



2017 Sustainable Development

GRI Index Update

	Economic
	Environment
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	Cameco Indicators

Economic

EC1 - DIRECT ECONOMIC VALUE

This indicator provides information about Cameco's annual revenue, operating costs, employee wages and benefits, payments to providers of capital, payments to governments, community investments and economic value retained.

	2012	2013	2014	2015	2016
Revenues	1,890,660	2,438,723	2,397,532	2,754,378	2,431,404
Operating Costs	1,184,863	1,634,941	1,523,724	1,783,222	1,734,758
Employee Wages and Benefits	453,242	462,164	464,021	507,767	487,349
Payments to Providers of Capital	201,587	224,073	236,344	227,820	228,756
Payments to Government	35,906	96,357	233,716	92,758	114,669
Community Investments	5,294	4,085	4,279	3,794	3,520
Economic Value Retained	9,768	17,103	-64,552	139,017	-137,648

All figures in Canadian dollars (1,000s).

As of 2013, IFRS 11 – Joint Arrangements requires that we account for our former interest in Bruce Power Limited Partnership using equity accounting. Our results for 2012 and 2013 have been revised for comparative purposes. We divested our interest in BPLP effective January 1, 2014.

Revenue by region

(Revenue is attributed to the geographic location based on the location of the entity providing the services)

	2012	2013	2014	2015	2016
Canada	270,834	230,505	308,327	341,568	347,536
Germany	—	232,296	174,622	276,833	181,189
United States	1,619,826	1,975,922	1,914,583	2,135,977	1,902,679
Totals	1,890,660	2,438,723	2,397,532	2,754,378	2,431,404

What it means

Revenue

In 2016, revenue decreased by 12% compared to 2015 due to lower sales revenues in all of our operating segments as a result of reduced sales volumes related to market conditions. In addition, we had lower revenues in our uranium and NUKEM segments as a result of the lower US dollar average realized price which was the result of lower prices on market-related contracts. This was partially offset by further weakening of the Canadian dollar exchange rate realized on sales during 2016. The realized foreign exchange rate was also 1.32 compared to 1.27 in 2015.

Operating costs

The decrease in 2016 operating costs was due to lower sales volumes in all of our segments, largely offset by:

- higher unit cost of sales in the uranium segment as a result of care and maintenance costs and severance costs related to the curtailment of production at Rabbit Lake and our US operations
- \$18 million net write-down of NUKEM inventory, compared to \$3 million net recovery in 2015
- Higher administration costs as a result of increased legal costs as we prepared the CRA case for trial and one-time costs related to collaboration agreements

Employee wages and benefits

Employee wages and benefits, including pension and share based compensation costs, decreased from 2015 mainly due to a reduction in the annual employee incentive program, partially offset by additional costs related to the restructuring of the NUKEM segment and the reduction of staffing levels at our corporate office.

Note

Canada, the United States, Australia and Kazakhstan are all either a candidate to or compliant with the Extractive Industries Transparency Initiative.

EC6 - LOCAL HIRING

This indicator provides information about the number of local employees at our operations in northern Saskatchewan, and the number of senior managers from those local communities. We focus specifically on northern Saskatchewan because it is a remote region where there are few employment options and employees would otherwise be flown in. Most of our other operations are located in larger centres where local hiring is not a critical issue.

	2012	2013	2014	2015	2016
Local employees / total	756/1,531	747/1,500	794/1,600	811/1,629	704/1,438
% employees from local communities	49.40%	49.80%	49.60%	49.80%	49.00%
	2012	2013	2014	2015	2016
Senior managers from local communities /	2 of 28	2 of 28	2 of 26	2 of 24	3 of 21

	2012	2013	2014	2015	2016
total senior managers					
% senior management from local communities	7.10%	7.10%	7.70%	8.33%	14.28%

What it means

Our preference is to hire locally wherever we operate, and that commitment is formalized in our [corporate social responsibility policy](#). Over the years, we have had great success in building local capacity, especially in northern Saskatchewan where our efforts have made Cameco the leading industrial employer of aboriginal peoples in Canada. While our local employment numbers decreased in 2016 as a result of corporate wide staffing reductions, we continue to see nearly 50% of our northern Saskatchewan employee base coming from local communities.

Definitions

Senior manager – A manager or superintendent level employee.

Local employee – To be considered a local employee in northern Saskatchewan, you must be registered as a Resident of Saskatchewan's North (a designation defined and managed by the Saskatchewan government) at the time of hire.

EC7 - INFRASTRUCTURE AND SERVICE INVESTMENTS

This indicator provides an overview of Cameco's investments in infrastructure and services for local communities in Canada, the US and Kazakhstan.

a – Needs assessments

We have not completed a formal infrastructure needs assessment in our local communities.

b – Current (or expected) impact of infrastructure and service investments

Since 2009, Cameco has invested nearly \$10 million in support of infrastructure improvement projects in local communities. Some of our more significant infrastructure investments in 2016 included:

Community	Region	Amount	Infrastructure/Service
Saskatoon	Saskatchewan	\$200,000.00	Ronald McDonald House
Saskatoon	Saskatchewan	\$200,000.00	Remai Art Gallery
Saskatoon	Saskatchewan	\$83,000.00	Cameco Community Kitchen Lighthouse
Port Hope	Ontario	\$50,000.00	Habitat for Humanity – Triplex Unit at 354 Alexandria Drive Cobourg
Saskatoon	Saskatchewan	\$25,000.00	Persephone Theatre

What it means

2016 saw a slight decrease in the total value of infrastructure related investments. Cameco does not specifically target infrastructure investments, but we receive many requests for investments from local communities to support these types of projects because many of these communities have infrastructure deficits.

We target four areas for support from our community investment fund:

- youth
- health and wellness
- education and literacy
- community development

About this indicator

The community investments measured and reported on in this indicator are also included in the community investment total in EC1.

For this indicator, we have not included any infrastructure that was built primarily for business purposes but that local communities may also benefit from (i.e. roads). We also do not count any community investment payments provided to communities we have signed collaboration agreements with in northern Saskatchewan or payments we make to the Six Rivers Trust.

EC8 - INDIRECT ECONOMIC IMPACT

This indicator provides information about our economic impact on particular geographic areas, including the secondary or indirect impact of Cameco's operations.

Cameco has completed economic impact assessments in:

- Northern Saskatchewan – *The Economic Impact of Cameco Corporation on Saskatchewan with Emphasis on the North*. By Eric Howe, Department of Economics, University of Saskatchewan. Feb. 2009
- Port Hope and Northumberland County, Ontario – *Economic and Financial Impact Analysis of Cameco in Port Hope and Northumberland County*. By Harry Kitchen, Department of Economics, Trent University. Nov. 2010
- Wyoming – *The Economic Impact of Cameco on Wyoming: Existing Uranium Operations and Planned Expansion*. By David T. Taylor and Thomas Foulke, University of Wyoming, Sept. 2010
- Nebraska – *The Economic Impact of Cameco Resources' Uranium Production on the Nebraska Economy*. David T. Taylor and Thomas Foulke, University of Wyoming, Sept. 2010

Highlights from completed reports

Northern Saskatchewan

Overall, through direct and indirect activities, at the time of the study Cameco's operations were responsible for 12.2% of

the employment in northern Saskatchewan. As well, Cameco, through direct and indirect activities, was responsible for the employment of more than one aboriginal person in 20 in the province of Saskatchewan. Finally, for every one aboriginal person Cameco hires, aboriginal employment in Saskatchewan increased by a total of 2.1 employees by the end of the second year.

