Persons with Disabilities (see Table 8) – representing a 9.5% increase from the previous year. This positive trend reflects our ongoing commitment to maintaining and expanding diverse representation across our workforce.

In fiscal year 2024-25, we initiated the execution of our DE&I Strategic Action Plan, which presents a comprehensive approach to cultivating and sustaining an inclusive workplace environment. The Strategic Action Plan specifically focuses on

EMPLOYMENT EQUITY GROUPS	CNL PERFORMANCE IN 2024 CY
Percentage of women	31.4%
Percentage of Indigenous employees	6.6%
Percentage of employees that are visible minorities	10.1%
Percentage of employees with disabilities	2.2%

**Table 8. Representation of Employment Equity groups in CNL's workforce**

integrating DE&I principles throughout the employee lifecycle and fostering a modern, adaptable and innovative workplace culture. Our goal is to create an environment where every employee feels respected and empowered to reach their full potential while being encouraged to embrace and celebrate their unique identity. Details are provided in the spotlight.

 **DE&I in the Employee Lifecycle**  
The Strategic Action Plan is designed with a systematic approach that encompasses initiatives from initial attraction through to career transition, with significant achievements across multiple phases. In 2024-25, the following actions, as examples from Figure 16, were taken to advance the integration of DE&I into the organization and into employees' career journeys:

### Attract, Recruit & Onboard Phases

- **Hiring Manager Resources:** Developed new resources to support hiring managers in creating equitable and inclusive recruitment experiences.
- **Hiring Process Overview:** Implemented a transparent hiring process framework to improve candidate experience and provide clarity on recruitment steps.
- **Student Experience Survey:** Established a new survey mechanism to assess inclusivity and workplace environment for students.

- **DE&I Training in Onboarding:** Integrated comprehensive DE&I training presentations into the onboarding process to establish inclusive culture expectations from day one.

### Recognize & Transition Phases

- **Team Charter Guide:** Developed a Guide to Creating an Effective Team Charter, which supports teams in establishing shared expectations and includes DE&I principles focused on respectful communication and collaboration.
- **Return-to-Work Guideline:** Created a structured Long-Term Leave Return-to-Work Guideline to help managers facilitate inclusive and supportive reintegration for employees returning from extended leave.
- **Mentoring Voluntary Self-Disclosure Form:** Introduced a confidential form to collect voluntary demographic data from participants in the mentoring program. This enables CNL to identify representation gaps and ensure mentorship opportunities are equitably distributed. It also allows mentees to express whether having a mentor who shares aspects of their identity is important, helping CNL better support meaningful mentorship pairings.

**Figure 16. DE&I in the Employee Lifecycle**



## DE&I Communication and Engagement

In support of our DE&I commitments, we have significantly enhanced our internal communications regarding DE&I to increase awareness and promote learning around DE&I topics. In October 2024-25, we launched CNL's inaugural DE&I Week featuring a series of in-person and virtual events and activities engaging employees across all sites. These events were designed to empower leaders, spark meaningful conversations, and provide employees with deeper insights into inclusive practices. Overall, we received positive responses about DE&I week and engaged over 500 employees through various activities throughout the week.

CNL provides employees with a range of DE&I learning resources, developed both in-house and through our partnership with other organizations. This includes:

- Through the [Canadian Centre for Diversity and Inclusion](#), we accessed toolkits, educational materials, self-paced

### The DE&I Committee

The DE&I Committee, composed of employees from diverse backgrounds, identities and business units, plays a central role in these efforts. Acting as a bridge between employees and leadership, the committee provides consultation in the implementation of DE&I initiatives, offers recommendations to management, and supports the implementation of DE&I initiatives that align with CNL's core values. In

## Gender Equality and Pay Equity

CNL is committed to eliminating gender-based discrimination in pay practices and systems, in alignment with the *Pay Equity Act*. We are implementing this legislation in accordance with established timelines and regulatory requirements, with the goal of ensuring fair and equitable compensation for all employees. To drive this commitment forward, CNL established a dedicated Pay Equity Committee composed of representatives from every bargaining unit, as well as non-

resources and facilitated conversations on topics such as allyship, unconscious bias, cultural competency, psychological safety, neurodiversity and inclusive workplaces; and

- We launched a learning journey with [CultureAlly](#) for our Human Resources team and DE&I Committee, further strengthening our capacity to embed inclusion throughout the employee lifecycle.

Beyond our internal initiatives, CNL actively engages with the broader community. In 2024-25, we proudly participated in local Pride events and the Pembroke Multicultural Festival, reinforcing our commitment to creating inclusive environments both within and beyond our workplace.

doing so, the committee helps shape strategic priorities to ensure that employee voices are reflected in our approach. While lived experience is valued, it is not the sole factor considered in membership; the committee prioritizes individuals with a demonstrated commitment to advancing inclusion across CNL.

unionized employees, ensuring representation for over 95% of our workforce. This committee has invested more than 336 hours in consultation to support the development and implementation of CNL's Pay Equity Plan. A key milestone in this process was the collection of 1,550 Job Information Questionnaires and 1,313 Job Descriptions, which provided a comprehensive understanding of roles across the organization and formed the foundation for equitable job evaluation.

Beyond this work, CNL is a proud signatory of the *Equal by 30* campaign – an international initiative aimed at accelerating the participation of women in the energy sector by 2030<sup>38</sup>. Since joining the campaign in 2018, we have advanced the careers of women in clean energy through targeted initiatives that increase representation, support professional development and create meaningful opportunities. Central to our approach is a robust partnership framework that focuses on five key areas:

- Strengthening collaboration with CNL's unions through joint consultation to ensure alignment on Equal by 30 policies and practices, ensuring effective representation of workforce interests.
- Developing relationships with universities and educational institutions to engage candidates from clean energy programs and courses.
- Participating in industry associations to promote best practices and facilitate knowledge sharing related to advancing women in the clean energy sector.
- Collaborating with nonprofit organizations and advocacy groups to enhance awareness and support for women in clean energy.

## Women in Nuclear Leadership



In 2024-25, CNL continued its active collaboration with Women in Nuclear (WiN), a global organization of

women and men that supports and encourages women working in the nuclear industry, particularly in energy and radiation applications. This partnership plays an important role in advancing CNL's commitment to diversity, equity, and inclusion (DE&I), while also helping foster opportunities for women across the sector. Shared initiatives and collaboration stemming from our partnership this year included:

- A technical webinar called "Automation, Cyber Security and AI, Oh My," which took place in August 2024.

- Building meaningful partnerships with Indigenous Nations, communities and organizations to create opportunities for women's involvement and leadership in the industry.

CNL also continues to champion the advancement of women in nuclear and science, technology, engineering, and mathematics (STEM) careers. In 2024-25, we celebrated the contributions of women and girls in science through seven events and initiatives, including school visits, in-class presentations, and site tours at universities and trades clubs. As part of these initiatives, CNL joined the United Nations and the international community to celebrate the 10th International Day of Women and Girls in Science, which celebrated the important work women in STEM are doing to break down barriers and inspire the next generation of innovators. CNL held a Women in Science Webinar, an exciting virtual panel discussion with the researchers and students involved in the CNL-McMaster Undergraduate Nuclear Research Experience program, where students shared their experience as women in science, and the role of mentorship in their journeys. These activities aimed to highlight the achievements of women in the nuclear industry and inspire the next generation to pursue careers in science and technology.

- A Harriet Brooks play reading hosted in September 2024.
- The launch of the WiN Manitoba Chapter Conference in October 2024 at WL.
- A screening of "This Changes Everything," at both CNL and WL locations in March 2025, in celebration of International Women's Day.
- Ongoing sponsorship of the annual Women in Nuclear Conference in Fall 2024.

CNL's relationship with WiN reflects our values and vision for a more inclusive and innovative future. This commitment is also demonstrated through leadership representation, with two CNL employees currently serving as Directors on the WiN Board for the Manitoba and Eastern Ontario Chapters.

## Promotion and Succession

CNL takes a strategic approach to succession planning to identify, develop and retain capable leaders, ensuring the effective transfer of knowledge and expertise for future leadership readiness as we continue to build a diverse work force. We consistently integrate DE&I principles into our succession planning process and actively engage all employees through the performance management process to ensure diverse representation in leadership roles. Our

## Accessibility

CNL is committed to ensuring equal access and participation for all employees by fostering an inclusive workplace where everyone can thrive. In alignment with the *Accessible Canada Act*, CNL has set a clear goal to become a barrier-free organization for persons with disabilities by 2040. To support this commitment, CNL developed a comprehensive

## Accessible Canada Act

The *Accessible Canada Act* (ACA) aims for barrier-free Canada by 2040. As the operating contractor for AECL - a federal Crown corporation with federal responsibilities - CNL is committed to supporting the ACA's goals through its own accessibility practices and culture. This includes aligning with ACA requirements such as publishing accessibility plans, establishing feedback mechanisms and reporting on progress to remove physical and other barriers to inclusion.

