2020 ESG Report

Cameco

Energizing a clean-air world

Forward Looking Statements

Caution about forward-looking information

Our ESG Report includes statements and information about our expectations for the future. When we discuss our strategy, plans, future financial and operating performance, or other things that have not yet taken place, we are making statements considered to be forward-looking information or forward-looking statements under Canadian and United States (US) securities laws. We refer to them in this ESG Report as forward-looking information.

Forward-looking information typically includes words and phrases about the future, such as: anticipate, believe, estimate, expect, plan, will, intend, goal, target, forecast, project, strategy and outlook. It represents our current views and can change significantly. The forward-looking information in our ESG Report is based on a number of material assumptions, including those we have listed on pages 3 and 4 of our 2020 Annual MD&A, which may prove to be incorrect. Actual results and events may be significantly different from what we currently expect, due to the risks associated with our business. We list a number of these material risks on page 3 of our 2020 Annual MD&A. We recommend you also review our most recent annual information form, which includes a discussion of other material risks that could cause actual results to differ significantly from our current expectations. Forward-looking information is designed to help you understand management's current views of our near- and longer-term prospects, and it may not be appropriate for other purposes. We will not necessarily update this information unless we are required to by securities laws.

Examples of forward-looking information in this ESG Report include: our views regarding our ability address environmental, social and governance (ESG) risks and opportunities, including our expectation that nuclear power must be a central part of the solution to the world's shift to a low carbon climate resilient economy; our planned measures to address climate change impacts in our operations; our expectations respecting the impact of new technology to enable us to achieve our ESG goals; our expectations regarding continued and increased government support for energy conservation and emissions reduction; our expectations about uranium supply, consumption and demand; our goals regarding waste reduction and plans for reusing, recycling, or recovering material; our decommissioning estimates and reclamation plans; our commitment to local procurement and supply chain management; our workforce health and safety goals and assessments; and our commitment to diversity and workforce development plans.

Material risks that could lead to different results include the risks that: our strategies may change, be unsuccessful or have unanticipated consequences; changing views of governments regarding the pursuit of carbon reduction strategies; our estimates and forecasts prove to be inaccurate; we are affected by environmental, safety and regulatory risks, including workforce health and safety or increased regulatory burdens or delays; we are affected by terrorism, sabotage, blockades, civil unrest, social or political activism, outbreak of illness (such as a pandemic like COVID-19), accident or a deterioration in political support for, or demand for, nuclear energy; we are impacted by changes in the regulation or public perception of the safety of nuclear power plants; risks relating to the development and use of new technology or lack of appropriate technologies needed to advance our goals; negative publicity with respect to the handling of environmental or social matters; and disruptions in our operations or other development and operating risks.

Material assumptions that we have made include assumptions regarding: the nuclear industry, including its growth profile, market conditions and the demand for and supply of uranium; the continuing pursuit of carbon reduction strategies by governments, and the role of nuclear energy in the pursuit of those strategies; our ability to implement our strategies successfully; our ability, and our contractors' ability, to comply with current and future environmental, safety and other regulatory requirements and to obtain and maintain required regulatory approvals; our ability to deploy sufficient capital to fund the expenditures and implement the operational changes necessary to achieve our environmental and social goals; and the availability or development of technologies needed to achieve our ESG goals.

Cover photo: Quentin Caisse, senior technician, environment, from Cameco's Cigar Lake Operation, samples a nearby waterway.

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Message from our CEO

In a year marked by historic challenges, I am incredibly proud of our people and how they continued to focus on safety, protect the environment, and support our communities. They did all of this while delivering on our strategy, creating value for our stakeholders, and advancing our vision of **energizing a clean-air world**.

At Cameco, serving the interests of our stakeholders has always been at the heart of what we do. We do this not only because it's the right thing to do, but because we recognize it adds significant business value. In this report, I am pleased to share Cameco's environmental, social and governance (ESG) performance and progress in 2020.

From the very start of the COVID-19 pandemic, we said "people first, safety first", and our actions and results have demonstrated our dedication to those values. In 2020, despite the profound disruptions from the pandemic, we achieved our best ever safety performance as measured by Total Recordable Injury Rate and experienced the first calendar year in our history without a lost-time injury.

To protect the health and well-being of our workforce, their families, and our communities, especially the remote ones, we proactively suspended production at several of our operations (both uranium and fuel services) and introduced additional safety protocols. We also restricted business travel and asked employees at our corporate office to work remotely from home. While our operations were suspended, we kept our workforce strong and did not lay off workers. I think we made the right decision consistent with our values. During this time of significant economic uncertainty, we also supported communities by creating a $1 million COVID-19 Relief Fund that benefited 67 projects in Saskatchewan, and another $250,000 relief fund to support communities near our operations in Ontario. I am impressed with how our people went 'above and beyond' to give back through their contributions, donations and volunteer efforts to support others during this difficult time.

We are honoured to call northern Saskatchewan the home of our largest operations, and I am grateful to work alongside many talented Indigenous employees at Cameco. I started in the industry in 1979 as a student, and even then I was amazed by how closely the industry worked with local and Indigenous communities in northern Saskatchewan.

The discoveries of hundreds of unmarked graves this past year at former residential schools were harrowing reminders of Canada's complex relationship with Indigenous Peoples and are a sad and shameful stain on the history of our country. Cameco stands with the calls for justice, truth, and reconciliation in the months and years ahead. While we unfortunately cannot change the past, we can try to help with the healing and focus on creating a better future together. We are committed to continuing to work with our Indigenous partners to celebrate the rich culture and heritage of Indigenous Peoples and to continue to create opportunities for shared value creation.

Environmental stewardship is embedded in how we operate. We strive to be increasingly efficient in our use of resources and we work to minimize our impacts on land, water and air consistent with the ambition of the Paris Agreement to limit global temperature rise. Across our operations, we comply with strict regulations

Now, more than ever, I am convinced that the future is bright for our industry and for our company.

Tim Gitzel, President and CEO

Cameco stepped up to every challenge the past year presented. (Photo from Step Up for Mental Health community event, 2019.)

and have systems in place to monitor and mitigate our impacts. In addition to our own rigorous environmental monitoring, we collaborate with communities around our operations to give confidence to local communities that traditionally harvested foods remain safe to eat and water remains safe to drink. In 2020, the Mining Association of Canada awarded Cameco one of its prestigious Towards Sustainable Mining® Excellence Awards, in recognition of the Community Based Environmental Monitoring Program and its innovative focus on bridging traditional and scientific knowledge. This program engages local residents in water and food sampling, which provides opportunities for employment, training, and business development. We are encouraged by this recognition and motivated to continue supporting this important work.

In everything we do, we are guided by our value of integrity. I am pleased to share that after years of litigation with Canada Revenue Agency, the dispute is fully and finally resolved in our favour as the Supreme Court of Canada declined to hear the appeal. The Supreme Court of Canada decision means that we are validated in our approach and that Cameco's marketing structure and behaviour through this period were in full compliance with Canada's *Income Tax Act*. We remain committed to continuing to comply with applicable laws while we uphold our values.

Now, more than ever, I am convinced that the future is bright for our industry and for our company. There is higher demand for clean, baseload electricity as the world transitions to a low-carbon economy, and I believe that nuclear power must play a role in this transition. Growing demand for nuclear power means growing demand for uranium.

Cameco is committed to being part of the solution to address climate change. We support climate action that is consistent with the ambition of the Paris Agreement and the Canadian government's commitment to the agreement to limit global temperature rise to less than 2°C and we know that this means the world needs to reach net-zero emissions by 2050 or sooner. We are actively working to understand how we can decarbonize our business towards our own ambition of net-zero GHG emissions. As a pure-play supplier of the uranium fuel needed to produce carbon-free electricity, we are excited about our vision of energizing a clean-air world and continuing to support the transition to a low-carbon economy.

Cameco's journey is one of continual improvement. We published our first sustainability report in 2005 and, since then, have been evolving, learning, and adapting. In this report, we are taking the first steps toward providing information to our investors on climate-related risks and opportunities, and we plan to progress those disclosures in the next few years. We also want to see our workforce better reflect the diversity of the communities in which we work and to increase the participation of underrepresented groups in trades and technical positions. We know that so much is possible if we continually seek opportunities to learn from the past and keep making improvements for the future.

I want to thank our employees who showed incredible resilience, our communities who continued to support us, our investors who remained steadfast in their belief in the role of nuclear, and our leadership team for stepping up and working together seamlessly during a crisis.

Tim Gitzel

President and Chief Executive Officer

ESG Highlights

These are some of our noteworthy accomplishments and performance highlights.

TOPIC	2020 PERFORMANCE	2020 HIGHLIGHTS
WATER	**>22,000** samples related to water quality taken	The Community Based Environmental Monitoring Program, that complements our internal environmental program, was awarded the prestigious Towards Sustainable Mining® Community Engagement Excellence Award by the Mining Association of Canada.
GHG EMISSIONS AND THE TRANSITION TO A LOW-CARBON ECONOMY	**203,448** tonnes of CO_2e (equity share) **484,000** GWh of carbon-free electricity can be generated with the amount of uranium we sold	Consistent with our support for climate action and our net-zero ambitions, we started responding to the recommendations of the Task Force on Climate-related Financial Disclosures. Our energy conservation practices and one of our employees at our Port Hope conversion facility were recognized by the Independent Electricity System Operator in Ontario. Since 2013, the facility has saved approximately 2,000 MWh of electricity annually, enough to power 150 homes for a year.
TAILINGS MANAGEMENT	**All dams** were evaluated by completing safety reviews in accordance with Canadian Dam Association guidelines	We established an independent tailings review board to conduct annual reviews. The board completed its first review in 2020.
RELATIONSHIPS WITH INDIGENOUS PEOPLES AND LOCAL COMMUNITIES	**83%** public support in Saskatchewan	We were gold-certified under the Progressive Aboriginal Relations program of the Canadian Council for Aboriginal Business.
DIVERSITY AND INCLUSION	**51%** of our employees in Northern Saskatchewan are Residents of Saskatchewan's North **25%** of our management employees in Canada are women	From 2018 to 2020, 22 mentees and 37 mentors have participated in the Mine Your Potential Mentorship program that supports women in the mining industry.
OCCUPATIONAL SAFETY AND HEALTH	**1.7** Total Recordable Injury Rate for employees and contractors (OSHA) **0.59** mSv was the average radiation dose to workers in 2020 (while the annual dose limit for nuclear energy workers is 50 mSv)	We achieved our best ever safety performance as measured by Total Recordable Injury Rate (a record performance for the third year in a row). 2020 was the first calendar year in the history of the company without a lost time injury (employees and contractors) across the organization.
CORPORATE GOVERNANCE / BOARD DIVERSITY	**33%** of board members are women (3 out of 9) **11%** of board members are Indigenous (1 out of 9)	We ranked 31st out of 211 companies in the Globe and Mail's Board Games 2020 and were the only company to receive all seven points for gender and other forms of diversity.
ETHICS	**100%** of new employees completed the Code of Conduct and Ethics orientation course	We have a conduct and ethics committee that shares the responsibility for oversight of ethics matters and practices. The committee includes representatives from internal audit, human resources, legal, and our executive team.
RESPONSIBLE SUPPLY CHAIN	**81%** of all service spend at northern Saskatchewan mine sites is with northern local businesses	Our Supplier Code of Conduct and Ethics outlines our expectations and requires our suppliers to adhere to all human rights, labour, and employment laws in the countries where they operate.

About Cameco

Cameco is one of the largest global providers of the uranium fuel needed to energize a clean-air world.

Our tier-one mining operations have the licensed capacity to produce more than 24 million kilograms (53 million pounds) (100% basis) of uranium concentrates annually, backed by 206 million kilograms (455 million pounds) of proven and probable mineral reserves (our share). We are also a leading supplier of uranium refining, conversion and fuel manufacturing services.

Our competitive position is based on our controlling ownership of the world's largest high-grade uranium reserves and low-cost mining operations. Utilities around the world rely on our nuclear fuel products to generate safe, reliable, carbon-free nuclear power. Together, we are meeting the ever-increasing demand for clean baseload electricity while delivering safe, reliable solutions to today's clean-air crisis. Our shares trade on the Toronto and on the New York stock exchanges (TSX: CCO; NYSE: CCJ). Our head office is located in Saskatoon, Saskatchewan.

Vision

Energizing a clean-air world.

Values

At Cameco, we are guided by four key values that are at the core of everything we do:

- Safety and Environment
- People
- Integrity
- Excellence

As the foundation of our culture, these values, and their aligning value statements, define who we are as a company and provide a framework for how we behave as we work to achieve our purpose. We strive to create an environment where our employees live our values every day.

Cameco's corporate headquarters in Saskatoon, Saskatchewan

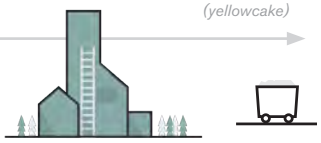
Our Business

Our uranium assets and our operations span the nuclear fuel cycle from exploration to fuel manufacturing. Utilities around the world rely on our nuclear fuel products to generate power in reliable and carbon-free nuclear reactors.

Our Operations Within the Nuclear Fuel Cycle

Cameco participates in most stages of the nuclear fuel cycle

1 Uranium Mining and Milling



Uranium ore concentrate (yellowcake)

Uranium ore is mined. At the mill, uranium ore is milled into yellowcake.

6 MINES

Underground mines

We mine high-grade ores located deep in the ground using a variety of methods such as jet boring, blasthole stoping and raisebore mining.

- Cigar Lake (in operation)
- McArthur River/Key Lake*
- Rabbit Lake*

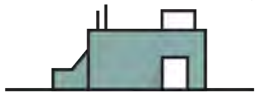
In situ recovery mines

We mine uranium deposits from the surface by pumping a mining solution underground to dissolve the uranium and collect it using a system of wells.

- Inkai (non-operated)
- Smith Ranch-Highland*
- Crow Butte*

2 Refining

Blind River Refinery



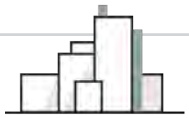
UO_3

Yellowcake is turned into high purity UO_3.

18 MILLION KG OF URANIUM CAPACITY AS UO_3 PER YEAR

3 Uranium Conversion

Port Hope Conversion Facility



UO_2

For heavy water reactors UO_3 is converted into UO_2 powder.

~24% OF THE WORLD'S UF_6 CONVERSION CAPACITY

4 Enrichment

UF_6

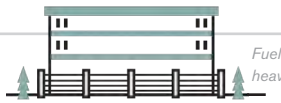
UO_2

UF_6 is enriched to increase the amount of U-235.

While Cameco does not commercially enrich uranium, it has a 49% interest in GLE, the exclusive licensee of a proprietary enrichment technology that is currently under development.

5 Fuel Manufacturing

Cameco Fuel Manufacturing facilities (Port Hope and Cobourg)



Fuel bundles for heavy water reactors

Fuel bundles and reactor components are manufactured.

UO_2 powder is compressed into pellets which are packed into metal tubes called fuel rods. Fuel bundles are assembled using several fuel rods.

1,500,000 KG OF UO_2 AS FINISHED FUEL BUNDLES

5 Fuel Manufacturing

Fuel bundles for light water reactors

Enriched UO_2 powder is compressed into pellets, packed into fuel rods and assembled into fuel bundles.

6 Power Generation

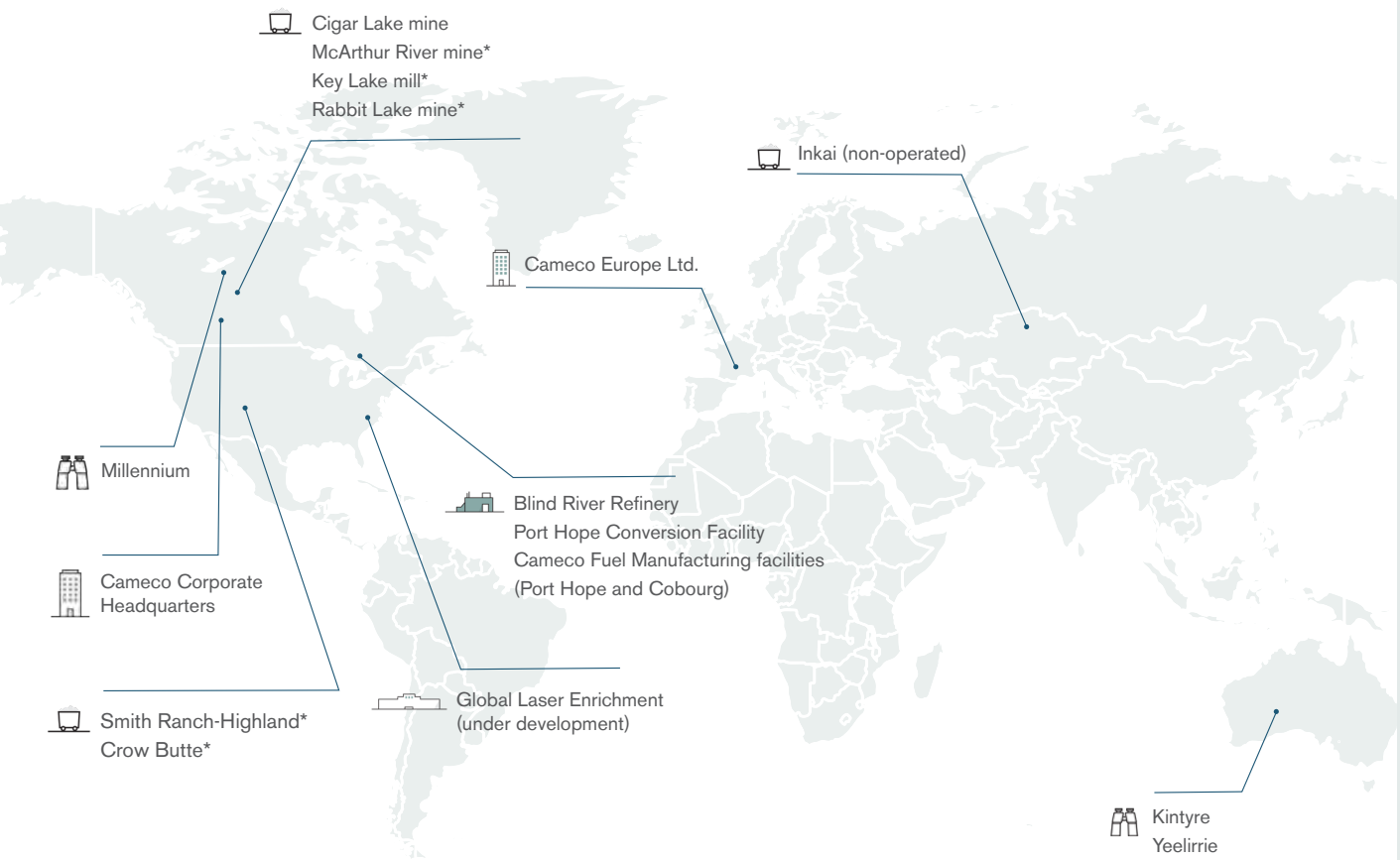
Fuel bundles are used to make zero emissions electricity.

Used fuel can be sent to be reprocessed.

- Operated by Cameco
- Not owned by Cameco
- * Care and maintenance

Our Locations

Our uranium assets are located on three continents - North America, Asia and Australia - and include a large portfolio of low-cost mining operations, extensive mineral reserves and resources, as well as exploration and development projects.



Land acknowledgements

We respectfully acknowledge the lands where Cameco operates. This includes:

Saskatchewan, Canada

Saskatoon corporate office is in Treaty 6 territory, the traditional territory of Cree Peoples, and the homeland of the Métis.

Cigar Lake, Key Lake, Rabbit Lake, and McArthur River operations are in Treaty 10 territory, the traditional territory of the Dene and Cree Peoples, and the homeland of the Métis.

Ontario, Canada

Cobourg and Port Hope fuel services facilities are in the traditional territory of the Michi Saagiig and Chippewa Nations, collectively known as the Williams Treaties First Nations, which include: Curve Lake, Hiawatha, Alderville, Scugog Island, Rama, Beausoleil, and Georgina Island First Nations.

Blind River operation is in the traditional lands of the Mississsaugas and we recognize the Robinson-Huron Treaty of 1850.

South Dakota, US

Crow Butte operation is located in Nebraska about 48 kilometres from the southern boundary of the Oglala Sioux Tribe Pine Ridge reservation in South Dakota, the closest Indigenous community to the mine.

Wyoming, US

Smith Ranch-Highland operation is located about 242 kilometres from the Wind River reservation home to Eastern Shoshone and Northern Arapaho Tribes, the closest Indigenous community to the mine.

Western Australia

Kintyre exploration project is in the East Pilbara region in a registered native title claim of the Martu People.

Yeelirrie exploration project is in the native title claim of the Tjiwarl People.

We offer this acknowledgement to reaffirm our commitment and responsibility in building meaningful relationships and to improving our own understanding of local Indigenous peoples and their cultures.

Cameco's Role in the Energy Transition

Demand for electricity is increasing globally, driven by rapid technology adoption, transportation electrification in advanced economies and rising standards of living in emerging economies. By 2040, the International Energy Agency (IEA) projects that global electricity demand will increase by about 49% from 2019[1] levels. At the same time, concerns about air pollution and climate change are driving demand for zero emissions electricity sources. At Cameco, we believe nuclear power must be an essential part of the energy transition and we are uniquely positioned to support zero emissions and reliable nuclear power growth.

Uranium is an energy-dense fuel for clean-air electricity: Three key attributes make uranium unparalleled in clean power generation. First, nuclear reactors emit no greenhouse gases or other emissions that can impact air quality during operations. Second, on a life cycle basis, nuclear power emits just a few grams of CO_2 equivalent per kWh of electricity produced. The life cycle GHG emissions of nuclear power are similar to renewable forms of energy such as solar and wind[2]. Third, uranium is so energy-dense that the used uranium required to generate enough electricity for a person's lifetime would fit in a pop can[3]. The uranium Cameco sold in 2020 has the potential to fuel the generation of about 484,000 GWh. Generating that amount of electricity from zero-emissions nuclear power instead of coal-fired power is equivalent to taking more than 137 million cars off the road for one year[4] (449 million tonnes of CO_2e[5]).

The risks of nuclear losing ground: In 2020, nuclear power provided 10% of the global electricity supply, nearly a third of the world's low-carbon electricity generation[6]. To combat climate change, the world needs more zero emissions electricity, including nuclear power. The IEA has warned that a decrease in nuclear power as part of the energy mix by 2040 would have two implications: the energy transition would require $1.6 trillion of additional investment over the next two decades, and a major clean energy shortfall would emerge by 2040[7]. We will continue to support the development of nuclear energy and to uphold strong nuclear safeguards to support the peaceful use of nuclear materials for the development of zero emissions electricity.

Nuclear power as part of the solution: At Cameco, we believe a combination of strategies will be needed to meet society's decarbonization goals, and that nuclear power is and should be a key contributor to the solution. Nuclear plants help keep power grids stable. As we increase variable renewable generation from wind and solar, we will require stable zero emissions baseload electricity that can help backup daily and seasonal variations. Additionally, uranium can be shipped across the world and has been safely transported for decades. Not all forms of energy can be moved easily, and some are dependent on nature (solar, wind and hydro). Uranium, however, can be exported from supplying countries to countries with lower access to energy resources. Finally, the stringent monitoring and regulation at the national and international levels make nuclear power generation one of the safest energy technologies. Nuclear power has the lowest rate of fatalities and injuries per unit of generated electricity[8] and it is the only energy technology with international oversight at the United Nations' level: The International Atomic Energy Agency. At a global scale, there have been three major accidents in more than 18,500 cumulative reactor-years of commercial nuclear power operation across 36 countries[9].

Cameco is a safe operator and is low carbon: Cameco has been in the business of providing uranium fuel for over 30 years and is therefore poised to be an important part of the energy transition. Backed by years of safe performance, we continue to operate under stringent regulatory standards (read more on page 10). At Cameco, we believe our tier-one reserves and fuel services business can safely provide the uranium fuel the world needs as we continue to decarbonize our future. We are a constructive partner in the battle against climate change. We enable vast emissions reductions that can be achieved through nuclear power, and are committed to transforming our own low GHG emissions footprint in our ambition to reach net-zero emissions.

[1] IEA World Energy Outlook 2020. Stated Policies Scenario.

[2] https://www.world-nuclear.org/information-library/energy-and-the-environment/carbon-dioxide-emissions-from-electricity.aspx

[3] https://cna.ca/2019/06/25/your-lifetime-used-fuel-would-fit-in-a-soda-can-want-proof/

[4] Using Natural Resources Canada calculator https://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/calculator/ghg-calculator.cfm#results

[5] Calculated using technology-specific GHG intensity from IPCC, https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_annex-iii.pdf

[6] https://www.iaea.org/newscenter/news/nuclear-power-proves-its-vital-role-as-an-adaptable-reliable-supplier-of-electricity-during-covid-19

[7] https://www.iea.org/reports/nuclear-power-in-a-clean-energy-system

[8] https://ourworldindata.org/grapher/death-rates-from-energy-production-per-twh

[9] https://www.world-nuclear.org/information-library/safety-and-security/safety-of-plants/safety-of-nuclear-power-reactors.aspx

Our Approach to ESG

Governance for ESG Matters

Our board of directors' primary role is to provide strategic direction and risk oversight in order to help the company achieve its vision to energize a clean-air world. Within Cameco, our board of directors holds the highest level of oversight for our business strategy and strategic risks, including environmental, social and governance (ESG) matters and climate-related risks.

The board also oversees our strategic planning process and annual corporate objectives; and approves incentive compensation for our senior executives, all of which are based on performance against our four measures of success, including ESG performance.

We integrate key ESG factors (safety performance, a clean environment, and supportive communities) into our executive and employee compensation strategy as success in these areas is critical to Cameco's long-term success and sustainability.

ESG governance, risk oversight and disclosure are regular topics of discussion at board and committee meetings. In 2020, the board met an additional 10 times (either as formal meetings or update calls) to provide strategic oversight on various matters as the company navigated the challenges of the COVID-19 pandemic (including ESG matters that were heightened as a result of the COVID-19 pandemic).

BOARD / BOARD COMMITTEE	ESG TOPICS	
Board of directors	Business strategy	
	Opportunity and impact of energy transition on business strategy	
	COVID-19 pandemic	
Nominating, corporate governance and risk	Oversight of the Risk Management Program	
	Board diversity	
Safety, health and environment	Regulatory compliance	Changes to climate patterns
	Occupational health and safety	Energy management and GHG emissions
	Radiation protection	Air emissions
	Public safety	GHG regulation and pricing
	Water	Biodiversity and land
	Tailings and mine waste	Product safety
	Non-mineral waste	Transportation safety
	Indigenous relationships	Nuclear safeguards
Human resources and compensation	Inclusion and diversity	Unions
	Employee engagement	Cybersecurity
	Indigenous workforce	
Audit and finance	Tax strategy	Anti-corruption
	Anti-competition	Business ethics and integrity
	Supply chain diversity spend	

Governance for Environmental and Social Matters

Board of Directors

Oversight

Executive Team

Management

ESG Working Group

Includes representatives from:

- Executive
- Investor Relations
- Governance
- Legal
- Safety, health, environment and quality (SHEQ)
- Risk
- Sustainability
- Communications
- Marketing

Subject Matter Experts

- Operations
- Safety, health, environment and quality (SHEQ)
- Human resources
- Investor relations, tax and treasury
- Indigenous, community and stakeholder relations
- Risk management
- Legal
- Governance
- Supply chain management
- Customer relations
- Corporate strategy

Track ESG performance, initiatives, and programs

Report ESG performance and progress

Read more about our ESG working group on page 11.

Management Approach for ESG Matters

At Cameco, ESG considerations are integrated within our strategic direction and our business planning processes and reporting. We have a strong and well-established management system and practices, and we strive to continuously improve their rigour.

Cameco's management system

Our management system describes the framework of policies, processes, and procedures we use to help us fulfill all the tasks required to achieve our objectives and strategy. The Cameco management system (CMS) sets out our vision, values, and measures of success. It identifies our policies and also speaks to our strategic planning process, leadership alignment and accountability, compliance and assessment, people and culture, process identification and work management, risk management, communications and stakeholder support, knowledge and information management, change management, problem identification and resolution, and continual improvement.

Cameco's management system

Energizing a clean-air world.

Our decisions and actions are guided by our values of: Safety and Environment, People, Integrity, and Excellence.

Our formal Governance Guidelines ensure that our practices comply with all the governance rules and legislation in Canada and those of the United States that are applicable to foreign private issuers.

10 policies that provide high-level direction and guide our actions on matters significant to the company.

Programs and standards are formalized and documented guidelines that describe required actions on specific topics. Some examples include Radiation Protection, Global Anti-Corruption, Respectful Workplace, and Community Investment. Many of our programs follow the Plan-Do-Check-Act (PDCA) continuous improvement model.

Formalized procedures to conduct specific activities.

Cameco's management system, continued

Policies - The following 10 global policies provide high-level direction to Cameco and guide our actions on significant matters: Code of Conduct and Ethics; Corporate Disclosure; Delegation of Financial Authority; Electronic Information and Information Technology Security; Mineral Reserve and Resource; Our People; Procurement of Goods and Services; Risk Management; Safety, Health, Environment and Quality; and Sustainability. Many of these policies include ESG-related commitments and principles.

SHEQ Management System - Within our Cameco Management System, we have an integrated Safety, Health, Environment and Quality (SHEQ) Management System. Alignment with, and certification to, the ISO standards is important to us as it is the world's most widely recognized set of standards. Due to the multi-disciplinary nature of this system, we maintain ISO 14001 certification of the environmental components of the management system at the corporate level, and align the safety and health components of the management system with ISO 45001.

Optimizing access to policies and standards

We have been using an electronic management document system since 2015 to digitize and optimize access to all of our policies, programs, standards and procedures. This system has enhanced our ability to standardize and access documents across our operations.

Stringent regulatory environment

In addition to following the same provincial or state and federal compliance requirements for environmental and social performance as other mining companies, the facilities we operate are federally regulated through their entire life cycle by national regulators including the Canadian Nuclear Safety Commission (CNSC) or the United States Nuclear Regulatory Commission (NRC) or its designate. Some of the enhanced oversight activities that apply to our facilities include:

Inspections - Through this life cycle oversight, our operations are regularly inspected by the applicable regulatory authorities. This stringent regulatory oversight verifies that we have systems in place to protect people and the environment. Beyond national oversight, our fuel services facilities are also subject to frequent inspections by the International Atomic Energy Agency (IAEA).

Relicensing - We are subject to a comprehensive re-licensing process by the federal regulator on a regular basis. The relicensing proceedings are multi-year processes that culminate with public proceedings that feature interventions and participant funding.