Port Hope and Northumberland County

In Port Hope, at the time of the study, for every dollar a Cameco employee earns, \$0.80 was earned by other workers in the local area through secondary spending effects. In Northumberland, this number was \$1.40. Further to that, every dollar spent by Cameco in purchasing supplies from a firm in Northumberland or hiring a local tradesman generated \$1.10 of additional revenue for other businesses in the area. In Port Hope, this number was \$0.40 of additional revenue.

- *indirect employment*: 981 jobs
- *indirect spending*: \$132 million

Wyoming

At the time of the study, for every uranium job in the mining sector, there were 1.6 other jobs created elsewhere in the Wyoming economy. For every \$1.00 of uranium job income in the mining sector, \$1.20 of income was generated in other sectors of the Wyoming economy.

- *indirect employment*: 144 jobs
- *indirect labour income (trades)*: \$5 million
- *indirect economic activity*: \$16.8 million

Nebraska

At the time of the study, for every direct uranium job in the mining sector, there were 1.8 other jobs created elsewhere in the Nebraska economy. For every \$1.00 of uranium job income in the mining sector, \$1.40 of income was generated in other sectors of the Nebraska economy.

- *indirect employment*: 69 jobs
- *indirect labour income*: \$2.5 million
- *indirect economic activity*: \$7.8 million

What it means

Cameco is a major economic contributor everywhere we operate, both directly through salaries, wages, and local procurement, and indirectly through secondary employment and secondary economic activity.

EC9 - LOCAL SPENDING

This indicator shows the total dollar amount of goods and services procured from local suppliers for Cameco's operating sites in northern Saskatchewan, Kazakhstan and Ontario each year from 2012 to 2016.

	2012	2013	2014	2015	2016
Kazakhstan	(USD)	(USD)	(USD)	(USD)	(CDN)
Total procurement	\$54,936,635	\$46,561,825	\$15,330,067	\$8,975,450	\$10,286,189
Local procurement	\$38,073,200	\$42,583,560	\$14,837,659	\$8,250,858	\$9,370,716
% Local procurement	69%	91%	97%	92%	91%
N. Saskatchewan	(CDN)	(CDN)	(CDN)	(CDN)	(CDN)
Total procurement	\$629,563,957	\$670,539,245	\$466,883,286	\$392,905,203	\$265,667,553
Local procurement	\$458,009,603	\$451,619,699	\$333,493,389	\$299,965,204	\$210,965,605
% Local procurement	73%	67%	71%	76%	79%
Ontario	(CDN)	(CDN)	(CDN)	(CDN)	(CDN)
Total procurement	\$151,589,250	\$94,140,859	\$89,808,641	\$109,445,410	\$109,247,983
Local procurement	\$92,466,587	\$61,592,889	\$48,749,026	\$51,480,769	\$51,737,878
% Local procurement	61%	65%	54%	47%	47%
U.S.	(USD)	(USD)	(USD)	(USD)	(CDN)
Total procurement	N/A	N/A	N/A	\$36,186,297	\$22,034,287
Local procurement	N/A	N/A	N/A	\$20,811,775	\$11,154,100
% Local procurement	N/A	N/A	N/A	58%	51%
Total	(CDN)	(CDN)	(CDN)	(CDN)	(CDN)
Total procurement	\$836,089,842	\$811,241,929	\$572,021,994	\$547,512,363	\$407,236,013
Local procurement	\$588,549,390	\$555,796,148	\$397,080,074	\$380,508,609	\$283,228,301
% Local procurement	70%	69%	69%	70%	70%

What it means

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 spend in northern Saskatchewan where we have procured nearly \$3.5 billion in services from local companies since 2005. While our overall local procurement spend was down in 2016 due to a lower capital spend in northern Saskatchewan and a reduction in spend related to a halt in new development at our U.S. operations, the proportion of spend that went to local contractors remained consistent with previous years.

Definitions

Local supplier – Is defined differently for each of Cameco's operating locations as follows:

Northern Saskatchewan local supplier – A company or joint venture that is at least 50% owned by people or communities from the Northern Administrative District.

Ontario local supplier – One located in the province of Ontario.

Kazakhstan local supplier – A Kazakhstan producer of works and services and Kazakhstan producers of goods which is determined by the Republic of Kazakhstan (RK) Law on subsoil and subsoil usage. A Kazakhstan producer of works and services is defined as citizens of the RK and/or legal entities established in accordance with laws of the RK which are located within the territory of the RK and engage no less than 95% of citizens of the RK of the total number of employees.

U.S. local supplier – A supplier located in the same state as the U.S. mine operations. For Crow Butte operations a local supplier is considered to be a supplier located in the state of Nebraska. For Smith Ranch-Highland operations a local supplier is considered to be a supplier located in the state of Wyoming.

Note

Northern Saskatchewan procurement spend includes services only.

Environment

EN3 - ENERGY CONSUMPTION (WITHIN ORGANIZATION)

This indicator presents Cameco's energy consumption, including 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 country-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. Published Canadian energy content factors were applied to energy sources consumed at our operation in Kazakhstan. 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.

	2012	2013	2014	2015	2016
Total fuel consumption from non-renewable sources (GJ)	3,195,967	3,142,650	3,164,400	2,928,757	2,615,945
Total electricity consumption (GJ)	1,925,894	2,067,435	2,202,909	2,148,446	2,106,664
Total energy consumption within the organization (GJ)	5,121,861	5,210,085	5,367,309	5,077,203	4,722,609

What it means

The energy consumed by Cameco from non-renewable sources was lower in 2016 as compared with previous years largely

as a result of a corporate decision to suspend production at the Rabbit Lake operation in northern Saskatchewan and curtail production at Cameco Resources' US operations by deferring wellfield development. Energy consumption values at all other sites have lowered or are within their historical ranges.

EN8 - WATER WITHDRAWAL

This indicator presents the annual volume of water withdrawal in cubic metres (m³). Cameco withdraws water from surface water, collects groundwater, and also withdraws water from municipal water utilities in the areas where we operate. Rainwater that comes into contact with our operations is collected and stored, and 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.

	2012	2013	2014	2015	2016
Total intake (m ³)	21,673,994	20,575,308	18,936,525	18,320,292	18,826,979

In 2013, we started including water withdrawn for use at our corporate offices in Saskatoon.

What it means

Trends in the annual volume of water withdrawn are similar to overall trends in the annual volume of water discharged. This is because the volume of water withdrawn is largely estimated based on the volume of water discharged.

Since 2012, water withdrawal has been decreasing, mostly due to lower quantities of water discharged at Key Lake. In 2016, water withdrawal was slightly higher than the previous year but is still lower when compared with the five-year trend.

MM1 - OPERATIONAL FOOTPRINT

This indicator measures the amount of Cameco's land currently in use and not yet rehabilitated. It does not include land we own/lease that has not been disturbed.