Key milestones in CNL's accessibility journey include the establishment of an Accessibility Policy and the completion of a legal review to ensure all accessibility-related policies align with federal requirements. CNL has also introduced an Accessibility Standard, which outlines clear expectations for all employees and serves as a roadmap for embedding accessibility into daily practices, as a shared responsibility.

To lead and coordinate these efforts, CNL has formed an Accessibility Steering Committee tasked with driving meaningful action across the seven dimensions of

efforts have yielded tangible results; the promotion rates within employment equity groups have shown significant improvement, with approximately 48% of managers identifying as members of one or more equity groups, up from 43% in 2022. This positive trend continued in 2024, with 46% of employees promoted to leadership positions coming from designated groups.

Accessibility Plan that identifies 25 specific barriers faced by people with disabilities and outlines 75 actionable steps to remove them. As of today, 72% of these 75 actions are either completed (16) or in progress (38), reflecting steady progress toward our goal.

At CNL, we believe that removing barriers is paramount to creating a workplace where every employee can thrive. We believe this is an important part of our value proposition for current and future employees. By fostering an inclusive environment, we make CNL more attractive to a diverse and talented workforce. As we look to the future, accessibility will remain central to how we design our spaces, shape our policies and support our people.

accessibility and ensuring that accessibility remains a core organizational priority.

Looking ahead, CNL is developing a comprehensive accessibility training program for all employees, scheduled to launch in 2025-26.

In 2026, we will publish a revised Accessibility Plan that incorporates feedback and lessons learned, initiating a new three-year cycle of implementation, evaluation and continuous improvement.

## Talent Attraction and Retention

CNL actively pursues top-tier scientific, technical, and professional talent, as well as a wide variety of skilled trades. Beyond maintaining a qualified workforce, we strive to cultivate a dynamic environment where the attraction, continuous development and retention of diverse, talented professionals are critical to our current and future success.

Our approach to workforce management is based on a workplace model that supports employees working on-site, remote, or hybrid as shown in Figure 17. By embracing workplace flexibility, CNL fosters a modern corporate culture that values adaptability, inclusion and talent development, and also expands its ability to attract talent from a broader geographical area, enhancing CNL's talent base and organizational diversity.

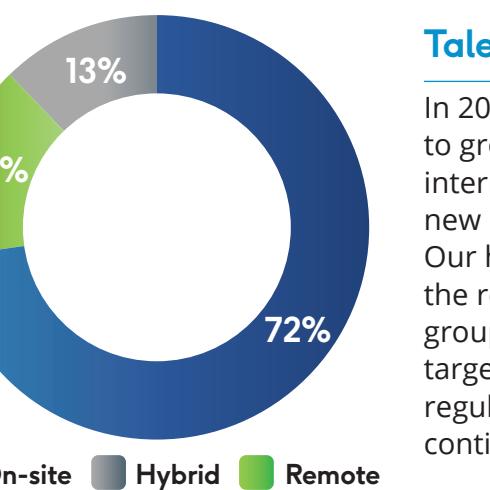


Figure 17. Workforce distribution at CNL



### Talent attraction

In 2024-25, CNL's workforce continued to grow by filling 453 roles through internal mobility and welcoming 492 new hires from outside the organization. Our hiring approach actively enhances the representation of designated groups across CNL, implemented via targeted recruitment programs and regular evaluation of our efforts to drive continuous improvement.

Our talent attraction strategy encompasses new workforce entrants, mid-career professionals and highly qualified persons, many with international experience and a diversity of experience from other companies and industries. We consistently expand our outreach through open houses, career fairs, conference booths, university engagements and local community engagements. Our university partnerships and student placement programs have proven particularly effective, with an 8% conversion rate of students to full-time CNL employees over the past four years.

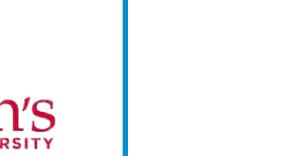
## Building Talent and Research Capacity through Academic Partnerships

The McMaster Undergraduate Nuclear Research Experience program, now in its third year, exemplifies how CNL's academic partnership strategy supports a robust talent pipeline for the Canadian nuclear industry while deepening research collaboration with leading universities. Each summer, the program funds 12 students from diverse STEM backgrounds, providing hands-on exposure to nuclear research projects that span topics including material science, bio research, environmental research, and nuclear physics. While working on their research projects, students attend technical lectures, tour CNL's sites and participate in leadership and team building activities.

The program's popularity is evidenced by a rise in applicants over the years, with nearly 150 applications submitted for the 12 spots in 2024-25, and over 20 co-developed research projects proposed for the latest cohort. Through testimonials, students have shared that participation in the program has changed their perception of nuclear careers, influenced their career paths, and increased their interest in pursuing advanced degrees related to nuclear. These testimonials highlight the program's potential as a strategic channel for attracting highly qualified talent to CNL through collaborative partnerships and internship opportunities. Beyond McMaster, CNL's growing network of nine partner universities – seven with active student engagement agreements – has enabled collaborative research development, innovation, and access to shared infrastructure, as seen in the establishment of a CNL lab within the University of Ottawa's research facility in 2024-25. These partnerships not only attract a new generation of STEM leaders to the field of nuclear but also expand CNL's research capabilities, catalyzing the organization and the sector at large with the talent, innovation and collaborative strength needed for the future.



McMaster students site visit



## Employee Development & Retention

### Performance and Coaching

Last year, our Human Performance Team developed an innovative observation card that serves as a management tool to assess performance influencing factors, including the unique characteristics of people, work, and organization. This tool supports coaches in observing and optimizing these factors to improve operational reliability.

To enhance individual employee development, we hosted Individual Development Plan and Career Discussion sessions, providing guidance for employees in creating effective career development plans. These sessions offered

practical tips on leveraging available resources for skill enhancement, empowering employees to take ownership of their continuous learning and career development. The discussions included detailed exploration of responsibilities and preparation required for future roles.

Additionally, we have enhanced CNL's Self-Initiated Mentoring Program by providing employees with improved tools and resources to actively engage in and benefit from mentoring relationships.

### Training and Development

Our Learning & Development strategy recognizes that our people's minds and capabilities are among our greatest assets in achieving CNL's Vision 2030 ambition. As part of our journey to become a premier learning organization, we appointed a new Chief Learning Officer in 2024 to modernize and redesign our approach to training and build our learning organization.

The future of learning at CNL aligns organizational priorities and regulatory requirements with technical training for job readiness, while building broader professional and career development capabilities. We actively engage employees at all levels to gain insights and perspectives that will shape our evolving learning culture.

### New Chief Learning Officer



In 2024, CNL welcomed Tara Lenaghan as its new Chief Learning Officer (CLO), marking a key step in the organization's commitment to modernizing its approach to learning and development. Tara brings extensive global experience in corporate learning, having previously served as CLO at Scotiabank and as Chief Learning and Talent Officer at The Emirates Group.

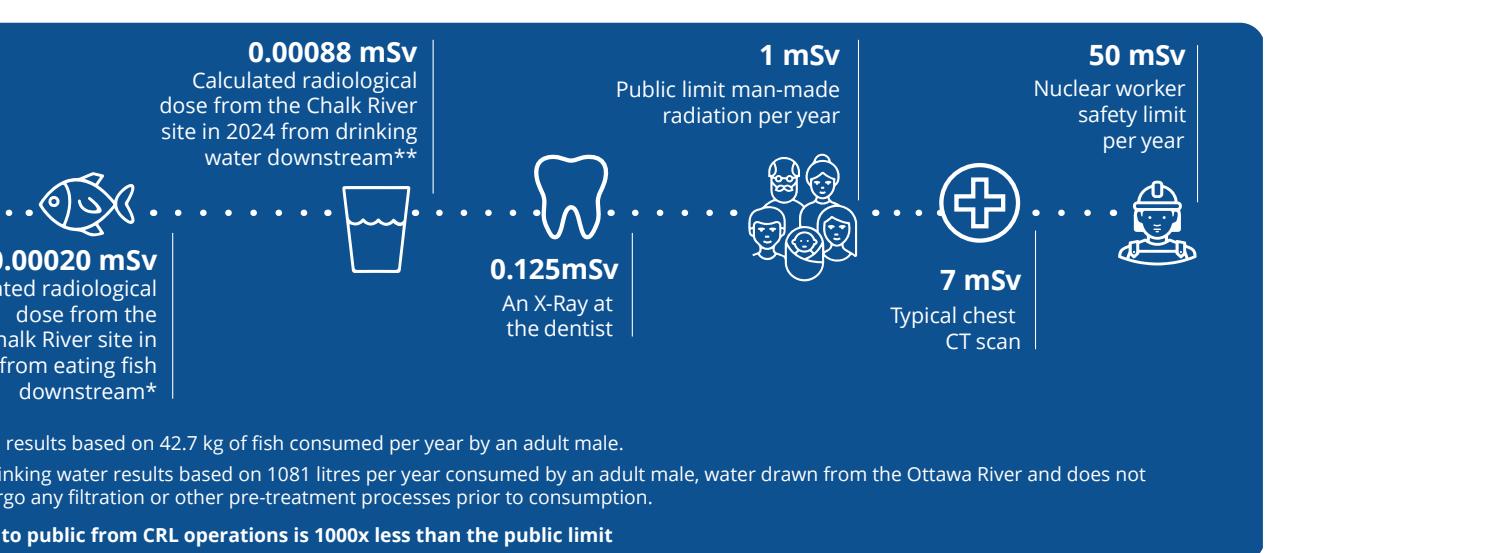
In her role at CNL, Tara is leading the development and implementation of a comprehensive Learning and Development Strategy that aligns with organizational priorities and regulatory requirements. Her mandate includes strengthening technical training, expanding professional and career development opportunities, and fostering a culture of continuous learning across the organization. Tara's appointment reflects CNL's strategic focus on workforce development as a cornerstone of long-term sustainability and operational excellence.