Transparency - These life cycle regulators regularly provide independent reports (that include the environmental and social performance) of our operated facilities to the public. For example, the CNSC publishes annual regulatory oversight reports.

Audits

Internal Audits - Cameco has an internal audit function to verify the effectiveness of our management systems and practices. Each year, our internal audit group develops an audit plan to review the processes and controls in place (to mitigate existing and emerging risks to the organization), and to identify opportunities for improvement. The scope of internal auditing encompasses the examination and evaluation of the adequacy and effectiveness of the organization's governance, risk management and internal controls (including legal and regulatory compliance, and ESG matters) with a primary focus on key risk mitigating processes and controls. Audit projects are selected and scoped in consultation with key stakeholders and senior management, and the internal audit plan is approved by the board's audit and finance committee. As the plan is designed to be agile, it is reviewed quarterly and may be adapted to meet the evolving needs of the organization.

SHEQ Audits - Our SHEQ team conducts internal audit of the SHEQ programs on a three-year cycle. The total audit scope is split in half and executed on a rotating basis. This means that all our sites undergo at least two audits to cover all aspects of the SHEQ programs within every three-year period. The audit follows the ISO 19001 process and encompasses our safety, emergency response, training, transportation, environmental, quality and radiation protection practices. Internal audit routinely audits the SHEQ audit program to verify that the SHEQ audit process is functioning as expected and to validate management system controls. The most recent assessment of the SHEQ Audit Program by Internal audit was completed in Q1 2021 and no concerns about risk coverage were identified.

Our Approach to ESG Reporting

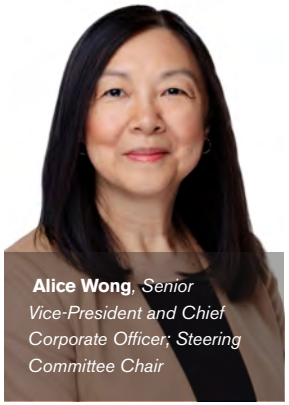
At Cameco, we are committed to transparency and hold ourselves accountable for quality reporting on ESG matters to our shareholders, customers, employees, regulators, local Indigenous Peoples, communities around our operations, and other stakeholders. For over 15 years we have disclosed our ESG performance through an extensive range of environment, safety, social, economic and governance indicators. In 2012, we began publicly disclosing our ESG performance in alignment with Global Reporting Initiative (GRI) Standards.

In an effort to continually evolve the robustness of our sustainability commitments and communications, we have aligned our ESG performance indicators with the ones recommended by the Sustainability Accounting Standards Board (SASB) for our 2020 report. We have also included a section in this report that addresses our response to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

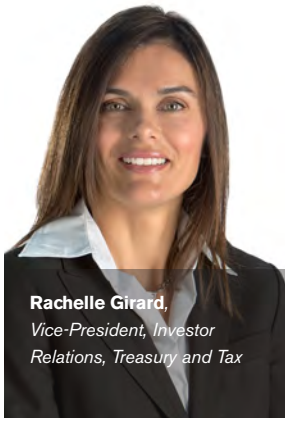
ESG working group

Given the evolving ESG landscape, in 2019 we established a multi-disciplinary working group, chaired by our Senior Vice-President and Chief Corporate Officer. The group includes representatives from investor relations, governance, legal, risk, sustainability, communications, marketing, and our SHEQ (safety, health, environment, and quality) group. The role of the working group is to review our ESG governance and reporting, as well as our current approach to sustainability, against evolving trends. There is a small subset of the working group that has acted as the steering committee to lead the process.

ESG Steering Committee members



Alice Wong, *Senior Vice-President and Chief Corporate Officer; Steering Committee Chair*



Rachelle Girard, *Vice-President, Investor Relations, Treasury and Tax*

Jenny Hoffman, *Director, Legal Services, Governance and Assistant Corporate Secretary*

Jonathan Huntington, *Vice-President, Sustainability and Stakeholder Relations*

Kirsten Ketilson, *Manager, Environmental Affairs, Safety, Health, Environment & Quality and Regulatory Relations*

Liam Mooney, *Vice-President, Safety, Health, Environment & Quality and Regulatory Relations*

For over 15 years we have disclosed our ESG performance through an extensive range of environment, safety, social, economic, and governance indicators.

Determining relevant ESG topics to report

In late 2020 and into early 2021, we began our ESG materiality assessment process by reviewing stakeholder requests, examining our previous sustainability materiality assessments and ESG topics of our peer companies, cross checking with our identified company risks, and excluding non-relevant topics based on location, sector, or specific business model. The result was a comprehensive list of ESG-related topics relevant to Cameco.

In March 2021, subject matter experts across the company participated in an ESG materiality workshop to determine which ESG-related topics were of importance and priority to our stakeholders and to Cameco's business and strategy. The results of the workshop were reviewed and validated by our executive team in April 2021 and by our board of directors in May 2021.

The content of this report takes into consideration this ESG materiality assessment, as well as relevant topics from SASB and TCFD recommendations.

Materiality for the purposes of this report is different than how we address materiality for disclosure requirements under securities laws.

Priority ESG Topics

Environment

- Air quality
- Decommissioning/closure
- GHG emissions and energy use
- Tailings management
- Transition to a low-carbon economy
- Waste
- Water

Social

- Inclusion and diversity
- Occupational safety and health
- Product and transportation safety
- Public safety
- Relationships with Indigenous Peoples and local communities

Governance

- Business ethics and integrity
- Corporate governance
- Cybersecurity
- Tax transparency

Our Key ESG Goals

Net-zero ambition

- As a first step, establish a working group to further study transition risks and opportunities for our operations. The group's goal is to develop a plan to evaluate initiatives that could result in transformative changes in our GHG emissions and recommend a GHG and/or energy reduction compensable target as soon as practicable.

Saskatchewan mine and mill facilities

- Achieve at least a 5% reduction in GHG intensity by 2030.

Ontario fuel services facilities

- Achieve a reduction in GHG emissions intensity to 80% of the baseline and maintain that reduction each year (see page 24 for details).

Environmental performance (all sites)

- ▷ Incur zero significant* environmental incidents or environmental fines annually.
- ▷ Improve effluent discharge management at our Saskatchewan operations and water discharge management at our Ontario operations by achieving targeted parameters within regulatory limits, historical strong performance, and predicted environmental effects.
- ▷ Progress groundwater restoration in our US operations by advancing one mine unit into the stability monitoring stage in 2021. Stability monitoring means the active restoration process has been completed.

Tailings management

- Adjust our tailings management system to reflect the 2019 revisions to the Mining Association of Canada's Towards Sustainable Mining Tailings Management Protocol by 2021.

* A significant incident is one that (A) results in moderate or significant environmental impacts, or (B) results in current and future remediation costs of greater than, or equal to, $1 million, or (C) which has a reasonable potential to result in a significant negative impact on the company's reputation with our major stakeholders.

Workplace safety

- ▷ Achieve a total recordable injury rate (TRIR) of 1.27 or less in 2021.
- ▷ Maintain long-term downward trend in combined employee and contractor injury frequency.
- ▷ Maintain long-term downward trend in combined employee and contractor radiation doses.

Indigenous and community relations

- ▷ By 2021, implement a minimum of 15 courses spanning three areas of training (digital readiness, industrial readiness, and Cameco readiness) to develop the skill set of Residents of Saskatchewan's North (RSN) in conjunction with our initiative to accelerate the adoption of advanced digital and automation technologies at our northern Saskatchewan operations.
- Implement a northern Saskatchewan Indigenous apprenticeship program for instrumentation technologists in 2021.
- Annually maintain, or increase, the procurement of services for our northern Saskatchewan operations from northern-owned local businesses (81% in 2020).

Inclusion and diversity

- Each year, strive for a complement of executive officers who are women that, at a minimum, reflects the proportion of women in our workforce (25% of workforce in 2020 were women).
- In 2021, establish an inclusion and diversity committee.
- 100% of all new employees receive respectful workplace and unconscious bias training (annually).

Board diversity

- At least 30% of board members are women (maintain annually).
- At least one director with Indigenous heritage (maintain annually).

Conduct and ethics

- 100% of all employees to complete the Code of Conduct and Ethics refresher course in 2021.

Cybersecurity

- 100% of all employees complete the information security course (annually).
- Complete at least one internal audit on cybersecurity-related topics (annually).

▷ Indicates target is in our short-term incentive plan for all employees.

Scope of this report

This report communicates the ESG initiatives and key metrics that demonstrate Cameco's progress to date and our commitment to continual advancement.

- The terms Cameco, our, we, us, the company, and the organization, refer to Cameco Corporation and its wholly owned subsidiaries.
- The terms workers and workforce refer to employees and contractors.
- Unless otherwise indicated, this report covers data and qualitative information for the year ended December 31, 2020. When available, historical data is provided for 2018 and 2019.
- Our reported environmental and social performance covers all Cameco operated facilities and is reported on an operational control basis (100% of operated facilities) with the following exceptions:
  - Indicators that report the percentage of proven and probable reserves with a specific attribute are based on Cameco's share of proven and probable reserves.
  - Production of U_3O_8 is reported as Cameco's share of production with the exclusion of our joint venture (JV) in Kazakhstan (Inkai mine).
  - Direct economic value is reported based on revenue generated by Cameco.
  - Air emissions are reported for operated facilities in Canada only.
  - Direct and indirect GHG emissions are additionally reported using an equity share approach. Under the equity share approach, we have adjusted the GHG emissions reported to align with our financial ownership: specifically, 69.805% of McArthur River mine, 83.333% of Key Lake mill, 50.025% of Cigar Lake mine, and we have included 40% of emissions from JV Inkai.
- Unless noted, financial data is in Canadian dollars, and environmental data is in metric units, and environmental and production data are in metric units.
- The accuracy and transparency of this report is important to our company. Report content and performance indicators have been reviewed by senior management and relevant technical authorities within Cameco and we believe this report is an accurate representation of our performance. To build on our alignment with the SASB and TCFD frameworks in this year's report, in the future we plan to obtain third-party assurance for a number of key performance indicators.

Aligning with ESG reporting standards

We cross-reference our disclosures in this report to the following recognized standards:

SASB page 85

TCFD page 16

Read our caution regarding forward-looking statements on the inside front cover of this report.

In addition to this ESG report, Cameco publishes operation-specific environmental and social performance on local websites. Please visit these websites for more information on specific operations:

Cameco Northern Saskatchewan - www.cameconorth.com

Cameco Fuel Services - www.camecofuel.com

Cameco Resources - www.camecoresources.com

Cameco Australia - www.camecoaustralia.com

Our Response to COVID-19 During 2020

In 2020, the COVID-19 pandemic changed our personal and professional lives, including what is needed to work safely together. What has not changed at Cameco is our commitment to the safety of our workforce and the communities where we live, work and play. With safety as our overriding priority, we took action to protect workers, their families and surrounding communities.

Preventing the spread of COVID-19

Following the precautions and restrictions enacted by all levels of government where we operate and considering the unique circumstances at each of our operating sites, we made decisions and proactively implemented a number of measures to prevent potential community spread of the virus and to help maintain the health and safety of our workers. In addition to the safety protocols we put in place, we:

- Asked employees at corporate office to work remotely from home.
- Asked that all meetings be conducted by phone or videoconference where possible.
- Suspended all business travel.
- Restricted non-essential contractors, visitors and deliveries at all locations.
- Suspended production at Cigar Lake in March 2020 (in conjunction with Orano) for about five months and for a second time in December 2020 for about four months.
- Suspended production, in April 2020, at the Port Hope conversion facility and at the Blind River refinery for about four weeks.

Safety protocols

Consulting closely with health authorities and experts, and under the guidance of provincial re-opening plans, we implemented extensive screening and protective measures at all our facilities. Our continued focus was to protect our workers and neighbouring communities. We are prepared to adjust future actions as may be needed to support the long-term safety and health of the people touched by Cameco's business.

Supporting employees

As a result of COVID-19-related disruptions to our business, we did not require full staffing levels for certain periods during the year. Rather than implementing temporary layoffs, after using vacation time, we provided employees with paid leaves of absence to manage the impact of the pandemic on our business activities. To check in with our employees, we completed small 'pulse checks' on topics or concerns that were top of mind for our employees, for example, gauging their comfort with returning to the office. Our focus with these 'pulse checks' was to determine employee engagement or sentiment on specific topics to inform our planning.

COVID-19 relief funding

With so many communities and charitable groups impacted by the pandemic, we were pleased to announce our support of 67 community projects in Saskatoon and northern Saskatchewan through our $1 Million Cameco COVID-19 Relief Fund. Grants were available for charities, not-for-profits, town offices and First Nation band offices that were impacted by COVID-19. Included in the support Cameco provided were significant numbers of personal protective equipment (PPE) for northern Saskatchewan communities and First Nations, including 10,000 masks, 7,000 pairs of gloves and 7,000 litres of hand sanitizer. Donations of supplies and money from nearly 100 Cameco employees supplemented our initial $1 million contribution.

We also announced the establishment of a $250,000 COVID-19 Relief Fund for Northumberland County and the Blind River area in Ontario. Grants were made available for any charities and not-for-profits impacted by COVID-19. We also donated surplus 3M half-face respirators and cartridges, N95 masks, respirator wipes, goggles and goggle style safety glasses to Northumberland Hills Hospital, and safety glasses to the Port Hope Police Services. In Blind River, P100 masks and sanitizer were donated to Children's Aid and to the local hospital.

Our Responses to the TCFD Recommendations

We have prepared this section of the report to outline our responses to recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). This content is intended to help investors and other stakeholders understand how we integrate climate-related risks and opportunities (including physical and transition-related ones) into our governance, strategy, and risk management process. At Cameco, we recognize that climate change is an important and complex business and strategic matter and we are committed to being an active partner in addressing climate change. We recognize that climate change, including shifts in temperature, precipitation and more frequent severe weather events, could affect our operations in a range of possible ways.

This is the first time we have reported in alignment with the TCFD recommendations. Climate-related disclosures have been integrated throughout this report and other disclosure documents. We identify material risks to our business operations, revenue, or expenditures in our annual report and annual information form.

I. Governance

Board oversight of climate-related risks and opportunities

We believe that sound governance is the foundation for strong corporate performance in all areas of our business (see page 65 for information on corporate governance). Within Cameco, our board of directors holds the highest level of oversight for our business strategy and strategic risks and opportunities. The board guides Cameco to operate as a sustainable business, and optimize financial returns while effectively managing risk. Our board of directors is responsible for overseeing the management team, and providing direction for our strategy and business affairs. Specific committees of the board oversee different risks and opportunities.

Cameco's board recognizes that climate-related risks and opportunities must be characterized and addressed appropriately. Cameco's board has deep experience in risk management and is continuing to advance their understanding of climate-related risks. To date, climate-related risks and opportunities have been discussed by the board, or within the various board committees, on an individual risk and opportunity basis. Examples of climate-related risks that have been discussed and reviewed include impacts to operating facilities as a result of extreme weather events, and regulatory risks related to GHG pricing and regulation in Canada. Examples of climate-related opportunities that have been discussed and reviewed include Cameco's role as a supplier of choice and in advocating for nuclear energy as a central part of achieving a net-zero economy in a world with increasing electricity demand.

Management's role in assessing and managing climate-related risks and opportunities

Our executive officers provide strategic and operational leadership and take a proactive approach to managing risk across the company. As part of our Risk Management Program, our executive officers regularly report to the board and its committees on risks, which include any climate-related risks and opportunities that have been identified.

Our management team (officers and senior personnel) is experienced in managing uncertain risks and also assesses key climate change risks and opportunities facing our business. Additionally, our management team:

- Is responsible for preparing the company's disclosures of the major risks faced by the company.
- Has received several updates from internal experts on the topic of transition-related risks regarding regulation and pricing of GHG emissions in the last several years.
- Has allocated resources to improve energy management and increase the visibility of energy consumption with the goal of improving the energy intensity of our operations.
- Has established a working group composed of representatives from SHEQ, finance, technical services, operations, and asset management to further study the transition opportunities and risks to our operations.
- Participates, through industry associations, in numerous climate-related initiatives. In the last year alone, we participated in the revision of a climate change protocol for Canadian miners, the development of a guide on climate change adaptation for Canadian miners, the development of transitional finance taxonomy for Canada, and the completion of a comparative lifecycle assessment of low carbon technologies including nuclear power.
- Participates directly and through industry associations in provincial efforts related to the deployment of small modular reactor (SMR) technology in Saskatchewan and around the world.

II. Risk Management

At Cameco, we have a formal Risk Management Program designed to identify and monitor significant risks that may impact our business, strategic goals, and objectives. Our Risk Management Program is based on the ISO 31000 Risk Management guidelines. ISO 31000 allows us to compare our risk management activities with internationally recognized practices and provides sound principles for effective management and governance of risks. Our program applies to all risks facing the company, including climate-related risks, and includes the following components:

Risk identification - We identify a variety of risks to our business and our assets, including risks related to changes in the laws and regulations that govern our activities and changes to the environment that affect our activities. On an annual basis, we complete a comprehensive organization-wide risk review, which includes an evaluation of the effectiveness of mitigating controls and action plans, and the identification of new or emerging risks. Any risk that has the potential to significantly affect our ability to achieve our corporate objectives or strategic plan is considered an enterprise risk and is brought to the attention of senior management and the board.

Risk assessment - We use a common risk matrix throughout the company to assess all risks to our business. Using the risk matrix, risk owners determine the consequences and likelihood of the identified risk by examining the effect that the risk may have on our four corporate measures of success: safe, healthy and rewarding workplace; clean environment; supportive communities; and outstanding financial performance. Once assessed, risks are then prioritized based on their likelihood, anticipated severity, anticipated time horizon of the risk, and the level of strategic impact. Risks are categorized as:

- **Functional risks -** Risks that are considered preventable, and are identifiable and quantifiable, with little to no direct strategic benefit.
- **Tactical risks -** Risks that could threaten Cameco's medium-term objectives. They may be external, and outcomes are identifiable, but uncertainty makes them difficult to assess.
- **Strategic risks -** Risks that threaten the key assumptions of our strategy. They are almost always external, and outcomes can vary and are difficult to quantify. Board oversight and reporting is required for these risks.

Monitoring and reporting - We continually update our risk profile by performing regular monitoring of risks across the organization. Regular monitoring helps us to properly manage risks and identify any new risks. Risk owners provide a detailed risk report quarterly to senior management and the board on the status of the mitigating and/or monitoring plans for each of their enterprise risks. Management also reviews monthly updates on the company's progress in managing these top risks.

Brendon Zarazun, a member of Cameco's emergency response team, protects our Cigar Lake Operation from the 2021 Briggs' forest fire.

III. Strategy

We present our climate-related risks and opportunities based on our current understanding of the historical and future climate and economic transition possibilities. We plan to update our understanding of these risks and opportunities considering future scenarios of how the physical climate and economy may change over time and will provide additional detail on our approach to this in our next report.

Resiliency of our business strategy

Cameco's business strategy is to focus on our tier-one assets and profitably produce at a pace aligned with market signals in order to preserve the value of our assets and increase long-term value. We do this with a continued emphasis on safety, people, and the environment. We regularly review our business strategy so that we are positioned to take advantage of opportunities and address emerging risks. Our business strategy recognizes the significant opportunity offered by the energy transition and the need to remain resilient and focused on creating long-term value. As countries seek to meet their climate change goals, we believe that nuclear power will be instrumental in the energy transition and that we are uniquely positioned to contribute to that transition. While the energy transition has risks, elements that make our company more resilient include:

A global customer base - Diversification in our customer base and countries of business is one of the ways we build resiliency into our strategy. We sell uranium and fuel services directly to nuclear utility customers around the world as uranium ore concentrates, UO_2, UF_6, conversion services, or fuel fabrication. Since demand for uranium and nuclear power are dependent on national policies, a diversified customer base helps us weather changing sentiment and evolving policies. We expect diversification to provide a competitive advantage.

Conservative financial management - Our strategy is set within the context of a challenging market environment, which we expect to give way to strong long-term fundamentals driven by population growth, and an increasing focus on electrification and decarbonization. In the face of low uranium prices for the past several years, we have remained resilient. Our management team has been disciplined and prudent in the execution of our strategy, we have a solid contract portfolio, and we maintain a strong balance sheet (see our most recent quarterly financial results and MD&A).

Investments in innovation - We made a number of investments during 2020 to advance innovation and prepare us to take advantage of transition-related opportunities. These investments include:

- Progressing our digital transition initiative with the goal of improving operational efficiencies across the company (read more on page 23).
- Announcing the launch of a centre for next generation nuclear technologies. The centre leverages our relationship with Bruce Power and supports the development of new technologies such as SMRs, cancer-fighting isotopes, and hydrogen development.
- Finalizing the ownership restructuring of Global Laser Enrichment LLC (GLE), with Cameco's interest in GLE increasing to 49% with an option to attain a majority interest of up to 75% ownership. GLE is the exclusive licensee of the proprietary SILEX laser uranium enrichment technology. While there are still a number of development milestones before this technology could be commercialized, we believe it will build on our existing world-class assets and capabilities in uranium production, refining, conversion, and fuel fabrication. It could also provide a stable source of North American-based uranium enrichment, strengthening the North American nuclear energy supply chain, and helping to address fuel concerns that could slow the progress of emerging SMR designs.
- Signing a number of memorandums of understanding, with various companies in 2021, to explore several areas of cooperation to advance the commercialization and deployment of SMRs in Canada and around the world.

Recognition of trade exposure and low GHG emissions - Cameco has a small GHG footprint (approximately 204,000 tonnes of carbon dioxide equivalent [CO_2e] in 2020 on an equity share basis) compared with the energy density of our product. The majority of our direct GHG emissions are regulated under output-based pricing systems that recognize the impact of carbon pricing on industrial economic competitiveness. These emissions have been assigned annual reduction targets, recognizing that our products and services compete in a global marketplace. All our operations are connected to grid power which further reduces our direct exposure to the impact of GHG-limiting regulations and pricing. Additionally, the tool adopted to encourage GHG mitigation in Canada, carbon pricing, is intended to be revenue neutral. That is, the funds are to be directed towards GHG-mitigating activities. Since 2013, we have taken advantage of several energy conservation funds to assist our energy reduction efforts and we anticipate that this will continue as funding for the energy transition accelerates.

Transition-related opportunities

The accomplishment of the Paris Agreement's near-term 2030 and longer-term 2050 goals will require substantial additional reductions in GHG emissions in Canada and globally. At Cameco, we believe that maintaining and growing emissions-free nuclear power is and must remain a central part of many countries', including Canada's, credible plans to achieving their commitments under the Paris Agreement. There are multiple initiatives underway globally, and in Canada, that recognize the need to advance nuclear power as part of the transition to a low-carbon economy. We expect these changes to create the following opportunities for our business:

TRANSITION-RELATED OPPORTUNITIES		HOW IS CAMECO POSITIONED TO TAKE ADVANTAGE OF IT?
Rising Demand for Electricity	As electrification of the world's energy system continues, global demand for electricity is expected to increase by 49% by 2040 from 2019 levels[10].	We are one of the largest global providers of uranium. Our tier-one operations have the licensed capacity to produce more than 24 million kilograms (53 million pounds) (100% basis) of uranium concentrates annually. We expect our uranium mining and fuel services activities to continue to support the increasing demand for carbon-free baseload electricity in the years to come.
Increased Uptake of Net-Zero Goals	Many countries and companies, including Cameco, recognize that to achieve the ambition of the Paris Agreement, net-zero emissions will need to be reached by 2050 or sooner.	We produce and supply uranium, a low-carbon fuel for clean-air nuclear power generation. Cameco has been in the business of providing this critical fuel for over 30 years and is poised to be an important part of the solution as countries and companies work to meet their net-zero goals.
Support for Nuclear Energy as Part of the Energy Transition	Evidence of increasing Canadian and global support for nuclear energy as part of the energy transition includes: **Mission Innovation,** a global initiative of the European Commission and 22 countries, including Canada, aims to accelerate investment in global clean energy innovation and emphasizes the need to include nuclear in plans to achieve the goals of the Paris Agreement. **The International Energy Agency** published a report on nuclear energy in May 2019 highlighting that a steep decline in nuclear power would threaten energy security and climate change goals and result in four billion tonnes of additional carbon emissions by 2040 (read more). **Green Taxonomies:** A number of countries have developed, or are developing, sustainable or green finance taxonomies to help investors direct capital toward activities and projects aligned with sustainability objectives such as those set out in the Paris Agreement. In many jurisdictions, nuclear power is being assessed for its inclusion in these taxonomies. For example, the European Commission proposed a supplement to current legislation that, if passed, will confirm nuclear energy as part of the sustainable taxonomy. The inclusion of nuclear energy could result in increased investment in nuclear energy.	We advocate for nuclear energy through our participation in the following industry organizations: **The World Nuclear Association's "Harmony" programme,** which has set a target for nuclear power to provide 25% of electricity by 2050 to help avoid the worst consequences of climate change (read more). We are also members of the **Canadian Nuclear Association,** the **Nuclear Innovation Institute in Canada,** and the **Nuclear Energy Institute** in the US. We, on our own accord and through industry associations, have provided information and data to relevant authorities making the case that nuclear energy should be eligible for green financing.
Need for Life Extension of Aging Nuclear Reactors	As part of the energy transition, power producers and countries may decide to extend the life of their nuclear reactors since "it is considerably cheaper to extend the life of a reactor than build a new plant, and costs of extensions are competitive with other clean energy options"[11]. Nuclear reactors were originally designed to operate for about 40 years. The approximately 440 nuclear reactors located throughout the world are, on average, 30 years old[12]. As power producers extend the operating lives of their reactors to 60 years, we expect to see increased demand for component updates and refurbishment services.	Leveraging the assets and specialized skills of our fuel services division, we have been actively securing new contracts for reactor components to support the refurbishment of Canadian nuclear reactors.

[10] IEA World Energy Outlook 2020. Stated Policies Scenario. https://www.iea.org/reports/world-energy-model/stated-policies-scenario

[11] https://www.iea.org/reports/nuclear-power-in-a-clean-energy-system

[12] Chemical and Engineering News. September 20, 2020. https://cen.acs.org/energy/nuclear-power/Combating-corrosion-worlds-aging-nuclear/98/i36

TRANSITION-RELATED OPPORTUNITIES		HOW IS CAMECO POSITIONED TO TAKE ADVANTAGE OF IT?
Support for Small Nuclear Reactors	There is increasing support for small modular reactor (SMR) technology, including: **Natural Resources Canada** is expected to release a Small Modular Reactor Action Plan to help position Canada as a global leader in SMR development and adoption. **Four Canadian provinces** (Ontario, New Brunswick, Alberta, and Saskatchewan) have signed a memorandum of understanding publicly stating their intention to work together to consider the incorporation of SMR technology in their electrical generation capacity as research and development in this area continues to advance toward commercial application. The **United States** Department of Energy (DOE) launched the Advanced Reactor Demonstration Program in 2020 offering funds for the construction of two advanced reactors that could be operational within seven years[13]. Further, the DOE announced funding for five US-based teams developing affordable reactor technologies to be deployed over 10-14 years. The DOE also plans to build MARVEL, a 100 kilowatt microreactor in Idaho[14]. In July 2020, under its Advanced Modular Reactor programme, the **United Kingdom** awarded grants to three companies for reactor projects. Further funds are expected to go to British companies and start-ups to develop new ways of manufacturing advanced nuclear parts for modular reactor projects and towards strengthening the country's nuclear regulatory regime. In **China**, Chinergy is building a 210 MWe reactor, the most advanced SMR. In addition, CNNC New Energy Corporation is promoting the ACP100 reactor. A preliminary safety analysis report for a single unit demonstration plant at Changjiang was approved in 2020.	We are well positioned to provide fuel for SMRs that use uranium fuel. The size of the market opportunity and the volumes of uranium that would be consumed by SMRs will depend on a number of factors, including which specific SMR designs achieve commercialization and how many units get built around the world. We continue monitoring developments in new SMR technologies and intend to be prepared to satisfy future demand for uranium fuel from SMRs. For example, we signed a number of MOUs with various companies to explore several areas of cooperation to advance the commercialization and deployment of BWRX-300 SMRs in Canada and around the world.

[13] https://www.reuters.com/business/energy/utility-small-nuclear-reactor-firm-select-wyoming-next-us-site-2021-06-02/

[14] world-nuclear.org/information-library/non-power-nuclear-applications/radioisotopes-research/research-reactors.aspx

Climate-related risks

Our understanding of climate-related risks and opportunities will evolve as we update our analyses to ensure they remain relevant and follow accepted guidance. In alignment with TCFD recommendations, we report two categories of climate-related risks: (1) physical risks, which primarily include business risks that could be created by acute or chronic changes in the climate, and (2) transition-related risks, which encompass several types of business risks (policy, legal, market, technology, and reputational) that could occur as the world transitions to a low-carbon economy.

We disclose material risks to our company, including any applicable risks that could be characterized as climate-related physical or transition risks, in our quarterly and annual reports, and in our annual information form. The next section of this report describes the climate-related risks we have assessed:

1. Physical risks

To support business continuity and protect our assets, we must consider physical risks resulting from climate change that are acute (event driven) or chronic (longer-term shifts in climate patterns).

PHYSICAL RISKS		
Acute risks		What do we do to mitigate?
Currently and historically, we have identified operational risks related to acute changes in the climate that cause extreme weather events, such as flooding and wildfires. Any that are considered material are disclosed in our securities filings. Although we have not fully assessed all our assets for their vulnerability to extreme weather events, to date we have considered the following:		
Flooding, Port Hope Conversion Facility	The conversion facility is located near the south end of the Ganaraska River. The mouth of the main branch of the River is located approximately 100 metres east of the facility and is separated from the site by the Port Hope Harbour. A flood analysis conducted in 2008 indicated that there would be sufficient conveyance at the site to provide positive discharge of major flood events, including the probable maximum flood which represents the highest flood that could physically occur at the site.	We are constructing a barrier to provide an additional level of protection from flooding of the Ganaraska River. This additional level of flood protection will exceed the Ganaraska River Conservation Authority flood protection requirements.
Flooding, Blind River Refinery	In 2012, we completed a study to understand the potential for flooding at the refinery from an extreme flood event on the Mississagi River. The study found that the refinery is not at risk from flooding from a significant flood event on the Mississagi River or from an extreme event like the spring probable maximum flood. A combination of the spring probable maximum flood with potential breaching of the upstream earth embankment dams could potentially inundate the refinery with water at the south and north ends of the site.	We installed a berm outside the refinery perimeter along the fence lines to mitigate the impact to the refinery in the extremely unlikely event of a worst-case flood scenario.
Flooding, Mine Tailings Facilities	Increases in precipitation and flooding could potentially impact our tailings facilities.	To mitigate the risk of water overtopping the tailings facilities due to heavy rainfall events (which could lead to a potential dam failure or loss of containment), we maintain the capacity to contain a 24-hour probable maximum precipitation.
Wildfires, Northern Saskatchewan and Northern Ontario	Wildfires are common in northern Saskatchewan and northern Ontario and our facilities in this area could be impacted in the event of nearby wildfires or wildfires that impact key supply corridors (e.g., power supply, goods and materials supply).	To mitigate the impact of nearby wildfires, we maintain buffer zones around our facility infrastructure. Emergency response includes on-site fire detection and suppression capabilities (e.g., fire water lines, firefighter equipment, water sources, fire extinguishers, facility fire suppression systems, and fire paneling), personnel training for wildfire fighting, and use of off-site resources from the province and other neighbouring facilities. Every five years, we conduct a third-party assessment of fire hazard and preparedness (with the last assessment completed in 2016). Later in 2021, we plan to conduct our next assessment considering the potential for increased likelihood of fire near our operations.