	2012	2013	2014	2015	2016
Total land disturbed and not yet rehabilitated (hectares)					
Year End Total	3,109	3,206	3,361	3,654	3,719
Land Disturbed		97	155	293	65

This indicator excludes advanced non-operational sites (Kintyre, Yeelirrie, Millennium), office structures, exploration activities, operations in which Cameco does not have operational control, or rented facilities that Cameco operates

(Cobourg).

What it means

Over half of Cameco's disturbed lands are from our ISR operations, which use a much less invasive process than conventional mines in terms of surface disturbance. Our operations in northern Saskatchewan, which are our largest operations by production, have a very small operational footprint and produce a product that provides a very large amounts of energy. For example, in 2016, our McArthur River and Cigar Lake operations produced enough uranium to meet the electrical needs of every Canadian household for four years – all from operations with a surface area footprint of five square kilometers.

Definitions

The definition of land disturbed and not yet rehabilitated is dependent on the jurisdiction of the operation as listed below:

- In Saskatchewan, total land disturbed and not yet rehabilitated is defined as “Developed” land
- In the United States, total land disturbed and not yet rehabilitated is defined as “Affected Area”
- For Ontario, total land disturbed is equal to the licensed area of the facility
- For Kazakhstan, total land disturbed is equal to the area of land impacted

Note

Historic data has been restated for this indicator due to one sites' data being assigned to incorrect years.

EN15 - DIRECT GHG EMISSIONS (BY WEIGHT)

This indicator presents Cameco's scope 1 greenhouse gas (GHG) emissions as tonnes of carbon dioxide equivalents (CO₂e). CO₂e is used to compare the emissions from various GHG sources based on their global warming potential (GWP). Cameco adopted the GWPs published by the International Panel on Climate Change in their Fourth Assessment Report for 2015.

Cameco's significant sources of scope 1 GHG emissions include those generated by the consumption of fuel from non-renewable sources and industrial processes. Emissions factors that are country and fuel-specific are used to convert the fossil fuels consumed to GHG emissions in CO₂e. For our Canadian and Kazakhstan operations, we have used emission factors published by Environment Canada in 2017 for Canada's National Inventory Report 1990 – 2015 of GHG emissions to the United Nations Framework Convention on Climate Change. For our U.S. operations, we use the emission factors published by the US EPA in the Emission Factors for Greenhouse Gas Inventories November 2015 document.

	2012	2013	2014	2015	2016
Corporate totals of GHG emissions (tonnes CO₂e)					
Scope 1 (EN15)	195,257	195,030	198,136	181,871	159,288

What it means

2016 Scope 1 GHG emissions were lower in 2016 as compared with previous years largely as a result of a corporate decision to suspend production at the Rabbit Lake operation in northern Saskatchewan and curtail production at Cameco Resources' US operations by deferring wellfield development. Scope 1 GHG emissions at Key Lake and Cigar Lake were also lower than historical values as a result of a reduction in the operation of on-site back-up generators due to an upgraded electrical transmission line becoming operational in 2016 and improvements at Cigar Lake which reduced propane consumption.

EN16 - INDIRECT GHG EMISSIONS (BY WEIGHT)

This indicator presents Cameco's scope 2 greenhouse gas (GHG) emissions as tonnes of carbon dioxide equivalents (CO₂e). CO₂e is used to compare the emissions from various GHG sources based on their global warming potential (GWP). Cameco adopted the GWPs published by the International Panel on Climate Change in their Fourth Assessment Report.

Scope 2 GHG emissions are calculated by applying a utility or region-specific emission factor to the amount of electricity purchased from that utility or region, which is determined through utility invoices.

	2012	2013	2014	2015	2016
Corporate totals of GHG emissions (tonnes CO₂e)					
Scope 2 (EN16)	317,996	324,233	350,135	340,671	322,833

What it means

2016 Scope 2 GHG emissions were lower in 2016 as compared with previous years largely as a result of a corporate decision to suspend production at the Rabbit Lake operation in northern Saskatchewan and curtail production at Cameco Resources' US operations by deferring wellfield development. Slightly lower emission factors for electricity generated in Saskatchewan and the RMPA eGrid subregion (the Rockies) in the United States where our ISR mining facilities are located also contributed to a slight reduction in Scope 2 GHG emissions.

EN21 - AIR EMISSIONS (BY TYPE AND WEIGHT)

This indicator presents the total air emissions from our Canadian operations of nitrogen oxides (NO_x expressed as NO₂), sulphur dioxide (SO₂), carbon monoxide (CO), volatile organic compounds, total particulate matter (PM), particulate matter less than 10 microns (PM₁₀), particulate matter less than 2.5 microns (PM_{2.5}), ammonia (NH₃), uranium (U) and hydrogen fluoride. Air emissions from our in situ recovery operations in the United States and Kazakhstan are not material for this indicator and are not included.

Air emissions of NO_x, SO₂, CO, VOCs, PM, PM₁₀, PM_{2.5} and NH₃ are calculated using the guidance provided by Environment 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.

	2012	2013	2014	2015	2016
Air emissions (tonnes)					
Oxides of Nitrogen NO _x (expressed as NO ₂)	716	631	589	484	252
Sulphur Dioxide (SO ₂)	318	279	269	128	177
Carbon Monoxide (CO)	227	483	509	476	437
Volatile Organic Compounds	361	260	237	240	138
Total Particulate Matter	793	765	788	789	616
PM ₁₀ – Particulate Matter <= 10 microns	278	300	298	296	244
PM _{2.5} – Particulate Matter <= 2.5 microns	76	74	67	62	51
Ammonia (NH ₃)	55	53	54	52	59
Uranium	0.10	0.15	0.50	0.10	0.06
Hydrogen Fluoride	0.64	0.72	0.38	0.43	0.31

What it means

We are committed to keeping our air emissions low and well within all regulatory limits. Our emissions trend over the past five years is the result of both normal variations in our processes, production output year-to-year, and changes we have made to our processes in order to reduce emissions of sulphur dioxide, uranium and hydrogen fluoride.

In 2016, emissions of oxides of nitrogen (NO_x), volatile organic compounds, and total particulate matter were lower in comparison with previous years. The decline in NO_x emission is attributed to a reduction in the operation of on-site back-up generators due to an upgraded electrical transmission line becoming operational. Lower total particulate matter and associated fractions were lower due to lower vehicle traffic in northern Saskatchewan and the use of a new calculation method for reporting. Lower VOCs are attributed to a reduction in emissions from the solvent extraction circuits at Key Lake.

Ammonia air emissions were higher in 2016 corresponding to an increase in UO₂ production at Cameco's Port Hope Conversion Facility.

EN22 - WATER DISCHARGE (BY QUALITY AND DESTINATION)

This indicator presents the annual volume of planned water discharge in cubic metres (m³) 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 re-use water produced by other organizations.

This indicator also includes information about the quality of the water we discharge to surface water bodies, land application via irrigation, and municipal treatment facilities. We report the total amount of certain materials discharged over the year in kilograms (kg). The totals are calculated by multiplying the volume of water discharge by the concentration of the constituent in water. An increase may mean either an increase in water flow or an increase in the constituent concentration in the water.