# Community Engagement and Public Safety

## Safeguarding Local Communities

Protecting public safety is paramount to CNL. While modern nuclear operations are designed to be safe and pose no radiation threat to surrounding communities, we recognize that public concern about radiation exposure remains.

To safeguard surrounding communities and provide peace of mind to residents, CNL has developed and implemented comprehensive radiation protection, emergency response and safety programs, and assessments, to prevent and mitigate abnormal or emergent events while ensuring effective response and recovery capabilities. In 2024-25, we conducted over 250 emergency response drills, covering scenarios such as transportation accidents involving radiological material, cyber security exercises, chemical spill response, and site-wide emergencies, as examples. Additionally, CNL implemented enhancements to our Radiation Protection Program in 2024 to strengthen compliance and performance. As a result of our radiation protection efforts, radiation dose to the public from CNL operations continues to be minimal and well within regulatory limits. An illustrative graphic of radiation doses is presented in Figure 18.



**Figure 18. Radiation dose rate comparisons**

Over the past year, we strengthened our international and domestic partnerships on nuclear emergency response through several strategic initiatives. Notably, CNL experts participated in Cobalt Magnet-25, a large-scale emergency response exercise designed to bring more than 70 U.S. and Canadian agencies together to ensure preparedness. Additionally, CNL collaborated with the RCMP to establish nuclear emergency protocols, including activation of nuclear material chain-of-custody processes, and contributed to a regulatory workshop focused on performance testing drills to align with Canadian nuclear partners.

At the regional level, key collaboration activities that supported our emergency preparedness strategy included:

- conducting a full-scale emergency exercise on the

Environmental Emergencies plan for the Port Granby Waste Management Facility;

- maintaining ongoing engagement with local emergency responders from Port Hope and Clarington;
- coordinating with Northumberland and Durham regions for radiological and industrial incident response;
- providing focused oversight of project activities, including environmental emergencies and off-site waste transportation incident;
- facilitating site familiarization tours and response

expectation discussions with key partners; for example, in Manitoba, CNL provides emergency operations centre training for Federal Agency partners to help establish a common operating framework across jurisdictions; and, contributing to regional emergency preparedness; for example, the Whiteshell Fire Department supports the Thompson Fire Department and Shared Health Services, while CRL participates in the Renfrew County Mutual Aid System, enabling coordinated fire response with neighbouring municipalities.

## Community Building and Local Investment

CNL aims to build meaningful relationships with the communities where it operates. Beyond keeping our communities safe and apprised of our activities, we also host

community events, provide educational opportunities for youth, and contribute to community well-being by supporting the economic development and local philanthropic causes.

### Community engagement

Throughout 2024-25, CNL hosted various community engagement events and celebrations which reflect CNL's ongoing efforts to inspire the next generation of scientists and engineers while strengthening ties with the communities surrounding our operations. Some highlights are:

- On National Tree Day, CNL invited local residents from Deep River, along with members of Girl Guides of Canada and Scouts Canada and a forestry expert to join CNL staff in planting trees donated by CNL at the Bill Rounding Park and Giant Tiger Park. Many participants took trees home to plant, contributing to a growing community forestry initiative aimed at reforesting areas of the town.
- During the month of April, which included Earth Week, CNL hosted site tours and presentations for local schools, Girl Guides and Scouts. These activities helped spark curiosity and environmental awareness among youth, reinforcing the importance of sustainability and science in everyday life.
- Summer 2024 saw the return of CNL's Science



**CNL Summer Camp**

Summer Camp at CRL. The camp welcomed children from Petawawa, Deep River, and the Algonquin and Pikwakanagan First Nation. Over three weeks, campers

explored scientific disciplines through hands-on activities like designing moon landers, programming robots, building model lungs, and experimenting with electricity. They also toured several of CNL's research facilities, gaining firsthand exposure to hydrogen energy, robotics, radiation safety, and more. Supported by Let's Talk Science, local municipalities and CNL staff, the camp offered a dynamic and inclusive learning experience that will return in 2025.

- The Whiteshell Laboratories Fire Department (WLFD) was honoured to support the City of Thompson with an urgent staffing challenge. On January 29, 2025, the Deputy Minister of Health contacted the WLFD on behalf of the City to inquire about the team's capacity to support provincial response to ensure a continued high level of emergency response service for Thompson and the wider region.
- In summer 2024, the Whiteshell Laboratories Parade Committee created a fun, science-based float for the 2024 parade season! The float appeared in parades in the Lac du Bonnet Canada Day, Pinawa Birthday, and Beausejour Rodeo parades over the course of the summer. Volunteers handed out candy and "experiments" for kids to make rock candy and sponge toffee.
- In June of 2024, CNL held its second annual Whiteshell Laboratories Regional Gathering of Leaders in Beausejour, Manitoba. The event brought together leaders from

### Supporting our local communities

We value the opportunity to invest in the communities surrounding our operations across Canada. Over the past fiscal year, over \$150,000 in donations was contributed by the Canadian National Energy Alliance (CNEA), on behalf of CNL, to invest in our communities and support local causes.

### CNL Sponsors Pembroke's Community Cleanup, Earth Week 2024

CNL proudly sponsored Pembroke's Community Cleanup event during Earth Week, helping to amplify local sustainability efforts. Thanks to CNL's contributions, the City of Pembroke was able to expand media outreach, engage schools, and provide eco-friendly giveaways and prizes to participants.

*"Through CNL's support, we were able to increase our media promotion of Earth Week events, provide gladiola bulbs and seed packages as "thanks" as well as supplies in the clean-up kits that were given to registrants, expand our efforts to include school participation in Earth Week, to provide valuable prizes to the clean-up contest winner, and to encourage the entire community to participate in Earth Week actions." – Beautification and Climate Action Committee City of Pembroke.*

Indigenous Nations, local governments, business associations, and industry to discuss the region's economic and environmental future.

- The Whiteshell Laboratories Fire Department (WLFD) was honoured to support the City of Thompson with an urgent staffing challenge. On January 29, 2025, the Deputy Minister of Health contacted the WLFD on behalf of the City to inquire about the team's capacity to support provincial response to ensure a continued high level of emergency response service for Thompson and the wider region.
- CNL's Education Outreach Program also made a meaningful impact in the fall, visiting the Petawawa Embers Girl Guide group to introduce them to STEM and nuclear science. Led by female mechanical engineers from CNL, the session featured interactive experiments and demonstrations, culminating in each participant earning a Nuclear Merit Badge.



Furthermore, over \$96,000 was raised by CNL employees across CRL, WL and Port Hope sites in 2024 as part of the annual United Way campaign. We are also proud and thankful to our suppliers who have generously supported our communities by making donations to various causes.

**CNL  
Community  
Clean-Up  
Event,  
Pembroke,  
Ontario**

### CNL's Supporting Sustainable Recreation in Deep River

As part of our commitment to community building in regions neighboring our operations, CNL proudly sponsored the installation of a new electric ice resurfacer at the Deep River Arena in October 2024. This cutting-edge machine, equipped with laser technology, improves ice quality while reducing operating costs and enhancing air quality for athletes and fans. This initiative reflects CNL's ongoing efforts to contribute to local events and causes through employee and partner engagement and aligns with our sustainability efforts.

**CNL Sponsored  
Ice Resurfacer**



### The Port Hope Area Initiative More than 20 years of Community Engagement

The PHAI aims to deliver meaningful environmental remediation through the clean-up of legacy nuclear and other waste in Port Hope, Ontario, and the surrounding areas. The work undertaken by the PHAI touches on many aspects of the community including the remediation of municipal sites as well as residential clean-up on private properties.

The PHAI plays a vital role in enhancing the prosperity and well-being of the Port Hope community. Through initiatives like the "PHAI in the Fall" community event, residents can connect directly with project leaders, ask questions, and see firsthand the progress toward the safe, long-term storage of low-level radioactive waste. Supported by prime contractors Bird, WSP, and ECC, the event also featured games, equipment displays, and treats from local businesses, highlighting the team's commitment to supporting the local economy and fostering a sense of community.



