



CMD 23-H6.7A / CMD 23-H7.7A

File / dossier : 6.01.07

Date: 2023-05-23

e-Doc: 7047634

Supplementary Information

Presentation from the Saskatchewan Mining Association

In the Matter of the

**Cameco Corporation, McArthur River,
Key Lake and Rabbit Lake Operations**

Applications for the renewal of uranium
mine/mill licences for McArthur River,
Key Lake and Rabbit Lake Operations

Commission Public Hearings

June 7-8, 2023

Renseignements supplémentaires

Présentation de la Saskatchewan Mining Association

À l'égard de

**Cameco Corporation, établissements de
McArthur River, Key Lake et Rabbit Lake**

Demandes visant le renouvellement des permis
d'exploitation de mines et d'usines de
concentration d'uranium pour les établissements
de McArthur River, Key Lake et Rabbit Lake

Audiences publiques de la Commission

7-8 juin 2023

SMA Oral Intervention

**Cameco Corporation - Application for renewal of
uranium mine/mill licences for
McArthur River, Key Lake and Rabbit Lake
Operations**



SMA

*Saskatchewan Mining
Association*

SASKATCHEWAN MINING ASSOCIATION

Voice of the Saskatchewan mining and exploration industry.

Mission Statement:

Advance a safe, sustainable & globally competitive exploration and mining industry in Saskatchewan that benefits all residents of the province

- Over 35 Member companies including producers and exploration companies with projects or operations in Saskatchewan
 - Nutrien, The Mosaic Company, Cameco, Orano, Westmoreland Coal, SSR Mining, K+S Potash Canada, HudBay Minerals, BHP, Denison Mines, Rio Tinto, Star Diamonds, NexGen Energy, Foran Mining, Prairie Lithium and dozens of exploration companies.

Roles:

Government Advocacy: Provincial and Federal Legislation; Regulation; Policy; two-way communication; SME for Boards

Public Advocacy/ Mineral Literacy incl Ed Outreach Programming:

-SK Mining Week, Mining Supply Chain Forum, MinExplo;

-GeoVenture Teachers Program, Potash & Robotics Kits, MAP, Career Cards, Posters, Curriculum-Related Lesson Plans & Educator Workshops

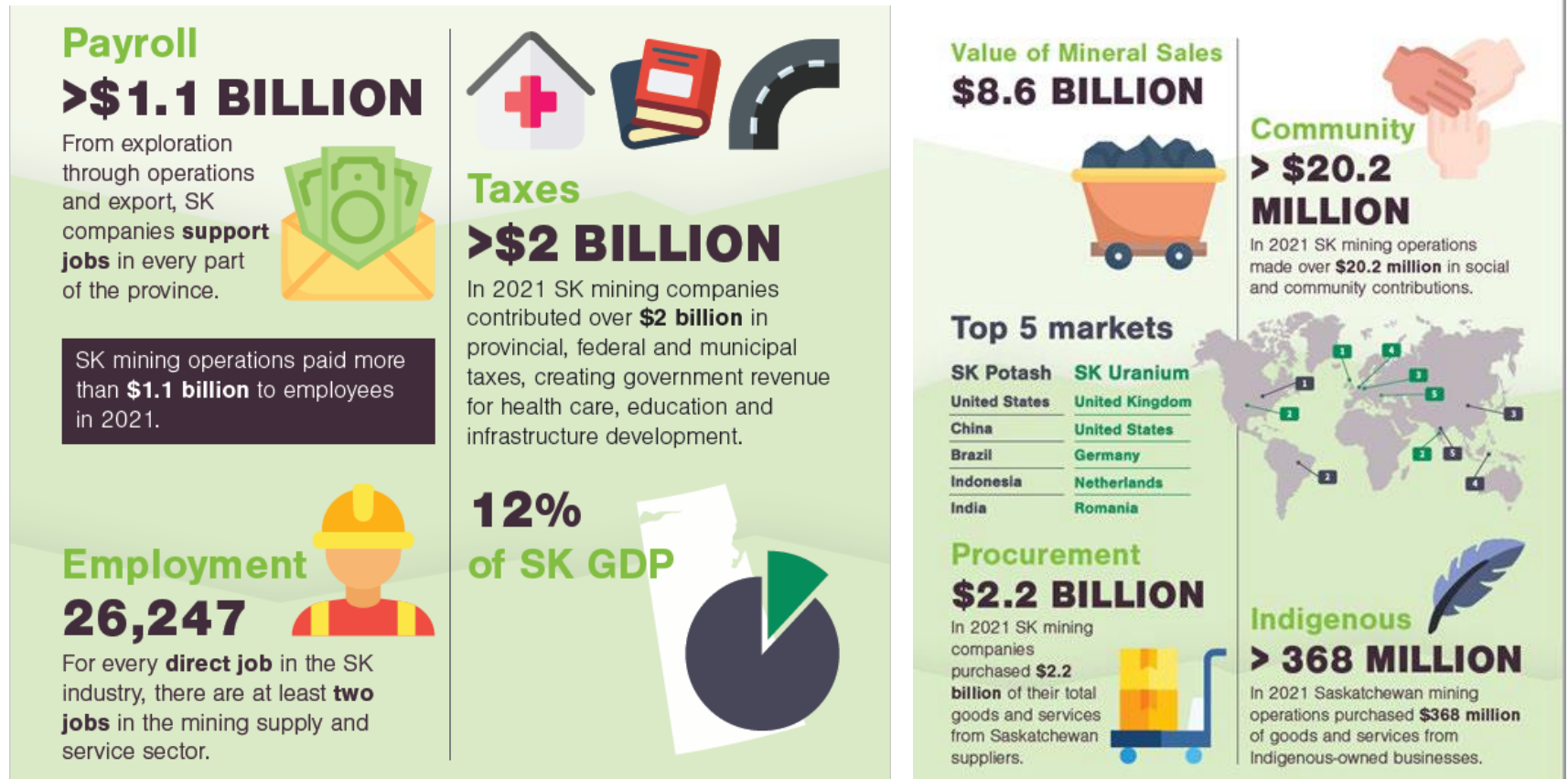
Member Development – sharing of best practice, PD opportunities (Committee Work, Mine Safety Summit, ERMRC, Env Forum)