	2012	2013	2014	2015	2016
Annual volume (m³)					
Discharge of clean diverted water to surface water	5,826,137	5,648,676	5,191,539	5,374,546	5,293,214
Discharge of water to municipal treatment facilities	209,161	320,285	403,267	172,798	144,008
Discharge of clean treated water to surface water	13,325,241	12,654,710	11,758,010	11,385,931	12,122,908
Discharge of clean treated water to land application via irrigation	110,273	144,095	139,877	80,423	86,467
Discharge of water to deep disposal well	877,476	1,135,900	956,554	823,646	842,917
Discharge of water to evaporation pond	60,377	45,701	26,570	22,787	17,512
	2012	2013	2014	2015	2016
Discharged to surface water (kg)					
Arsenic	30.1	38.5	37.6	40.2	54.1
Copper	30.0	41.2	39.3	47.2	31.5
Lead	12.8	13.5	13.0	10.5	9.4
Molybdenum	2,903.7	1,985.9	1,824.6	1,605.9	1,749.9
Nickel	219.1	271.6	221.4	165.4	252.2
Radium-226*	212.9	241.8	206.1	268.3	252.7
Selenium	45.0	45.7	42.6	40.0	36.5
Total suspended solids	14,734.8	15,632.9	13,956.6	14,344.0	14,090.3
Uranium	322.4	319.2	248.6	303.0	363.2
Zinc	48.9	37.4	46.8	27.5	34.0

	2012	2013	2014	2015	2016
<i>*Radium-226 is reported in MBq</i>					
Discharged to municipal treatment facilities (kg)					
Total Uranium	3.4	3.6	8.1	3.9	2.7
Treated water discharged to land application via irrigation (kg)					
Arsenic	0.0	0.2	0.0	0.0	0.0
Selenium	1.0	0.8	2.2	0.6	1.9
Uranium	26.8	28.3	77.7	39.3	77.9

What it means

Water discharge quantity

The total volume of clean water discharged to surface water was slightly lower in 2016 as compared with 2015, but remained within the range of variation in volume of clean water discharged over the five-year period.

Discharges of water to municipal treatment facilities were lower in 2016 as compared with previous years, which is a result of the implementation of the powerhouse effluent pH control system at the Port Hope conversion facility in 2014.

The total discharge of clean treated water to surface water was higher in 2016 as compared with 2015, but remained within the range of variation in volume of clean treated water discharged over the five year period. The higher volume in 2016 as compared with 2015 was primarily associated with a higher volume of clean treated water discharged from Key Lake and Rabbit Lake operations.

The total discharge of water to deep disposal was slightly higher in 2016 as compared with 2015, due to higher deep disposal at both Crow Butte and North Butte.

The total discharge of clean treated water to land via irrigation was slightly higher in 2016 as compared with 2015, but remains low compared to historical values.

Water discharge quality

In 2016, the quality of the clean treated water discharged to surface water complied with all applicable regulatory limits. Cameco remains focused on improving the quality of our clean treated water discharged to surface water. This focus has involved improvement in our water management practices and treatment technologies, and has resulted in a significant decline in the mass loadings of molybdenum, selenium and uranium in treated water discharged to surface water over the past number of years.

Total uranium loadings were higher in 2016 due to conditions at Rabbit Lake. Uranium concentrations were elevated from late January through early March as a result of a mill maintenance shutdown. Following the suspension of mill

production and transition of the effluent treatment system into care and maintenance, a progressive increase in uranium began in late July and increased through the remainder of 2016. This increase was attributed to the transition of the operation into care and maintenance and, specifically, changes in chemistry and increasing clarity of water reporting to the water treatment circuit. Investigation into the causes for the increasing concentrations of uranium began in October 2016 with expanded efforts to develop an optimized approach for the removal of uranium during care and maintenance underway through the end of 2016.

Arsenic loadings were higher in 2016 than in 2015. Commercial production of ore at Cigar Lake commenced in 2015 and continued in 2016, and as a result of mining in high-grade ore, the concentration of metals in treated effluent were elevated as compared to previous years where less or no mining activities were conducted.

EN23 - WASTE

This indicator presents the total amount of non-hazardous, hazardous, and low-level radioactive waste we generate. Cameco does not generate intermediate or high level radioactive waste.

The total amount of 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.

	2012	2013	2014	2015	2016
Total waste (tonnes)					
Generated	24,973	18,962	17,610	18,522	16,725
Diverted	4,149	3,311	3,404	5,647	5,499
Landfilled or stored	20,824	15,651	14,206	12,875	11,226
Overall rate of diversion (%)	17%	17%	19%	30%	33%
Non-hazardous waste (tonnes)					
Generated	6,159	5,460	5,164	6,374	3,933
Diverted	2,252	1,541	2,051	3,759	1,490
Landfilled or stored	3,907	3,919	3,113	2,615	2,443
Rate of diversion (%)	37%	28%	40%	59%	38%
Low-level radioactive waste (tonnes)					
Generated	18,442	13,167	11,976	11,591	12,295
Diverted	1,626	1,546	970	1,507	3,650

	2012	2013	2014	2015	2016
Landfilled or stored	16,815	11,621	11,006	10,084	8,645
Rate of diversion (%)	9%	12%	8%	13%	30%
Hazardous waste (tonnes)					
Generated	373	335	470	557	497
Diverted	271	223	383	381	359
Managed via treatment/disposal	102	111	87	176	139
Rate of diversion (%)	73%	67%	82%	68%	72%

What it means

Low-level radioactive waste generation was higher in 2016 than the previous year. The higher volume reflected is associated with improved tracking of material repurposed (diverted) for use in backfill underground at the northern Saskatchewan operations.

Hazardous waste quantities were slightly lower than the previous year. Hazardous waste is shipped to or picked up by an approved receiver once an adequate quantity is available. Some of the inter-annual variation in the amount of this waste is related to this practice.

Overall, the amount of waste we generated in 2016 was lower than the previous year.

Definitions

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.

Hazardous waste – Includes hazardous recyclable materials, and generally means a waste with hazardous properties that may have potential effects to human health of 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.

MM3 - MINE WASTE (OVERBURDEN, ROCK, TAILINGS, SLUDGES)

This indicator provides information about the amount of solid waste generated annually in the form of tailings, water treatment sludge and slime, the net annual change in our unreclaimed waste rock inventory (including mineralized and

non-mineralized rock), and the total mine waste generated for each year. We do not disclose any risk assessment associated with this indicator, although all are complete and provided to our regulators.

	2012	2013	2014	2015	2016
Mine waste (tonnes)					
Annual tailings and process wastes generated	683,134	696,204	667,128	595,717	292,945
Annual change in unreclaimed waste rock inventory	2,998,021	-8,629,743	-1,282,110	-37,541	-51,251
Net of wastes created and reclaimed	3,681,155	-8,048,632	-614,982	558,176	241,695

What it means

The amount of tailings and process wastes we produce depends primarily on production rates and ore grades. When we expand production our tailings and waste generally increase. This is also the case when ore grades are low since we must process more rock to obtain the same amount of uranium. However, our currently operating mines are either ISR mines, which do not produce waste rock, or underground mines, which produce very little waste rock compared to open-pit mines. We also look for ways to reduce waste rock by repurposing it as underground backfill or for road construction, for example. In some years, this has resulted in a net decrease in inventory.

Since 2012, we have seen significant variance in our inventory of unreclaimed waste rock. Changes in waste rock inventory from year to year are variable and depend on the quantity of waste rock generated by mining operations versus the quantity of waste rock used in our processes, and/or transferred into a reclaimed state. In 2016, we saw a large reduction in tailings production, primarily because of the suspension of production at Rabbit Lake in April.