Example of fire protection

In July 2021, our Cigar Lake operation was threatened by wildfires in the vicinity. Non-critical activities were stopped in an orderly fashion and non-essential workers were evacuated as a precaution. Our on-site Emergency Response Team, supplemented by provincial resources and individuals from our nearby McArthur River Emergency Response Team, worked collaboratively to protect the site by applying retardant, completing backburns to reduce the "fuel" for the fires, and extinguishing spot fires. Throughout the wildfire event no one was injured, and all infrastructure remained intact. Our fire preparedness was instrumental in successfully protecting our site and assets, and the proactive response from our sites demonstrated the thoroughness of our risk management. In addition, Saskatchewan fire officials confirmed that the design of our site, including fire breaks, installation of preventative measures (including sprinkler systems at the perimeter), and the construction of the buildings (metal cladding) were integral to preventing damage.

PHYSICAL RISKS		
Chronic risks		What do we do to mitigate?
Chronic Changes in Weather Patterns	Chronic changes in weather patterns (temperature and precipitation changes) could impact our business.	Recently, we participated in the development of a guide to climate change adaptation for the mining sector in Canada. We intend to use this guide as a reference when we update our prior assessments of the potential impacts of climate change at our mining and milling facilities. For all proposed new projects, operations, or expansions, we conduct environmental assessments that include the consideration of potential effects of the environment on the project, including short and long-term changes in climate. When significant environmental risks are identified, we integrate management strategies into the design, construction, and operation of the new project, operation, or expansion.

2. Transition-related risks

We support and endorse the ambition outlined in the Paris Agreement. We recognize that the Paris Agreement and corresponding country-level goals will require substantial reductions in GHG emissions in Canada and globally. This transition to a low-carbon economy could potentially impact our company in the following ways:

TRANSITION-RELATED RISKS		WHAT DO WE DO TO MITIGATE?
Regulatory Risks		
GHG Regulation and Pricing	Our Canadian facilities could experience higher annual operating costs due to changes in GHG pricing and regulations, such as carbon pricing, the Canadian Clean Fuel Standard, and/or other policy changes.	In the short and medium term, we expect to manage the increased operating costs through improved energy management and specific projects aimed at reducing energy consumption. Read more about this on pages 39 and 40. For our facilities that are not obligated to meet the requirements of output-based performance standard (OBPS) systems, we chose to opt into the OBPS systems in the provinces where we operate. At this point, the Scope 1 GHG emissions of all our Canadian facilities, except Cameco Fuel Manufacturing, are regulated through OBPS systems. OBPS systems recognize our facilities as trade exposed and acknowledge the impact of GHG-limiting regulation and pricing on economic competitiveness. Under these systems, we pay a carbon price only if the reduction target is exceeded. The reduction targets established for our Canadian facilities are stated on page 24. Our Scope 2 GHG emissions are primarily associated with purchased electricity from Saskatchewan. Our Saskatchewan facilities pay a carbon price on purchased electricity at each billing interval. The Saskatchewan power utility has several coal and natural gas-fired power generating stations that are subject to GHG emissions standards that will become more stringent over time. Carbon pricing funds collected on electricity are remitted to the federal government which has communicated its intent to re-allocate them to reduce emissions from the power grid in the province. As the funds are reinvested, we expect our carbon cost exposure to remain relatively stable. With regard to the Canadian Clean Fuel Standard, our Canadian facilities do not consume large quantities of liquid fuels (diesel and gasoline). As part of our efforts to reduce costs, we have been focused on consolidating flights and freight shipments over the last number of years, which also has the effect of reducing fuel consumption and associated carbon pricing. We monitor additional costs for fuels purchased by third parties that act on our behalf to transport materials and employees within Canada. To date these increased costs have been low.

TRANSITION-RELATED RISKS		WHAT DO WE DO TO MITIGATE?
Regulatory Risks		
Green Taxonomies	A number of countries have developed, or are developing, sustainable or green finance taxonomies to help investors direct capital toward activities and projects aligned with sustainability objectives such as those set out in the Paris Agreement. In many jurisdictions, nuclear power is being assessed for its inclusion in these taxonomies. Exclusion from these taxonomies, could make nuclear power ineligible for financing under green financing or sustainable-related financing. In June 2021, the United Kingdom published its Green Financing Framework that excludes nuclear energy. Despite the exclusion, the document[15] noted that, "…nuclear power is, and will continue to be, a key part of the UK's low-carbon energy mix alongside solar and wind generation and carbon capture and storage".	We, on our own accord and through industry associations, have provided information and data to relevant authorities making the case that nuclear energy should be eligible for green financing.
Other transition-related risks		
Technology Risks	Technology risks can include risks related to disruptive lower emissions technologies that cause earlier-than-planned replacement of capital assets.	We are currently undertaking a series of initiatives called the "digital transition" with two goals: (1) accelerate innovation and the adoption of advanced digital and automation technologies and (2) improve efficiency and reduce costs. For example, we are implementing energy management information systems to understand where we use energy so we can make changes to become more efficient. In addition, we have established a cross functional working group to further study the transition opportunities and risks to our operations. This working group is analyzing the costs and benefits of various potential projects to achieve transformational reductions in emissions.
Reputation and Market Access	Lack of sufficient transparency and action on climate issues could result in reputational damage with local stakeholders and the investment community.	We continually work to improve processes related to emissions data compilation and internal emissions reporting. We have reported our GHG emissions for more than 20 years and, in this report, have also begun addressing TCFD recommendations.

[15] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1001023/20210630_UK_Government_Green_Financing_Framework.pdf

IV. Metrics and Targets

We have tracked and reported GHG emissions for more than two decades. Our current climate-related metrics focus on energy consumption, and Scope 1 and Scope 2 GHG emissions. Read how we manage our GHG emissions on page 39.

We do not have significant GHG emissions that are produced by sources other than energy consumption and anticipate being able to keep pace with the energy transition primarily by adopting new fuel and transportation technologies.

Although many of these technologies are not currently economical, we expect them to become more efficient and affordable over time, enabling us to achieve further emissions reductions while remaining competitive.

To improve the energy intensity of our operations, we continue to focus on improving energy management and the visibility of energy consumption within our organization. We have established a working group composed of representatives from SHEQ, finance, technical services, operations, and asset management to further study the transition opportunities and risks to our operations. This working group has conducted a preliminary analysis of the increase in operating costs that could occur at our Canadian facilities (in the short, medium, and long-term) as a result of increased GHG pricing and regulation. The analysis illustrated that GHG pricing and regulation could result in a wide range of impacts on our annual operating costs for Canadian operations in the longer term, depending on the details of policy implementation. This analysis was intended to help us plan and evaluate initiatives that could help us achieve our net-zero ambition.

In addition to our net-zero ambition, we have targets to reduce our GHG emissions intensity for individual facilities that are aligned with current regulatory requirements in Canada. In order to develop strategic, longer term targets, there are a number of areas where convergence must be achieved including but not limited to greater clarity on the timelines and costs for electricity suppliers to provide clean power.

The following table summarizes our current targets:

TRANSITION-RELATED RISKS	SCOPE 1 INTENSITY REDUCTION TARGET	BASELINE YEAR	TARGET YEAR
Regulatory Risks			
Saskatchewan mine and mill facilities (Cigar Lake mine, and when operating McArthur River mine, Key Lake mill, Rabbit Lake mine)	5% reduction in GHG intensity (tonnes of CO_2e per tonne of uranium)	Three consecutive years between 2014 and 2018. McArthur River/Key Lake: 2014-2016. For Cigar Lake: 2015-2017. Rabbit Lake: to be determined when it announces restart.	2030
Ontario fuel services facilities (Blind River refinery, Port Hope conversion facility)	Reduction in GHG emissions intensity to 80% of the baseline (tonnes of CO_2e per tonne of uranium)	Average of 2017-2018	Once level is achieved, maintain at that level

We have a team of subject matter experts across the company working to find solutions to optimize our energy consumption and achieve the desired reductions. Further, there are additional options available to us to meet these reduction targets including paying into a Technology Fund, purchasing offsets, and using best performance credits.

Analyst Corner

SASB EM-MM-110a.2

Environment

We recognize and embrace our responsibility to manage our activities with care for the protection of environmental resources. At Cameco, our stewardship is guided by a rigorous policy and programs designed to minimize our impacts on air, land, and water, and to safeguard the biodiversity of surrounding ecosystems.

Highlights

All dams were evaluated by completing safety reviews in accordance with Canadian Dam Association guidelines

>22,000 samples related to water quality taken each year

484,000 GWh of carbon-free electricity can be generated with the amount of uranium we sold in 2020

Systems for Environmental Protection

At Cameco, protection of the environment is one of our highest corporate priorities during all stages of our activities, from exploration through development, operations, decommissioning, and reclamation.

We monitor our performance by tracking corporate and site-specific key performance indicators, conducting environmental monitoring programs, and regularly auditing our adherence to the requirements of these programs. Our Non-Conformance Corrective and Preventative Action Program provides a means to investigate incidents and track the applicable corrective actions. We use the information from all of our programs to help us to identify opportunities to improve.

Environmental management system

We have a ISO 14001-certified environmental management system used across our operating sites, which is supported by a corporate Environmental Management Program that outlines the operating requirements sites must meet. Our environmental management system encourages and promotes continuous adaptation of our practices based on new information and technologies.

Environmental risk assessments

We complete environmental risk assessments to systematically identify, quantify, and to characterize the potential risks to the environment, workers, and the public. We use our environmental risk assessments to inform our decisions and actions. Additionally, we complete an iterative process, where required, to verify that our proposed measures to protect the environment and the public are effective. We review or update the assessments every five years, incorporating results from our environmental monitoring programs and other scientific advances.

Environmental performance reports

For our Saskatchewan operations, every five years we also compare monitoring data collected during the reporting period against predictions contained in approved environmental risk assessments or environmental assessments. By reviewing the data from the performance reports and conducting risks assessments, we are able to demonstrate that human health and the environment in the vicinity of our Saskatchewan operations remains protected. Results from these analyses are also used to inform changes to the environmental monitoring programs conducted at each operation.

Corrective action process

We have a corrective action process in place to systematically investigate and address the causes of non-conformance to regulatory requirements or internal standards. The process includes classifying the non-conformance, assigning the appropriate level of investigation (dependent on incident significance), and tracking the recommended corrective actions to prevent and mitigate similar occurrences.

Audits

To support our culture of continuous improvement, our processes and operations undergo regular audits, including:

- Our environmental management system is audited by a third-party every three years as a requirement to maintain our ISO 14001 certification.
- Our SHEQ team conducts an internal audit of our SHEQ programs on a three-year cycle. The total audit scope is split in half and executed on a rotating basis. This means that all our sites undergo at least two audits to cover all aspects of our SHEQ programs within every three-year period. The audit follows the ISO 19001 process and encompasses our environmental and safety programs.
- We also maintain and implement an internal audit program at our corporate office. Results and recommendations from this systematic and documented process are presented to senior management, who are responsible for implementing them and correcting any deficiencies. The internal audit group reports to the audit and finance committee of the board.

In the Cigar Lake lab, Quentin Caisse, senior technician, environment, analyzes air samples.

Analyst Corner

SASB EM-MM-160a.1

Water

At Cameco, water stewardship is a significant operational focus, and we believe that responsible management of water is critical to our business success. We also recognize the importance of using and discharging water responsibly to preserve it for current and future generations. Across our operations, we interact with water in several ways and acknowledge that we share this valuable resource with Indigenous Peoples and local communities.

We work continuously with regulators, governments, researchers, and communities to understand possible impacts, develop best practices, and make changes that mitigate potential impacts on the environment. At our sites and facilities, we have robust water management and monitoring programs that apply to all our withdrawals and discharges of water, and we tailor our water management practices to local uses and conditions.

Water management in Saskatchewan

Although northern Saskatchewan is considered a region of low baseline water stress[16], and our uranium mining and milling processes in the area do not require large volumes of freshwater withdrawal, we must still manage water to operate our facilities safely and efficiently. We focus on monitoring and managing our water intakes and water discharges, and developing practices that support the continued protection of the environment.

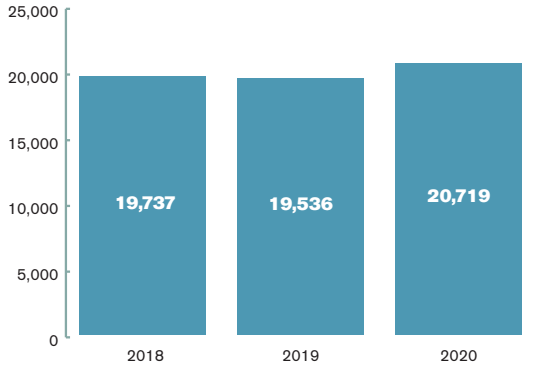
Water sources and uses

The vast majority of water (groundwater, surface water, or precipitation) managed by our Saskatchewan facilities is **intercepted** as part of our mining operations through mine dewatering or from the operation of our tailings management facilities. Wherever possible, we use this intercepted water to support our operational water requirements. For example, at our McArthur River mine (when operating) we collect clean groundwater that comes into the mine and use this water for industrial purposes both underground and on-surface at the mine. This includes using that groundwater and mixing it with ground uranium so it can be pumped to the surface in slurry form.

Where necessary, additional water is **withdrawn** from local surface water bodies or groundwater sources for specific purposes, such as for potable water and industrial uses like jet boring. Water withdrawn for these purposes is a very small proportion (around 1%) of the total water we manage in northern Saskatchewan. We are currently studying how water needed for the jet boring mining method at our Cigar Lake mine could be recycled and re-used. If we can identify a viable technology, we would expect to see a reduction in the amount of surface water directly withdrawn for underground use by the Cigar Lake mine.

Water Withdrawn

(includes water that is intercepted) thousand m^3



We do not withdraw any water from regions of high water stress.

The volume of water withdrawn has remained relatively stable over time. Note: Water withdrawn includes water we intercept and manage.

The vast majority of water managed by our Saskatchewan facilities is intercepted as part of our mining operations through mine dewatering or from the operation of our tailings management facilities.

Analyst Corner

SASB EM-MM-140a.1

[16] Using the World Resources Institute's Aqueduct™ Water Risk Atlas, https://www.wri.org/aqueduct

Water discharges

At Cameco, we carefully manage our treated water discharges to keep potential risks to human health and the environment as low as reasonably achievable and to comply with all legal and regulatory requirements. To protect people and the environment we have implemented management tools, consistent with our overall management approach, which include:

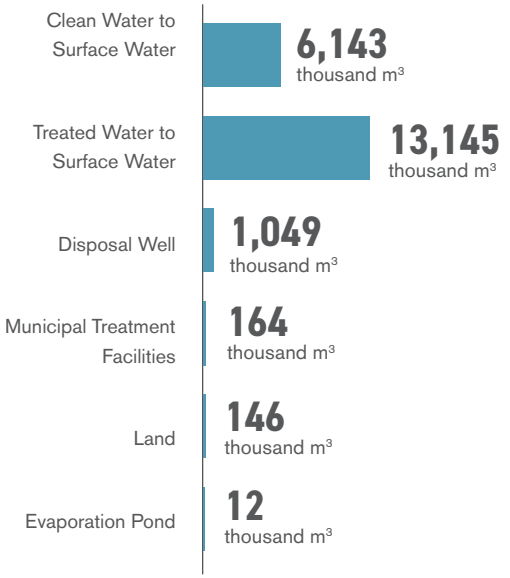
1. **Inflow reduction -** In our underground mines in northern Saskatchewan, we need to actively collect water that flows into the underground mines from the surrounding rock structures and pump it out to maintain safe mining conditions. Some techniques we use to minimize the amount of water that flows into the mines include ground freezing (circulating a brine that helps to freeze the ground around the ore), pressure grouting (injecting grout into the voids of the rock), and shotcrete (spraying concrete on the walls of the mine). These techniques also reduce the risk of a ground failure, which could lead to an uncontrolled inflow of groundwater. By reducing the amount of water that comes into the mine, we reduce the amount of water we need to manage, treat, and subsequently, release.
2. **Water segregation and diversion -** The best way to keep water clean is to keep it segregated from our processes. Where possible, practical, and economical, we divert water or otherwise keep it from coming into contact with radioactive materials or mineralized rock. By doing this, we reduce the amount of water we handle and ultimately need to treat and release.
3. **Water treatment -** Water is treated and released in accordance with our operating approvals. We use conventional and non-conventional water treatment, such as reverse osmosis, to make sure water is safe before it is released to the environment. We have made significant investments to improve the quality of water released from our Saskatchewan mining and milling operations to surface water bodies.
4. **Discharge monitoring -** We have robust monitoring programs to verify that human health and the environment remain protected in the vicinity of our operations. We adhere to regulatory requirements from the CNSC, Saskatchewan Ministry of Environment, and Environment and Climate Change Canada. These regulatory bodies set the levels for a variety of substances that are allowable in the treated water that is released. To meet these requirements, we use either an automatic interval sampling system or a "batch pond release" method. The automatic interval sampling system involves collecting samples and monitoring the continuous discharge of treated water, which is subject to strict and routine testing. The "batch pond release" method involves storing treated water in a holding pond and testing the water quality. If it meets the required quality, it is released; if it does not, then we can send the batch of water for treatment again. In 2020, Cameco facilities met all applicable regulatory requirements.

We use conventional and non-conventional water treatment, such as reverse osmosis, to make sure water is safe before it is released to the environment.

2020 Water Withdrawn

20,719
thousand m^3
water withdrawn

2020 Water Discharges



Note: This chart includes company-wide data. We do not discharge water using disposal wells in our Saskatchewan operations, but we do at our US operations. Water withdrawn includes water we intercept and manage.

Watershed stewardship

As part of our environmental monitoring programs, we take more than 22,000 samples related to water quality each year. We collect water samples at or immediately downstream of our operations (near-field), in close proximities to our operations (mid-field), and at locations at a further distance (five to 10 kilometres) from our operations (far-field). These samples are sent for testing for different chemicals and other indicators of quality to both internal laboratories and an accredited third-party facility. The laboratories use a variety of analytical techniques, including inductively coupled plasma-mass spectroscopy, known for its ability to detect very low concentrations of most elements in the periodic table in either a liquid or solid sample.

We also maintain a groundwater monitoring program. We collect groundwater samples in the vicinity of our operations and monitor for changes in composition. Every five years, monitoring data is incorporated into an environmental risk assessment that identifies, quantifies, and characterizes the potential risks to groundwater from our facilities.

In addition to our own programs, independent community based environmental monitoring programs in northern Saskatchewan (read more on page 51) provide opportunities for community members to participate in and collect environmental samples. These programs have shown that water remains safe to drink and that traditionally harvested foods remain safe to eat.

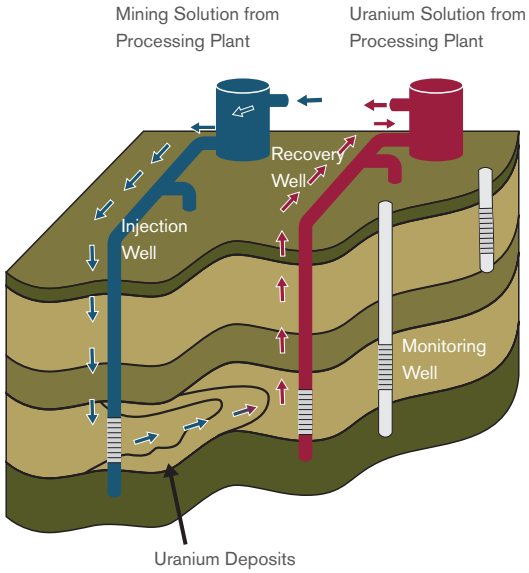
We take more than 22,000 samples related to water quality each year.

Water sampling near our Key Lake Operation.

Water management in the US

In our US operations we mine using in situ recovery (ISR) methods. These operations do not require large volumes of fresh water for mining activities. On an annual basis, we withdraw very small quantities of water from clean drinking water aquifers for potable water use in bathrooms, office sinks, fire systems, etc. This withdrawal is not material to Cameco's total water withdrawal. At our US operations, we primarily manage brackish, non-potable groundwater for mining operations and active groundwater restoration.

When the mines are producing, we mix non-potable groundwater from the aquifers where the uranium ore exists with chemicals (sodium bicarbonate, oxygen, and CO_2). We inject this solution into the uranium ore-bearing formation to dissolve the uranium and then pump it to the surface to recover the uranium. These groundwater aquifers host uranium and are exempted from use as drinking water aquifers by the US Environmental Protection Agency.



Once we complete our mining operations in an area (or unit), we need to ensure that post-mining concentrations of metals, metalloids, and total dissolved solids in the groundwater do not present an unacceptable long-term risk to human health or the environment. We use a combination of physical and chemical processes during groundwater restoration that include reverse osmosis treatment and bioremediation (remediation using microorganisms). Across our three mines in the US, there are seven mine units that are currently undergoing groundwater restoration. Completing this process can take several years.

Wastewater generated from our mining and groundwater restoration processes is either injected into deep underground aquifers that contain similar water quality to the wastewater or treated and discharged to a land application site. These processes are regulated by state and federal agencies. All discharged water is monitored for compliance with discharge permits and inspected frequently by regulators.

Water management in our fuel services division

The four facilities in our fuel services division manage water from a combination of municipal water sources, surface water from nearby waterbodies, groundwater, and precipitation. Our fuel services division uses water for steam generation, fire protection and emergency response, process and laboratory facility uses, drinking water, sanitary services, and cooling purposes. We also extract groundwater as part of environmental remediation.

A large proportion of the water we withdraw is used as non-contact cooling water (water that is used for cooling and that does not come into direct contact with any solids, liquids or gases used in our processes, or finished products). Cooling water is returned to the environment or the municipal sanitary sewer system. Out of our four facilities, our Port Hope Conversion Facility requires the most water for the once-through non-contact cooling water. We are planning to transition to a closed-loop cooling water system (installation pending) which would eliminate the need to use surface water for once-through cooling purposes. Commissioning of the new system is scheduled for completion in the third quarter of 2022.

Some of the water we manage in our fuel services division facilities must be treated. Requirements vary depending on the site, but examples of our water treatment and discharge processes include:

- Our Blind River Refinery has batch release ponds that are sampled before being released to surface water.
- Our Port Hope Conversion Facility primarily releases captured groundwater to atmosphere via evaporation along with other wastewater streams. Groundwater may also be diverted to off-site treatment facilities.


Kevin Vetor, senior radiation and environmental technician, gathering a water sample at our Port Hope Conversion Facility.

Tailings and Mining Waste Management

Tailings management is relevant only to our Canadian operations as the in situ recovery method used in our US operations does not create tailings or waste rock.

Responsible and safe management of mining waste streams is critical to the sustainability of our operations. We employ comprehensive and risk-based practices to effectively manage our tailings and mine waste storage facilities.

Mining at our operations in northern Saskatchewan requires the excavation of rock to access the uranium-bearing ore. This **waste rock** is classified as either mineralized or non-mineralized. Waste rock generated during underground mining is temporarily stored underground before being moved to the surface for storage (see page 35).

Milling of uranium ore produces **tailings** which are primarily composed of residues (the residual rock left after the uranium is recovered from the ore), mineral precipitates, sewage, and minor amounts of other processing chemicals. Tailings are an inevitable byproduct of milling and the annual tonnage of tailings produced is dependent on the ore grade and the production rate. The high uranium grade of our mines in northern Saskatchewan means that the tailings tonnage is relatively low. Tailings are safely stored on-site within engineered tailings management facilities.

Tailings management

At Cameco, we are committed to continuous improvement and seek to apply lessons learned from industry incidents to further strengthen our tailings management approach. We are also committed to transparency and disclose detailed information about our tailings facilities to our investors and communities

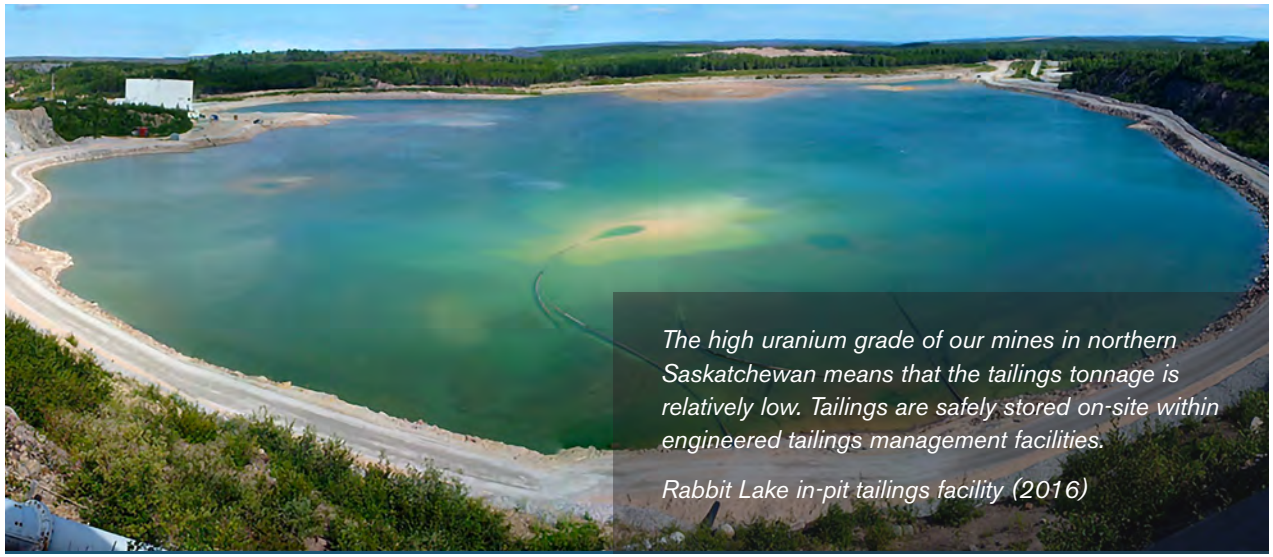
Environmental assessments of performance

We use environmental risk assessment models to evaluate the potential impacts to surface water from our tailings management facilities once the facilities are decommissioned. Using these models, we evaluate routine and non-routine (or accident) scenarios that could affect the future performance of the facility. We also regularly update our environmental risk assessments to verify that performance is within expectations and commitments for the facility. Results of the assessments are communicated to local and Indigenous communities and submitted to regulatory agencies for review and approval. This practice verifies that the environment and human health will remain protected in the long term.

Designing stable tailings facilities

We maintain four tailings facilities in Saskatchewan, two at our Key Lake site and two at our Rabbit Lake site. Both Key Lake and Rabbit Lake have one active in-pit tailings facility (**in-pit facility**) and one above-ground tailings management facility (**above-ground tailings facility**).

Our two **in-pit facilities** allow us to store tailings in the deep excavation of former mine pits (see sidebar on the next page). The storage of tailings below ground surface within in-pit facilities means that these facilities are not susceptible to failures that could release tailings solids or liquids to the surrounding environment. In addition, these in-pit facilities use a permeable surround design concept that allows groundwater to bypass the facility, which minimizes the long-term environmental risks.
The design of these facilities, which have both been in operation for over 20 years, remains an industry best practice.



The high uranium grade of our mines in northern Saskatchewan means that the tailings tonnage is relatively low. Tailings are safely stored on-site within engineered tailings management facilities.

Rabbit Lake in-pit tailings facility (2016)

Our two **above-ground tailings** facilities are no longer used for ongoing tailings placement but contain tailings from historic mining operations. These above-ground tailings facilities use engineered dams to contain the tailings. The dams were constructed using the centerline and downstream methods at Rabbit Lake and using the single stage method at Key Lake (see sidebar on right side of page). These construction methods contribute to structural stability. While our two above-ground tailings facilities no longer receive new tailings, we have repurposed these facilities and now use them to safely dispose of radiologically contaminated solids or liquid, without disturbing additional land.

To mitigate the risk of water overtopping the tailings facilities due to heavy rainfall events (which could lead to a potential dam failure or loss of containment), we maintain the capacity to contain a 24-hour probable maximum precipitation event.

At our four tailings facilities, we conduct a range of daily, weekly, monthly, and annual inspections to examine various aspects of tailings management. These inspections include monitoring the geotechnical (physical structure) and geochemical (chemical composition and distribution) stability of the tailings and their associated containment structures.

Improving tailings management practices

Analysis of tailings failures in the mining sector have indicated that inadequate management practices can contribute to failures. At Cameco, we follow the Towards Sustainable Mining Tailings Management Protocol developed by the Mining Association of Canada (MAC). Every year that our site operates, we self-assess our practices, and every three years, we undergo third-party verification. Our 2017 performance for Key Lake was externally verified, and we achieved an A rating across all protocol indicators. Possible ratings range from Level C to Level AAA, with increasing ratings reflecting the comprehensiveness of the relevant management system. Level A is the expectation and a rating that is reflective of good management practices. We are in the process of adjusting our tailings management system to reflect revisions made to the MAC protocol in 2019 and will externally verify our 2020 performance later in 2021.

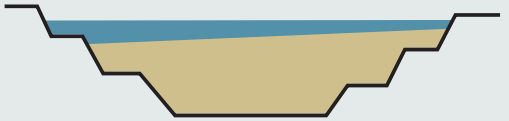
At Cameco, we have implemented the following best practices identified in the MAC protocol:

	TAILINGS MANAGEMENT PRACTICES	CAMECO
1	Tailings management policy and commitment	✓
2	Site-specific tailings management systems	✓
3	Chief Operating Officer is accountable for tailings management	✓
4	Conduct annual tailings management reviews	✓
5	Site-specific operation, maintenance, and surveillance (OMS) manuals	✓

At Cameco, we follow the Towards Sustainable Mining Tailings Management Protocol. Every year that our site operates, we self-assess our practices, and every three years, we undergo third-party verification.