SASKATCHEWAN - CANADIAN & GLOBAL MINING LEADER



SK MINING BY THE NUMBERS



- **Very high level of public support:** 2022 Survey of 1000 SK residents indicated 92% are supportive of mining industry

SK CRITICAL MINERALS STRATEGY (CM

- Sask has deposits or occurrences of **23 of 31** minerals on Canada's Critical Minerals list
- Different commodity profile than other provinces
- World leading producers of 2 – **potash** and **uranium**
- Past producer of copper, nickel, PGE
- Near – term producer of copper, lithium and REE processing.
- Tailored Saskatchewan CMS Strategy released March 27, 2023 that **builds** on our unique strengths.
- Integrated, whole of government approach that **aligns** regulations and policies with the strategy. Budget 2023-24 identified:
 - Increased investments in exploration incentives
 - Investments in geoscience
 - Improvements to bottlenecks in government system - exploration permitting
 - Investments in REE processing space
 - Investments in financing assistance for Indigenous businesses.



SK's Critical Minerals Opportunities

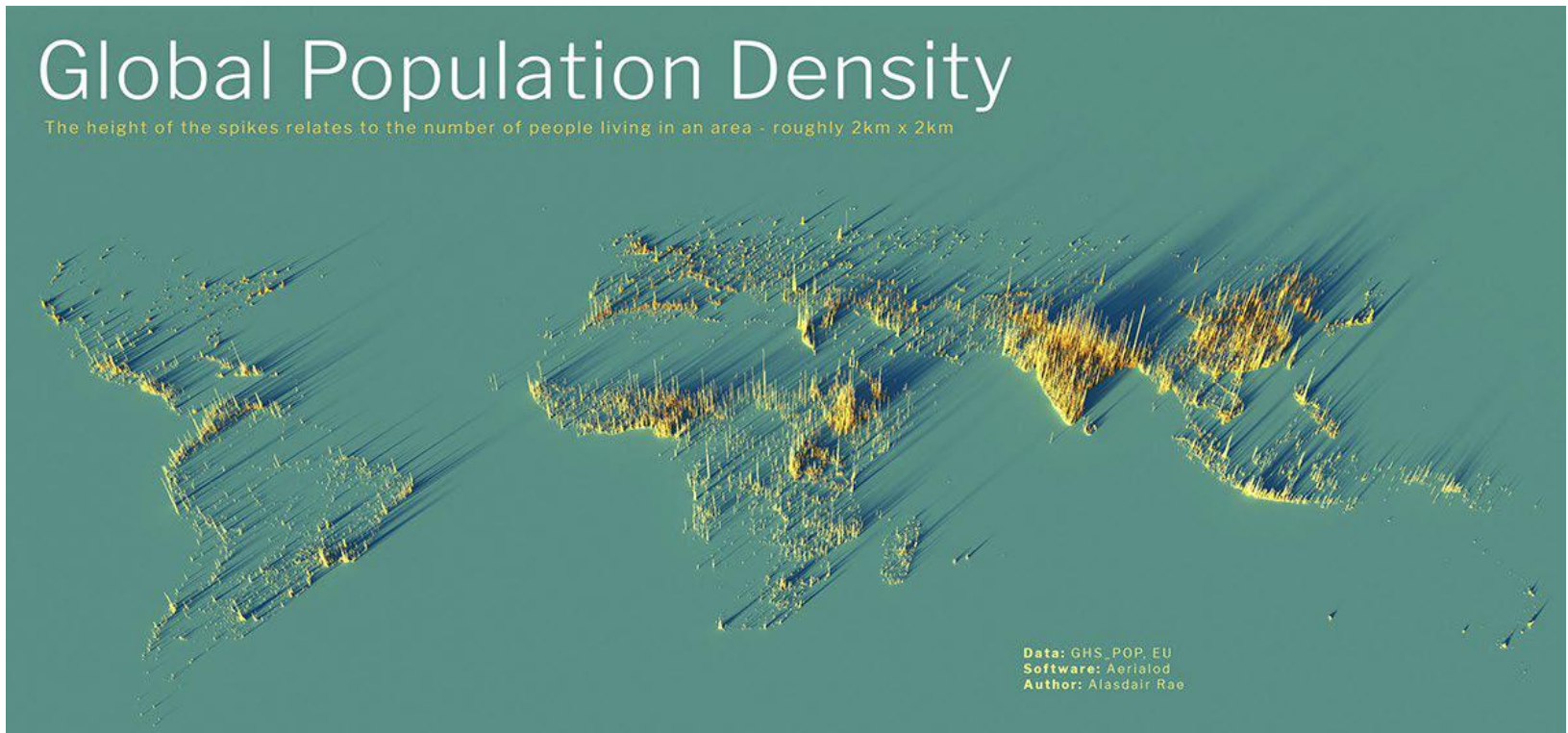
What are the Key Drivers?