EN24 - SIGNIFICANT INCIDENTS (TOTAL NUMBER AND VOLUME)

This indicator provides information about the number of significant environmental incidents. We determine significance based on the incident's actual or potential environmental impact, or by the level of regulatory and public concern about it.

For significant incidents, we report the total quantity of material released and any associated impacts.

	2012	2013	2014	2015	2016
Total number	0	0	0	0	0
Quantity	0	0	0	0	0

What it means

Cameco has been focused on minimizing environmental incidents for many years, and has used the number of

environmental incidents as the main measure for determining environmental performance related to employee and officer compensation. As such, the number of reportable environmental incidents has improved markedly, and Cameco has not had a significant environmental incident since 2008. Beginning in 2016, the corporate environmental objective was transitioned from an incident-based measure to one based on significant environmental aspects. However, there is an overriding compensation target that affects employee and executive compensation if we sustain a significant environmental incident.

Definitions

Significant environmental incident – Any environmental incident that results in moderate or significant environmental impacts or current and future remediation costs of greater than \$1 million, or has reasonable potential to result in significant negative impact on the company's reputation with our major stakeholders.

EN29 - SIGNIFICANT ENVIRONMENTAL FINES

This indicator provides information on the number of “significant environmental fines” that we received for non-compliance with environmental laws and regulations, as well as the total number of “non-monetary sanctions.” It does not include significant environmental fines or non-monetary sanctions that are in the appeals process or imposed through national or international dispute resolution mechanisms.

	2012	2013	2014	2015	2016
Significant environmental fines	0	0	0	0	0
Non-monetary sanctions	4	2	3	0	2

What it means

In 2016, two Notices of Violation were imposed on Cameco's U.S. operation at Crow Butte by the U.S. Nuclear Regulatory Commission for non-compliance with two licence conditions: (i) Failure to inspect an evaporation pond and analyze water quality during pond maintenance; and (ii) Failure to submit a written corrective action plan after identifying a pond liner leak. Neither violation had any environmental impact. Corrective action plans for both violations were prepared and approved by the NRC.

Definitions

Significant environmental fine – Fines that exceed CDN \$100,000 paid by Cameco or a controlled subsidiary in Canada, the US or Kazakhstan to a government authority for non-compliance with environmental laws or regulations.

Non-monetary sanctions – An administrative or judicial sanction levied against Cameco or a controlled subsidiary for non-compliance with environmental laws and regulations. Non-monetary sanctions include, but are not limited to, formal actions issued by regulatory authorities at the level of notices of violation or notices of contravention or above, pursuant to a graduated enforcement regime.

Social: Labour Practices and Decent Work

LA1 - HIRING AND TURNOVER (BY AGE GROUP, GENDER)

This indicator provides information about our annual rates of hiring and turnover, and the total number of employees who are hired or leave the organization, by gender and age group.

	New hires	Year end	Rate	Turnover	Year end	Rate
2012						
Male	228	2,628	6.65%	200	2,628	5.83%
Female	73	803	2.13%	55	803	1.60%
Up to 35	152	994	15.29%	78	994	7.85%
36-55	133	1,923	6.92%	142	1,923	7.38%
56+	16	514	3.11%	35	514	6.81%
Total	301	3,431	8.77%	255	3,431	7.43%
2013						
Male	209	2,535	8.24%	338	2,535	13.33%
Female	42	739	5.68%	116	739	15.70%
Up to 35	118	920	12.83%	112	920	12.17%
36-55	114	1,863	6.12%	207	1,863	11.11%
56+	19	491	3.87%	135	491	27.49%
Total	251	3,274	7.67%	454	3,274	13.87%
2014						
Male	124	2,481	5.00%	208	2,481	8.38%
Female	49	724	6.77%	70	724	9.67%
Up to 35	85	865	9.83%	92	865	10.64%
36-55	87	1,822	4.77%	113	1,822	6.20%
56+	1	518	0.19%	73	518	14.09%
Total	173	3,205	5.40%	278	3,205	8.67%
2015						

	New hires	Year end	Rate	Turnover	Year end	Rate
Male	147	2,485	5.92%	157	2,485	6.32%
Female	43	736	5.84%	55	736	7.47%
Up to 35	92	835	11.02%	66	835	7.90%
36-55	86	1,827	4.71%	76	1,827	4.16%
56+	12	559	2.15%	70	559	12.52%
Total	190	3,221	5.90%	212	3,221	6.58%
2016						
Male	43	2,210	1.95%	361	2,210	16.33%
Female	14	672	2.08%	104	672	15.48%
Up to 35	29	664	4.37%	126	664	18.98%
36-55	26	1,661	1.57%	209	1,661	12.58%
56+	2	557	0.36%	130	557	23.34%
Total	57	2,882	1.98%	465	2,882	16.13%

Figures are as of December 31 each year. For this indicator, we do not include temporary, casual or JV Inkai (Kazakhstan) employees. At the end of 2016, JV Inkai employed 632 people.

What it means

2016 saw a sharp increase in our overall turnover rate as a result of placing our Rabbit Lake operations into care and maintenance and curtailing production at Cameco Resources' US operations by deferring wellfield development, as well as staff reductions at our other mining and milling sites and corporate office.

Definitions

Turnover – The number of employees who resign, are dismissed or retire while employed by Cameco each year.

Note:

We do not provide any regional breakdowns on this information at this time.

MM4 - STRIKES AND LOCKOUTS (OVER ONE WEEK IN DURATION)

This indicator provides information on the number of strikes and lockouts at our unionized sites in any given year that are over one week in duration.

	2012	2013	2014	2015	2016
Number of strikes over 1 week	0	0	1	0	0
Number of lock-outs over 1 week	0	0	1	0	0

What it means

2016 saw unionized workers at our Port Hope conversion facility agree to a new collective bargaining agreement.

Other sites that have collective bargaining agreements are:

- Key Lake
- McArthur River
- Cameco Fuel Manufacturing Inc. (Port Hope and Cobourg)

Definitions

Strike – A strike is a collective action by employees to stop or curtail work.

Section 1 (1) of the Canadian Labour Relations Act, 1995 defines a strike as a cessation of work, a refusal to work or to continue to work by employees in combination or in concert or in accordance with a common understanding, or a slow-down or other concerted activity on the part of employees designed to restrict or limit output.

Lockout – A lockout occurs when an employer closes a workplace, suspends work or refuses to continue employing a number of employees during a labour dispute.

Section 1 (1) of the Canadian Labour Relations Act, 1995 defines a lockout as the closing of a place of employment, a suspension of work or a refusal by an employer to continue to employ a number of employees, with a view to compel or induce the employees, or to aid another employer to compel or induce that employer's employees, to refrain from exercising any rights or privileges under this Act or to agree to provisions or changes in provisions respecting terms or conditions of employment or the rights, privileges or duties of the employer, an employers' organization, the trade union, or the employees.

LA5 - HEALTH AND SAFETY COMMITTEES

This indicator shows the number and percentage of Cameco's workers who are represented by formal management-worker occupational health and safety (OHS) committees. These committees help monitor and advise on occupational health and safety programs.