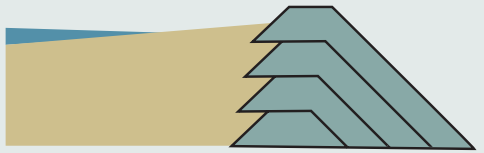
Cameco's tailings and dam structures

We have two **in-pit tailings facilities**.

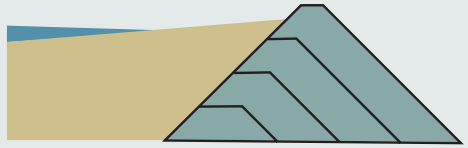


Our two **above-ground tailings facilities** use a combination of centerline, downstream and single stage construction.

Centerline



Downstream



Single Stage

A single stage dam is built to full height in one stage with no further raises. This design is most commonly used for smaller tailings facilities.

In-pit tailings management facility at our Key Lake Operation.

Protecting groundwater

During the operational phase, we control the water levels within the in-pit tailings facilities to maintain full containment of the tailings water. The Key Lake above-ground tailings facility uses a liner and an underdrainage system to capture tailings seepage water and to minimize the impact on groundwater. The Rabbit Lake above-ground tailings facility was primarily designed to contain the tailings solids and control the pressure of the water held within the mix of soil and rock that makes up the dam (controlling this "pore pressure" is vital to prevent dam failures). Recent assessments commissioned by Cameco have demonstrated that these facilities will not pose a significant adverse effect on the downstream environment.

Minimizing radiation exposure

To minimize worker exposure to radiation from tailings, we follow the same radiation precautions required across our business (time, distance, and shielding). Access is restricted to the areas, minimizing the exposure time and increasing the distance from the radiation source. In addition, Key Lake's in-pit facility uses a water cover to provide an additional layer of radiation shielding.

Tailings assessments

We conduct different assessments of our tailings facilities and in 2020 strengthened our process by:

Establishing a tailings review board

We established an independent tailings review board that is scheduled to meet annually to review our tailings facilities' design, management, and performance, and to provide an independent, qualified opinion on the state and risk associated with our tailings facilities. The review board includes two experts, each with more than 35 years of experience in mining waste management and tailings, including in the Arctic and other challenging conditions.

Completing dam safety reviews

For our two above-ground tailings facilities with dams, we completed dam safety reviews in accordance with Canadian Dam Association guidelines. The goal of this review is to assess and evaluate the safety of a dam against failure modes. The review is conducted by a qualified engineer and is based on current knowledge and guidelines, which might be different than at the time of construction. At Rabbit Lake, the dam safety review found that the dams were in a satisfactory condition, there were no dam safety deficiencies apparent, and that the dams appear stable with no visible signs that would suggest potential geotechnical instability. At Key Lake, the dam safety review found the facility to be generally in sound condition without evidence of any dam safety issues, and that it is being managed consistent with sound engineering and good industry practice.

Assessing consequence of failure

While significant effort is put into ensuring our tailings facilities are stable, and we remain confident in the stability of these facilities, we also started a process to assess the consequence of a dam failure for our two above-ground tailings facilities. The results of these studies will allow us to enhance our emergency response plans and classify the consequence of failure. It is important to note that this assessment is not an indication of the likelihood of failure, rather it assesses the consequence of failure, should one occur. In accordance with the Canadian Dam Association's consequence classification rating system for dams, dams are classified as having a Low, Significant, High, Very High, or Extreme Consequence based on defined criteria. Under this assessment criteria, our dams were determined to have a "Significant" consequence (the second lowest level in the scale, see graphic below). Significant consequence means a low potential for loss of life, people are only temporarily in the inundation zone, no significant loss or deterioration of biodiversity or landscape, and low economic losses.

Canadian Dam Association (CDA) Consequence Clasification Ratings for Dams

Increasing level of consequence should an event occur, not likelihood

LOW	SIGNIFICANT	HIGH	VERY HIGH	EXTREME CONSEQUENCE
❑ No population at risk	☑ People are only occasionally in the inundation zone	❑ Permanent population at risk	❑ Permanent population at risk	❑ Permanent population at risk
❑ No possibility of loss of life	☑ Low potential for loss of life	❑ Loss of life estimated at 10 or fewer	❑ Loss of life estimated at 100 or fewer	❑ Loss of life estimated at more than 100
❑ Minimal deterioration of endangered species, habitats, or sites of cultural significance	☑ No significant deterioration of important habitats, endangered species, or sites of cultural significance	❑ Significant loss or deterioration of specific habitats, or sites of cultural significance	❑ Significant deterioration of endangered species, critical habitats or sites of cultural significance	❑ Major loss or deterioration of critical habitats, rare species, or sites of cultural significance
❑ Minimal Economic losses	☑ Low economic losses	❑ High economic losses	❑ Very high economic losses	❑ Extremely high economic losses
	Cameco's above-ground tailings facilities			

Lessons learned from industry events

Over the past decade, we have taken the following actions in response to international incidents related to tailings dam failures or the release of radioactive contaminants.

2011 Fukushima Daiichi nuclear event, Japan- We reviewed all our mining and processing operations to assess the risk from external hazards, such as seismic, flooding, fire, and extreme weather events; measures for prevention and mitigation of severe accidents; and emergency preparedness. Read more in our TCFD section on page 21.

2014 Mount Polley tailings dam failure, Canada- We reviewed the findings of the investigation into this incident and confirmed that our dams are not susceptible to the type of failure which occurred at Mount Polley.

2015 Fundao tailings dam failure, Brazil- We reviewed this incident and noted that our dams are not susceptible to a similar failure mode since they are constructed using different methodologies, are not as high, and are in a different climate.

2019 Brumadinho tailings dam failure, Brazil- We reviewed this investigation, which highlighted the ongoing need for facility management even when there is no longer active tailings deposition as this facility failed after tailings deposition was complete.

In addition to Cameco's review of these events, the Mining Association of Canada (MAC), a leader in establishing tailings management practices for more than 20 years, has completed detailed reviews of these events that resulted in updates to their Tailings Management Protocol. As a member of MAC, we are committed to following the MAC Tailings Management Protocol as it has evolved and become more stringent, and we continue to make changes to strengthen these practices. We report our performance relative to the protocol, which MAC publishes annually.

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Waste rock and other mining wastes

Our mining waste from Saskatchewan also includes waste rock. Waste rock is rock that has been excavated but, unlike tailings, has not been milled and does not have metal concentrations of economic interest. At Cameco, our active mines are underground operations and generate low waste rock volumes.

We classify waste rock based on its geology. Waste rock comes in three general types, and management procedures vary based on type.

Mineralized - Low-grade uranium ore with more than 0.03% U_3O_8 concentration. Mineralized waste rock is generated by our McArthur River mine when it is operating and is transported to our Key Lake mill where it is ground and blended with the high-grade ore slurry received from the McArthur River mine before entering the remainder of the milling process. Mineralized waste rock is stored on engineered, lined pads to minimize soil and groundwater contamination.

Non-Mineralized - Rock that has virtually no uranium (less than 0.03% U_3O_8) and is categorized as clean or potentially acid-generating, based on the likelihood of acidic seepage.

- **Clean -** Rock that has virtually no uranium (less than 0.03% U_3O_8) and is not potentially acid generating. Wherever possible, we reuse clean waste rock to replace underground material removed during extraction, to produce sprayed concrete (shotcrete) by mixing it with water, or for road maintenance.
- **Potentially Acid Generating -** Rock potentially containing sulfide minerals that could reach water and cause acid rock drainage. Although we generate very low volumes of this type of rock, we store it in separate lined rock piles.

As part of our decommissioning plans, all mineralized waste rock will be milled, or otherwise disposed of within the mine workings or mine pits. Potentially acid generating rock will be disposed of in the mine workings or in saturated pits. Clean waste rock piles will be regraded to blend into the natural environment, covered, as necessary, and revegetated with native vegetation species (read more on page 45).

We also generate sludges and slimes through the mining and milling process. At our Key Lake, McArthur River and Rabbit Lake mines these waste streams are incorporated into the tailings, or placed underground within the mine for disposal. At our Cigar Lake mine, slimes generated during mining are stored on surface in lined facilities.

Upon completion of mining activities, we plan to return the slimes to the underground workings for final disposal.

Foreground: Cigar Lake waste rock pile (2019)

Definitions

Tailings - Tailings are the residual rock left after the uranium is recovered from the ore at our mill sites in northern Saskatchewan. Tailings are an inevitable byproduct of milling ore and the volume of tailings we produce is dependent on the ore grade and the production rate. Uranium recovery rates from the ore are very high, however, a small percentage of the uranium and other radionuclides remain in the tailings. The tailings also include gypsum generated from the use of sulfuric acid and lime in the milling process.

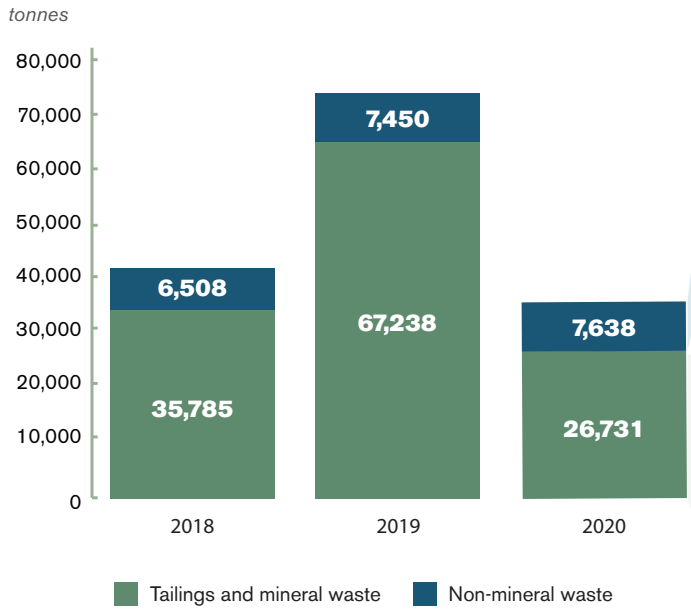
Waste rock - Waste rock is bedrock that has been mined and transported but, unlike tailings, has not been milled and does not have metal concentrations of economic interest.

At Cameco, the active mines that we operate are underground and generate low waste rock volumes.

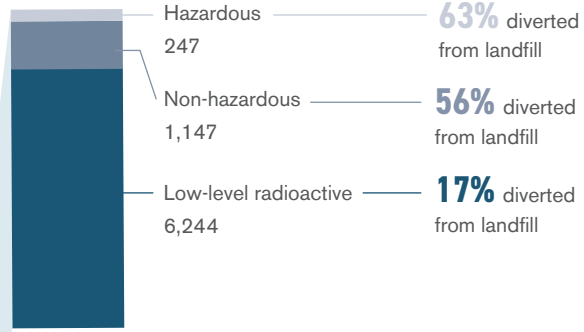
Non-Mineral Waste

The goal of our waste management efforts is to reduce the amount of waste we generate and to divert as much as we can by reusing, recycling, or recovering material that would otherwise go to a landfill or other permanent waste storage. We generate and manage waste from our operating facilities in accordance with our compliance obligations and with the overall objective of protecting people and the environment, and we pay special attention to hazardous and radioactive waste. We manage all our waste using site-specific strategies that are designed to verify that waste streams are appropriately segregated, processed, packaged or labelled, stored, disposed of on-site or transferred off-site for safe disposal, recycling, or reuse where appropriate.

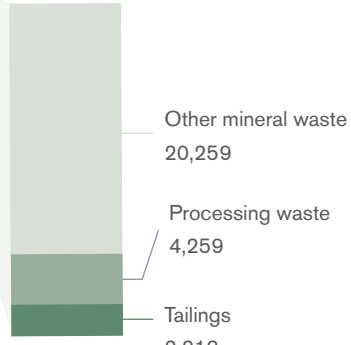
Waste



Non-mineral waste breakdown



Tailings and mineral waste breakdown



Definitions

Hazardous waste - Includes hazardous recyclable materials, and generally means a waste with hazardous properties that may have potential effects to human health or the environment. The hazardous waste we generate includes materials such as used petroleum fuels (oil, diesel, gas), batteries, paint and paint-related materials, compressed gas cylinders, and light fixtures.

Non-hazardous waste - Includes domestic, commercial, and industrial materials that become waste, such as plastic, tin, paper and cardboard, tires, metal, wood pallets, kitchen cooking oil, and wood.

Low-level radioactive waste - Includes industrial materials that have become contaminated with radioactive material and are more radioactive than clearance levels and exemption quantities allow. This type of waste includes industrial materials such as protective equipment, paper, cardboard, equipment, tools, metal, plastic, concrete, sand, sludges, insulation, and wood.

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Types of waste

In addition to tailings and mineral waste (see preceding pages), we generate and manage non-hazardous, low-level radioactive, and hazardous wastes (see sidebar definitions on the previous page). We implement programs to reduce, reuse, recycle, and/or recover waste.

1. Management of non-hazardous wastes

At all of our operated facilities, we segregate non-hazardous waste at the source into recyclable and non-recyclable materials. Recyclable materials are either picked up by municipal recycling authorities or shipped to off-site recycling programs. At our Saskatchewan operations, non-recyclable materials are collected, placed, and covered at on-site landfills. Cameco-operated landfills in northern Saskatchewan are maintained in compliance with the approvals from the province of Saskatchewan, are fenced to control wildlife, and are regularly inspected by regulatory bodies. At other facilities in Canada and the US, non-recyclable materials are picked up and disposed of at municipal landfills.

2. Management of radioactive waste

We take into account the ALARA (as low as reasonably achievable) principle across our operations (see page 53 for radiation safety) and for the management of all wastes, including radioactive waste. Following this principle means that we design our systems and procedures to minimize worker exposure to this waste. We do not generate intermediate or high-level radioactive waste in either our mining operations or in our fuel services division. Radioactive waste has different classifications depending on the jurisdiction and must be managed in the following ways:

- **Fuel services -** Non-routine wastes are segregated at their source, classified as radioactive and/or hazardous as applicable, and characterized to determine their properties and whether they are ready for safe storage, or the level of processing required to meet waste acceptance criteria. The waste is safely stored at a licensed Cameco facility until it is further processed and released from regulatory control or transferred to another organization or facility that is licensed to receive radioactive and/or hazardous waste for processing or disposal. At our fuel services division in Ontario, we classify radioactive waste into contaminated non-combustible and contaminated combustible categories. We have programs to incinerate combustible waste and to decontaminate scrap metal and release it to a third party for recycling.
- **Mining in Saskatchewan -** In Saskatchewan, we refer to the ultra low-level radioactive waste generated as contaminated waste. This waste is transferred to above-ground tailings facilities at Key Lake and Rabbit Lake for placement and cover.
- **Mining in the US -** In the US, low-level radioactive waste is referred to as 11 e(2) byproduct. This waste is transferred to another licenced facility in the US where uranium is recovered from the waste and the remaining material is safely disposed of.

Prior to Cameco's formation in 1988, the site where our Port Hope Conversion Facility is located had been used for the storage of legacy radioactive waste for several decades. After meeting prescribed waste acceptance criteria, this waste is eligible for disposal in a government-owned long-term waste management facility. Vision in Motion is an ongoing project at the Port Hope conversion facility that supports proper characterization and disposal of this waste (see the next page for details).

3. Management of hazardous waste

At all of Cameco's operated facilities, hazardous waste is collected and stored on site in designated hazardous waste storage areas and picked up or transferred to a third party for disposal or recycling.

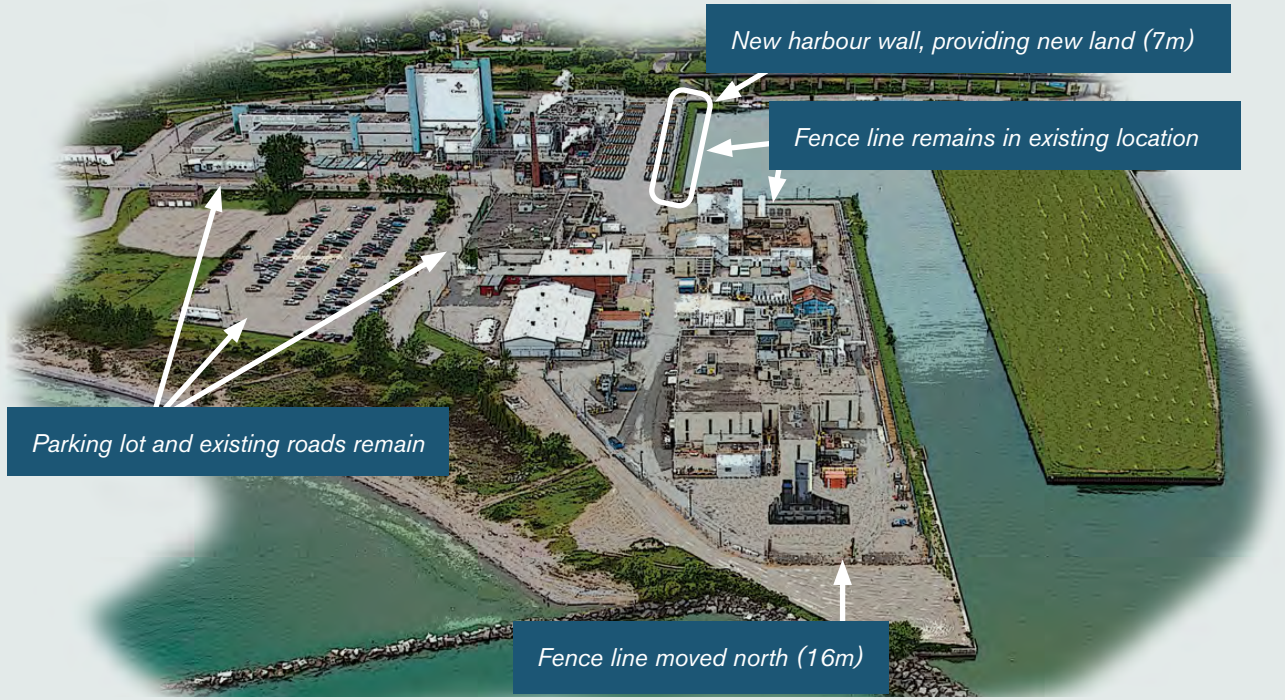
Reuse and recycling efforts

We produce and work with valuable and non-renewable resources, so we aim to reprocess or recycle them to the extent possible. Examples include:

- Ammonium sulfate, a byproduct from our Key Lake mill (when operating) is sold to fertilizer manufacturers for use in their products.
- Ammonium nitrate, a byproduct from our Port Hope conversion facility, is also sold to fertilizer manufacturers for use in their products.
- Our fuel services division generates calcined, regeneration, and fluoride products that contain recoverable uranium. These byproducts are currently transferred to a mill in the US for uranium recovery. Calcined and fluoride products can also be recycled at our Key Lake mill (when operating).
- Zirconium is used to make the cylindrical fuel rods for fuel bundles. Scrap zirconium generated during fuel manufacturing is recycled.

Case study:

Vision in Motion



What is Vision in Motion?

Vision in Motion is a project at our Port Hope conversion facility. This multi-year project involves cleanup and renewal activities that will improve site appearance and efficiency and address legacy waste from historic operations.

Key to the success of this project is our collaboration with the Port Hope Area Initiative (PHAI) and the Municipality of Port Hope. We also work closely with members of the community to align with their planning objectives for waterfront redevelopment.

This project has been made possible because of PHAI's construction of a long-term waste management facility to properly manage and store legacy low-level radioactive waste.

What activities will we undertake?

Our project activities will include:

- Removal of up to 150,000 cubic metres of legacy waste materials, including soil, for safe storage at a long-term waste management facility.
- Removal of surplus buildings.
- Construction and refurbishment of buildings to improve the look and efficiency of the site.
- Construction of a flood protection barrier along the eastern side of the site that will exceed the Ganaraska River Conservation Authority flood protection requirements.
- Improvements to storm water management infrastructure.
- Improvements to groundwater management by expanding the pumping/treatment system.
- Remediation of several sections of land impacted by historic operations.

What are the expected benefits?

Once completed, the project will return land and pier access for municipal use.

There will be more than a 25% reduction in Cameco's site footprint upon completion, compared to before the project was initiated.

Other key benefits include:

- The safe cleanup and management of legacy waste.
- Jobs for the duration of the project.
- The long-term viability of the Port Hope area's largest industrial employer.
- Improved operations appearance and environmental performance.

GHG Emissions and Energy Use

Cameco's commitment to environmental protection is long-standing. We have tracked and reported greenhouse gas (GHG) emissions for more than two decades while we continue to pursue strategies to be more efficient in our use of resources.

Sources of GHG emissions

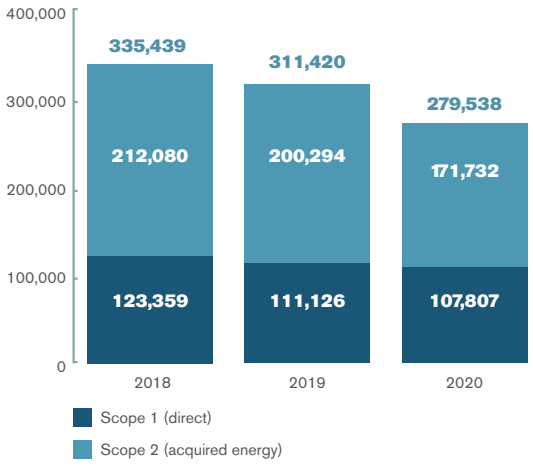
Our GHG emissions are directly related to the type and amount of energy that we consume. We do not have significant GHG emissions that are produced by sources other than energy consumption.

- Our **Scope 1** (direct) emissions are primarily associated with the consumption of gaseous fuels (propane and natural gas) for heating. We also use diesel and gasoline to operate heavy-duty and light vehicles across our operations, and relatively small quantities of diesel for back-up power generation at our mine and mill facilities in Saskatchewan. We do not have significant GHG emissions that are produced by sources other than fuel consumption (such as flaring, venting, or fugitive emissions).
- We report our **Scope 2** (acquired energy) emissions associated with the purchase of grid-supplied electricity. The majority of these emissions are generated as a result of the purchase of power from the provincial power utility in Saskatchewan. The Saskatchewan power utility has several coal and natural gas power generating stations and applies a single emissions factor to all electricity purchased in the province[17]. These coal and natural gas power generating stations are subject to increasingly stringent regulations that limit GHG emissions intensity. Emissions associated with the generation of grid electricity in Saskatchewan have declined and are expected to continue to decline. Electricity purchased in Ontario for use at fuel refining, conversion, and manufacturing facilities is largely non-emitting (a mix of nuclear power, hydroelectric, natural gas, and wind).
- We do not quantify and report our **Scope 3** emissions on an annual basis. To better understand our value chain impacts, we currently monitor Scope 3 emissions associated with the transport of materials and employees by third parties on an annual basis. Based on our estimates and information from third-party studies[18], we believe our focus needs to remain on our Scope 1 and 2 GHG emissions.

Energy efficiency and visibility

We have been focused on improving the visibility of energy consumption within our organization and implementing improvements to reduce energy consumption at all our operations. We have made measurable reductions in energy used for mine ventilation, building heating and ventilation, and compressed air systems, and have several ongoing reduction initiatives at our mining, milling and fuel services facilities. For example, in 2019 we improved the control of our mine ventilation system at Cigar Lake, which allowed a sustained reduction in electricity and propane consumption from that facility.

GHG emissions - operational control



Our corporate GHG emissions fluctuate in response to changes in our business strategy and, in recent years, have been lower due to the non-producing state of several of our operations. In 2020, our GHG emissions were lower than in previous years as a result of production suspension at our Cigar Lake mine due to the COVID-19 pandemic. More than half of our GHG emissions are associated with electricity consumption (Scope 2).

[17] The region of northern Saskatchewan where Cameco's facilities are located is largely served by power provided by Island Falls Hydroelectric Station.

[18] Parker, D.J., McNaughton, C.S., and Sparks, G.A. 2016. Life Cycle Greenhouse Gas Emissions from Uranium Mining and Milling. Environ. Sci. Technol., 2016, 50 (17), pp 9,746–9,753.

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We use energy for various purposes including:

- **Heating -** We heat air in surface buildings and in the tunnels connecting the surface to the underground. We also use energy to heat water or liquids to be used in processes and by people.
- **Ventilation -** We maintain adequate ventilation in process buildings and in underground mines to keep workers safe from radiation exposure. This strategy to minimize radiation exposure, aligns with the ALARA (as low as reasonably achievable) principle we follow across our operations.
- **Moving water -** We need to move the water that we manage (see the Water section of this report on page 27).
- **Ground freezing -** At some of our underground mines, we use grid-supplied electricity to freeze the ground around the uranium ore deposit. This process helps to reduce the amount of water we manage, reduce radiation exposure for workers and improve ground stability around the mine.
- **Processing and transporting our products -** We use energy to power mining and processing equipment and transport materials through various stages.

Underground, at our McArthur River mine, we circulate a brine that keeps the porous sandstone rock surrounding the ore frozen.

Emissions during the life of a uranium mine

An independent comprehensive life cycle assessment of uranium mining and milling in Canada[19] concluded that these emissions are low compared to published estimates of emissions from other uranium production facilities, largely due to the high ore grades currently in production. Life cycle GHG emissions intensity is defined in the study as emissions from mine construction, operation, and decommissioning activities, as well as emissions embodied in infrastructure, equipment, and materials used at the mines.

2020 activities

- We completed studies to assess and recommend improvements to energy monitoring and measurement systems at McArthur River mine and Key Lake mill, to heat recovery ventilators at Key Lake, and to heating, ventilation and air conditioning systems at the Cigar Lake permanent camp.
- We implemented improvements to energy monitoring and measurement systems at our Cigar Lake mine and began using an integrated energy management information system to monitor and improve energy performance. Our energy management information system converts energy and utility data into energy performance information that we can use to plan, make decisions, and take actions to manage energy use, energy cost and GHG emissions.
- Our energy conservation initiatives and one of our employees at our Port Hope conversion facility were recognized by the Independent Electricity System Operator (IESO) in Ontario.

Analyst Corner

SASB EM-MM-110a.2

[19] Parker, D.J., McNaughton, C.S., and Sparks, G.A. 2016. Life Cycle Greenhouse Gas Emissions from Uranium Mining and Milling. Environ. Sci. Technol., 2016, 50 (17), pp 9,746–9,753.

Land and Biodiversity

We strive to minimize the impacts of our activities on the land, plants, and animals in our operating areas in compliance with regulations and with a commitment to monitoring and measuring our impacts.

The mining methods we currently use at Cameco (underground mining and ISR) result in less land disturbance than open-pit mining. Our company-wide footprint is about 3,000 hectares. About 40% of this footprint is from our US ISR operations where the land is occupied by our operations but does not require extensive surface disturbance (see illustration on page 30). Underground mining also requires relatively small surface disturbance. However, we recognize we share our land with Indigenous communities in northern Saskatchewan and respect their traditional land use. Read about our relationships with Indigenous communities on page 47.

A considerable portion (34% of our proven and 57% of our probable) reserves are in or near sites with protected conservation status or endangered species habitat.

Biodiversity protection in Canada

For our Canadian operations, we meet all level A requirements of MAC's Towards Sustainable Mining biodiversity management protocols, and have specific programs to evaluate and minimize our impact on biodiversity:

1. **Woodland caribou research:** Woodland caribou are listed as a threatened species in Canada's *Species at Risk Act*. We have contributed to the body of knowledge on woodland caribou populations and habitat in the Saskatchewan Boreal Shield (SK1) region where we operate by conducting direct data collection and research. We have also joined with government and industry peers to support University of Saskatchewan research on woodland caribou, including a study that ran from 2014 to 2018 and found that the SK1 region has a relatively large, stable population of woodland caribou.
2. **Wildlife management:** Wildlife management practices are carried out to minimize potential for wildlife and human interactions. Our practices involve educating our workforce and contractors (topics include food and waste management control, consequences for habituated wildlife, basic personal safety precautions, basic information on wildlife behaviour, minimum steps to take if wildlife is encountered, the process for reporting, conditioning programs, and wildlife activity notifications). We also practice attractant management, i.e., removing foods, wastes, or other smells that could potentially attract wildlife to our sites, managing food storage and disposal, and using other means to limit attractants. Additionally, we monitor our sites and surrounding areas. Employees document sightings of a variety of species around our sites, including bear, fox, wolf, or other species that may frequent the area.
3. **Aquatic environment surveys:** To understand the potential influence of our operations on aquatic ecosystems, we conduct aquatic surveys every three years on our primary drainage areas. These surveys measure water quality, sediment quality, fish populations, levels of chemicals in fish, and other organisms, in addition to a periodic survey of semi-aquatic mammals.
4. **Avian risk assessments:** During exploration activities, or if clearing may be required during a bird's breeding period, we engage a qualified external biologist to complete an avian risk assessment to determine if our activities would pose risks to breeding birds. Risk evaluation includes detection surveys, bird behavioural observations, and habitat evaluation.

In about 19 km^2, our Saskatchewan mines have the licensed capacity (100% basis) to produce virtually all uranium used by US nuclear power generation plants each year.

5. **Desktop review of species at risk:** We periodically review the scientific literature, published lists from the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and the *Species at Risk Act* to identify species at risk in northern Saskatchewan. We typically update this review on a five-year cycle in alignment with our environmental risk assessments (see page 26).

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SASB EM-MM-160a.3

Biodiversity protection in the US

In our US operations, some of our land is adjacent to Fort Robinson State Park, which is a wildlife and historic area operated by the State of Nebraska. In order to protect species and habitats in Nebraska, we monitor swift fox presence in active development areas. In Wyoming, we perform seasonal avian surveys for raptors and sage grouse. We also modify field construction activities during nesting seasons, if located in proximity to active nesting or denning areas.