**PHAI in the Fall event**

Cornerstone Family Violence Prevention Centre, and ongoing fooddrives for the FareShare Food Bank.



**Celebrating CNL Donation to  
Port Hope Walk-in Clinic**

Most recently, CNL further demonstrated its commitment to local well-being with a donation to the Port Hope Walk-in Clinic, helping to enhance access to essential healthcare services in the area. These efforts reflect a holistic approach to community partnership—one that extends well beyond project boundaries to support the health, resilience, and vibrancy of Port Hope and its residents.

At the PHAI, employee excellence extends far beyond the workplace. Through an internal crowdsourcing campaign, PHAI staff have made many donations to benefit local communities. This initiative, along with numerous other contributions to local organizations, demonstrates the strong personal investment made by our employees in the communities where they live, work, and play. Local organizations that have recently benefitted from the crowd funding donations include Northumberland Humane Society, Cornerstone Family Violence Prevention Center, and Soper Creek Wildlife Rescue.

For more information, the PHAI website contains up-to-date information regarding the project, and provides details related to accessing Municipality of Port Hope council updates, community events and public disclosures.

# Responsible Management

We aim to continuously build trust and transparency with our stakeholders by managing our business effectively, with the highest ethical standards, including respect for human rights and sustainability.

## Business Model Excellence

Business model excellence is fundamental to CNL's mission of developing and delivering innovative nuclear solutions that benefit society. To ensure our scientific advances in clean energy and healthcare create real-world impact, we actively collaborate with academic, business and industry partners to commercialize our technologies, while maintaining strong sustainability practices that meet the expectations of partners and investors.

Central to our business model is the recognition that

### Innovation and Commercialization

Vision 2030 emphasizes the importance of formalizing strategic alliances to develop the next generation of highly qualified scientists, share knowledge and accelerate early-stage research to advance common interests. In support of this vision, we established the Innovation & Strategic Partnerships Office in 2024-25 to serve as a catalyst for identifying high-impact opportunities and streamlining collaboration processes with external partners.

The sections below provide a summary of recent achievements across key relevant areas, demonstrating the breadth and impact of our collaborative approach to innovation.

### Academic Partnerships

We strengthened our Academic Partnership Program (APP) in 2024-25 by welcoming the University of Regina and the University of Saskatchewan, expanding our network to nine formal academic partnerships, representing three Canadian provinces. A significant milestone of the APP in 2024-25 was

strong supplier relationships are critical to our success. We implement a fair and responsible sourcing strategy that balances fiscal responsibility with broader environmental, ethical, social, and Indigenous procurement objectives. Through these partnerships, we work collectively to support Canada's environmental and social commitments, including climate action, human rights advancement, support for equity-deserving groups, and economic reconciliation with Indigenous communities.



Figure 19. Academic partnership program effectiveness

## International Partnerships

Our commitment to collaboration extends beyond Canada's borders. In 2025, we expanded our international partnerships with the United Arab Emirates (UAE) and Jamaica, as elaborated in the following spotlight.

In 2025, we established two Memoranda of Understanding with the UAE and Jamaica, demonstrating our leadership in fostering global nuclear collaboration.

### UAE Partnership: Advancing Nuclear Excellence

Building on momentum from the Conference of Parties (COP28) Declaration to Triple Nuclear Energy Capacity by 2050, the partnership between CNL and the UAE's Federal Authority for Nuclear Regulation (FANR) leverages CNL's extensive research infrastructure and FANR's regulatory expertise to advance initiatives in small modular reactors, hydrogen sciences, medical isotopes, and waste management. The partnership is particularly timely as the UAE expands its nuclear program through the Barakah Nuclear Power Plant, the first such facility in the Arab region, creating opportunities for knowledge exchange and technological advancement.



### Caribbean Leadership: Collaboration with Jamaica

Jamaica's partnership with CNL and AECL marks a milestone in Caribbean nuclear development. As the first Caribbean Community (CARICOM) member state to establish an independent nuclear regulatory body, and home to the region's only nuclear reactor - a 20 kW SLOWPOKE research reactor designed by AECL - Jamaica is positioned as a regional leader in nuclear science. The collaboration focuses on supporting Jamaica's clean energy transition through joint research initiatives, knowledge sharing and capacity building in areas including small modular reactors, hydrogen sciences and environmental monitoring.



the establishment of undergraduate Engineering and Science scholarship awards with some of the partner universities. Through these agreements, CNL has committed a total of \$260,000 in scholarship funding for science and engineering undergraduate students over a 3-5-year period. By investing in scholarships, CNL is building a talent pipeline, supporting

academic excellence, and reinforcing its commitment to innovation and workforce development in the nuclear sector. During the past fiscal year, we also developed customized student programming with several partner universities and hosted our inaugural University Day, bringing university partners to CNL to engage in technical discussions and

potential future collaborations focused on, sharing access to nuclear science infrastructure across Canada.

The effectiveness of the APP is measured through a set of key indicators that track student engagement, program participation, co-op placements, full-time employment transitions, and university collaborations. These metrics provide insight into how well CNL is identifying and developing emerging talent. In 2024-25, outreach activities

expanded by 66%, resulting in a comparable increase in student engagement and more than double the number of co-op students hired from partner universities compared to last fiscal year<sup>39</sup>. With 40% of hires coming from partner universities, the APP demonstrates its strategic impact on recruitment and reinforces CNL's role as a leading employer in the nuclear sector. Figure 19 provides a snapshot of talent-related metrics from the APP.

## Health Partnerships

CNL has continued AECL's pioneering history in nuclear medicine, revolutionizing disease treatment through innovations in radiopharmaceuticals and low-dose radiation research. Building on this legacy, we are now leading groundbreaking initiatives in the production of Actinium-225, a rare medical isotope showing remarkable promise in cancer treatment, while advancing our understanding of low-dose radiation impacts on human health.

In 2025, we advanced our production capabilities for Actinium-225 through our collaboration with the Sylvia Fedoruk Canadian Centre for Nuclear Innovation and our joint venture with ITM, Actineer™ Inc. Key technical achievements included the successful development, testing, and production of special radium materials at the Sylvia Fedoruk Centre, followed by

the extraction of Actinium-225 from those materials after they were processed. These accomplishments represent a significant milestone in establishing commercial-scale Actinium-225 production in Canada. The impact of our work received international recognition at the Society of Nuclear Medicine and Molecular Imaging Annual Conference, where our research on Actinium-225's effectiveness in treating acute myeloid leukemia garnered attention during the plenary highlights for its innovative approach to personalized cancer treatment. This acknowledgment reinforces CNL's position as a leading research institution in cancer therapy and radiobiology, while demonstrating the real-world health impacts of our isotope production program.

## Advancing Fusion Energy Innovation

CNL is taking a leadership role in advancing fusion energy development in Canada, building on our extensive expertise in tritium and deuterium separation and handling.

Our approach focuses on developing fusion fuel cycle technologies that can support any fusion power system, positioning Canada at the forefront of this transformative clean energy technology.

In 2025, we strengthened our commitment to fusion energy through strategic partnerships and investments, including a \$20 million investment in General Fusion and the

establishment of Fusion Fuel Cycles Inc. (FFC), a joint venture with Kyoto Fusioneer Ltd.

The FFC initiative launched UNITY-2, a groundbreaking integrated fuel cycle test facility at CRL, which will pioneer the full deuterium-tritium fuel cycle from fuel discharge to purification and supply.

These partnerships demonstrate our dedication to accelerating fusion commercialization through public-private collaboration.

## Fusion Energy Development

Our leadership in fusion energy development was highlighted in June 2024 when CNL hosted Fusion Day 2024 in Ottawa. At the forum, we released our [Fusion Energy for Canada](#) report, outlining a collective vision and national strategy for fusion deployment. We have also expanded our support for fusion innovation through the Clean Nuclear Research Initiative (CNRI) and the Next Generation

Nuclear Energy Technologies (N2ET) program. These initiatives, combined with our international collaboration with Karlsruhe Institute of Technology in hydrogen, fusion, and materials science, and our initiative to open CNL sites for fusion projects, create a comprehensive ecosystem for advancing fusion energy in Canada's Clean Energy Siting Program.

## Clean Energy

CNL launched its Clean Energy Siting Program to support the demonstration of a broad range of emerging clean energy technologies, including advanced nuclear reactors, fusion energy, hydrogen production, battery storage and clean fuel technologies at CRL and WL sites.

This renewed and expanded program introduces a more collaborative and inclusive approach to siting, inviting technology developers and vendors to propose prototype projects that align with Canada's clean energy goals. While continuing to support small modular reactor (SMR) proponents already engaged in the process, the program recognizes that no single technology will solve the climate crisis - progress will require a diverse mix of clean energy solutions working in tandem.