	2012	2013	2014	2015	2016
Total workers	3,574	3,345	3,324	3,348	2,963
Workers represented by joint committees	3,574	3,345	3,324	3,348	2,963

	2012	2013	2014	2015	2016
% of workers represented in joint committees	100%	100%	100%	100%	100%

Figures are as of December 31 each year. JV Inkai (Kazakhstan) workforce numbers (632 at the end of 2016) are not represented in the totals, although all employees there are represented by a formal OHS committee.

What it means

All of Cameco's employees in Canada, the US, Kazakhstan and Australia are represented by OHS committees. These committees operate at both the site level and at our corporate offices.

LA6 - INJURY FREQUENCY, MISSED WORK

This indicator provides information about Cameco's rates of absenteeism, lost-time injuries (LTI) and work-related fatalities. For lost-time injuries and fatalities, we include both employees and contractors in our numbers. Minor updates to the LTI rate may be made to previous years on occasion if past injuries are reclassified as the worker's condition changes, e.g. a minor injury worsens, resulting in lost time at a later date.

We do not report absentee rates for Australia or Kazakhstan, nor do we report occupational disease rates. Absentee rates also do not include contractors to Cameco.

	2012	2013	2014	2015	2016
Absentee rate (%)	3.55	3.35	3.59	3.56	3.43
LTI rate (per 200,000)	0.11	0.19	0.17	0.22	0.17
# of fatalities	0	0	0	0	0

What it means

Cameco has a strong safety culture and maintains a safe working environment for all of its employees. Our LTI rate continues to be very low, following a stable to somewhat declining trend. There are currently two operations, Blind River and Crow Butte that have in excess of 10 years without an LTI. Five additional operations have achieved at least one year LTI free.

Definitions

Lost-time injury – A work-related injury requiring professional medical assessment and treatment, and where the employee is not able to return to work for their next scheduled shift. If there is uncertainty whether the lost-time injury is work related, Cameco sites must use the workers compensation decision to accept or deny the claim as the decision criteria. Regulatory acceptance of the lost-time injury claim requires the site to count the injury as work-related.

Lost-time injury rate – Based on the total number of lost-time injuries, you can compute the incidence rate using the

following formula: lost-time injury rate = # of LTI cases x (200,000 hours/annual hours worked).

Note

At this time, Cameco only reports this information at a global level. We also do not report our injury rate, occupational disease rate or our lost day rate at this time.

LA11 - PERFORMANCE AND CAREER DEVELOPMENT REVIEWS (BY GENDER)

This indicator provides information about the number and percentage of employees who receive formal performance appraisals and career development reviews.

	2012	2013	2014	2015	2016
# of employees					
M	2,715	2,581	2,559	2,573	2,266
F	859	764	765	775	697
# of employees who receive performance reviews					
M	1,909	1,811	1,744	1,768	1,532
F	758	668	654	667	601
% of employees who receive performance reviews					
M	70.31%	70.17%	68.15%	68.71%	67.61%
F	88.24%	87.43%	85.49%	86.06%	86.23%

Figures are as of December 31 each year. JV Inkai (Kazakhstan) employed 632 at the end of 2016, but is not included in this indicator.

What it means

In 2016, Cameco began transitioning to a new performance management program called “Core” which is guided by the following key principles: meaningful conversations around results and behaviours; alignment of employee priorities to corporate objectives; continual improvement; and feedback directed to employee’s growth and development. All non-unionized employees strive for six conversations per year which fosters stronger relationships between supervisors and employees.

The numbers above include our unionized employees, who do not undergo performance reviews. This also explains some of the discrepancies between male and female participation as more of our unionized workforce is male.

Definitions

Performance review – A formal meeting between an employee and his or her supervisor to review and discuss the employee’s performance against goals and expectations established at the start of the year by employees and supervisors.

LA12 - WORKFORCE DIVERSITY

This indicator provides information on our workplace diversity, including the number and percentage of women, aboriginal peoples, visible minorities and persons with disabilities in our workforce.

	2012	2013	2014	2015	2016
# of employees	3,239	3,045	3,074	3,106	2,963
Women	796 24.58%	705 23.15%	723 23.52%	733 23.60%	697 23.52%
Aboriginal	740 22.85%	722 23.71%	780 25.37%	792 25.50%	687 23.19%
Visible minority	157 4.85%	148 4.86%	140 4.55%	138 4.44%	127 4.29%
Persons with disabilities	77 2.38%	69 2.27%	63 2.05%	60 1.93%	51 1.72%

Figures are as of December 31 each year. This indicator only includes our Canadian operations, as other jurisdictions are not (at this time) required to collect or maintain diversity information on employees.

What it means

Cameco is the leading industrial employer of aboriginal peoples in Canada. While proud of this achievement, we have not seen the number of residents of Saskatchewan’s north (RSNs), the majority of whom are aboriginal, move above 50% of our northern workforce in many years. As well, the overall number and percentage of women who work at Cameco has been trending downward since 2012.

In 2016, we continued moving forward with our workforce diversity improvement plan, including:

- Conducting a complete employment systems review of human resources programs, policies and procedures
- Establishing a new employment equity plan
- Reviewing and making recommendations to modernize the RSN strategy which will be implemented when resources allow
- Providing access to personal protective equipment (PPE) specifically designed for female employees at our operations
- Conducting unconscious bias training for select corporate office departments
- Offering key contributions to the 2016 Women in Mining Canada study “Welcoming to Women – An Action Plan for Canada’s Mining Employers”
- Organizing lunch and learn sessions on the topic of diversity, bias and women

- Planning for the new respectful workplace campaign launched in 2017
- Continuing consultations with various stakeholders within the organization to identify challenges and barriers affecting our diversity and inclusion

Definitions

Aboriginal – An aboriginal person is a North American Indian or a member of a First Nation, a Metis or Inuit. North American Indians or members of a First Nation include status, treaty or registered Indians, as well as non-status and non-registered Indians.

Visible minority – A person declared as visible minority are persons, other than aboriginal persons, who are non-Caucasian in race or non-white in colour, regardless of birthplace.

Persons with disabilities – Persons who have a long-term or recurring physical, mental, sensory, psychiatric or learning impairment who:

- Consider themselves to be disadvantaged in employment by reason of that impairment
- Believe that an employer or potential employer is likely to consider them to be disadvantaged in employment by reason of that impairment
- Persons whose functional limitations owing to their impairment have been accommodated in their current job or workplace

Social: Human Rights

HR8 - DISPUTES RELATED TO INDIGENOUS RIGHTS

This indicator provides information about the total number of incidents registered through formal means related to indigenous rights.

	2012	2013	2014	2015	2016
# of incidents registered through formal means	0	1	0	0	0

What it means

There were no disputes related to indigenous rights in 2016. Cameco has a long history working with indigenous groups wherever we operate, exemplified by our standing as Canada's largest industrial employer of aboriginal peoples and the numerous mutually beneficial agreements we have with indigenous peoples in Australia and North America.

Definitions

Incident registered by formal means – Formal allegation of a specific indigenous rights infringement caused by (or expected to result from) a Cameco project or activity. This allegation can take the form of:

- A complaint filed through a judicial proceeding
- A formal objection filed with the regulator
- Activities identified by Cameco's corporate responsibility team as failing to comply with Cameco's internal policy directives

MM5 - PROXIMITY TO INDIGENOUS TERRITORIES

This indicator provides information about the number of Cameco operating sites on (or adjacent to) indigenous territories, as well as the percentage of formal agreements in relation to the overall number of our operating sites that are on or adjacent to an indigenous territory.