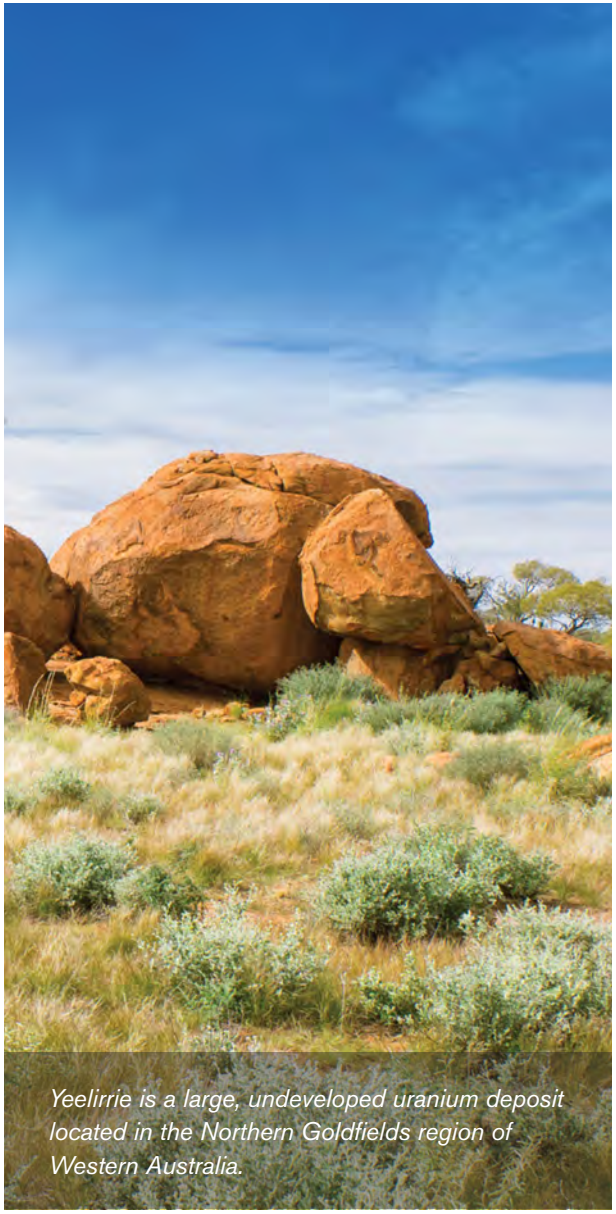
Our US operations, when operating, use the in situ recovery (ISR) mining method, which produces no tailings or waste rock and involves minimal surface disturbance.

Protecting habitats, for a variety of species, is an important part of how we operate our US facilities.

Addressing biodiversity concerns in our plans in Australia

For our exploration projects, we take environmental and biodiversity concerns into consideration in the early stages of project development. While our two Australian projects (Kintyre and Yeelirrie) are currently on hold, our plans include considerations for the following concerns:

- For Yeelirrie, the presence of subterranean (living below the ground) fauna, including microscopic centipedes within the proposed development and in the vicinity of our mine project, remains a concern for stakeholders. Cameco continues to contribute to research relating to habitat and sampling techniques to better understand the potential range of some species. Prior to ground-disturbing activity, we will submit management plans to the Australian Environmental Protection Authority, detailing our plans to address the management of groundwater levels to preserve habitat as well as ongoing sampling programs.
- At Yeelirrie, our mine plans were able to avoid impacts on flora with the exception of one new species of saltbush, *Atriplex sp. Yeelirrie Station*. If this project proceeds, we will work with the Department of Parks and Wildlife to develop and implement a management plan for this plant. More details about our plans can be found here.



Yeelirrie is a large, undeveloped uranium deposit located in the Northern Goldfields region of Western Australia.

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Air Quality

Protecting air quality is essential to being a good neighbour and a safe employer. We continually monitor air quality near our facilities and mines. While our mines are located in remote areas of Canada and the US, the facilities in our fuel services division are located in or near populated areas in Ontario. Due to the nature and location of our fuel services facilities, protecting local air quality is a priority in this region.

Monitoring air quality

We operate our facilities while keeping our air emissions well below allowable regulatory limits. As an additional level of control, we also have implemented action levels, which are not an indication of an unsafe condition, but rather an early warning that something has changed and should be investigated. We monitor our compliance with regulatory limits and with our own action levels by testing and sampling, including ambient air monitoring and stack sampling. We have processes that we follow in the event that we exceed our action levels or regulatory limits.

We take samples of ambient air around our facilities using several methods. Ambient air monitoring helps us measure the presence and concentration of specific substances, including uranium suspended in air, to determine air quality.

In addition, at all mines (when in operation) and facilities, we collect and verify representative samples of emissions at the place of origin from industrial sources to determine the total amount of pollutants emitted to the atmosphere. This is called stack sampling. At operations that are adjacent to human populations, stack sampling is completed on a frequent basis (e.g., continuous, daily, or other regular interval).

Measuring air emissions

Our operations generate the following air emissions that can impact air quality:

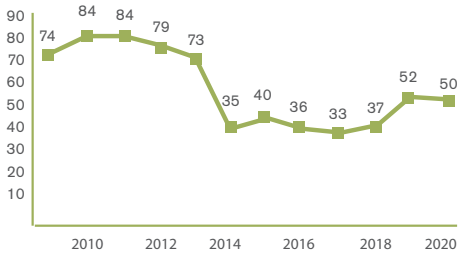
AIR EMISSIONS (TONNES)	2018	2019	2020
NOx (excluding N_2O)	183	118	138
Particulate matter (PM_{10})	151	156	149
Carbon Monoxide (CO)	57	10	9
Ammonia (NH_3)	41	39	38
Volatile organic compounds (VOCs)	13	1	1
SOx	13	0	0
Hydrogen Fluoride	0.58	0.53	0.61
Uranium	0.04	0.05	0.05

Note: Air emissions data is limited to our Canadian operations.

Case Study: Reducing uranium emissions at our Port Hope Conversion Facility

Uranium emissions levels from all facilities continue to meet the requirements of the operating licences and applicable ministerial approvals. However, in 2012, we decided to reduce uranium emissions from our Port Hope conversion facility to an even lower level by installing a new piece of pollution control equipment. The equipment further reduced uranium from a process off-gas stream. Our original target was to reduce uranium air emissions by 50% by 2018 from 2012 levels. We exceeded this target and reduced site uranium air emissions by more than 50%, four years ahead of schedule. This project aligns with our commitment to ALARA.

Total Air Emissions of Uranium in the Fuel Services Division (kg)



Over the last 10 years, we have significantly reduced air emissions of uranium from our fuel services division.

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Decommissioning and Closure

Our commitment to protecting the environment and the needs of the communities around our operations extends to the full life cycle of our mines and facilities. This includes planning for decommissioning and preparing our sites for permanent closure.

Planning for decommissioning

In keeping with the conditions of our licences, permits, and approvals, we develop preliminary decommissioning plans for our mines and fuel services facilities. This conceptual plan describes activities required to reclaim the site to defined final end-state objectives, after the operating life of a facility. The plan includes a preliminary cost estimate for labour, materials, equipment, waste management, regulatory approvals, monitoring, and administration to carry out the plan. This cost estimate is the basis for determining our decommissioning obligations.

Closer to the end of life, we prepare a detailed decommissioning plan that must meet applicable regulations, such as Canadian Standards Association's N294 Standard, Saskatchewan's Northern Mine Decommissioning and Reclamation Guidelines EPB 381 and CNSC G-219 Decommissioning Planning for Licensed Activities. In the US, our operations are required to meet the requirements of the *Atomic Energy Act* of 1954 including all applicable amendments. The regulatory requirements are administered by the Nuclear Regulatory Commission (NRC) and the Wyoming Department of Environmental Quality (WDEQ), Land Quality Division (LQD), Uranium Recovery Program administered under the Agreement State Program. Final license termination in Wyoming must be approved by NRC. Additional requirements for surface reclamation are State Rules administered by the Nebraska Department of Environmental Quality and the WDEQ LQD.

Meeting our obligations

Our 2020 estimate for our future decommissioning and reclamation costs (total and undiscounted) for our existing operating assets is approximately $1.2 billion. The expected timing for these costs is based on life-of-mine plans, but the majority of expenditures are expected to occur after 2026 (see table below). Every quarter, we update these estimates based on new cash flow estimates, discount and inflation rates. To ensure we can pay for these future obligations, we have financial assurances of $1,021,142,000 (in the form of letters of credit or surety bonds to satisfy current regulatory requirements).

Estimated mine life

LOCATION	NAME	MINE LIFE
Canada	Cigar Lake (currently in production)	Until 2029
Canada	McArthur River mine / Key Lake mill	23 years*
Kazakhstan	Inkai	Until 2045
Canada	Rabbit Lake	Depends on production rate if restarted
US	Crow Butte	
US	Smith Ranch-Highland	

** Based on production schedule in NI-43-101 Technical Report March 29, 2010.*

Preliminary decommissioning plans

Read a summary of our preliminary decommissioning plans for the following sites:

- McArthur River
- Key Lake
- Cigar Lake
- Rabbit Lake

Definitions

Mine closure - The period of time when extraction has stopped, and final decommissioning is being planned and completed.

Step 1: **Mine decommissioning:** Remove structures from the site and verify that mine shafts are blocked off appropriately. The focus is on confirming that structural elements and environmental threats are properly abated to support smooth environmental remediation and mine reclamation.

Step 2: **Mine reclamation:** Ensure mining land can be returned to a biologically-sound state ideal for wildlife, recreation, or commercial uses. This includes site remediation, and clean up and restoration.

Reclaiming proactively

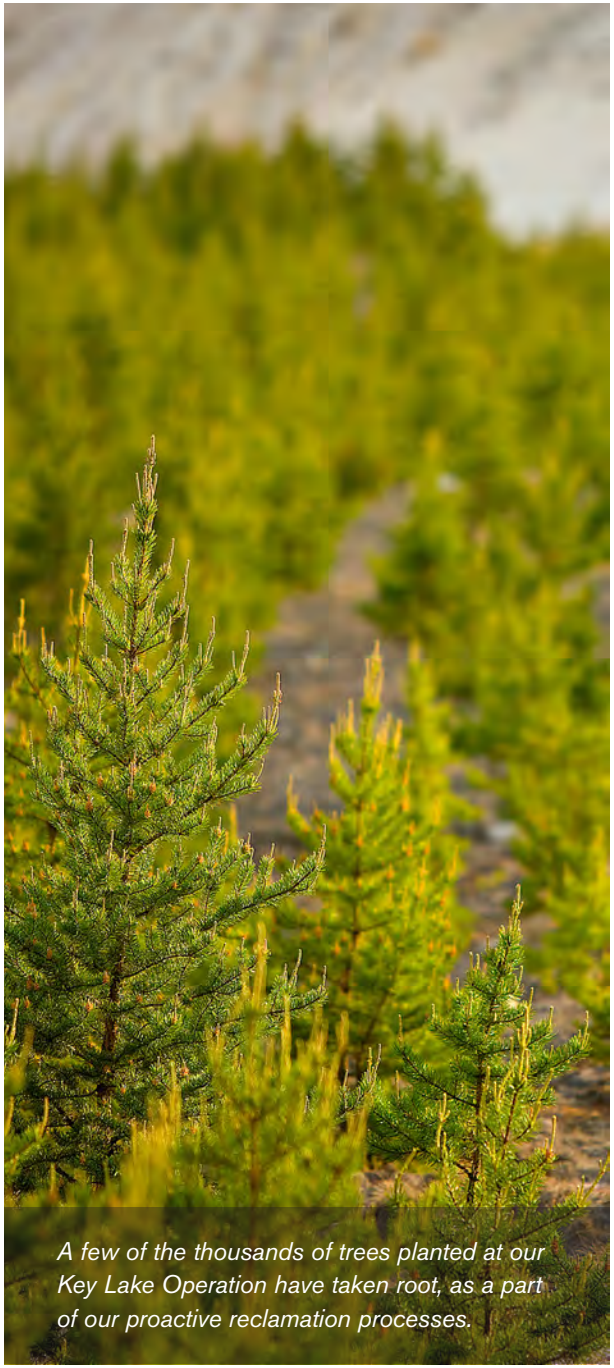
If part of an active site is ready for decommissioning and reclamation before the full site reaches the end of its life, we will proceed proactively with decommissioning and reclamation work on that area. Some of the decommissioning and reclamation projects we have undertaken in the last few years include:

Water restoration in the US - Once we complete our mining operations in an area (or unit), we need to ensure that post-mining concentrations of metals, metalloids, and total dissolved solids in the groundwater do not present an unacceptable long-term risk to human health or the environment. We use a combination of physical and chemical processes during groundwater restoration that include reverse osmosis treatment and bioremediation (remediation using microorganisms). Across our three mines in the US, there are seven mine units that are currently undergoing active groundwater restoration. Completing this process can take several years. Once groundwater processing is completed it is monitored for a number of years to verify that water quality is stable. Finally, decommissioning of the mining area can be completed by plugging and abandoning all wells and removing surface infrastructure, followed by revegetation.

Tree planting at Key Lake - The Key Lake operation continues to undergo reclamation activities. Re-establishing vegetation on reclaimed areas is critical to the long-term success of reclamation and to erosion control. Our multi-stage revegetation process begins with native species such as mosses, lichens, and shrubs that create a suitable environment for the introduction of other native species to accelerate natural reforestation. As part of this ongoing process, we planted 6,360 trees at our Key Lake operation from 2018 to 2020.

Waste rock decommissioning at Rabbit Lake - We completed active decommissioning of a waste rock pile at our Rabbit Lake operation in 2012. We re-contoured and compacted the waste rock surface, placed a soil cover and started revegetation. Planting grass promotes regrowth and reduces erosion. We used hydroseeding, which is a planting process that uses a slurry of seed and mulch to accelerate growth and lock in moisture.

As part of proactive reclamation, we planted 6,360 trees at our Key Lake Operation from 2018 to 2020.



A few of the thousands of trees planted at our Key Lake Operation have taken root, as a part of our proactive reclamation processes.

Social

Our relationships with our workforce, Indigenous Peoples, and local communities are fundamental to Cameco's success. The protection of our workforce and the public is our top priority in our assessment of risk and planning for safe operations and product transport. To deliver on our vision to energize a clean-air world, we invest in programs to attract and retain a diverse, skilled workforce dedicated to continuous improvement and committed to our values.

Highlights

51% of our employees in Northern Saskatchewan are Residents of Saskatchewan's North

25% of our management employees in Canada are women

1.7 Total Recordable Injury Rate for employees and contractors (OSHA)

Elder Indigenous drummers lead the procession to formalize the Six Rivers Fund agreement between northern Saskatchewan communities, Cameco and Orano Canada Inc.

Relationships With Indigenous Peoples and Local Communities

Cameco has a long history of working collaboratively with Indigenous Peoples and local communities wherever we operate, exemplified by the long-term relationships and numerous mutually beneficial agreements we have with Indigenous Peoples in Canada and Australia. We believe that Indigenous Peoples and local communities should benefit from resource development on or near their communities or traditional lands, through employment, training, business opportunities, community investment, and environmental stewardship. We tailor our engagement approach across our operating areas to reflect the needs of the local communities.

Since 2001, Cameco has been gold-certified under the Progressive Aboriginal Relations program of the Canadian Council for Aboriginal Business and was recertified in 2020.

Our company-wide approach

Our Code of Conduct and Ethics contains our commitment to communicate with community members in an open and understandable way and to listen to their concerns and ideas about our business activities. In our interactions, we aim to listen respectfully and answer questions honestly, and if we do not know an answer, we endeavour to find the answer and follow up. We disclose information in good and bad times and in a manner that is timely, complete, accurate, and balanced. In addition, each of our Canadian operations has public information programs with defined public disclosure protocols that outline how we communicate to local and other audiences. Our public disclosure protocols state that Cameco is committed to honest and ethical communication, both in principle and practice.

The uranium mines, mills and processing facilities we operate are located in three regions: northern Saskatchewan, Ontario and the US. We also have advanced exploration projects in Australia. In each of these jurisdictions, we interact with unique local and Indigenous communities.

Patricia Naldzil, warehouseperson, filling parts orders at our Cigar Lake warehouse.

Strong support where we operate

Understanding how the public feels about our operations and whether we have their continued support is essential to our business. Periodic public opinion polling is one of the ways we confirm the level of support for our operations.

Our latest polling data indicates continued strong support for our operations in Canada. Our Ontario facilities ranked highest in our latest polling results.

Public support %	2018	2019	2020
Saskatchewan	80%	85%	83%
Northern SK	82%	85%	75%
Port Hope, ON	85%	91%	90%
Blind River, ON	97%	-	96%*

**Result for Blind River is for 2021.*

Cameco's operations continue to see strong support from the communities where we operate. The economic impacts of a continued shutdown at McArthur River and Key Lake operations, which resulted in the loss of jobs and business opportunities, may have affected support in 2020.

Polling in Blind River is conducted less frequently than other sites and was not completed in 2019 and 2020, but was done in 2021. Due to the continued shutdown of our US operations, we have not conducted polling in this region since 2016.

Northern Saskatchewan

Since Cameco was formed in 1988, we have worked in close collaboration with northern Saskatchewan communities, the majority of which are Indigenous. We regularly work with more than 17 Indigenous communities around our Cigar Lake mine, McArthur River mine, Key Lake mill, and Rabbit Lake mine and mill. All of these operations are located on traditional territory and have formal collaboration agreements in place with these local Indigenous communities. Our community and Indigenous relations activities in this area are supported by our three Indigenous community liaisons in the Athabasca Basin. In northern Saskatchewan, we use a five-pillar approach to guide and define our activities, which include:

1. **Workforce development -** We have developed several programs in northern Saskatchewan to help community members obtain employment in our industry and help us with our surface lease commitments, such as our scholarship programming throughout northern Saskatchewan worth more than $100,000 annually, our Digital Apprenticeship Program with Indigenous communities, and career planning for employees. The goal of our programs is to support local students to stay in school, have the means to attend post-secondary programs, and receive the training they need to advance if we hire them.
2. **Business development -** We seek to procure the majority of our services for our operations from local businesses. In northern Saskatchewan, we have developed initiatives like our Northern Preferred Supplier Program and direct source strategy to help support local businesses. For example, through our Ya' thi Néné collaboration agreement (a partnership with Orano that benefits several northern Saskatchewan communities), approximately $501 million has been spent with eligible businesses since 2016. We are currently working with eight community-owned ventures from the Athabasca Basin, including Rise Air (formerly West Wind Aviation), Team Drilling, and Athabasca Catering Ltd.
3. **Community investment -** In Saskatchewan, our Community Investment Program focuses on improving the lives of youth through education, recreation, and health promotion. In 2020, we contributed a total of nearly $2 million to these efforts. With so many communities and charitable groups negatively affected by the pandemic, we were pleased to support 67 community projects in Saskatoon and northern Saskatchewan through our $1 Million Cameco COVID-19 Relief Fund (read more on page 15).
4. **Environmental stewardship -** We actively encourage local communities to participate in the environmental assessment process and ongoing monitoring activities. In northern Saskatchewan, programs that support our environmental stewardship goals include our Community Based Environmental Monitoring Program (CBEMP) (see page 51), Northern Saskatchewan Environmental Quality Committee, and project-specific engagement programs. We also meet with individuals, including local trappers, and communities to assess the importance of traditional activities in relation to mining activities.
5. **Community engagement -** We meet regularly with nearby communities in an effort to keep them informed about our projects and licensing plans and to enable opportunities for them to provide input. Engagement activities occur formally through Cameco- and government-sponsored committees, through meetings with local communities or their elected representatives, and informally through various activities such as site tours, community visits, and general public information sessions. We will continue to engage, listen to, and address community questions and concerns.

Indigenous drummers welcome Cameco's Martu visitors to Pinehouse. (Photo taken prior to COVID-19)

Analyst Corner

SASB EM-MM-210a.3

SASB EM-MM-210b.1

Ontario

Our Ontario facilities are located in three municipalities and include our Cameco Fuel Manufacturing (CFM) facilities (in Port Hope and Cobourg), our Port Hope Conversion Facility (in Port Hope), and our Blind River Refinery (near Blind River). We collaborate with these municipalities and nine Indigenous communities. We have a mature public information program to provide relevant information to the community on how activities at our facilities affect the environment and the health and safety of employees and the community. The program is dynamic and uses traditional radio and print media and community-based activities as well as web and social media outreach to communicate with the public. Our latest polling data indicates continued strong support for our operations in Ontario with more than 90% support.

CFM facilities and Port Hope Conversion Facility - We engage with the local government of the Municipality of Port Hope by providing annual and as-needed delegations to the town council. We also work to engage the community through newsletters, community events and open houses. In Port Hope, we issue newsletters three to four times per year to every mailing address, hold periodic open houses and community forums, and (before the COVID-19 pandemic) participated with a display at the town's annual Fall Fair, or hosted our own community barbecue.

Blind River Refinery - Our Blind River facility is not directly within the community of Blind River, yet it contributes to the community as the largest employer in the area. In Blind River, we primarily engage with our closest neighbour, the Mississauga First Nation, with whom we have a signed memorandum of understanding (MOU). The MOU commits us to work together toward mutual gain and focuses primarily on socio-economic development projects related to youth, education, health and wellness, and community development. We established a $250,000 COVID-19 Relief Fund for Northumberland County and the Blind River area in Ontario (read more on page 15).

Port Hope Conversion Facility

United States

Our operations in the US include three in-situ recovery operations: Crow Butte in Nebraska, and Smith Ranch-Highland and North Butte in Wyoming. Our mining is predominantly on privately held ranch land that we lease from the owners, along with some parcels owned by Cameco. The mines are located in sparsely populated areas and none of the operations have formal collaboration agreements with communities. All sites were in active production from the early 1990s; however, as a result of our 2016 decision to curtail US production due to ongoing weakness in the global uranium market, production ceased in 2018 and each US operation is now in care and maintenance. Since moving to a state of care and maintenance, we have had to decrease our community involvement accordingly.

Crow Butte - Our Crow Butte site is located about six kilometres from the city of Crawford, which is adjacent to Fort Robinson State Park. We have always had active involvement in the town, including building a pavilion in Crawford City Park and providing equipment for the volunteer fire department. We also maintained more than 70% community support in our public opinion polling in Crawford when we were operating.

The closest Indigenous community to our Crow Butte site is located on the Pine Ridge reservation in South Dakota. Crow Butte is located roughly 48 kilometres from the southern boundary of the Oglala Sioux Tribe Pine Ridge reservation. The Tribe has raised concerns about land and water in proceedings and we continue our efforts to respond while upholding our principle of open engagement and communication.

Smith Ranch-Highland and North Butte - Our Smith Ranch-Highland and North Butte sites are relatively isolated. The closest towns are located about 40 kilometres away. The closest reservation is Wind River (located about a three-hour drive away from Smith Ranch-Highland). We work directly with a small number of ranchers and landowners that own the land within which the Smith Ranch-Highland property resides.

Analyst Corner

SASB EM-MM-210a.3

SASB EM-MM-210b.1

Australia

Cameco has been exploring for uranium in Australia since 1996 and holds two of the country's largest undeveloped uranium deposits, Kintyre and Yeelirrie. Our activities at these two sites have been scaled back and continue at a pace aligned with market signals. We remain committed to our relationships with the local communities and continue to work with community groups in these two areas. We also continue to engage regularly with local governments and government agencies about the status of the projects and local events or occurrences.

Kintyre - Kintyre is an advanced-stage exploration project in the East Pilbara region of Western Australia. While Kintyre is very remote, it sits within a registered native title claim of the Martu People, with whom Cameco has held an Indigenous Land Use Agreement since 2013. The agreement covers the prospect of mining, production-based payments to the Indigenous community, protection of sites of significance, employment and business targets, and the establishment of relationship committees. We continue to work with the Martu People's executive body, Western Desert Lands Aboriginal Corporation, and recently assisted their communities with road repairs and the donation of two transportable buildings.

Yeelirrie - Yeelirrie is a large undeveloped uranium deposit located in Western Australia and is located on land owned by Cameco with no immediate neighbours. Yeelirrie sits within the native title claim of the Tjiwarl People. The two closest communities are Leonora and Wiluna, both more than 100 kilometres away. In both Leonora and Wiluna, we endeavour to understand local concerns and continue to provide support to local community organizations including the women's support group and initiatives to encourage and assist Indigenous children to remain in school.

Kintyre, Australia

While the final approvals for the Yeelirrie project have been received, the potential impact on subterranean fauna remains a stakeholder concern and Cameco continues to undertake studies and contribute to research to address this. See page 42 to read more.

Kazakhstan

Joint Venture Inkai LLP (JV Inkai) is a limited liability partnership between Cameco (40%) and Kazatomprom (60%). Inkai is considered a material uranium property for Cameco. JV Inkai operates an in-situ recovery (ISR) producing mine located in the Suzak District of Turkestan region, Kazakhstan near the town of Taikonur, 350 kilometres northwest of the City of Shymkent and 155 kilometres east of the city of Kyzyl-Orda. JV Inkai's corporate office is located in Shymkent. Cameco has an office in Nursultan, Kazakhstan that oversees our interest in JV Inkai.

The Kazakh Subsoil and Subsoil Use Code imposes local content requirements for works, services and employees. The resource use contract imposes local content requirements on JV Inkai with respect to employees, goods, works and services. As such, at least 40% of the costs of the acquired goods and equipment, 90% of contract works and 100%, 70% and 60% of employees, depending on their qualifications (workers, engineers and management, respectively), must be of local origin. Effective January 1, 2021, under Kazakhstan Law on Subsoil and Subsoil Use, this local content requirement established by the resource use contract ceased to apply to goods procured by JV Inkai. In accordance with the resource use contract, JV Inkai has also financed education, training and re-training of local employees and has provided support for low-income families in the Suzak District.

Analyst Corner

SASB EM-MM-210a.3

SASB EM-MM-210b.1

Case Study: Collaborating with communities on environmental monitoring

In addition to our own environmental monitoring programs (see pages 28-29), we collaborate with community and regional partners through two key programs to uphold our commitments to measuring and mitigating the environmental impacts of our activities.

Eastern Athabasca Regional Monitoring Program

The Eastern Athabasca Regional Monitoring Program (EARMP) is a long-term environmental monitoring program, established in 2011, to monitor the potential cumulative downstream effects of uranium mining and milling operations in the Eastern Athabasca region of northern Saskatchewan. This industry-government partnership brings together Cameco, the Government of Saskatchewan, the Canadian Nuclear Safety Commission, and Orano Canada Inc. All samples are analyzed by the Saskatchewan Research Council, an accredited third-party laboratory. The program has two components:

Community program - The goal of the EARMP community program is to determine the safety of traditionally harvested food for local consumption through sampling and analytical testing. The program, which is managed by a First Nations-owned company, Canada North Environmental Services Ltd. (CanNorth), includes long-term monitoring at community harvesting areas to assess variability and potential changes over time. The collection of the traditional food samples is carried out independently by community members or in conjunction with a representative from CanNorth. EARMP communicates monitoring results to community members and others through reporting, meetings, and public media. All data is collected in public and made available at earmp.ca. The 2019 results indicate that the measured concentrations of contaminants of interest in water, fish, and berry samples collected and tested in the 2019-2020 community monitoring program were like baseline and regionally measured levels, meaning that these traditional foods continue to be safe and healthy dietary choice for residents of the Athabasca Basin.

Technical program - The technical monitoring program was established to monitor potential long-term changes in the aquatic environment far downstream from uranium mining and milling operations in the Eastern Athabasca region. This program collects water, sediment, fish (flesh and bone), and other organisms for analysis. As with the community program, the testing is conducted by CanNorth and all results are publicly available at earmp.ca.

Community Based Environmental Monitoring Program

The Community Based Environmental Monitoring Program (CBEMP) is a component of the collaboration agreement among Cameco, Orano Canada Inc., four municipalities, and three First Nations in northern Saskatchewan (Ya' thi Néné collaboration agreement). Different from the EARMP's region-wide sampling, each year this program focuses on one community-specific traditional foods study. Each year, local residents take part in the sample collection which provides opportunities for employment, training and business development. Through the CBEMP, local community members can have confidence that traditionally harvested foods remain safe to eat and water remains safe to drink, and that the surrounding areas have not been affected by the active uranium mining and milling operations in the region. Since 2018, CBEMP results indicate that country foods identified by members of the Black Lake Denesuline First Nation, the Northern Hamlet of Stony Rapids, the Fond du Lac Denesuline First Nation, Hatchet Lake Denesuline First Nation and the Northern Settlement of Wollaston Lake remain safe for consumption

Last year, the Mining Association of Canada awarded Cameco one of its prestigious Towards Sustainable Mining® Excellence Awards in recognition of the CBEMP program.

Traditional foods are native foods (such as wild game, birds, fish, and berries) obtained from the land by local residents during subsistence hunting and gathering.

Occupational Safety and Health

Cameco works in challenging physical environments and with substances that require special attention and care. It is our responsibility to keep the occupational health and safety risks associated with our business at levels as low as reasonably achievable, and to send our workers home safely at the end of their shift or work rotation.

Foundations for a safety culture

Safety is a core value at Cameco and the paramount consideration that guides all decisions and actions related to the health and safety of our more than 2,300 employees and contractors. We build safety into the design and operation of our facilities, have a management system that supports the integration of safety into everything we do, and promote a strong safety culture across our workforce.

Strong systems - We manage the safety of our workers through programs, systems, and standards, with our Safety, Health, Environment and Quality (SHEQ) Policy providing overarching guidance. There are many aspects of the management system that contribute to a safe work environment, a few examples include:

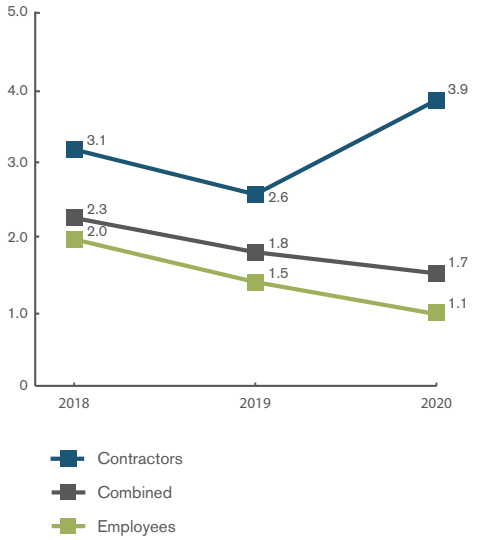
- Risk assessments help identify issues and determine the appropriate controls; the corrective action process verifies that incidents and near misses are reported, tracked, investigated and shared with colleagues; and emergency preparedness and planning prepare us to respond to serious incidents.
- We have developed 12 corporate safety standards to help protect our workers from our most common hazards. Some standards guide our general safety practices, such as our job hazard analysis and our job task observation, and other standards deal with specific hazardous situations (similar to other companies' life saving rules): such as fall protection, confined space entry, rigging and hoisting, and control of hazardous energy (also referred to as lockout/tagout).
- Routine audits are conducted to monitor compliance with regulations and our own requirements. These and other aspects of the management system are routinely examined to verify that they continue to be effective at keeping our workers safe.
- Read more about our SHEQ management system and SHEQ audits on page 10.

Proactive safety behaviours - While good standards and procedures are important, strong safety performance requires more than simply following procedures. We encourage workers to stop work when they feel unsure or unsafe and to discuss issues with their supervisors and subject matter experts before proceeding. To identify and reduce hazards, we use tools and procedures including:

- Five-point safety system cards, which encourage workers to ask five safety-related questions to eliminate hazards.
- STOP, a safety observation program designed to identify and address unsafe conditions and work practices before an incident or injury occurs.
- Field level risk assessments, job hazard assessments, and self-check to assess workplace hazards prior to and during work.