## Supporting CANDU Fleet Excellence

The CANDU reactor, a hallmark of Canadian nuclear innovation, continues to play a vital role in providing clean energy to Canadians, powering six out of ten homes in Ontario. CNL plays an important role in supporting the longevity and operational excellence of CANDU reactors both domestically and internationally through the provision of

specialized technical services and innovation.

In 2025, we continued to demonstrate our unique expertise in CANDU reactor maintenance and safety through several key initiatives:

- Our industry-leading fuel channel inspection techniques.

developed by CNL staff and performed in collaboration with AtkinsRéalis, remain essential for reactor maintenance.

- Through our Pressure Tube Burst Test facility, we provide critical data and expertise to support utilities' safety cases for reactor operations until refurbishment.
- Our leadership in the industry was further highlighted

## Sustainable Procurement and Supply Chain Relationships

CNL made significant progress in advancing its sustainable procurement program during the fiscal year. Notably, we:

- Worked with an expert firm to conduct a comprehensive maturity assessment to benchmark our current sustainable procurement capabilities and identify areas for growth. The results demonstrated the strengths of CNL's supply chain program and highlighted areas for development.
- Began developing a new Sustainable Procurement Strategy to build on strengths and fill gaps identified in the maturity assessment, together with a plan to develop tools, communications and training plan for internal and external stakeholders.
- Hosted our annual Supplier Forum and Industry Day, welcoming CNL's top suppliers to in-person events in September 2024. The purpose of this event is to engage our suppliers, share best practices and enable our suppliers to showcase their goods and services thought a CNL-hosted trade show.
- Engaged suppliers and contractors through a sustainability survey to capture their perceptions of CNL's sustainability objectives. With over 100 responses, the survey results confirmed that CNL is recognized as a high-performing organization in sustainability practices and performance.
- Provided dedicated sustainability training to supply chain staff to deepen internal expertise as part of CNL's Supply Chain

<sup>40</sup> Local suppliers are defined as being within 200km of CNL sites

through the Materials, Chemistry, and Fitness for Service conference hosted at our Science Collaboration Centre, which brought together more than 80 industry experts to address future technical challenges and strengthen CNL's position at the forefront of CANDU technology advancement.



Training Plan. The sessions, held in December 2024, covered circular economy and total cost management modules.

- Expanded our commitment to inclusive sourcing by welcoming new suppliers into the Indigenous Business Network and introducing the Indigenous Vendor Portal, a tool designed to support CNL's Indigenous Relations Procurement Strategy. This platform enables open communication with Indigenous partners and invites their input in shaping both the IRPS and the growth of the network.

As one of the largest employers in many of the communities where we operate, we are committed to extending economic opportunities to local businesses through participation in the CNL supply chain either directly or indirectly through our larger supplier network. Each year, CNL hosts events to support small, local and Indigenous businesses to help them to successfully become suppliers to CNL. In 2024-25, CNL spent \$439 million on purchasing goods and services from local suppliers<sup>40</sup>. In addition, local businesses benefit from sub-contracts and local spending by larger suppliers who set up offices or temporary accommodations within the area while working on CNL projects. For more information on CNL's efforts towards Indigenous-owned businesses, please refer to the Economic Prosperity section.

## Effective Leadership

At CNL, we understand that strong leadership is fundamental to delivering on our sustainability commitments and maintaining our position as a world-class organization. Our leadership approach emphasizes the highest standards of values and ethics, supported by robust systems to manage sustainability risks and opportunities. We aim to foster a culture where sustainability principles are championed throughout our leadership structure to ensure these

considerations are effectively integrated into our decision-making processes and daily operations. CNL understands that sustainability implicates every leadership role within the organization, and we strive to model behaviours that underscore the importance of sustainability in all aspects of our operations and culture.

## Ethical Conduct

CNL's Ethics and Business Conduct Policy sets high standards for ethical compliance across all business operations, with a strong focus on managing conflicts of interest, protecting human rights, and preventing bribery, corruption, and anti-competitive practices. Our Code of Conduct, which flows from this Policy, provides detailed guidance and clear rules regarding business conduct at CNL. Adherence to both the Policy and Code of Conduct remains a fundamental condition of employment for all CNL personnel.

To ensure robust compliance, CNL maintains a specialized Ethics, Business Conduct & Investigations program staffed by certified fraud investigators who conduct thorough internal investigations into alleged violations of CNL's Code of Conduct, encompassing issues such as fraud, conflicts of interest, intellectual property theft, and integrity concerns. In 2024-25, CNL's Ethics & Business Conduct Office processed 224 cases, including complaints, reports and staff engagements. Operating under the GoCo model presents



unique challenges regarding potential conflicts of interest due to our ownership structure, which were proactively managed through 36 distinct cases during the same period. To promote ethical awareness and prevent misconduct, CNL delivers comprehensive annual ethics training and engages

staff through various initiatives, including our signature Ethics Month campaigns. Some of the 2024 topics included Bribery and Corruption, Third-Party Due Diligence, Intellectual Property, and Modern Slavery, building awareness among staff of the importance of maintaining high standards when it comes to ethical business conduct at CNL.

Beyond internal compliance, CNL applies a third-party due diligence program to evaluate potential partners against its standards for human rights, security, ethics, and integrity. Our integrated third-party due diligence program employs advanced screening protocols to assess multiple risk factors, including modern slavery, bribery and corruption, import/export compliance, cyber security, business continuity, privacy, financial stability and protection against economic espionage and foreign interference. This screening process enables systematic risk categorization and rating, facilitating targeted due diligence investigations and effective risk mitigation strategies. In 2024-25, over 1,685 potential partnerships were screened across all business lines as



knowledge and tools to integrate sustainability principles into their roles.

A sustainability learning plan was developed in 2024-25 to define a stepwise approach to sustainability education for

## Sustainability Capacity Building

CNL is advancing a structured and organization-wide approach to sustainability learning, designed to build awareness, foster a sustainability-minded culture, and equip employees with the

all CNL employees and for specialized roles in engineering, procurement and project management to ensure that employees are equipped to confidently apply sustainability guidance as part of their roles. Attention is also being paid to ensure sustainability awareness and training is provided at least annually to all levels of leadership and to the Board of Directors.

Implementation of the plan began in 2024-25, with some training already underway through third-party providers such as the Canada Green Building Council. Implementation priorities for 2025-26 include the introduction of a computer-based learning module detailing sustainability fundamentals for all staff, the integration of sustainability content into new employee onboarding, and ongoing professional development for engineering, procurement, and project management teams.

part of the third-party due diligence program, including 136 enhanced due diligence investigations, with a continued commitment to 100% compliance. Going forward, CNL will include ESG screening as part of its due diligence for potential partners and major contractors.

In line with Canada's *Modern Slavery Act*, CNL reinforces its zero-tolerance stance on modern slavery through its Ethics and Business Conduct Policy and related governance mechanisms. In 2024-25, CNL filed its second annual report detailing a comprehensive compliance program that includes risk-based third-party screening, supply chain mapping, and enhanced due diligence for high-risk sectors and geographies. These efforts are supported by multiple policies, including the Ethics and Business Conduct Policy, Supply Chain Policy, and Supplier Code of Conduct, and overseen by the Board of Directors. There were no known instances of modern slavery in CNL's operations or supply chain during the 2024-25 reporting period.

## Cyber Security and Privacy

CNL's Cyber Security team deliver cyber security services and solutions and ensures the confidentiality, availability and integrity of CNL's systems, information, data and intellectual property. Cyber security highlights in 2024-25 included:

- Completed implementation of CSA N290.7-14 Cyber security for nuclear power plants and small reactor facilities.
- Completed the migration of employee mailboxes to Microsoft365.



# Our Commitment Continues

As the fifth installment in our ongoing sustainability journey, this report reflects CNL's evolving approach to identifying and managing material sustainability topics, while highlighting our ongoing progress toward creating lasting value for our business, society and the environment. Each year, our reporting deepens our commitment to transparency and accountability and reinforces the role we play in shaping a more sustainable future.

At CNL, we recognize the responsibility and opportunity we bear to drive meaningful change. From advancing nuclear science to supporting global innovation; our work is grounded in purpose and powered by people. We extend our sincere thanks to the dedicated employees whose expertise and passion fuel our progress. We are equally grateful to those who engage with our work - your interest and collaboration are vital to our shared success. We also acknowledge, with respect and gratitude, the Indigenous Nations on whose traditional territories we operate, and the communities that support and surround us.

Looking ahead, we remain committed to building a future defined by resilience, innovation and environmental stewardship - one where science and sustainability go hand in hand to benefit generations to come.



Lamure Beach at Sunset Photo: Matt Sowlikowski

## Appendix A – Sustainability Data Table

**Disclaimer:** CNL does not claim to conform to any of the standards identified within Appendix A but has applied guidance from those standards identified and CNL reports in reference to areas that are material to our business. CNL remains committed to standardized disclosure and to remaining informed on frameworks that are crucial for disclosure from an environmental, social and governance perspective.