Operating sites on or adjacent to indigenous territories:

- Four operating Cameco sites in northern Saskatchewan on traditional territory (all of these operations have formal agreements in place with local indigenous communities)
- One operating Cameco site in Ontario adjacent to indigenous lands (this operation does not have a formal agreement in place)

What it means

In northern Saskatchewan, Cameco has entered into five formal agreements with indigenous communities that cover the four operating sites we have on traditional territory. All of these agreements provide indigenous communities with workforce and business development programs, dedicated community engagement programs, community investment monies and mechanisms to collaborate around environmental stewardship.

Agreement	Participants	What is involved
Collaboration Agreements (CAs) (2012, 2013, 2016)	<ul style="list-style-type: none"> • The communities of the Athabasca Basin (including Hatchet Lake, Black Lake and Fond du Lac Denesuline First Nations, along with four northern municipalities) • English River First Nation (EFRN) • the Northern Village of Pinehouse and the Metis Local situated there • Cameco, Areva Resources Canada Inc. 	The agreements codify the relationships we've had in these communities for over 25 years and reaffirm our commitment as partners in employment, business development and community investment. They also provide a more predictable model of funding over the long term so communities will have greater ability to plan for community investment initiatives. The long-term nature of the agreements also means more opportunity in the form of jobs through business contracts defined in the agreements, and calls for an increase in workforce development initiatives such as scholarships and training opportunities.

Agreement	Participants	What is involved
Participation Agreement (2014)	<ul style="list-style-type: none"> • Cree community of Southend, which is part of the Peter Ballantyne Cree Nation • Cameco 	Provides assistance to Southend to increase its business and workforce capacity and start to make more meaningful inroads into the mining industry.

Though not considered here as “formal agreements,” Cameco also has:

- Several trappers compensation agreements with trappers in northern Saskatchewan who continue to trap on or near our operating sites. These agreements encourage trappers to continue trapping, provide them with a yearly cash distribution, and, for some, an allotment of oil and/or gasoline
- A signed memorandum of understanding (MOU) with the Mississauga First Nation in relation to Cameco’s Blind River refinery in Ontario. The MOU commits the parties to work together towards mutual gain, and focuses primarily on socio-economic development projects related to youth, education, health and wellness, and community development

Definitions

Adjacent – The tenure boundaries of an applicable Cameco operating site are physically contiguous with the boundaries of an indigenous territory.

Indigenous territory – can mean two things:

- Indigenous lands – Land in relation to which indigenous peoples hold or formally claim title or an equivalent interest (e.g. “reserve” land in Canada). This may include areas where ownership is claimed by multiple parties
- Traditional territory – Land on which indigenous peoples (a) historically exercised traditional activities (e.g. hunting, fishing, trapping or gathering) and (b) still do today

Society

SO1 - COMMUNITY ENGAGEMENT

This indicator provides information about the number and percentage of Cameco operations in Canada, the US and Kazakhstan that have local community engagement activities, impact assessments and development programs.

Community engagement activities

This includes various local community engagement activities that we carry out in relation to our ‘supportive communities’ measure of success. This would include activities such as community visits, community meetings, events, web materials, investments, print publications, presentations and others.

	2012	2013	2014	2015	2016
Number of operations with community engagement activities	10/10	10/10	10/10	10/10	10/10
% of operations with community engagement activities	100%	100%	100%	100%	100%

Impact assessments

These are socio-economic impact assessments conducted by operations either to meet requirements for environmental impact assessments and/or for standalone local economic impact assessments. They are conducted as required and span an extended timeframe, often over several years.

	2012	2013	2014	2015	2016
Number of operations with impact assessments	9/10	9/10	9/10	9/10	9/10
% of operations with impact assessments	90%	90%	90%	90%	90%

Development programs

Community development programs are formalized programs or agreements developed with local communities, groups and/or organizations, such as impact management agreements and/or memorandums of understanding. These are developed as required and may span an extended timeframe, often over several years.

	2012	2013	2014	2015	2016
Number of operations with development programs	8/10	8/10	8/10	8/10	8/10
% of operations with development programs	80%	80%	80%	80%	80%

What it means

Community engagement is an important aspect of operational activities across our sites and is a central component of Cameco's five pillar strategy and all the agreements we have with indigenous communities across our operations. In northern Saskatchewan, Cameco engages regularly with communities we have collaboration agreements with, as well as through the Environmental Quality Committee, a provincial government-created group made up of all of the communities in northern Saskatchewan.

2016 saw Cameco renew its partnership with the communities of the Athabasca Basin through the Ya'Thi Nene Collaboration Agreement. Like our other CA's, this agreement confirms the continued support of the communities historically and traditionally associated with the Cigar Lake, McClean Lake and Rabbit Lake uranium mining operations while providing the communities with annual community investment payments, priority hiring at those operations,

dedicated engagement bodies, and continued preference for community-owned businesses.

MM6 - DISPUTES RELATED TO LAND USE AND CUSTOMARY RIGHTS

This indicator provides information about significant disputes relating to the land use and customary rights of local or indigenous peoples where we operate.

Cameco was not involved in any significant disputes related to land use or customary rights with local communities and indigenous peoples during the reporting period.

What it means

We respect the rights of Indigenous peoples, and we invest considerable time in building relationships with local communities through our various engagement activities, including working with communities and traditional land users to understand local land use.

Definitions

Significant disputes – Disputes that have been elevated to:

- A legal proceeding
- A formal objection filed with the applicable regulator
- A blockade or other form of civil disobedience
- The need to use a dispute resolution mechanism included in an agreement between the community and Cameco

MM7 - USE OF GRIEVANCE MECHANISMS

This indicator looks at the extent to which local communities or indigenous groups used grievance mechanisms to resolve disputes relating to land use and customary rights, and the status or outcome of those processes.

Cameco was not involved in any disputes related to land use or customary rights with local communities and indigenous peoples during the reporting period, and, as a result, no grievance mechanisms were engaged.

What it means

While local communities and indigenous peoples have several grievance mechanisms available to them, we have had no significant disputes relating to land use and customary rights where their use would have been appropriate.

MM10 - OPERATIONS WITH PRELIMINARY DECOMMISSIONING PLANS

This indicator looks at the number of operations Cameco has with preliminary decommissioning plans, as well as the financial provisions attached to those plans for reclamation activities.

	Decommissioning plan	Total estimated future decommissioning and reclamation costs
Total	10 of 10 (100%)	\$1,037 million

This indicator does not include advanced non-operational sites (Kintyre, Yeelirrie, Millennium), office structures, exploration activities, operations in which Cameco does not have operational control, or rented facilities that Cameco operates (Cobourg).

What it means

All of Cameco's operations have preliminary decommissioning plans with adequate funding attached.