Total Recordable Injury Rate

(incidents per 200,000 worked hours)



While the injury rate for our employees continues to improve, our contractors have had a higher injury rate. The higher rate in 2020 is based on relatively few cases and a drop in the number of contractors at Cameco due to COVID-19 restrictions. We continue to focus on contractor safety and are completing a review of our Contractor Management Program and its implementation as part of our continual improvement approach.

2020 saw the best safety performance in Cameco's history, with zero lost time incidents.

Analyst Corner

SASB EM-MM-320a.1

Training - Training is an important part of the process to help workers understand how to work safely. Training covers all aspects of our business and includes technical operational skills, specific safety procedures, radiation protection, and emergency response. Required training is carefully tracked to verify that qualified individuals carry out activities. For example, we selected six of our common highest-risk tasks across the company to develop and deliver consistent training on. We track training compliance for these six activities and aim for 100% compliance at each site. These six training courses, referred to as the High-Risk Safety Training 6, are: (1) Fall Protection, (2) Confined Space, (3) Control of Hazardous Energy Refresher, (4) Electrical Safety – Non-Electrical Worker, (5) Basic Radiation (Refresher), and (6) Job Hazard Analysis. In 2020, our sites achieved a 93.1% average level of compliance across our six training areas. Sites that have not achieved 100% of required training for safety-related tasks have mechanisms in place to verify that only those currently qualified are allowed to conduct the required activities.

Tailored safety programs

We have safety risks similar to other mining and chemical processing companies, and also experience the unique challenges associated with radiation. Some of the ways we manage these safety risks are noted below.

A **millisievert** (mSv) is the International Standard unit used to measure the amount of radiation received. (One millisievert is one thousandth of a sievert.)

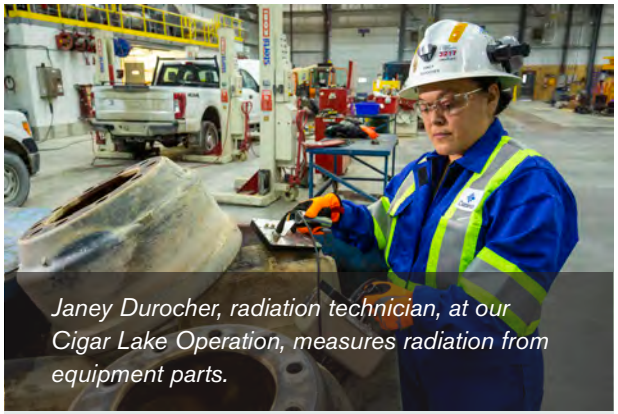
1. Radiation

The fundamental approach we take to protect workers from radiation risks is to incorporate radiation protection principles into the design and operation of our facilities and core to these are “time, distance, and shielding”. The effectiveness of our control measures is assessed through extensive monitoring of our workers and the work environment.

Monitoring - All employees and contractors designated as nuclear energy workers are monitored to assess their radiation doses to verify that we meet regulatory limits and keep doses as low as reasonably achievable (ALARA). We monitor both external and internal radiation doses to individuals at all our sites using methods that are applicable to the type of exposure.

External doses at all sites are measured with individually issued dosimeters (a device used to measure an absorbed dose of radiation) that are worn by workers. At our mine sites, internal exposures from radon progeny and long-lived radioactive dust are monitored through a combination of personal monitors and area monitoring. For our refining, conversion and CFM facilities, workers undergo medical examination and testing to assess internal doses.

Sampling - We have extensive area sampling programs to verify that radiation sources are controlled and workplace conditions are safe for our workers. At locations where conditions can change rapidly, we continuously monitor the radiation levels and have systems designed to alert workers of elevated conditions to prevent and limit exposure.



Janey Durocher, radiation technician, at our Cigar Lake Operation, measures radiation from equipment parts.

Low radiation exposure

The average radiation dose to Cameco site workers is consistently less than 5% of the regulated annual limit for nuclear energy workers. [20]

The average dose to workers (employees and contractors) at Cameco was **0.59** mSv in 2020, while the annual dose limit for nuclear energy workers is **50** mSv. [21]

A few numbers for context. [22]

Typical chest X-ray: **0.10 mSv**

Annual public dose limit: **1 mSv**

Average total dose from natural background radiation: **2.4 mSv**

Typical chest computerized tomography (CT) scan: **7 mSv**

[20] https://s3-us-west-2.amazonaws.com/assets-us-west-2/annual/CCO-2021-corporate-profile.pdf

[21] http://nuclearsafety.gc.ca/eng/resources/radiation/introduction-to-radiation/radiation-doses.cfm

[22] http://www.world-nuclear.org/getmedia/280bdda7-182d-49d1-9e96-67f5dc66e2e5/pocket_guide_radiation.pdf.aspx

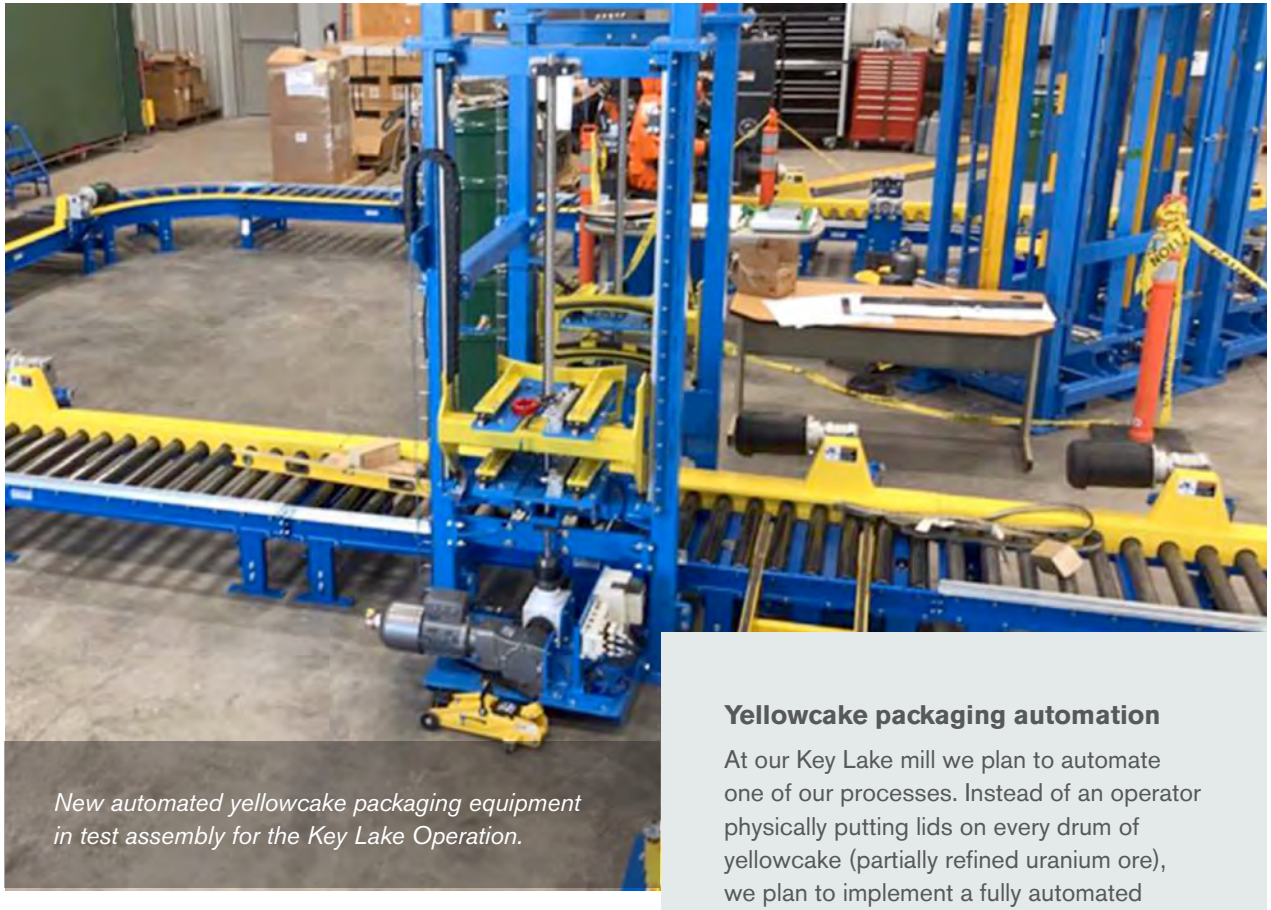
2. Hazardous substances

Across our operations, we work with hazardous substances that pose potential health and safety risks. To protect our workers, we employ several layers of defence that include: specialized equipment designed to handle these substances, active and passive engineering controls, detailed preventative maintenance routines, highly trained operators, and monitoring to verify that workplace conditions remain safe. Examples of these layers of defence specific to certain facilities are described below:

Engineering controls - Our engineering controls at our Port Hope conversion facility include automated leak detection that enables the plant to shut itself down and automatically divert any air in the room to scrubbers before exhausting to the atmosphere.

Highly trained operators - Training includes learning how to run the equipment, identifying and managing the hazards of the process, and all emergency situations. In our Port Hope conversion facility, we have a detailed operator training and certification process. Each area of the plant requires about six to 12 months of training. Operators in our Port Hope conversion facility are required to maintain a certain number of hours to maintain their certification.

Specialized processes for handling hazardous substances - To safely handle hazardous substances we isolate them from the workplace (to the extent possible) with passive and active engineering controls (e.g., tanks with exhaust ventilation) and then supplement these controls with administrative ones and personal protective equipment. For example, at our Cameco Fuel Manufacturing Cobourg facility, we work with beryllium, a metal used in the manufacturing of fuel bundles. Beryllium dust is hazardous to human health and requires specialized controls. To protect our workers, activities that can generate beryllium dust are confined to specific locations and within these rooms, beryllium handling and processing equipment has localized extraction ventilation to minimize airborne release of beryllium into the work environment. In addition, we use a zoning system in which these rooms are ventilated separately and adhere to a standardized and stringent cleaning regime, including a protocol for determining the level of surface and airborne dust contamination. All workers wear appropriate respiratory protection in areas where beryllium is processed and must follow strict protocols for changing clothing when entering and exiting these areas.



New automated yellowcake packaging equipment in test assembly for the Key Lake Operation.

Yellowcake packaging automation

At our Key Lake mill we plan to automate one of our processes. Instead of an operator physically putting lids on every drum of yellowcake (partially refined uranium ore), we plan to implement a fully automated process. This automation project, part of our digital transition project, is expected to improve safety for our workers by reducing both repetitive tasks and exposure time. It is also expected to increase operational efficiency, maximize product recovery, and minimize drum weight variability. As part of the project, we plan to introduce an improvement to the scrubber system to reduce emissions of dust.

3. Mine safety

Much of the uranium we produce comes from underground mines, which present specific risks that need to be mitigated, including fall of ground, water inflow, and fires.

Preventing fall of ground - Fall of ground (when rock falls from the roof or sides of mine tunnels as well as the mining face), poses a significant risk to workers and equipment and can potentially disrupt ventilation and block critical emergency escape routes. We mitigate fall of ground risks by strictly adhering to our corporate Ground Control Standard, conducting in-depth workplace inspections, and providing workers with multiple avenues to report hazardous or uncertain conditions. We also provide specific training on scaling (a technique to clean loose rock from the roof, walls, and rock face) which includes recognition of fall of ground hazards.

Preventing and managing water inflow - Underground mining has the potential to encounter water-bearing geological features that can result in non-routine water inflow (water entering the mine in an uncontrolled manner). Under normal operating conditions, we have water that enters our mine that is collected, treated and released. While non-routine water inflows do occur, the risk is mitigated through proper mapping of the orebody before mining, and the use of best mining practices during operations. We adhere to our corporate standards regarding mine dewatering protocols and conduct regular workplace inspections. Ground freezing is another technique we use to reduce the risk of water inflow and to provide additional ground stability. In addition, all underground workers receive water inflow prevention and awareness training.

Preventing fires - We follow strict safe work practices, including requiring hot work permits and emphasizing hazard recognition. In the case of a fire in one of our mines, we have both permanent and mobile underground refuge stations and numerous portable fire extinguishers along with personal protective equipment underground. In addition, many of the mobile equipment units are equipped with both a fire suppression system and portable extinguishers. We also complete annual stench gas release exercises at our mine sites. Stench gas is a powerful odour quickly dispersed throughout an underground mine to alert workers of danger and initiate protective actions.

Testing drone technology to reduce safety risks

In 2021, we completed a preliminary test that put a drone into a large tank at Key Lake. Inspecting this type of tank typically requires scaffolding and workers entering the tank. Using a drone for this type of work in the future would allow us to reduce fall risks and radiation exposure time for our workers. The drone we tested is specifically designed for this type of inspection as it is able to see problems more quickly and effectively, reducing health and safety risks to the inspector.

Nuclear Safeguards

The uranium and nuclear fuel products we supply to our utility customers around the world are used exclusively for the generation of safe zero emissions nuclear power. We operate in a highly regulated industry with mature and established safeguards. We take our national and international obligations seriously and have designed our programs and processes to meet or exceed all applicable regulations regarding nuclear safeguards.

To implement nuclear safeguards across our business, we employ a variety of practices, such as:

Established customer relationships - Our products are delivered to customers and accounts at licensed and safeguarded facilities in accordance with the Nuclear Cooperation Agreements (NCAs) in place with each respective country. The contracts we develop with our customers require the uranium we provide only be used for power generation purposes and for peaceful purposes (not for military or weapons use). We have long-established relationships with nuclear operating utilities that are safe, reliable operators and are subject to extensive regulation and licensing requirements. New customers are subject to a due diligence process to verify that our contracts meet the requirements of the Canadian NCAs and our corporate requirements.

Safeguards at our operations - All of our operations are subject to the international safeguards regime. Our refinery, conversion plant, and CFM are subject to enhanced safeguards, including frequent inspections by the International Atomic Energy Agency (IAEA), an international organization that works to promote the peaceful use of nuclear energy.

Safeguards during transportation - In order to export our uranium products, we must secure the proper export licences and export permits from the CNSC and Global Affairs Canada. These arrangements are governed by the bilateral and multilateral agreements that are in place between countries. The export licence and permit verifies that the facility receiving the material is properly licensed to receive the material, that the competent authorities have been notified, and provides approval so that the material can enter the country where the facility is located. For the import of uranium products going to our facilities in Canada, we are responsible for obtaining an import licence from the CNSC. The licence verifies that Cameco is authorized to receive the material and that our facilities are properly licensed to receive it.

Nuclear safeguards are measures to verify that countries comply with their international obligations not to use nuclear materials for nuclear weapons.

We operate in a highly regulated industry with mature and established safeguards. The uranium and nuclear fuel products we supply are used exclusively for the generation of safe zero emissions nuclear power.

Following international nuclear agreements

Nuclear co-operation - We abide by Canadian nuclear policy and conduct business in accordance with the NCAs that Canada has with other countries.

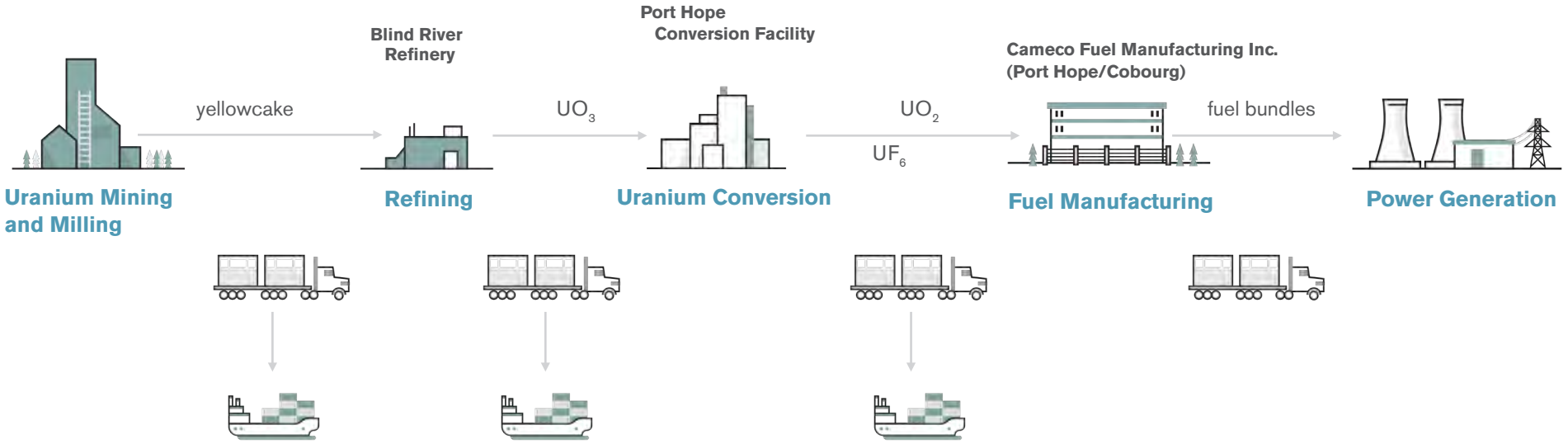
Non-proliferation - We are subject to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), an international treaty established in 1970 created to prevent the spread of nuclear weapons and weapons technology, foster the peaceful uses of nuclear energy, and further the goal of achieving general and complete disarmament. As Canada is a signatory to the NPT, we are subject to the treaty and comply with all IAEA requirements. The IAEA monitors what we produce and where we ship our products through a number of inspections and measurements that verify our inventories both within our equipment and of our finished product.

Product and Transportation Safety

We work with products that require special attention and care, and this responsibility is a priority for us. Cameco has safely worked with and transported radioactive materials and hazardous goods routinely for more than 30 years. Our exceptional transportation safety record is not something we take for granted.

We transport the majority of our products between Cameco sites using third-party trucking companies. We ship our uranium products to the location requested by the customers by road on trucks (within North America), and by sea on large container vessels operated by third parties (outside of North America). Our sites and transportation procedures are regularly inspected by CNSC and Transport Canada.

Transport methods



Communicating expectations

Our SHEQ Program contains two key transport standards, one for ground transport in North America and one for marine transport. We review and update these standards at least every three years. The applicable standard is provided to the carrier during the bidding process as part of the contract.

North American ground transport standard - For our trucking providers, this standard includes our requirements on items such as level of driver training [e.g., Transportation of Dangerous Goods (TDG) Class 7], radiation protection programs, reporting requirements, transport security, condition of the equipment used, and emergency contact.

Marine transport standard - This standard includes our expectations on items such as TDG training Class 7, radiation protection programs, reporting requirements, transport security, condition of the equipment used, and emergency contact.

Choosing safe carriers

We regularly work with a small set of specialized carriers and freight forwarders that are qualified to deal with Class 7 radioactive materials. Cameco's SHEQ department conducts pre-screening of our carriers, independent of the procurement process. All carriers and freight forwarders used by Cameco are expected to have formal quality assurance programs. When we ship UF_6, U_3O_8, UO_2, or UO_3 outside of Canada, we hire a freight forwarder, a logistics company that coordinates the transport of the product from our facility to the shipping location specified by the customer. For example, a freight forwarder coordinates booking the trucking to meet the ocean liner and the corresponding slot on the vessel, and verifies that all the necessary documentation to support the shipment is in place.

Auditing carriers

We audit carriers (other than shipping lines) every two years to assess compliance with our transport standards. We also audit all freight forwarders that we use, including auditing their audits of any subcontracted companies they employ. To enhance training opportunities, we also include one or two of our carriers or trucking companies when we complete full-scale emergency exercises.

Information and labelling

We use material safety data sheets and follow specific requirements for markings on the container regarding the contents and how to handle them safely. We also follow appropriate category labelling, which indicates the level of radiation coming off the container, and placarding requirements, which mark the sea container, flat rack, or truck.

Specially designed cylinders allow UF_6 to be safely transported from Cameco's Port Hope Conversion Facility.

Our products and packaging

Our products are packaged and handled to maintain safety. Packaging for uranium products must meet the rigorous requirements found in the CNSC's Packaging and Transport of Nuclear Substances Regulations. For additional quality assurance, we also audit our drum manufacturers.

CAMECO PRODUCTS	PACKAGING
Triuranium octoxide (U_3O_8), also known as yellowcake – solid, directly from our Key Lake and Orano's McClean Lake mills	Drums, transported in trucks, or Drums, secured within a sea container, which is then placed inside the vessel
Uranium trioxide (UO_3) – solid, after it has been processed in our Blind River refinery	Transported from Blind River refinery to Port Hope conversion facility in totes specifically designed for this purpose, or Drums, secured within a sea container, which is then placed inside the vessel
Uranium dioxide (UO_2) – solid ceramic-grade powder, from our Port Hope conversion facility	Drums which are secured within a sea container, which is then placed inside the vessel
Uranium hexafluoride (UF_6) – filled as liquid and turns solid, from our Port Hope conversion facility	Specially designed cylinders. The cylinder is placed on a cradle system on top of a specialized sea container (flat rack).
Fuel bundles – a set of fuel rods, each containing ceramic UO_2 pellets	Specially designed protective packaging to preserve product integrity.

Public Safety and Emergency Preparedness

Keeping our employees, contractors and the general public safe is our top priority. In accordance with our Risk Management Program, we systematically identify and track the potential risks that could threaten public safety at every facility we operate. As risks are identified, we work to change processes, materials or systems, where we can, to minimize or eliminate the potential hazard. We use process hazard assessments to identify hazards, examine our controls, and minimize risks.

Public safety

As our mines are in relatively remote areas, we direct more of our public safety efforts to our fuel services division as its facilities are located directly within the community. We predominantly focus on:

Keeping public radiation exposure low - Our goal is to keep radiation doses ALARA. At our Port Hope conversion facility, we monitor fence line doses, model the potential dose to public, and use both high-volume air samplers and dust fall jars to monitor trends and quickly respond to any increase in emissions.

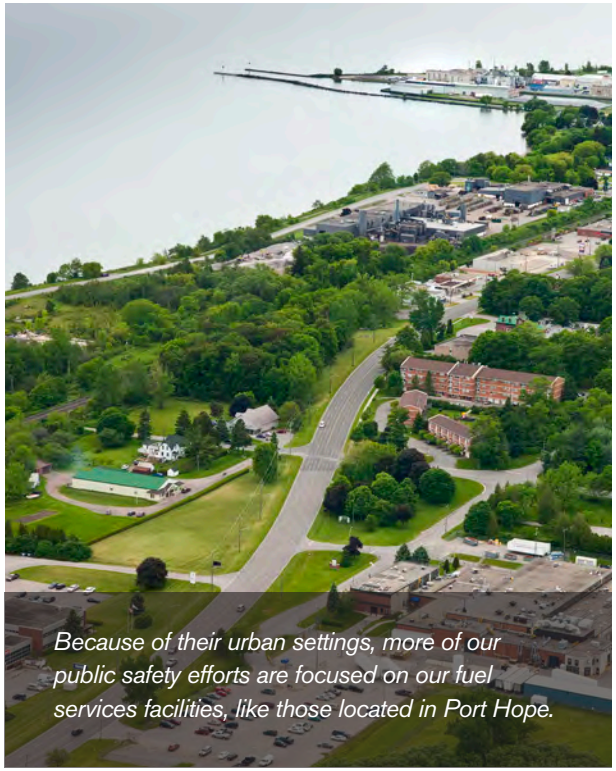
Minimizing chemical risks - Within our fuel services division, we manage a number of hazardous chemicals, such as HF, UF_6, and fluorine gas. We use a defence-in-depth approach to protect our people and the public. This starts with the specialized design of our facilities and systems (the first layer) and extends through multiple controls to the last layer of defence, which is emergency response.

Emergency preparedness and response

Our Emergency Preparedness and Response Program has three levels of crisis management planning: corporate, division, and operational. This approach allows our on-site employees to deal effectively with local crises, taking into account site-specific conditions, and using relevant expertise.

We are the primary responders for all of our sites with the exception of Cameco Fuel Manufacturing, so we prepare and fully train our own emergency response teams. For example, at our Port Hope facility, we train our workers up to the technician level for emergency response and follow National Fire Protection Association 472, a standard which outlines the levels of competence required by responders to emergencies involving hazardous materials. Many of our workers have industrial firefighting professional certification and we have our own fire truck. We typically complete either one full-scale or one tabletop exercise each year. At Cameco Fuel Manufacturing, the municipal fire departments are the primary responders.

During transportation of our materials, we have an emergency response plan that sets out procedures in the event of an emergency. We also have a network of emergency response contractors on retainer through Green for Life in Canada and National Response Corporation in the US. If a significant incident were to occur during transport, we rapidly deploy to the site and contact the incident commander who retains control of the emergency situation. Cameco will then offer emergency assistance and provide materials expertise and our specialized radiation monitoring devices. We collect any spilled material and package and ship anything that is contaminated back to our mine sites where it is handled accordingly. After any incident, we follow best practices in sharing learnings with industry, for example, through the World Nuclear Transport Institute.



Because of their urban settings, more of our public safety efforts are focused on our fuel services facilities, like those located in Port Hope.

Low public dose averages

Public dose levels remain very low.

- Cameco's average public dose across our three fuel services division sites is well below the public dose limit of 1 mSv.
- The annual public dose limit from a nuclear facility in Canada is 1 mSv.
- The average annual dose from natural background radiation in Canada is 1.8 mSv.

Inclusion and Diversity

We understand the value of a diverse workforce and we embrace, encourage, and support workplace inclusion. Members of a diverse workplace bring new ideas, perspective, experiences, and expertise to the company. Our goal is to create an inclusive work environment, with a diverse and representative workforce being our measure of success.

In achieving our goal, we are committed to respecting human rights and treating all employees fairly. We adhere to all laws in the countries where we operate, including human rights, labour and employment laws. We support and respect the protection of human rights and share the values reflected in the *Universal Declaration of Human Rights*.

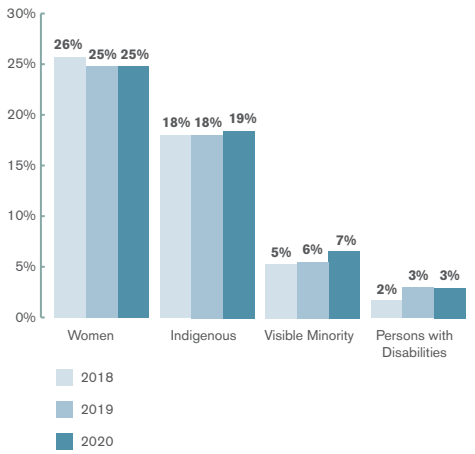
Our commitment to diversity begins at the top through our Board Diversity Policy (read more on page 65). We work toward a culture where each of our workers feels welcome, valued, and an integral part of the team. We also recognize that in order to successfully progress toward this culture, we must engage members of the workforce throughout the journey. Five ways we support inclusion and diversity are:

1. **Inclusive guiding standards -** Our People Policy describes our commitment to developing and supporting a flexible, skilled, stable, and diverse workforce, and acting to eliminate racism wherever it exists. The policy is supported by multiple corporate human resources programs, standards, and practices, including our Respectful Workplace Program, our Workplace Inclusion and Accommodation Program, and our Inclusion and Diversity Plan.
2. **Inclusion and Diversity committee -** In 2021, we established an Inclusion and Diversity committee to champion our work in this area. Employees and leaders who are members of the committee are being drawn from across the organization and will help us: engage the workforce through open and respectful communication; advocate, lead, and support change; and provide awareness and understanding of the benefits of inclusion and diversity. The committee will report to the president and CEO, and the senior vice-president and chief corporate officer.
3. **Promoting a respectful workplace -** All employees take mandatory respectful workplace training to continue building awareness on topics like respect in the workplace and harassment. We also provide separate training to our leaders regarding their responsibilities to create a respectful work environment. In the last three years about 90% of our supervisors have taken this training.
4. **Uncovering unconscious biases -** Employees across our Canadian, US and European locations, including our senior executive team, have participated in a mandatory 3.5-hour course covering biases commonly seen in industries like ours, specifically male-dominated workplaces. Approximately 94% of our organization has participated in the training over the past three years. Training continued into 2020 for new employees and those who missed the initial course. The course was moved online due to the COVID-19 pandemic.
5. **Increasing awareness -** We strive to increase awareness and foster understanding by providing videos, intranet articles, diversity displays, and weekly employee emails on a variety of timely and relevant topics. On an annual basis Cameco recognizes National Indigenous History Month, International Women's Day, Black History Month, and Pride Month. In addition, various inclusion and diversity awareness topics are provided throughout the year, such as dyslexia awareness and gender pronouns.

As a Canadian federally regulated employer, we comply with the *Employment Equity Act.* The act requires us to engage in proactive employment practices to increase the representation of four designated groups: Indigenous people, visible minorities, persons with disabilities, and women.

Diversity across our workforce - 3 years

(percent)



This chart only includes employees from our Canadian operations (including temporary and casual), as other jurisdictions are not (at this time) required to collect or maintain diversity information on employees. Figures as of Dec. 31 each year.

Indigenous employment

Working closely with the Indigenous communities around our operations has always been part of the way we do business. We employ Indigenous workers across our business areas in a variety of skilled positions, from operators and supervisors to technicians and corporate professional roles. In northern Saskatchewan, we have had a long-standing commitment to maximizing the employment of Residents of Saskatchewan's North (RSN), the vast majority of whom are Indigenous. At the end of 2020, RSNs comprised roughly half of the workforce at our operations in northern Saskatchewan. Last year, RSN workers (including contractors) earned $44 million working with us. See page 63 for information on the northern preference local workforce component of our Key Lake and McArthur River collective bargaining agreement.

Indigenous Apprenticeship Program

Our goal is to provide opportunities and sustainable benefits for Indigenous people through employment, education, and training. As our operations become more digital, we have recognized a need to prepare more Indigenous people for hiring into technical roles. In 2021, we started a northern Indigenous apprenticeship program for instrumentation technologists. Guided by our collaboration agreements, we have six individuals (two individuals each, from three separate Indigenous communities) currently enrolled in the program.

Gender diversity

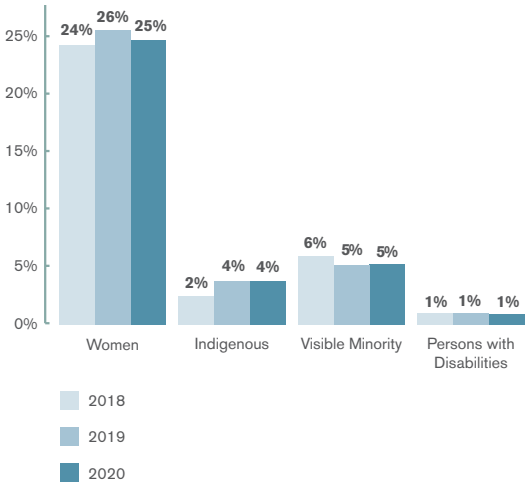
At Cameco, we want to foster a work environment that is inclusive and barrier-free. To start our journey, we hosted small focus group meetings with women across our North American locations from 2015 to 2016. The meetings provided a space to have open, safe, and confidential discussions about their experiences working in a male-dominated industry. Based on their feedback, we identified themes describing the challenges faced by women working in our company and developed actions to address them. Our actions included revising our respectful workplace training, emphasizing Cameco's zero tolerance for disrespect, introducing mandatory unconscious bias training, and providing appropriate personal protective equipment designed for women (not a men's size small).