CNL 2024 SUSTAINABILITY DATA TABLE					
	Unit	SASB Codes <sup>41</sup>	2024 Data	2023 Data	2022 Data
<b>ENVIRONMENT</b>					
<b>EMISSIONS</b>					
Total GHG emissions (Scopes 1, 2 and 3)	tCO <sub>2</sub> e	IF-EU-110a.1	39,123	37,067 <sup>42</sup>	38,606 <sup>43</sup>
Total Direct GHG emissions (Scope 1)	tCO <sub>2</sub> e		26,501	26,355 <sup>44</sup>	28,595 <sup>45</sup>
Total Indirect GHG Emissions (Scope 2)	tCO <sub>2</sub> e		2,958	1,588	1,623
Total indirect GHG emissions (Scope 3) - upstream and downstream leased assets, employee commuting and business travel	tCO <sub>2</sub> e		9,664	9,124 <sup>46</sup>	8,388
Reduction of Scope 1 GHG emissions from 2005 baseline (CRL only)	Percentage		40	39	35
Reduction of Scope 2 GHG emissions from 2005 baseline (CRL only)	Percentage		89	91	91
Reduction of Scope 1 and 2 GHG emissions from 2005 baseline (CRL only)	Percentage		53	54	51
Embodied carbon in structural materials of major construction projects	tCO <sub>2</sub> e		Not reported	Not reported	Not reported
Floor space of CNL leases in net-zero carbon, climate resilient buildings	Sq. Feet (ft <sup>2</sup> )		0	0	0
<b>Air Emissions<sup>47</sup></b>					
Nitrogen Oxides (NOx, excluding N2O) emissions	Kilograms (kg)	IF-EU-120a.1	62,126	52,398	94,807
Sulfur Oxide (SOx) emissions	Metric tons (t)	IF-EU-120a.1	Not reportable	Not reportable	Not reportable
Particulate Matter (PM10)	kg	IF-EU-120a.1	22,109	17,664	30,686
Lead (Pb)	kg	IF-EU-120a.1	0.080	0.093	0.088
Mercury (Hg)	kg	IF-EU-120a.1	0.00005	Not reportable	Not reportable
<b>FLEET MANAGEMENT</b>					
Light-duty fleet ZEVs (CRL only)	Percentage		9	6.5	5
New light-duty fleet vehicle purchases/leases that are ZEVs (CRL only)	Percentage		4	11	not reported
<b>ENERGY</b>					
Non-renewable fuel consumed	Gigajoules (GJ)		402,916	423,973	485,000
Electricity consumed	GJ		254,127	256,662	267,000
Energy intensity (EUI) <sup>48</sup>	GJ/m <sup>2</sup>		16.49	20.69	16.48
Site Energy Use (CRL only)	GJ		464,807.7	496,654.9	551,312.1
CRL Gross Floor Area (CRL only)	m <sup>2</sup>		175,835.9	182,423	180,363.6
CRL Site EUI (CRL only)	GJ/m <sup>2</sup>		2.64	2.72	3.05
EUI reduction from 2015 baseline (CRL only)	Percentage		36	34 <sup>49</sup>	26 <sup>50</sup>

<sup>41</sup> SASB Standards, Infrastructure, Electric Utilities & Power Generators. Accessible at <https://navigator.sasb.ifrs.org/sector/IF/industry/IF-EU>

<sup>42</sup> This value has been updated from previously reported statistics. CNL re-calculated its emission for inactive landfill operations that affected Scope 1 emissions numbers reporting in 2023 and updated Scope 3 emissions numbers due to an overreporting error in the employee computing survey of 2023.

<sup>43</sup> This value has been updated from previously reported statistics. CNL re-calculated its emissions for inactive landfill operations that affected Scope 1 emission numbers reporting in 2022.

<sup>44</sup> This value has been updated from previously reported statistics. CNL re-calculated its emissions from inactive landfill operations as a result of expert advice received.

<sup>45</sup> Ibid.

<sup>46</sup> This value has been updated from previously reported statistics. This update was required due to an error in overreporting found in one 2023 CY survey submission of employee computing. This survey submission was removed from the CNL dataset, resulting in a decrease in overall Scope 3 emissions for 2023 CY.

<sup>47</sup> Air emissions reported for CNL only when emissions exceed reporting thresholds under National Pollutant Release Inventory (NPRI). Therefore, disclosed emissions in this report reflect a picture of CNL's emissions that are significant, but not the total air emissions across all sites.

<sup>48</sup> EUI = (Σ Energy (electricity) + Σ Energy (Heating Fuel)/Gross Floor Area.

<sup>49</sup> Minor data change for 2022 and 2023.

<sup>50</sup> Ibid.

## Appendix A – continued

### CNL 2024 SUSTAINABILITY DATA TABLE

	Unit	SASB Codes <sup>41</sup>	2024 Data	2023 Data	2022 Data
<b>ENVIRONMENT</b>					
<b>WATER AND EFFLUENTS</b>					
Total water withdrawn	Megalitres (ML)	IF-EU-140a.1	9,453	16,524	16,218
Total water consumed	ML	IF-EU-140a.1	210	23,597	78,38
Percentage of water consumed in each region with High or Extremely High Baseline Water Stress (if any, not specified in 2024)	Percentage	IF-EU-140a.1	0	0	0
Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	Number	IF-EU-140a.2	3	2	8
<b>WASTE</b>					
Total conventional waste generated	t		6,741	14,224	6,958
Total weight of conventional waste diverted from landfill	t		6,134	10,887	4,572
Total weight of conventional waste directed to landfill	t		607	3,37	2,386
Percentage of conventional waste diverted from landfill annually	Percentage		91	77	66
Total weight of hazardous, non-radioactive waste diverted from landfill	t		9	32	0
Total weight of hazardous non-radioactive waste directed to landfill	t		3,377	15,721	259
Total weight of plastic diverted from landfill (CRL only)	t		2	6	Not reported
Total weight of plastic directed to landfill (CRL only)	t		Not reported	Not reported	Not reported
Total weight of construction and demolition waste diverted from landfill (CRL only)	t		4,811	11,587	Not reported
Total weight of construction and demolition waste directed to landfill (CRL only)	t		149	177	Not reported
Percentage of construction and demolition waste diverted from landfills annually (CRL only)	Percentage		95	Not reported	Not reported
<b>BIODIVERSITY<sup>51</sup></b>					
Total number of critically endangered species from the International Union for Conservation of Nature (IUCN) Red List and the national conservation list	Number		1	1	1
Total number of endangered species from the IUCN Red List and the national conservation list	Number		6	6	6
Total number of vulnerable species from the IUCN Red List and the national conservation list	Number		4	5	3

<sup>51</sup> All counts of species present at a CNL site are based on if the species was observed in a targeted survey or incidentally at any CNL site or in the case of Douglas Point Waste Facility if the species is commonly observed at Bruce Power.

## Appendix A – continued

CNL 2024 SUSTAINABILITY DATA TABLE					
	Unit	SASB Codes <sup>44</sup>	2024 Data	2023 Data	2022 Data
<b>BIODIVERSITY (cont'd)</b>			CY	CY	CY
Total number of near threatened species from the IUCN Red List and the national conservation list	Number		5	5	5
Total number of data deficient species from the IUCN Red List and the national conservation list	Number		0	0	0
Total number of least concern species from the IUCN Red List and the national conservation list	Number		21	20	20
Total number of endangered species from the SARA registry	Number		8	6	6
Total number of threatened species from the SARA registry	Number		13	12	12
Total number of special concern species from the SARA registry	Number		11	12	13
Total number of not-at-risk species from the SARA registry	Number		1	1	1
Total number of annual species-at-risk (SAR) mortalities in the threatened (THR) or endangered (END) category	Number		5	2	7
<b>OUR PEOPLE</b>			CY	CY	CY
<b>DIVERSITY AND INCLUSION</b>			CY	CY	CY
Total permanent employees	Number		4,048	3,773	3,419
Percentage of total employees covered by a collective bargaining unit	Percentage		63	63	64
Permanent Employee Percentages					
Percentage of women	Percentage		31.4	31	31
Percentage of Indigenous employees	Percentage		6.6	6.8	6.4
Percentage of employees that are visible minorities	Percentage		10.1	9.5	8.8
Percentage of employees with disabilities	Percentage		2.2	2.1	2.1
Percentage increase of women in the workforce from 2022 baseline	Percentage		0.5	0	Base Year
Percentage increase of Indigenous people in the workforce from 2022 baseline	Percentage		0.2	0.4	Base Year
Percentage increase of visible minorities in the workforce from 2022 baseline	Percentage		1.3	0.7	Base Year
Percentage increase of persons with disabilities in the workforce from 2022 baseline	Percentage		0.1	0	Base Year
<b>TALENT ATTRACTION, DEVELOPMENT AND RETENTION</b>			Cumulative CY	Cumulative CY	Cumulative CY
Percentage of Request to Hires (RTH) Filled with Internal Candidates	Percentage		48	46	50
Percentage of Request to Hires (RTH) Filled with External Candidates	Percentage		52	54	50
Percentage of students who held placements at CNL in the last 4 calendar years, who became CNL employees	Percentage		8	10	5