Definitions

Decommissioning plan – Conceptual plan that describes the activities required after the operating life of a facility to reclaim the site to defined final end-state objectives. It includes an associated cost estimate for labour, materials, equipment, waste management, environmental assessment, monitoring and administration to carry out the plan. The amount of detail in these decommissioning plans depends on the mine life remaining. For example, a mine that has just a couple years of operations left will have a much more rigorous decommissioning plan than an operation that is not closing for several decades. Regulators review our conceptual decommissioning plans on a regular basis. As a site approaches or goes into decommissioning, a final decommissioning plan is created, which usually requires regulatory approval. This can result in further regulatory process, as well as additional requirements, costs and financial assurances.

S07 - COMPETITION LAW COMPLIANCE

This indicator provides information about legal actions initiated against Cameco under national or international law designed to regulate anti-competitive behaviour and address anti-trust or monopoly practices.

This includes information about pending or completed actions and the outcomes of pending or completed actions, including any decisions or judgments.

There were no legal actions initiated against Cameco related to anti-competitive behaviour during the reporting period.

What it means

Cameco is committed to compliance with competition and anti-trust laws everywhere we operate.

S08 - SIGNIFICANT FINES (NON-COMPLIANCE)

This indicator provides information about administrative or judicial fines and non-monetary sanctions levied against Cameco for failure to comply with laws and regulations, including:

- National, sub-national, regional and local regulations

- International declarations, conventions or treaties

This includes the total monetary value of significant fines and the number of non-monetary sanctions. It does not include fines or non-monetary sanctions related to environmental or labelling regulations, transportation matters and fines or sanctions we are in the process of appealing.

	2012	2013	2014	2015	2016
# of sanctions	0	0	0	0	0
Value of significant fines (USD)	\$233,528	\$659,646	0	0	\$1,251,908
# of significant fines	1	2	0	0	2

What it means

1. JV Inkai LLP's final corporate income tax liability was higher than the amount it submitted on its advance corporate income tax forms. An administrative penalty of 40% of this difference was levied on JV Inkai LLP because the variance was greater than the 20% allowable deviation. Cameco's share of the penalty was \$1,080,000 USD. Additional controls have been put in place at JV Inkai LLP to enhance the corporate income tax advance submission process.
2. Cameco is currently undergoing a routine audit of provincial sales tax (PST) under The Provincial Sales Tax Act for the period of January 1, 2011 – December 31, 2014. We have been issued a preliminary assessment under this audit for PST on goods and services purchased from a supplier where the tax should have been self-assessed. Pursuant to section 58(1) and 58(1.1) (a) (i) of The Revenue and Financial Services Act, Cameco, is subject to a 10% penalty of the amount assessed. We have made the penalty payment of \$171,908 USD as part of a larger partial payment on account as the audit is still ongoing and we continue to submit requests for audit adjustments. Although this assessment is small with respect to the overall spend in that four year time span, additional controls have been put in place at Cameco to enhance our corporate knowledge and our procure to pay process with respect to the application of PST in the province. In addition, we continue to work closely with the province to strengthen our knowledge of PST and to continue to improve our audit results going forward.

Definitions

Significant fine – Fines that exceed CDN \$100,000 paid by Cameco or a controlled subsidiary in Canada, the US, Europe or Kazakhstan to a government authority for non-compliance with government laws or regulations, other than environmental laws and regulations.

Non-monetary sanction – An administrative or judicial sanction levied against Cameco or a controlled subsidiary for non-compliance with laws and regulations that results in either (i) a Level IV or V incident under Cameco's corrective action process standard; or (ii) a criminal conviction for Cameco or one of its controlled subsidiaries.

Product Responsibility

PR4 - LABELLING NON-COMPLIANCE

This indicator provides information about Cameco's compliance with dangerous goods labelling requirements defined by

transport regulations and reported to regulatory agencies in Canada, the U.S., Australia and Kazakhstan.

	2012	2013	2014	2015	2016
# of incidents reported to regulatory agencies (total)	2	4	5	0	3
Resulting in a fine	0	0	0	0	0
Resulting in a warning	0	2	2	0	3

What it means

2016 saw three labelling non-compliances, all of which resulted in warnings from regulators. They were:

- Transport Canada Inspection at the Saskatoon Transit Warehouse. Safety mark displayed on a UN3266 means of containment was not visible (blue sticker covering specification mark).
- Transport Canada Inspection at McClean Lake. Faded placard on slurry tote
- Transport Canada Inspection at Rabbit Lake. A few cylinders, with the most included in UN1049 and UN1072, were found to have faded or completely colorless labels.

Definitions

Labeling non-compliance – The types of information that must be correctly presented on our product labels are:

- Radioactive category
- Subsidiary hazard(s) – *when applicable*
- Proper shipping name
- UN number – a number issued by the United Nations which is used to quickly identify dangerous substances for emergency response, handling and storage during transport
- VRI code (international vehicle registration code – *when applicable*)
- Name of consignor/consignee
- Type and weight of package
- Placards

PR9 - SANCTIONS (PRODUCT NON-COMPLIANCE)

This indicator provides information about monetary fines imposed by regulatory agencies for non-compliance with laws and regulations related to providing products and services (transportation and customs related fines) in Canada, the US, Australia and Kazakhstan.

What it means

In 2016 Cameco received a Notice of Penalty Assessment from Canada Border Services Agency (CBSA) in regards to a uranium concentrate shipment which exported from Canada at the Huntingdon, B.C. border crossing. The assessment indicated Cameco did not provide their Global Affairs Canada (GAC) permit number with their Canadian Automated Export Declaration (CAED) entries. Value of the penalty was \$150.00 CAD.

Definitions

Provision of products – Transportation of products, on or off-site.

Cameco Indicators

CA1 - POLLING (PUBLIC SUPPORT)

This indicator provides information about the level of public support for Cameco's operations in Saskatchewan, northern Saskatchewan, Port Hope (Ontario) and the U.S.

	2012	2013	2014	2015	2016
Public support %					
Saskatchewan	81	79	79	86	81
Northern SK	77	76	79	81	77
Ontario	89	87	84	88	89
Nebraska	70	69	70	62	73
Wyoming	85	89	87	91	88

What it means

The majority of Cameco's operations continue to see strong support from the communities where we operate despite the impacts of a depressed uranium market. In 2016, we saw both increases (Ontario and Nebraska) and decreases (Saskatchewan and Wyoming) in the levels of community support near our operations but all within the normal historical range.

CA2 - AVERAGE RADIATION DOSE TO WORKERS

This indicator provides information about the average radiation dose to workers at our mining and milling and fuel services divisions in Saskatchewan, Ontario, Kazakhstan and the US.

	2012	2013	2014	2015	2016
Avg. radiation dose (mSv)	0.72	0.72	0.85	0.82	0.75

What it means

Our average radiation dose to workers remains consistently low, at under 1 millisievert (mSv). By comparison, typical natural background radiation doses to the public are 2–3 mSv per year. Cameco rates are far below the maximum annual dose limit of 50 mSv and 100 mSv over a five-year dosimetry block permitted by regulators (note that the US sites only have an annual limit, and no long-term limit in their regulations). Doses for 2016 by division and corporately were comparable to historic values, though somewhat lower than recent years. The reduction in doses was in part related to a reduction in production and some facilities and a reduction in staffing.

Note

The values in the table represent the arithmetic average dose of all employees and contractors at our operations. Another metric used in our annual regulatory report is the full-time equivalent average, which normalizes the doses to a standard work year of 2,000 hours. Both are valid metrics.