Inclusive language - We have changed role and position titles to be gender neutral for our Canadian operations (e.g., "supervisor" instead of "foreman" and "warehouse person" instead of "warehouse man"). Position titles will be reviewed at our US operations at a later date. We have evaluated our recruitment practices such as our job postings and job evaluation tools to make them gender neutral and barrier free for underrepresented groups. We also recently developed a gender-neutral language guide to raise awareness about our word choices during daily business emails and interactions.

Women in leadership - Diversity is also an important element of executive and board leadership (read about our Board Diversity Policy on page 65). We strive for a percentage of women executive officers that, at a minimum, reflects the proportion of women in our workforce. We expect that our long-term inclusion and diversity efforts will result in more women being identified and prepared for senior level positions within the company.

Diversity in Management

(percent)



We continue to improve our workplace practices to foster an inclusive environment that aims to support a diverse workforce and their advancement into leadership positions. This data only covers Canadian employees.

Helping women advance their careers - To support women in our workforce, Cameco has participated for many years in external mentorship programs such as Womentorship and Mine Your Potential Mentorship Program. From 2018-2020, 22 mentees and 37 mentors have participated in the Mine Your Potential Mentorship Program. In 2019, Cameco's Chief Corporate Officer, one of the founding partners of the DAWN initiative (Driving the Advancement of Women in Nuclear), introduced specific initiatives to help advance gender equity within the company and in the nuclear workforce. DAWN is comprised of several women and men in leadership positions throughout the nuclear industry. Cameco is implementing DAWN actions to advance gender equity through our inclusion and diversity plan.

Employee Development

We believe that building the skills and competency of our workforce is critical to attracting and retaining talent, mitigating risks, and developing a team that is engaged and stays informed on industry trends and best practices. This includes both operational and professional development training for all employees.

Systematic Approach to Training - We take a systematic approach to training, which means we have an orderly, logical and documented approach to determining what employees must know and do at a particular job or in a specific profession. Taking this approach helps employees build competencies based on appropriate education, skills, experience, and behaviours, and provides a means of measuring, monitoring, and improving the performance of employees. Every Cameco employee receives a standard set of qualifications and training, which includes onboarding, site-specific orientations, respectful workplace, unconscious bias, IT security, and our Code of Conduct and Ethics. In addition, most operations positions have a detailed job task analysis and specific compliance training (for example, safety and operational training). All training requirements are assigned, and completion is tracked, in our internal learning management system.

LinkedIn Learning - Throughout 2020, Cameco provided for up to 500 employees to have licences for LinkedIn Learning. This resource allows employees to develop technological skills and easily find solutions to technical issues via an online learning resource. Just-in-time training of this nature is designed to provide our employees with quick access to solutions. We also developed a competency model and a list of expected behaviours that can be applied to different positions. Each behaviour has links to LinkedIn Learning courses so employees can increase their skill sets, knowledge, and self-direct their professional development at a pace the works for them.

Digital Learning Centre - In May 2021, we rolled out Cameco's Digital Learning Centre, a portal for Cameco employees, and eventually contractors, to access digital learning resources, such as information on various digital themes, software training, and upskilling of basic digital skills. The site contains a blend of internally and externally created content, including self-directed online courses, presentations, and podcasts.

Cameco's Digital Learning Center is a new online learning portal launched just this year.

33,016 training courses completed across the organization in 2020

9,915 hours of training delivered to employees (average 20.1 hours/year per employee) in Saskatchewan mining division in 2020

19,440 hours of training delivered to employees (average 31.5 hours/year per employee) in fuel services division in 2020

Health and Wellness

The health and well-being of our employees is important to us. “Live better” is a philosophy that guides our wellness programs. It recognizes the importance of maintaining balance across four essential health dimensions: physical, intellectual, emotional and spiritual.

We offer a variety of company-wide and site-specific programs and initiatives to support physical, financial and mental well-being, including a group benefits program and an employee and family assistance program. To support financial wellness, we offer a retirement program and employee share ownership plan. To foster physical wellness, we have on-site fitness facilities, lifestyle programs, team activities, and site-to-site fitness challenges. We also offer flexible work arrangements. Read more about our wellness programs on our website.

We are currently working with our benefits program provider to complete overall organizational health and wellness assessments. The assessments will review our company’s health, disability management, and mental health programs and practices. The report is expected prior to year end 2021 and should provide insights for future health and wellness programming

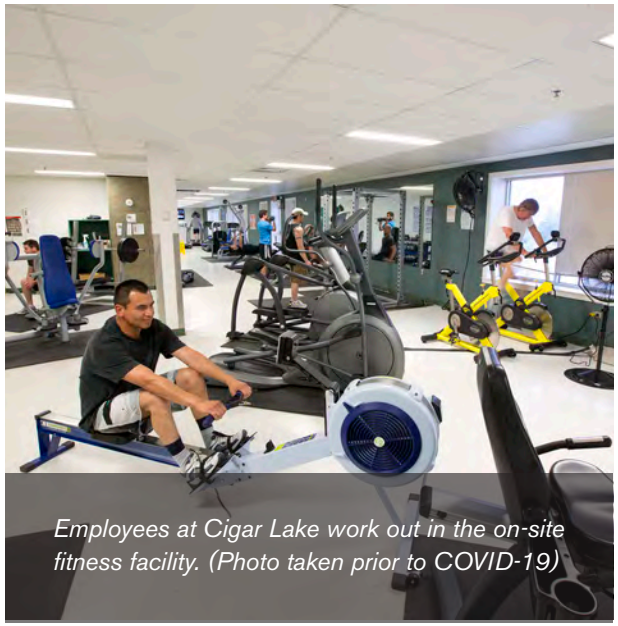
Mental wellness

Mental health is an important part of Cameco’s safety and wellness programming. We recognize that mental health plays a key role in employees’ well-being, and we raise awareness about mental health by promoting the tools and resources of our external service providers and by sharing articles with employees through our intranet site and weekly email news bulletin. Over the past few years, we have been providing education about mental health through the following initiatives, facilitated by local representatives of the Canadian Mental Health Association:

Mental Health First Aid course - This two-day, 16-hour course provides individuals with the skills necessary to help someone who may be developing a mental health problem or experiencing a mental health crisis. The course was offered in person in small, interactive sessions of approximately 25-30 employees. Between 2018 and 2020, 330 supervisors/managers participated in this course.

Mental Health 101 session - This one-hour presentation provides an overview of mental health, mental illness, and the associated stigma. A broad range of mental illnesses, symptoms, and treatment options are covered. Between 2018 and 2020, 1,157 employees took this session.

Due in part to the interactive nature of our mental health courses, we paused our offerings of them in March 2020 until we could resume offering them in person. Throughout 2020, we also supplemented our COVID-19 intranet page with resource information from our external service providers.



Employees at Cigar Lake work out in the on-site fitness facility. (Photo taken prior to COVID-19)

Unions

Cameco respects the rights of our employees to associate and welcomes the contributions of organized labour. In 2020, 24% of our employees were covered under collective bargaining agreements. Unionized employees at our Key Lake and McArthur River sites, our Port Hope conversion facility, and our Cameco Fuel Manufacturing facility are represented by the United Steelworkers. For more than two decades, our collective bargaining agreement (CBA) for our Key Lake and McArthur River sites has included a northern preference provision, which gives preference to northern and northern Indigenous workers in hiring, apprenticeships, recall, and retention during workforce reductions within the first 10 years of employment.

Maintaining collaborative relationships

We endeavour to be proactive in our communications, honest and transparent as decisions are made, and engage early to build trust with all union representatives. Along with the standard grievance process for specific issues and the formal bargaining process at the end of each CBA expiry, we host ongoing union management meetings (approximately four to seven per year) that have specific agendas. We have recently completed negotiations for a new CBA at our Cameco Fuel Manufacturing site, as the previous collective agreement ended in May 2021.

Governance

At Cameco, we believe that sound governance is the foundation for strong corporate performance. We are dedicated to our core value of integrity and apply high standards of ethical behaviour and transparency to our business activities. We have a suite of policies, programs and practices to manage and protect our systems, information and assets.

Highlights

33% of board members are women (3 out of 9)

11% of board members are Indigenous (1 out of 9)

81% of all service spend at northern Saskatchewan mine sites is with northern local businesses

Corporate Governance

We are committed to high standards of governance that align with our strategy and are consistent with regulatory expectations and evolving best practices. We view effective corporate governance as an essential element in the ongoing success of our company.

Our board of directors plays an important role in providing oversight of the management team and providing direction for our strategy and business affairs. The board guides Cameco to operate as a sustainable business, to optimize financial returns while effectively managing risk, and to conduct our business in a way that is transparent, independent and ethical.

Board composition and renewal

The nominating, corporate governance and risk committee reviews director competencies every year against a skills matrix to validate that they continue to meet Cameco's needs. Each director completes a self-assessment of his or her competencies following a prescribed rating scale and meets with the nominating, corporate governance and risk committee chair or the board chair to review their self-assessment. The committee reviews the results for consistency and to confirm that the directors possess skills in these areas. We have term limits and a retirement policy for directors and have added three new directors in the past five years. Read more on page 33 of our 2021 Management Proxy Circular.

Board diversity

A board with a mix of diverse skills, backgrounds, experience, gender, and age, that also reflects the evolving demographics and geographic areas where we carry out business, is important for sound decision-making and good governance. The board has a formal diversity policy, which includes a set of measurable objectives for achieving diversity on the board, including the identification and nomination of directors who are women or who have Indigenous heritage. Of our current directors, three are women (33% of the total number of directors). To incorporate Indigenous perspectives and to reflect the communities where we operate, especially since a significant portion of Cameco's operations are in northern Saskatchewan, our diversity policy requires at least one director to have Indigenous heritage and be from Saskatchewan. Of our current directors, one is Indigenous (11% of the total number of directors), and we have had Indigenous directors on our board since 1992. Our diversity policy also requires the board to have directors with extensive experience in geographical areas where we have or anticipate having significant business interests, and to represent a range of ages. Read more on page 37 of our 2021 Management Proxy Circular.

In the Globe and Mail's Board Games 2020, Cameco ranked 31st out of 211 companies, with a score of 89 out of 100. Cameco was highlighted in the associated article on inclusiveness and diversity, Board Games 2020: Raising the bar for inclusiveness. The article states that Cameco was the only company to receive all seven points for gender and other forms of diversity.

In the Globe and Mail's Board Games 2020, Cameco ranked 31st out of 211 companies, with a score of 89 out of 100.

GOVERNANCE INFORMATION	
Ethics	
Code of Conduct and Ethics for directors, officers and employees	Yes
Board composition and independence	
Size of board	9
Independent directors	8
Separate chair and CEO	Yes
Independent chair (required)	Yes
Comprehensive board assessment process	Yes
Directors that are financially literate	100%
Board meetings held in 2020	12
Average meeting attendance	100%
Board renewal and diversity	
Annual election of directors	Yes
Average age of directors	63
Mandatory retirement age	Yes
Average director tenure	7.5 years
Women board members	33%
Board Diversity Policy	Yes
Indigenous board members	11%

For more information

2021 Management Proxy Circular, page 41, 'Our corporate governance'

Code of Conduct and Ethics

2020 Annual Report

2020 Annual Information Form

Our key governance documents are available on our website (cameco.com/about/governance).

Business Ethics and Integrity

At Cameco, one of our four core values is integrity. Through our personal and professional integrity, we lead by example, earn trust, honour our commitments, and conduct our business ethically. Our reputation for maintaining the highest standards of ethical behaviour has helped Cameco to grow into the global business it is today. Our Code of Conduct and Ethics guides how we uphold our value of integrity. The Code applies to all employees, officers and members of Cameco's board and subsidiary boards and sets out our principles and guidelines for ethical behaviour at Cameco and with our shareholders, our communities and all our stakeholder groups. Read more on pages 47 and 48 of our 2021 Management Proxy Circular. Cameco's corporate ethics program is underpinned by:

Conduct and ethics training - All new Cameco employees take a mandatory Code of Conduct and Ethics training course. In addition, directors, officers, and employees who have senior management responsibilities or work in supply chain management, internal audit, investor relations, finance, treasury, tax, business technology services, marketing, corporate development, legal, human resources, and our executive offices complete a refresher and submit a declaration statement every year. The refresher course includes training on key issues such as conflicts of interest, fraud prevention, privacy matters, acceptable gifts and invitations from vendors, respectful workplace matters, and avenues available to raise concerns about ethics matters.

Ethics hotline - We encourage our employees to speak to their manager, or to the human resources, legal, or internal audit groups regarding any ethics concerns. Through a third-party service provider, we also offer an anonymous ethics hotline that is open to all employees, contractors, and suppliers from across our operations. Information about the hotline is broadly communicated to employees and is included in our Supplier Code of Conduct and Ethics to let suppliers know they can communicate any concerns to us in this way. Every year, we complete a benchmarking exercise of our hotline statistics against other companies comparable to our size and industry, based on information obtained from a third party. Results of our benchmarking are reported to our executive team and to the audit and finance committee of the board.

100% of new employees
completed the Code of Conduct and Ethics orientation course

100% of targeted employees
completed the annual Code of Conduct and Ethics refresher course

Conduct and ethics committee - At Cameco, we have a conduct and ethics committee that shares the responsibility for oversight of ethics matters and practices. Our conduct and ethics committee includes representatives from internal audit, human resources, legal, and our executive team. The committee actively reviews all ethics hotline matters as they arise and formally meets quarterly to review the current status of ethics matters. The committee reports quarterly to our executive officers and to the audit and finance committee of the board on any new matters that could impact the integrity of financial reporting or the credibility of Cameco's executive or senior management team.

Controls around key ethics-related risks are assessed annually by our internal Sarbanes-Oxley (SOX) compliance function and audited by our external auditors.

Human Rights

We are committed to respecting and observing the protection of human rights and share the values reflected in international proclamations about human rights, such as the Universal Declaration of Human Rights. We respect human rights wherever we operate and prohibit human trafficking, slavery, and child labour within our operations and our supply chain. We strive to provide a safe and healthy working environment that is free from harassment and discrimination. We have formalized our commitment to human rights in our Code of Conduct and Ethics and our People Policy. We also have a Supplier Code of Conduct and Ethics that sets standards for those who provide goods and/or services to Cameco and states our expectation that they comply with all human rights, labour and employment laws in the countries where they operate. Cameco assesses the risk around respectful workplace and protected grounds in the *Canadian Human Rights Act* annually as part of our Risk Management Program.

Anti-corruption

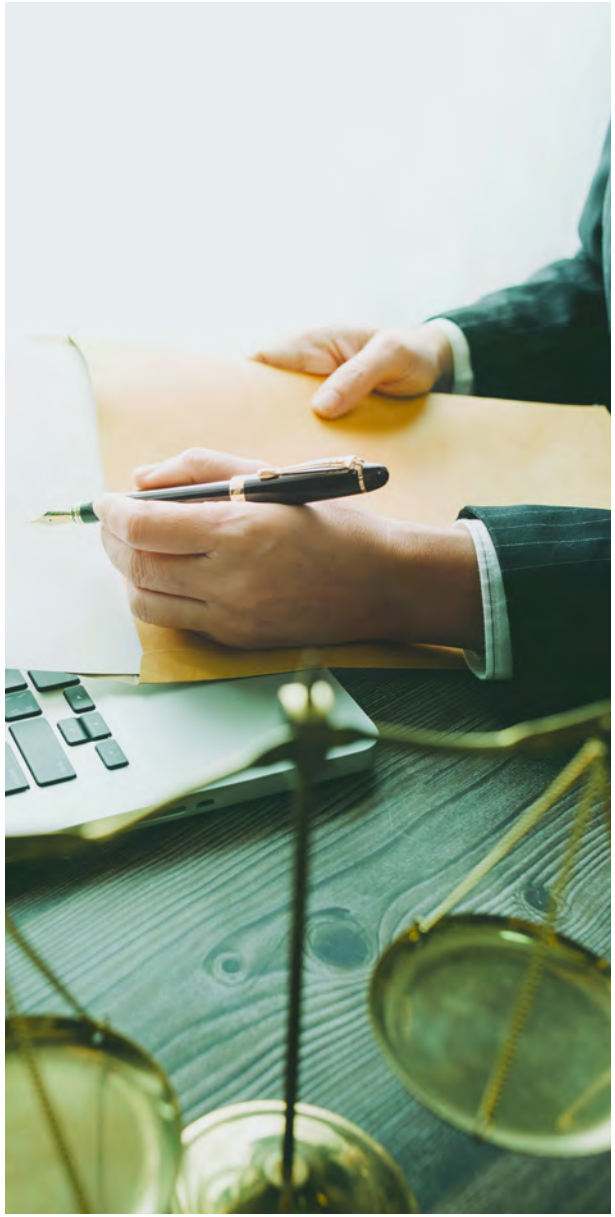
Cameco places great importance on the integrity of its relationships with government agencies, officials, political parties, leaders, and candidates throughout the world and is committed to maintaining the highest standards of ethical behaviour throughout our value chain. Cameco has no production in countries with high levels of corruption risk (as determined by the 20 lowest rankings in Transparency International's Corruption Perception Index). We believe that all business transactions, no matter where they occur in the world, must be conducted in a manner that enhances our reputation for integrity and best business practices. We uphold these values in the following ways:

Anti-corruption program - Our Global Anti-Corruption Program supplements our Code of Conduct and Ethics by setting out the principles, practices, and rules employees, and third parties acting on behalf of Cameco, are expected to follow. This program applies to all our operating subsidiaries, including our offices in the US, Australia, Europe, and Kazakhstan. Examples of actions we take as part of our program include monitoring in-country risk, conducting applicable due diligence related to third parties and affiliated entities, and monitoring gifts and hospitality. We also complete an anti-corruption risk assessment as part of our Risk Management Program (read more on page 17). We have had an Anti-Corruption Policy/Program since 2006.

Training - In addition to Code of Conduct and Ethics training, we provide scenario-based and discussion-centric anti-corruption training to targeted employees.

Fraud risk assessment - We complete a full fraud risk assessment every two years which seeks to identify Cameco's vulnerabilities to fraudulent activity and assess the risk (likelihood and impact) that those exposures may result in potential material misstatements in the financial statements, material loss and/or reputational damage.

We believe that wherever we do business, it must be conducted in a manner that enhances our reputation for integrity and best business practices. Our current operations are not in areas of conflict.



Analyst Corner

SASB EM-MM-210a.3

SASB EM-MM-510a.1

Competition law compliance

Competition laws (referred to in the US as “antitrust laws”) are an important aspect of free and open markets. They are designed to provide consumers with product choice and competitive prices, to protect competitors from unfair competition, and to promote economic efficiency. A mere allegation of anti-competitive conduct can be damaging to a company’s reputation and disruptive to its business.

We follow competition and antitrust laws in all our interactions with our customers, suppliers, and competitors. In 2020, there were no legal actions initiated against Cameco related to anti-competitive behaviour. We work to prevent anti-competitive behaviour in the following ways:

Competition law program - Our Competition Law Compliance Program guides our actions and is updated regularly. It outlines our expectations of all employees, officers, and directors.

Training - In addition to mandatory Code of Conduct and Ethics training for all employees, we provide targeted competition law training to our executives and certain departments to support them in understanding the rules. These employees have been selected because they are in higher-risk roles or directly interact with our suppliers, customers, and competitors. Our training covers high-risk areas including discussions with competitors, arrangements with customers and suppliers, and joint ventures.

Public policy involvement

We co-operate and engage with government bodies and regulatory agencies about public policy positions, laws and regulations that are relevant to our business. Our activities may include direct lobbying on specific policy proposals or advocating our positions on issues of key importance to the company through industry or business associations such as the Saskatchewan Mining Association, the Mining Association of Canada, the Canadian Nuclear Association, among others. In all interactions we conduct ourselves ethically and with the highest degree of integrity.

Transparent disclosure

Our corporate reputation, both locally and internationally, is tied to how we communicate with our stakeholders. We continually provide important financial and operational details to the public, ensuring that complete, accurate and balanced information is disclosed openly and honestly. Transparent disclosure allows interested groups to compare what we say about our strategy and objectives with our actual results. We strive to clearly communicate information in a way that can be understood without adding unnecessary complexity. We have a Corporate Disclosure Policy, as well as a program and procedures that govern our disclosure controls and practices. The board’s audit and finance committee is responsible for overseeing the review of our disclosure controls and procedures once a year and recommending any significant changes to the board for approval.

We strive to clearly communicate information in a way that can be understood without adding unnecessary complexity.

Tax Transparency

Cameco's commitment to high standards of ethical behaviour and business integrity includes transparency into our corporate taxation. As a resource company, we pay a significant amount of tax across multiple jurisdictions, including income taxes, uranium crown royalties, property taxes, sales and use tax, and indirect taxes. In addition, we collect and remit employment taxes from our more than 1,900 employees. Although we do not have a formal tax policy, we are guided by our Code of Conduct and Ethics and comply with all tax laws that apply to our operations.

Our approach

At Cameco, we believe that tax is a fundamental component of overall financial performance. Our tax department works collaboratively with other business units to preserve long-term value, and we monitor and adjust to legislative changes in each jurisdiction where we do business. Cameco employs qualified personnel and engages with respected external service providers for their expertise prior to the execution of any significant transactions.

Each quarter, the Chief Financial Officer provides a report to the audit and finance committee of the board updating them on tax-related activities, issues, risks, opportunities and potential impact of legislative or tax policy changes since the prior quarter.

We approach all tax authorities in a professional, collaborative, and transparent way. We seek to help them understand our business and resolve uncertain or disputed matters through well-supported tax filing positions, timely audit inquiry responses and clear communication. Where we do not agree with tax authority assessments, we will proactively appeal and defend our positions (refer to Litigation decision in the sidebar).

As a Canadian multinational company with a global customer base, Cameco needs to charge for various goods and services provided to and from its various foreign subsidiaries and affiliated companies. We do this in compliance with relevant laws in the affected jurisdictions adhering to the arm's-length principle so that intercompany pricing and other terms and conditions reflect comparable contracts between arm's length parties. As such, our consolidated tax rate is a blend of rates applicable in Canada and in the jurisdictions of our foreign subsidiaries and affiliates.

Commitment to transparency

We have annually reported payments to governments, as required by the *Canada's Extractive Sector Transparency Measures Act* (ESTMA), since 2016. Extending beyond tax transparency, the report details royalties, fees, and other payments made to Indigenous, municipal, provincial, and federal governments in Canada, the US, and Australia by Cameco and our subsidiaries for commercial development related to the exploration and extraction of minerals. Read Cameco's 2020 ESTMA Report.

As a resource company, we pay a significant amount of tax across multiple jurisdictions, including income taxes, uranium crown royalties, property taxes, sales and use tax, and indirect taxes.

Litigation decision

We have been involved in litigation with Canada Revenue Agency (CRA) for several years due to a dispute regarding the marketing and trading structure and related transfer pricing methodology first established in 1999 and discontinued in 2017 in response to uranium market conditions. In June 2020, we received a unanimous decision in our favour from the Federal Court of Appeal (Court of Appeal). The decision upheld the Sept. 26, 2018, decision of the Tax Court of Canada, which confirmed that our marketing and trading structure involving foreign subsidiaries, as well as the related transfer pricing methodology used for certain intercompany uranium sales and purchase agreements for the 2003, 2005, and 2006 tax years were in full compliance with Canadian law, and it sustained the corresponding decision on the cost award. We believe the principles in the decision apply to all tax years subsequent to 2006. CRA made an application to the Supreme Court of Canada (Supreme Court) to seek leave to appeal the decision of the Court of Appeal. On Feb. 18, 2021, the Supreme Court declined to hear the appeal. Read more in our most recent MD&A.

Cybersecurity

In the digital era, cybersecurity threats pose an ongoing risk to organizations across industries. To date, Cameco has not suffered any significant data breaches, or any significant financial losses relating to cyberattacks, technology failure, or security breaches.

We protect our systems, information, and physical assets through a cybersecurity program that aligns with the National Institute of Standards and Technology Cybersecurity Framework and implement applicable security controls and benchmarks from the Center for Internet Security. We also work regularly with government organizations, such as the Canadian Centre for Cyber Security which provides regular updates on emerging issues. We have a well-defined incident response process in place which includes keeping external security specialist firms on retainer and having our security incident response interfaced with our corporate crisis management plans, which enables rapid response and activation of subject matter experts.

Assessing cybersecurity risk

On an annual basis, our internal audit team develops a risk-based internal audit plan, which also covers one or more cybersecurity related subjects. As part of our integrated audit, we also engage external auditors to complete reviews every year to examine our security controls and IT internal controls. We also commission third-party cybersecurity experts to complete external multistage penetration tests and use their findings to further enhance our security processes and controls. Each quarter, we present a dashboard to the board that highlights changes to our cybersecurity risk profile, outlines areas of focus, provides a self-rating, and describes how we are responding to the external environment.

Protecting our data

Under the CNSC's *Nuclear Safety and Control Act*, strict regulations dictate what data we can and cannot expose. At Cameco, apart from controlled nuclear technology (as regulated by CNSC), we also maintain and keep secure employee and contractor personal data, our intellectual property, and data on our industrial control systems. We protect this data through a "Defense in Depth" strategy, that includes several layers of security processes, technology and controls, and incorporates multiple redundancies. We also restrict access to our systems and data and log and monitor sensitive access.

Promoting cybersecurity awareness

Every employee plays a role in protecting Cameco from cybersecurity threats. We work to educate and inform our workforce to recognize potential threats and help prevent cyber-related incidents. As employees join the company, we provide cybersecurity awareness training and require an annual mandatory e-learning module and sign-off. We also run a contractor module, and a special module for employees who use our industrial control systems. We supplement this training with awareness campaigns, topical emails, and articles in Cameco's weekly email news bulletin and intranet site.

We protect our systems, information, and physical assets through a cybersecurity program that aligns with the NIST Cybersecurity Framework and implement applicable security controls and benchmarks from the CIS.

Responsible Supply Chain

Supplier and contractor selection

We use ISNetworld to screen contractors who provide services at our sites. All contractors must meet our basic ISNetworld requirements, including demonstrating technical capabilities and having adequate safety practices and appropriate insurance in place.

As a supplier to the Canadian nuclear industry, our fuel services facilities follow Canadian Standards Association's N299, a set of quality assurance program requirements for the supply of items and services for nuclear power plants. CSA N299 outlines a minimum set of requirements for quality assurance systems and is designed to verify production processes, inspection, testing, and corrective actions. According to this standard, if a product or service is considered high risk, we must have stricter requirements of suppliers to verify that they are qualified to supply the item. Cameco will only purchase these high-risk items through a supplier that meets or exceeds all our requirements. For example, for supply of zirconium we have a special vendor approval process, and for transportation, we only work with a small set of specialized carriers and freight forwarders that are qualified to deal with radioactive materials.

Expectations of suppliers

We believe that a sustainable and ethical supply chain starts with choosing suppliers that will uphold our standards. Our Supplier Code of Conduct and Ethics outlines our expectations for those who provide goods and/or services to Cameco, including their representatives and employees. The Supplier Code requires our suppliers to adhere to all human rights, labour, and employment laws in the countries where they operate. Suppliers and their employees are expected to treat everyone with respect and dignity, not tolerate harassment, and take appropriate action if complaints occur.

Auditing

In addition to screening, we also audit our most critical suppliers in the following ways:

- For critical supplies that come from outside of Canada, such as anhydrous hydrogen fluoride (a crucial input to the conversion process for UF_6 which comes from the US and Spain), we third-party audit our suppliers' facilities every three years on average to assess safety practices and quality management processes.
- For drum suppliers, Cameco conducts a quality audit on drum manufacturers every five years. Read more on page 58.
- For our transportation providers (trucking), freight-forwarders and transportation emergency response providers, we audit them every two years. These audits are typically conducted by Cameco staff with a third-party firm used for our two large transporters. Read more on page 58.

Contracted since 1988, Northern Resource Trucking (NRT) is an Indigenous-owned, long-time provider of vital transportation services to Cameco's Saskatchewan operations.

Commitment to local procurement

We are committed to using local suppliers wherever we operate. It is a commitment codified in our Procurement of Goods and Services Policy and exemplified by our spending in northern Saskatchewan, where we have procured more than $280 million in services from local companies over the past three years. In 2020, 81% of all service spend at northern Saskatchewan mine sites was with northern local businesses.

In northern Saskatchewan, we have commitments through collaboration agreements with a select number of construction and civil works companies that are Preferred Northern Contractors (PNCs). All PNCs must also follow our standards. Read more about PNCs on page 48.

SERVICES PROCURED FROM LOCAL COMPANIES (% OF SPENDING)

	2018	2019	2020
Company-wide	71%	61%	55%
Northern Saskatchewan	89%	85%	81%
Ontario	50%	45%	41%
US	40%	43%	67%

In northern Saskatchewan, we have procured more than $280 million in services from local companies over the past three years.