## Appendix A – continued

CNL 2024 SUSTAINABILITY DATA TABLE					
	Unit	SASB Codes <sup>41</sup>	2024 Data	2023 Data	2022 Data
<b>HEALTH AND SAFETY</b>			FY	FY	FY
Fatality rate	Rate	IF-EU-320a.1	0	0	0
Near miss frequency rate (NMFR)	Rate	IF-EU-320a.1	0.52	1.54	1.58
Total Recordable Case Rate (TRC) also referred to as Total Recordable Incident Rate (TRIR)	Rate	IF-EU-320a.1	0.66	0.41	0.42
Rate of Days Away, Restricted or Transferred (DART) incidents <sup>52</sup>	Rate		0.50	0.25	0.19
Rate of Days Away (DA) <sup>53</sup>	Rate		0.14	0.14	0.06
<b>COMMUNITY ENGAGEMENT</b>			FY	FY	FY
Total cash donations	Canadian Dollars (CAD)		152,593	30,000	24,497
<b>RESPONSIBLE MANAGEMENT</b>					
<b>CNL BOARD COMPOSITION</b>			FY	FY	CY
Females	Number(%)		2 (25%)	2 (25%)	2 (25%)
Non-executives	Number(%)		8 (100%)	8 (100%)	3 (38%)
Independent	Number(%)		5 (63%)	5 (63%)	4 (50%)
Average Board tenure	Years		4.4	3.6	4.6
<b>ETHICS</b>			FY	FY	FY
Percentage of relevant ethics & business conduct areas addressed by policy or other governance document	Percentage		100	100	100
Percentage of organizational COIs proactively identified and managed	Percentage		100	100	100
Percentage of issues reported, or matters investigated resolved	Percentage		100	100	100
<b>SUPPLY CHAIN</b>			FY	FY	FY
Spend on local suppliers <sup>54</sup>	CAD		438.9 million	41.6 million	38.7 million
Percentage of spend on local suppliers <sup>55</sup>	Percentage		57	56	61
Spend on Indigenous suppliers	CAD		18.5 million	8.5 million	Not reported

<sup>52</sup> Days away, restricted or transferred (DART) rate is a mathematical calculation that defines the number of recordable incidents per 100 full time employees (200 000 work hours), which resulted in lost work days, restricted work days or job transfer due to workplace injuries or illnesses.

<sup>54</sup> Local suppliers are defined as being within 200km of CNL sites

<sup>55</sup> Ibid.

<sup>53</sup> Days Away is defined as the number of Cases with one or more days of work lost due to occupational injury or illness divided by the total number of hours worked over a certain period of time normalized for 100 full time employees (200,000 work hours).

## Appendix B – GRI Content Index

### Statement of Use

Canadian Nuclear Laboratories has reported the information cited in this GRI content index for the period April 1, 2024 to March 31, 2025 with reference to the GRI Standards."

### GRI 1 used

GRI 1: Foundation 2021

### Disclaimer

For some of our material disclosures, GRI Standards are in transition to new versions.

GRI STANDARD	DISCLOSURE	LOCATION (in Report)	PAGE
<b>GRI 2: General Disclosures 2021</b>	2-1 Organizational details	Who We Are	5
	2-2 Entities included in the organization's sustainability reporting	Introduction	4
	2-3 Reporting period, frequency and contact point	Introduction	4
	2-4 Restatements of information	Appendix A - Sustainability Data Table	80
	2-5 External assurance	CNL does not get external assurance for ESG disclosures at this time	
	2-6 Activities, value chain and other business relationships	Who We Are	5
	2-7 Employees	Appendix A: Data Table	82
	2-8 Workers who are not employees	Not disclosed at this time	
	2-9 Governance structure and composition	Who We Are; Sustainability Oversight and Governance	5; 25
	2-10 Nomination and selection of the highest governance body	Not disclosed at this time	
	2-11 Chair of the highest governance body	CNL website (www.cnl.ca)	4
	2-12 Role of the highest governance body in overseeing the management of impacts	Sustainability Oversight and Governance	25
	2-13 Delegation of responsibility for managing impacts	Sustainability Oversight and Governance	25
	2-14 Role of the highest governance body in sustainability reporting	Sustainability Oversight and Governance	25
	2-15 Conflicts of interest	Sustainability Oversight and Governance: Effective Leadership	25; 75
	2-16 Communication of critical concerns	Sustainability Oversight and Governance	25
	2-17 Collective knowledge of the highest governance body	Sustainability Oversight and Governance	25
	2-18 Evaluation of the performance of the highest governance body	Sustainability Oversight and Governance	26
	2-19 Remuneration policies	Sustainability Oversight and Governance	25
	2-20 Process to determine remuneration	Not disclosed at this time	
	2-21 Annual total compensation ratio	Not disclosed at this time	
	2-22 Statement on sustainable development strategy	Our Sustainability Strategy 2025-2028	12
	2-23 Policy commitments	Responsible Management	68
	2-24 Embedding policy commitments	Sustainability at CNL; Responsible Management	10; 68
	2-25 Processes to remediate negative impacts	Stakeholder Engagement and Impact	23
	2-26 Mechanisms for seeking advice and raising concerns	Not disclosed at this time	
	2-27 Compliance with laws and regulations	Who We Are	5
	2-28 Membership associations	Delivering Value Through Vision 2030; Stakeholder Engagement and Impact	23
	2-29 Approach to stakeholder engagement	Stakeholder Engagement and Impact	22
	2-30 Collective bargaining agreements	Appendix A: Data Table	82

## Appendix B – GRI Content Index

### Statement of Use

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GRI STANDARD	DISCLOSURE	LOCATION (in Report)	PAGE
<b>GRI 3: Material Topics 2021</b>	3-1 Process to determine material topics	Our Sustainability Strategy 2025-2028	12
	3-2 List of material topics	Our Sustainability Strategy 2025-2028	12
	3-3 Management of material topics	Our Sustainability Strategy 2025-2028	12
<b>GRI 101: Biodiversity 2024</b>	101-1 Policies to halt and reverse biodiversity loss	Ecosystem Services	42
	101-2 Management of biodiversity impacts	Ecosystem Services	42
	101-3 Access and benefit-sharing	Ecosystem Services	42
	101-4 Identification of biodiversity impacts	Ecosystem Services	42
	101-5 Locations with biodiversity impacts	Ecosystem Services	42
	101-6 Direct drivers of biodiversity loss	Not disclosed at this time	
	101-7 Changes to the state of biodiversity	Appendix A: Data Table	65
	101-8 Ecosystem services	Ecosystem Services	39
	102-1 Transition plan for climate change mitigation	Not disclosed at this time	
	102-2 Climate change adaptation plan	Not disclosed at this time	
<b>GRI 102: Climate Change 2025</b>	102-3 Just transition	Not disclosed at this time	
	102-4 GHG emissions reduction targets and progress	Climate Action and Resilience	
	102-5 Scope 1 GHG emissions	Climate Action and Resilience	
	102-6 Scope 2 GHG emissions	Climate Action and Resilience	
	102-7 Scope 3 GHG emissions	Climate Action and Resilience	
	102-8 GHG emissions intensity	Climate Action and Resilience	
	102-9 GHG removals in the value chain	Not disclosed at this time	
	102-10 Carbon credits	Not disclosed at this time	
	103-1 Energy policies and commitments	Climate Action and Resilience	
	103-2 Energy consumption and self-generation within the organization	Climate Action and Resilience	
<b>GRI 103: Energy 2025</b>	103-3 Upstream and downstream energy consumption	Not disclosed at this time	
	103-4 Energy intensity	Climate Action and Resilience (CER only)	
	103-5 Reduction in energy consumption	Climate Action and Resilience	
	201-1 Direct economic value generated and distributed	Not disclosed at this time	
	201-2 Financial implications and other risks and opportunities due to climate change	Climate Action and Resilience	27
<b>GRI 201: Economic Performance 2016</b>	201-3 Defined benefit plan obligations and other retirement plans	Not disclosed at this time	
	201-4 Financial assistance received from government	Not disclosed at this time	
	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Not a material topic for CNL	
	202-2 Proportion of senior management hired from the local community	Not a material topic for CNL	

## Appendix B – GRI Content Index

### Statement of Use

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GRI STANDARD	DISCLOSURE	LOCATION (in Report)	PAGE
<b>GRI 203: Indirect Economic Impacts 2016</b>	203-1 Infrastructure investments and services supported	Community Engagement and Public Safety	67
	203-2 Significant indirect economic impacts	Community Engagement and Public Safety	66
<b>GRI 204: Procurement Practices 2016</b>	204-1 Proportion of spending on local suppliers	Appendix A: Data Table	83
<b>GRI 205: Anti-corruption 2016</b>	205-1 Operations assessed for risks related to corruption	Effective Leadership	76
	205-2 Communication and training about anti-corruption policies and procedures	Effective Leadership	75
	205-3 Confirmed incidents of corruption and actions taken	Not disclosed at this time	
<b>GRI 206: Anti-competitive Behavior 2016</b>	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Not a material topic for CNL	
<b>GRI 207: Tax 2019</b>	207-1 Approach to tax	Not a material topic for CNL	
	207-2 Tax governance, control, and risk management	Not a material topic for CNL	
	207-3 Stakeholder engagement and management of concerns related to tax	Not a material topic for CNL	
	207-4 Country-by-country reporting	Not a material topic for CNL	
<b>GRI 301: Materials 2016</b>	301-1 Materials used by weight or volume	Not a material topic for CNL	
	301-2 Recycled input materials used	Not a material topic for CNL	
	301-3 Reclaimed products and their packaging materials	Not a material topic for CNL	
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organization	Appendix A: Data Table	80
	302-2 Energy consumption outside of the organization	Not disclosed at this time	
	302-3 Energy intensity	Climate Action and Resilience (CRL only)	31
	302-4 Reduction of energy consumption	Appendix A: Data Table	80
	302-5 Reductions in energy requirements of products and services	Not disclosed at this time	
<b>GRI 303: Water and Effluents 2018</b>	303-1 Interactions with water as a shared resource	Ecosystem Services	46
	303-2 Management of water discharge-related impacts	Ecosystem Services	46
	303-3 Water withdrawal	Appendix A: Data Table	81
	303-4 Water discharge	Appendix A: Data Table	81
	303-5 Water consumption	Appendix A: Data Table	81

## Appendix B – GRI Content Index

### Statement of Use

Canadian Nuclear Laboratories has reported the information cited in this GRI content index for the period April 1, 2024 to March 31, 2025 with reference to the GRI Standards."

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GRI STANDARD	DISCLOSURE	LOCATION (in Report)	PAGE
<b>GRI 304: Biodiversity 2016</b>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Ecosystem Services	42
	304-2 Significant impacts of activities, products and services on biodiversity	Ecosystem Services	42
	304-3 Habitats protected or restored	Ecosystem Services	43
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Appendix A: Data Table	81-82
<b>GRI 305: Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	Appendix A: Data Table	80
	305-2 Energy indirect (Scope 2) GHG emissions	Appendix A: Data Table	80
	305-3 Other indirect (Scope 3) GHG emissions	Appendix A: Data Table	80
	305-4 GHG emissions intensity	Not disclosed at this time	
	305-5 Reduction of GHG emissions	Appendix A: Data Table	80
	305-6 Emissions of ozone-depleting substances (ODS)	Not disclosed at this time	
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Appendix A: Data Table	80
<b>GRI 306: Effluents and Waste 2016</b>	306-3 Significant spills	Not a material topic for CNL	
<b>GRI 306: Waste 2020</b>	306-1 Waste generation and significant waste-related impacts	Environmental Remediation & Waste Management; Appendix A - Sustainability Data Table	3; 81
	306-2 Management of significant waste-related impacts	Environmental Remediation & Waste Management; Appendix A - Sustainability Data Table	3; 81
	306-3 Waste generated	Environmental Remediation & Waste Management; Appendix A - Sustainability Data Table	3; 81
	306-4 Waste diverted from disposal	Environmental Remediation & Waste Management; Appendix A - Sustainability Data Table	3; 81
	306-5 Waste directed to disposal	Environmental Remediation & Waste Management; Appendix A - Sustainability Data Table	3; 81

## Appendix B – GRI Content Index

### Statement of Use

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GRI STANDARD	DISCLOSURE	LOCATION (in Report)	PAGE
<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-1 New suppliers that were screened using environmental criteria	Climate Action and Resilience	32
	308-2 Negative environmental impacts in the supply chain and actions taken	Effective Leadership	76
<b>GRI 401: Employment 2016</b>	401-1 New employee hires and employee turnover	Appendix A: Data Table	82
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Health and Safety	55
	401-3 Parental leave	Not disclosed at this time	
<b>GRI 402: Labour/Management Relations 2016</b>	402-1 Minimum notice periods regarding operational changes	Not disclosed at this time	
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	Health and Safety	53
	403-2 Hazard identification, risk assessment, and incident investigation	Health and Safety	54
	403-3 Occupational health services	Health and Safety	53
	403-4 Worker participation, consultation, and communication on occupational health and safety	Health and Safety	51
	403-5 Worker training on occupational health and safety	Health and Safety	50
	403-6 Promotion of worker health	Health and Safety	50
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Health and Safety	52
	403-8 Workers covered by an occupational health and safety management system	Appendix A: Data Table	83
	403-9 Work-related injuries	Appendix A: Data Table	83
	403-10 Work-related ill health	Appendix A: Data Table	83

## Appendix B – GRI Content Index

### Statement of Use

Canadian Nuclear Laboratories has reported the information cited in this GRI content index for the period April 1, 2024 to March 31, 2025 with reference to the GRI Standards."

### GRI 1 used

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GRI STANDARD	DISCLOSURE	LOCATION (in Report)	PAGE
<b>GRI 404: Training and Education 2016</b>	404-1 Average hours of training per year per employee	Not disclosed at this time	
	404-2 Programs for upgrading employee skills and transition assistance programs	Talent Attraction and Retention	63
	404-3 Percentage of employees receiving regular performance and career development reviews	Not disclosed at this time	
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	405-1 Diversity of governance bodies and employees	Appendix A: Data Table	82-83
	405-2 Ratio of basic salary and remuneration of women to men	Not disclosed at this time	
<b>GRI 406: Non-discrimination 2016</b>	406-1 Incidents of discrimination and corrective actions taken	Not disclosed at this time	
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b>	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Not disclosed at this time	
<b>GRI 408: Child Labour 2016</b>	408-1 Operations and suppliers at significant risk for incidents of child labor	Stakeholder Engagement and Impact; Effective Leadership	23; 76
<b>GRI 409: Forced or Compulsory Labour 2016</b>	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Stakeholder Engagement and Impact; Effective Leadership	23; 76
<b>GRI 410: Security Practices 2016</b>	410-1 Security personnel trained in human rights policies or procedures	Not a material topic for CNL	
<b>GRI 411: Rights of Indigenous Peoples 2016</b>	411-1 Incidents of violations involving rights of Indigenous peoples	Not disclosed at this time	
<b>GRI 413: Local Communities 2016</b>	413-1 Operations with local community engagement, impact assessments, and development programs	Stakeholder Engagement and Impact	23
	413-2 Operations with significant actual and potential negative impacts on local communities	Stakeholder Engagement and Impact	23

## Appendix B – GRI Content Index

### Statement of Use

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GRI STANDARD	DISCLOSURE	LOCATION (in Report)	PAGE
<b>GRI 414: Supplier Social Assessment 2016</b>	414-1 New suppliers that were screened using social criteria	Community Engagement and Public Safety; Climate Action and Resilience; Appendix A - Sustainability Data Table	65; 32; 83
	414-2 Negative social impacts in the supply chain and actions taken	Effective Leadership	74
<b>GRI 415: Public Policy 2016</b>	415-1 Political contributions	Not a material topic for CNL	
<b>GRI 416: Customer Health and Safety 2016</b>	416-1 Assessment of the health and safety impacts of product and service categories	Community Engagement and Public Safety	64
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Community Engagement and Public Safety: Appendix A: Data Table	64;83
<b>GRI 417: Marketing and Labeling 2016</b>	417-1 Requirements for product and service information and labeling	Not a material topic for CNL	
	417-2 Incidents of non-compliance concerning product and service information and labeling	Not a material topic for CNL	
	417-3 Incidents of non-compliance concerning marketing communications	Not a material topic for CNL	
<b>GRI 418: Customer Privacy 2016</b>	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Not a material topic for CNL	

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## Appendix C – TCFD Content Index

TCFD Pillar	Recommendation	Recommended Disclosures	PAGE
<b>Governance</b>	Disclose the organization's governance around climate-related risks and opportunities.	Describe the Board's oversight of climate-related risks and opportunities.	25
		Describe management's role in assessing and managing climate-related risks and opportunities.	26
<b>Strategy</b>	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	27
		Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	27
		Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C, 1.5°C or lower scenario.	122,2
<b>Risk management</b>	Disclose how the organization identifies, assesses, and manages climate-related risks.	Describe the organization's processes for identifying and assessing climate-related risks.	1, 27,32
		Describe the organization's processes for managing climate-related risks.	27,3
		Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	27
<b>Metrics and targets</b>	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	16
		Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions and the related risks.	16
		Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	16



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