Appendix

Performance Table

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
COMPANY CONTEXT							
Operations							
Revenues	thousand CAD $	2,091,661	1,862,925	1,800,073	GRI 201-1		Cameco's sale of products and services
Total mining production	lbs U_3O_8	9,239,102	9,047,595	5,064,503	SASB EM-MM-000.A	Cameco's equity share of production from Cameco operated facilities. Cameco's share of production from Joint Venture Inkai mine in Kazakhstan is not included.	Cameco equity share of operating facilities excluding JV Inkai
Production in our fuel services division (includes results for UF_6, UO_2, and fuel fabrication)	kgU	10,462,573	13,263,756	11,641,285	SASB EM-MM-000.A		Cameco equity share of operating facilities
ENVIRONMENT							
Water							
Total water withdrawn	thousand m^3	19,737	19,536	20,719	GRI G4 EN8	Includes intercepted water. Cameco withdraws water from surface water, collects groundwater, and withdraws water from municipal water utilities in the areas where we operate. Rainwater that comes into contact with our operations is collected and stored, which is reflected in our water withdrawal volumes. Cameco does not withdraw wastewater directly from other organizations. Water withdrawal from our exploration activities is not included. Cameco is currently evaluating how this indicator is reported to align with the new GRI standards and plans to update the way water withdrawal is reported in future ESG reports.	Cameco operated facilities (100% basis)
Fresh water withdrawn in regions with High or Extremely High Baseline Water Stress	percent	0	0	0	SASB EM-MM-140a.1	Fresh water defined as water with an average total dissolved solids (TDS) less or equal to 1,000 mg/L for the purpose of this indicator. Cameco is currently evaluating the definition of fresh water and may adjust this definition in 2021. Areas of High or Extremely High Baseline Water Stress were identified using the World Resources Institute Aqueduct tool. Cameco's North Butte operation is classified in an area of high water stress (3-4). Cameco withdraws fresh water from a drinking water aquifer at North Butte for use in firewater suppression systems, bathrooms, and sinks within surface buildings. The quantity of water withdrawn is $< 5{,}000$ m^3 annually. This is such a small proportion of total water withdrawn that it is not measurable within the corporate total.	Cameco operated facilities (100% basis)

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
ENVIRONMENT - CONTINUED							
Number of incidents of non-compliance associated with water quality permits, standards, and regulations (see definition)	number	0	0	0	SASB EM-MM-140a.2	Incidents of non-compliance associated with water quality permits, standards, and regulations are water-related incidents that resulted in formal enforcement actions.	Cameco operated facilities (100% basis)
Water quality							
Water discharged to:						This indicator presents the annual volume of planned water discharge in thousands of cubic metres (thousand m^3) by destination (i.e. surface water, municipal treatment facilities, land, evaporation pond, or deep disposal well) and treatment method (i.e. treated by Cameco, treated by municipal authorities, clean, or untreated). Cameco does not reuse water produced by other organizations. The annual volume of water discharged to evaporation from our Smith Ranch-Highland operation is not included.	#N/A
Surface water (clean diverted water to surface water)	thousand m^3	4,950	6,446	6,143	GRI G4 EN22		
Surface water (clean treated water to surface water)	thousand m^3	13,435	12,119	13,145	GRI G4 EN22		
Municipal treatment facilities	thousand m^3	168	191	164	GRI G4 EN22		
Land application via irrigation	thousand m^3	189	136	146	GRI G4 EN22		
Deep disposal well	thousand m^3	939	975	1,049	GRI G4 EN22	We only dispose of water into licensed disposal wells in our US operations.	
Evaporation pond	thousand m^3	20	27	12	GRI G4 EN22		
Tailings and mineral wastes							
Weight of tailings and mineral waste	tonnes	35,785	67,238	26,731			
Annual change in unreclaimed waste rock inventory	tonnes	10,329	44,040	23,089	GRI G4 MM3	Includes mineralized and non-mineralized waste rock.	
Weight of other mineral waste	tonnes	3,410	21,749	1,429		Includes water treatment sludges and mine slimes.	
Weight of tailings waste	tonnes	22,046	1,449	2,213	SASB EM-MM-150a.1	Includes the amount of tailings generated by Cameco operated facilities.	Cameco operated facilities (100% basis)
Percent of tailings waste recycled	percent	0%	0%	0%	SASB EM-MM-150a.1		Cameco operated facilities (100% basis)

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
ENVIRONMENT - CONTINUED							
Number of tailings impoundments (tailings management facilities)	number	4	4	4	SASB EM-MM-150a.3	Cameco has four tailings facilities but two are in-pit facilities. In-pit facilities are below the ground surface, so we do not classify them with respect to the consequence of a dam failure.	Cameco operated facilities (100% basis)
Number of tailings impoundments, broken down by Canadian Dam Association Consequence Classification Rating	number	N/A	N/A	2, Significant	SASB EM-MM-150a.3		Cameco operated facilities (100% basis)
Non-mineral wastes						Non-mineral waste does not include solid waste generated as tailings, water treatment sludge and slime, or waste rock. Non-mineral waste does include mineral processing waste. Cameco does not generate intermediate or high-level radioactive waste. The total amount of low-level radioactive, non-hazardous, and hazardous waste generated in each category is separated and presented by disposal method: diverted, landfilled, or stored on site. Diverted materials include those that are recycled, reused, incinerated, repurposed, or reprocessed. We separate waste into these disposal categories using internal tracking systems that track the inventory of waste on site and the transfer of waste off site. The amount of waste transferred off site is confirmed through information provided by the receiving organization.	
Weight of low-level radioactive waste	tonnes	4,522	5,703	6,244	-	Low-level radioactive waste includes industrial materials that have become contaminated with radioactive material and are more radioactive than clearance levels and exemption quantities allow. Includes industrial materials such as protective equipment, paper, cardboard, equipment, tools, metal, plastic, concrete, sand, sludges, insulation, and wood. At our Saskatchewan facilities, this waste is referred to as contaminated waste. At our US facilities, it is referred to as 11e2 byproduct.	Cameco operated facilities (100% basis)
Low-level radioactive waste diverted	tonnes	1,373	1,466	1,043	-		Cameco operated facilities (100% basis)
Low-level radioactive waste landfilled or stored	tonnes	3,149	4,238	5,202	-		Cameco operated facilities (100% basis)
Weight of non-hazardous waste	tonnes	1,838	1,564	1,147	GRI 306-3	Non-hazardous waste includes domestic, commercial, and industrial materials that become waste, such as plastic, tin, paper and cardboard, tires, metal, wood pallets, kitchen cooking oil, and wood.	Cameco operated facilities (100% basis)
Non-hazardous waste diverted	tonnes	557	748	645	GRI 306-4		Cameco operated facilities (100% basis)
Non-hazardous waste landfilled or stored	tonnes	1,280	816	502	GRI 306-5		Cameco operated facilities (100% basis)

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
ENVIRONMENT - CONTINUED							
Weight of hazardous waste	tonnes	148	183	247	GRI 306-3	Hazardous waste includes hazardous recyclable materials, and generally means a waste with hazardous properties that may have potential effects to human health or the environment. Includes materials such as used petroleum fuels (oil, diesel, gas), batteries, paint and paint-related materials, compressed gas cylinders, and light fixtures.	Cameco operated facilities (100% basis)
Hazardous waste diverted	tonnes	118	130	155	GRI 306-4		Cameco operated facilities (100% basis)
Hazardous waste landfilled or stored	tonnes	30	53	92	GRI 306-5		Cameco operated facilities (100% basis)
Processing waste						Mineral processing waste is defined as the total non-hazardous, hazardous, and low-level radioactive waste generated during mineral processing by all facilities within the fuel services division. The waste generated during mineral processing is a subset of the categories above and should not be added to the wastes describes above.	
Weight of total mineral processing waste	tonnes	1,851	2,506	4,259	SASB EM-MM-150a.2		
Percent of total mineral processing waste diverted	percent	47%	35%	29%	SASB EM-MM-150a.2		
GHG emissions/ energy use						Cameco's scope 1 greenhouse gas (GHG) emissions are presented as tonnes of carbon dioxide equivalents (CO_2e). CO_2e is used to compare the emissions from various GHG sources based on their global warming potential (GWP). Cameco adopted the GWPs published by Environment and Climate Change Canada (ECCC) and the United States Environmental Protection Agency (US EPA), which reference the GWPs stated in the International Panel on Climate Change's Fourth Assessment Report. Cameco's significant sources of direct GHG emissions include those generated by the consumption of fuel from non-renewable sources and industrial processes. Emission factors that are country- and fuel-specific are used to convert the fossil fuels consumed to GHG emissions in CO_2e. For our Canadian operations, we have used emission factors published by ECCC through the Greenhouse Gas Reporting Program. For our US operations, we use the emission factors published by the US EPA in the most recent Emission Factors for Greenhouse Gas Inventories document. Cameco's indirect (Scope 2) GHG emissions are presented as tonnes of CO_2e. CO_2e is used to compare the emissions from various GHG sources based on their GWP. Cameco adopted the GWPs published by ECCC and the US EPA, which reference the GWPs stated in the International Panel on Climate Change's Fourth Assessment Report. Indirect GHG emissions are calculated by applying a utility- or region-specific emission factor to the amount of electricity purchased from that area, which is determined through utility invoices.	

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
ENVIRONMENT - CONTINUED							
Gross global Scope 1 emissions (equity share)	tonnes CO_2e	97,422	88,976	86,831	SASB EM-MM-110a.1	Under the equity share approach, we have adjusted the GHG emissions reported to align with our financial ownership, specifically: 69.805% of McArthur River mine, 83.333% of Key Lake mill, 50.025% of Cigar Lake mine, and we have included 40% of emissions from JV Inkai.	Cameco equity share of operating facilities (includes JV Inkai)
Scope 2 emissions (equity share)	tonnes CO_2e	145,909	135,173	116,617	GRI 305-2		Cameco equity share of operating facilities (includes JV Inkai)
Gross global Scope 1 emissions (operational control)	tonnes CO_2e	123,359	111,126	107,807	GRI 305-1	Operational control basis means we report 100% of GHG emissions from Cameco operated facilities regardless of financial ownership.	Cameco operated facilities (100% basis)
Scope 2 emissions (operational control)	tonnes CO_2e	212,080	200,294	171,732	GRI 305-2		Cameco operated facilities (100% basis)
Total energy consumed	GJ	3,312,660	3,116,382	3,275,231	SASB EM-MM-130a.1	Cameco's energy consumption includes energy consumed as fuel from non-renewable sources and energy consumed as electricity. Energy consumed as fuel from non-renewable sources is calculated by applying a fuel- and region-specific energy content factor to the consumed volume of non-renewable energy sources at Cameco's operations. These energy sources include propane, natural gas, diesel and gasoline. Cameco does not utilize renewable energy sources directly. Energy consumed as electricity is calculated by applying a conversion factor of 0.0036 gigajoules per kilowatt hour (GJ/kWh) to the raw electricity consumption. Cameco does not sell energy as electricity, heating, cooling, or steam.	Cameco operated facilities (100% basis)
Grid electricity	percent	41%	43%	45%	SASB EM-MM-130a.1		Cameco operated facilities (100% basis)
Transition to a low carbon economy							
Scope 1 emissions covered under emissions-limiting regulations	percent	0	90	91	SASB EM-MM-110a.1		Cameco operated facilities (100% basis)
Air quality							
Carbon Monoxide (CO)	tonnes	57	10	9	SASB EM-MM-120a.1	Air emissions are reported for operated facilities in Canada only. Air emissions from our in situ recovery operations in the US are not material for this indicator and are not included. Air emissions of NOx, SO_2, CO, VOCs, PM, PM_{10}, $PM_{2.5}$ and NH_3 are calculated using the guidance provided by Environment and Climate Change Canada through the National Pollutant Release Inventory. The total air emissions for these constituents include air emissions released through point sources such as process stacks, storage and handling, fugitive emissions, and as a result of road dust. Air emissions of uranium and Hydrogen Fluoride include air emissions released through point sources.	Cameco operated facilities in Canada (100% basis)
NOx (excluding N_2O)	tonnes	183	118	138	SASB EM-MM-120a.1		Cameco operated facilities in Canada (100% basis)
SOx	tonnes	13	0	0	SASB EM-MM-120a.1		Cameco operated facilities in Canada (100% basis)
Particulate matter (PM_{10})	tonnes	151	156	149	SASB EM-MM-120a.1		Cameco operated facilities in Canada (100% basis)

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
ENVIRONMENT - CONTINUED							
Volatile organic compounds (VOCs)	tonnes	13	1	1	SASB EM-MM-120a.1		Cameco operated facilities in Canada (100% basis)
Ammonia (NH_3)	tonnes	41	39	38	-		Cameco operated facilities in Canada (100% basis)
Uranium	tonnes	0.04	0.05	0.05	-		Cameco operated facilities in Canada (100% basis)
Hydrogen Fluoride	tonnes	0.58	0.53	0.61	SASB RT-CH-120a.1		Cameco operated facilities in Canada (100% basis)
Biodiversity/land							
Proved reserves in or near sites with protected conservation status or endangered species habitat	percent	30	33	34	SASB EM-MM-160a.3	Protected conservation status or endangered species habitat in alignment with SASB Standards definition.	Cameco ownership of deposits
Probable reserves in or near sites with protected conservation status or endangered species habitat	percent	66	61	57	SASB EM-MM-160a.3		Cameco ownership of deposits
Acid-generating seepage, waste rock							
Percentage of mine sites where acid-generating seepage into surrounding surface water and/or groundwater is:							
Predicted to occur	percent	14%	14%	20%	SASB EM-MM-160a.2		
Actively mitigated	percent	14%	14%	20%	SASB EM-MM-160a.2	Active mitigation includes placing waste rock on a lined facility and collecting seepage.	
Under treatment or remediation	percent	0%	0%	0%	SASB EM-MM-160a.2		

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
ENVIRONMENT - CONTINUED							
Percentage of annual production output in metric tons (on an equity share basis) where acid-generating seepage into surrounding surface water and/or groundwater is:							
Predicted to occur	percent	75%	73%	64%	SASB EM-MM-160a.2		
Actively mitigated	percent	75%	73%	64%	SASB EM-MM-160a.2	Active mitigation includes placing waste rock on a lined facility and collecting seepage.	
Under treatment or remediation	percent	0%	0%	0%	SASB EM-MM-160a.2		
Decommissioning /closure							
Terrestrial acreage disturbed	hectares	3,190	3,174	3,199	SASB EM-MD-160a.3	Cameco's land, leased and owned, currently in use and not yet rehabilitated. This indicator excludes advanced uranium projects (Kintyre, Yeelirrie, Millennium), office structures, exploration activities, operations in which Cameco does not have operational control, or rented facilities that Cameco operates (Cobourg). The definition of land disturbed and not yet rehabilitated is dependent on the jurisdiction of the operation. In Saskatchewan, total land disturbed and not yet rehabilitated is accepted by regulators as "Developed" land. In the US, total land disturbed and not yet rehabilitated is defined by regulators as "Affected Area". For Ontario, total land disturbed is equal to the licensed area of the facility.	Cameco operated facilities (100% basis)
Terrestrial acreage restored	hectares	Not reported	Not reported	0	SASB EM-MD-160a.3		Cameco operated facilities (100% basis)
SOCIAL							
Occupational safety/ health						The average radiation dose is an arithmetic average of the annual effective doses received by all workers monitored for radiation at Cameco operated facilities at our mining, milling, and fuel services divisions in Saskatchewan, Ontario, and the US.	
Avg. radiation dose to employees	mSv/year	0.69	0.89	0.88	-		Cameco operated facilities (100% basis)
Avg. radiation dose to contractors	mSv/year	0.18	0.20	0.22	-		Cameco operated facilities (100% basis)
Avg. radiation dose to employees and contractors	mSv/year	0.49	0.57	0.59	-		Cameco operated facilities (100% basis)

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
SOCIAL - CONTINUED							
Total Recordable Injury Rate (TRIR)						TRIR as defined by US OSHA.	Cameco operated facilities (100% basis)
TRIR employees	incidents per 200,000 hours worked	2.0	1.5	1.1	SASB EM-MM-320a.1	Encompasses all Cameco operated facilities including office facilities.	Cameco operated facilities (100% basis)
TRIR contractors		3.1	2.6	3.9	SASB EM-MM-320a.1		Cameco operated facilities (100% basis)
TRIR combined (all Cameco)		2.3	1.8	1.7	-		Cameco operated facilities (100% basis)
Fatality rate employees	fatalities per 200,000 hours worked	0	0	0	SASB EM-MM-320a.1		Cameco operated facilities (100% basis)
Fatality rate contractors	fatalities per 200,000 hours worked	0	0	0	SASB EM-MM-320a.1		Cameco operated facilities (100% basis)
Average hours of health and safety training for full-time employees	hours	21	40	27	SASB EM-MM-320a.1		Cameco operated facilities (100% basis)
Transportation safety							
Number of transport incidents	number	0	0	0	SASB RT-CH-540a.2	Transport incidents include any transport incident that involves a release or potential release, per Section 8.2. of the Transportation of Dangerous Goods Regulation in Canada or 49 CFR 171.15 in the US.	Cameco controlled transportation
Employees							
Total number of employees	number	1,897	1,885	1,931	SASB EM-MM-000.B	This indicator reports the total number of regular and temporary full- and part-time employees.	Cameco operated facilities (100% basis)
Total number of contractors	number of FTEs	541	506	389	SASB EM-MM-000.B	Full-time equivalent (FTE) contractors is equal to the number of contractor hours divided by 2,000 hours, as 2,000 hours is deemed the number of hours for a full-time equivalent employee.	Cameco operated facilities (100% basis)
Voluntary turnover rate	percent	5%	4%	3%	SASB CG-EC-330a.2	Turnover is calculated on regular full- and part-time employees.	Cameco operated facilities (100% basis)
Involuntary turnover rate	percent	25%	3%	1%	SASB CG-EC-330a.2		Cameco operated facilities (100% basis)

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
SOCIAL - CONTINUED							
Diversity and inclusion							
Total workforce							
Women	percent	26%	25%	25%	GRI 405-1	Diversity information is only maintained on all regular and temporary full- and part-time employees in Canada. Our US operations are no longer required to file their equity information as the operations have less than 100 employees.	Cameco operated facilities (100% basis)
Indigenous	percent	18%	18%	19%	GRI 405-1		Cameco operated facilities (100% basis)
Visible Minority	percent	5%	6%	7%	GRI 405-1		Cameco operated facilities (100% basis)
Persons with Disabilities	percent	2%	3%	3%	GRI 405-1		Cameco operated facilities (100% basis)
Management						Management includes select professional and supervisory positions, and all manager positions and above.	
Women	percent	24%	26%	25%	GRI 405-1		Cameco operated facilities (100% basis)
Indigenous	percent	2%	4%	4%	GRI 405-1		Cameco operated facilities (100% basis)
Visible Minority	percent	6%	5%	5%	GRI 405-1		Cameco operated facilities (100% basis)
Persons with Disabilities	percent	1%	1%	1%	GRI 405-1		Cameco operated facilities (100% basis)
Unions							
Total number of employees	number	1,897	1,885	1,931	SASB EM-MM-000.B	This indicator reports the total number of regular and temporary full- and part-time employees.	Cameco operated facilities (100% basis)
Employees covered under collective bargaining agreements	percent	23%	23%	24%	SASB EM-MM-310a.1		Cameco operated facilities (100% basis)
Employees covered under collective bargaining agreements in Canada	percent	24%	24%	25%	SASB EM-MM-310a.1		Cameco operated facilities (100% basis)
Employees covered under collective bargaining agreements outside of Canada	percent	0%	0%	0%	SASB EM-MM-310a.1		Cameco operated facilities (100% basis)

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
SOCIAL - CONTINUED							
Number of strikes and lockouts	number	0	0	0	SASB EM-MM-310a.2	Work stoppages involving 1,000 or more workers lasting one full shift or longer.	Cameco operated facilities (100% basis)
Duration of strikes and lockouts	worker days idle	0	0	0	SASB EM-MM-310a.2		Cameco operated facilities (100% basis)
Relationships with communities							
Number of non-technical delays	number	0	0	4	SASB EM-MM-210b.2	Non-technical delays are defined as all delays that are not technical in nature that result in production interruptions. Non-technical delays in 2020 were related to the global COVID-19 pandemic.	Cameco operated facilities (100% basis)
Duration of non-technical delays	days	0	0	237	SASB EM-MM-210b.2		Cameco operated facilities (100% basis)
Public support						Reported data on public support is taken directly from polling Cameco undertakes in the various regions in which we operate. Data collection is undertaken by marketing research experts using industry-accepted methodology aimed at collecting unbiased opinions of community support. Accuracy of individual polls varies by region and from year to year based on individual sample sizes. It is important to note that polling questions in Ontario are framed in terms of support for Cameco operations specifically while other regions are asked about their support of the uranium industry more broadly.	
Saskatchewan	percent	80%	85%	83%	-		
Northern Saskatchewan	percent	82%	85%	75%	-		
Port Hope, Ontario	percent	85%	91%	90%	-		
Blind River, Ontario	percent	97%	N/A	96%	-		
Nebraska	percent	N/A	N/A	N/A	-		
Wyoming	percent	N/A	N/A	N/A	-		
Indigenous rights							
Proved reserves in or near Indigenous land	percent	Not reported	Not reported	73%	SASB EM-MM-210a.2	Cameco defines Indigenous land as Indigenous territory, which is overlapping within the area of our northern Saskatchewan operations. Per the constitution of Kazakhstan, the land is owned by the state and there are no groups designated as Indigenous.	Cameco ownership of deposits
Probable reserves in or near Indigenous land	percent	Not reported	Not reported	60%	SASB EM-MM-210a.2		Cameco ownership of deposits
Residents of Saskatchewan's North (RSN) employed by Cameco	percent	49%	51%	52%	-	Residents of Saskatchewan's North (RSN) are defined on our website at: https://www.cameconorth.com/careers/rsn-definition.	Cameco operated facilities in Saskatchewan
Residents of Saskatchewan's North (RSN) in management positions	percent	15%	14%	18%	-		Cameco operated facilities in Saskatchewan

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
SOCIAL - CONTINUED							
Progressive Aboriginal Relations Achievement Level		Three-year certification cycle	Gold	Three-year certification cycle	-	The Canadian Council of Aboriginal Business (CCAB) promotes the full involvement of Indigenous people in Canada's economy by building bridges between corporate Canada and Indigenous communities. Progressive Aboriginal Relations (PAR) recognized performance in the areas of Indigenous employment, business development, individual capacity, and community relations. Cameco has been awarded the CCAB's PAR gold level distinction since 2001 on a three-year certification cycle.	Cameco operated facilities in Saskatchewan
Conflict zones							
Percentage of proven reserves in or near areas of conflict	percent	0%	0%	0%	SASB EM-MM-210a.1		Cameco ownership of deposits
Percentage of probable reserves in or near areas of conflict	percent	0%	0%	0%	SASB EM-MM-210a.1		Cameco ownership of deposits
Economic value distributed							
Revenues	thousand CAD $	2,091,661	1,862,925	1,800,073	GRI 201-1		Cameco's sale of products and services
Operating costs	thousand CAD $	1,564,285	1,453,352	1,531,137*	GRI 201-1	Operating costs is a non-IFRS financial measure that does not have a standardized meaning prescribed by IFRS and therefore is unlikely to be comparable to a similar measure presented by other companies. It is calculated for use in this report in accordance with GRI 201-1 as the sum of cost of sales, administration, exploration, and research and development less employee benefit expense. The most comparable IFRS measure is calculated from the statement of earnings as earnings (loss) from operations less revenue from products and services. This non-IFRS financial measure differs from the most comparable IFRS measure because it does not include employee benefit expense, other operating expense and loss on disposal of assets. The calculation of this non-IFRS measure has been made on a consistent basis for all periods presented.	Cameco's sale of products and services

* The following table shows a reconciliation of operating expenses in the primary financial statements to operating costs in this report for the year ended December 31, 2020:

Loss from operations	78,726
Less revenue from products and services	1,800,073
Operating expenses (income statement)	**1,878,799**
Operating expenses (income statement)	**1,878,799**
Employee benefit expense	(322,669)
Other operating expense	(23,921)
Loss on disposal of assets	(1,072)
Operating costs (GRI 201-1)	**1,531,137**

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
SOCIAL - CONTINUED							
Value distributed							
Employee wages and benefits	thousand CAD $	395,220	312,561	322,669	GRI 201-1		Cameco equity share of operated facilities
Payments to providers of capital	thousand CAD $	144,200	104,097	97,185	GRI 201-1	Payments to providers of capital includes dividends paid to shareholders and interest paid to lenders.	Cameco equity share of operated facilities
Payments to government	thousand CAD $	31,027	26,545	11,685	GRI 201-1	Payments to governments include income taxes, sales tax, and property taxes.	Cameco equity share of operated facilities
Community investment	thousand CAD $	1,838	1,576	2,000	GRI 201-1	Community investment includes donations to non-profits and charitable organizations.	Cameco equity share of operated facilities
Economic value retained	thousand CAD $	-44,909	-35,206	-163,501	GRI 201-1	Economic value retained is revenues minus value distributed. This is not a financial reporting indicator and should not be compared with retained earnings.	Cameco equity share of operated facilities
GOVERNANCE							
Ethics							
New employees who have completed Code of Conduct and Ethics Orientation Course	percent	-	100	100	-		
Targeted employees who have completed annual Code of Conduct and Ethics refresher course	percent	-	100	100	-	Targeted employees include all directors and above, as well as employees who work in supply chain management, human resources, tax, treasury, finance, business technology services, marketing, corporate development, legal, and executive offices.	
Anti-corruption							
Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	tonnes	0	0	0	SASB EM-MM-510a.2		Cameco equity share of operated facilities
Local procurement							
Proportion of services procured by local providers by Cameco	percent	71%	61%	55%	GRI 204-1		Cameco operated facilities (100% basis)
Proportion of services procured by local providers in:						Local supplier is defined differently for each of Cameco's operating locations as follows:	
Northern Saskatchewan	percent	89%	85%	81%	GRI 204-1	Northern Saskatchewan local supplier – A company or joint venture that is at least 50% owned by people or communities from the Northern Saskatchewan Administration District.	Cameco operated facilities (100% basis)

INDICATOR	UNITS	2018	2019	2020	REFERENCE	NOTES	BOUNDARY
GOVERNANCE - CONTINUED							
Ontario	percent	50%	45%	41%	GRI 204-1	Ontario local supplier – One located in the province of Ontario.	Cameco operated facilities (100% basis)
US	percent	40%	43%	67%	GRI 204-1	US local supplier – A supplier located in the same state as the US mine operations. For Crow Butte operations is a supplier located in the state of Nebraska. For Smith Ranch-Highland operations is a supplier located in the state of Wyoming.	Cameco operated facilities (100% basis)

SASB Index

Below are the quantitative metrics and references to qualitative descriptions in this report that align with the SASB standards for the Metals and Mining industry. The Sustainability Accounting Standards Board is a non-profit organization with the goal of enabling businesses around the world to identify, manage and communicate financially material sustainability information to their investors.

NR = not reported

SASB REF	SASB SUGGESTED DISCLOSURES	2020
	GHG Emissions	
EM-MM-110a.1	Gross global Scope 1 emissions (Operational control) [tonnes CO_2e]	107,807
EM-MM-110a.1	Percentage of emissions (Operational control) covered under emissions-limiting regulations	91%
EM-MM-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	pages 39-40, 24
	Air Quality	
EM-MM-120a.1	Carbon Monoxide (CO) [tonnes]	9
EM-MM-120a.1	Nitrogen Oxides (NOx) (excluding N_2O) [tonnes]	138
EM-MM-120a.1	Sulphur Oxides (SOx) [tonnes]	0
EM-MM-120a.1	Particulate matter (PM_{10}) [tonnes]	149
EM-MM-120a.1	Mercury (Hg) [tonnes]	N/A
EM-MM-120a.1	Lead (Pb) [tonnes]	N/A
EM-MM-120a.1	Volatile organic compounds (VOCs) [tonnes]	1
	Energy Management	
EM-MM-130a.1	Total energy consumed [GJ]	3,275,231
EM-MM-130a.1	Percentage grid electricity	45%
EM-MM-130a.1	Percentage renewable	NR
	Water Management	
EM-MM-140a.1	Total water withdrawn (fresh and non-fresh) [thousand m^3]	20,719
EM-MM-140a.1	Total water consumed	NR
EM-MM-140a.1	Percentage of fresh water withdrawn and consumed in regions with High or Extremely High Baseline Water Stress	0
EM-MM-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	0
	Waste & Hazardous Materials Management	
EM-MM-150a.1	Total weight of tailings waste [tonnes]	2,213
EM-MM-150a.1	Percentage of tailings waste recycled	0%
EM-MM-150a.2	Total weight of mineral processing waste [tonnes]	4,259
EM-MM-150a.2	Percentage of mineral processing waste recycled	NR
EM-MM-150a.3	Number of tailings impoundments	4
EM-MM-150a.3	Number of tailings impoundments, broken down by MSHA hazard potential	2, Significant
	Biodiversity Impacts	
EM-MM-160a.1	Description of environmental management policies and practices for active sites	pages 26, 41-42
EM-MM-160a.2	Percentage of mine sites where acid rock drainage is predicted to occur	20% of mine sites

SASB REF	SASB SUGGESTED DISCLOSURES	2020
EM-MM-160a.2	Percentage of mine sites where acid rock drainage is actively mitigated	20% of mine sites
EM-MM-160a.2	Percentage of mine sites where acid rock drainage is under treatment or remediation	0%
EM-MM-160a.3	Percentage of proven reserves in or near sites with protected conservation status or endangered species habitat	34%
EM-MM-160a.3	Percentage of probable reserves in or near sites with protected conservation status or endangered species habitat	57%
	Security, Human Rights & Rights of Indigenous Peoples	
EM-MM-210a.1	Percentage of proven reserves in or near areas of conflict	0%
EM-MM-210a.1	Percentage of probable reserves in or near areas of conflict	0%
EM-MM-210a.2	Percentage of proven reserves in or near Indigenous land	73%
EM-MM-210a.2	Percentage of probable reserves in or near Indigenous land	60%
EM-MM-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, Indigenous rights, and operation in areas of conflict	pages 47-50, 67
	Community Relations	
EM-MM-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	pages 47-50
EM-MM-210b.2	Number of non-technical delays	4
EM-MM-210b.2	Duration of non-technical delays	237
	Labour Relations	
EM-MM-310a.1	Percentage of active workforce covered under collective bargaining agreements	24%
EM-MM-310a.1	Percentage of active workforce covered under collective bargaining agreements, employees in Canada	25%
EM-MM-310a.1	Percentage of active workforce covered under collective bargaining agreements, employees outside of Canada	0%
EM-MM-310a.2	Number of strikes and lockouts	0
EM-MM-310a.2	Duration of strikes and lockouts [days]	0
	Workforce Health & Safety	
EM-MM-320a.1	Total Recordable Injury Rate as defined by OSHA for employees	1.1
EM-MM-320a.1	Total Recordable Injury Rate as defined by OSHA for contractors	3.9
EM-MM-320a.1	Fatality rate for employees	0
EM-MM-320a.1	Fatality rate for contractors	0
EM-MM-320a.1	Near miss frequency rate (NMFR) for employees	NR
EM-MM-320a.1	Near miss frequency rate (NMFR) for contractors	NR
EM-MM-320a.1	Average hours of health, safety, and emergency response training for employees	27
EM-MM-320a.1	Average hours of health, safety, and emergency response training for contractors	NR
	Business Ethics & Transparency	
EM-MM-510a.1	Description of the management system for prevention of corruption and bribery throughout the value chain	pages 66-67
EM-MM-510a.2	Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index [tonnes]	0

Cameco

Energizing a clean-air world

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It's everyone at Cameco, like Cigar Lake's Tara Robertson, mine geologist, and Warren Anderson (left) and Jessie McCorriston (right), two of our specialized jet-bore operators, who safely help us energize a clean-air world.