2050

1. Growing Global Population
2. Food and Clean Energy Security
3. Climate Change & Net Zero Emissions
4. Geopolitics & Supply Chain Security



Critical Mineral Drivers- Population



- MINERS MATH = > FOOD + > CLEAN ENERGY ON < LAND

Uranium Drivers: Clean Energy Security

Energy Security

- Globally, 1 billion people still live without electricity.
- Nuclear energy is clean and baseload
- SK uranium generated 306 B kw hours of clean electricity = 28 M homes for a year
- At the fully licensed capacity of their tier-one operations, Saskatchewan's uranium producers could mine/mill enough uranium every year in the province's north to meet 170%* of Canada's total annual electricity demand with carbon-free nuclear energy.

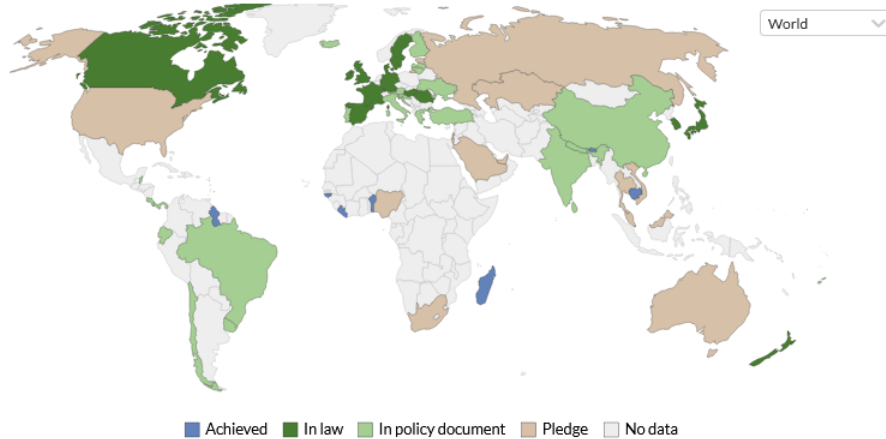


Uranium Drivers: Climate Change

Status of net-zero carbon emissions targets

The inclusion criteria for net-zero commitments may vary from country to country. For example, the inclusion of international aviation emissions; or the acceptance of carbon offsets.

To see the year for which countries have pledged to achieve net-zero, hover over the country in the interactive version of this chart.



Source: Net Zero Tracker. Energy and Climate Intelligence Unit, Data-Driven EnviroLab, NewClimate Institute, Oxford Net Zero. Last updated: 2nd November 2021.
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

Greenhouse Gas Emissions



Source: Ourworldindata.org; measured in emissions of CO2-equivalent per gigawatt-hour of electricity over the lifecycle of the power plant. Data as of 12/31/2020.

- Low C uranium from Saskatchewan
- Strong nuclear growth – 439 operating reactors; 52 under construction, extensions of reactor life; Gates and Musk influencers
- Emerging markets for SMR related to grid decarbonization and industrial heat
- EU Commission determination that ***nuclear technology is sustainable*** and eligible for sustainable finance products.
- Nuclear has lower life cycle emissions per gigawatt hour.

Uranium Drivers: Geopolitical Supply Chain Security

Geopolitical Security of Uranium Supply Chain

- Growing awareness of vulnerabilities on relying on countries like China and Russia for materials that are building blocks for technology and net-zero carbon future
- World Bank - 500% increase of production of green minerals to produce clean technology essential to limiting global T rise to 2 c.
- Russia's invasion of Ukraine and resulting sanctions have exacerbated clean energy supply chain given prominence of Russia global gas exports notably to Europe
- China's aggression towards Taiwan



Uranium a Critical Mineral



- 100% of Canadian production; 16% global production in 2022
- 2 operating mines by end of 2022
 - Cigar Lake Mine/McClean Lake Mill
 - McArthur River Mine/Key Lake – world's largest, high grade mine announced temp. suspension - July 2017 – Feb 2022; production (Nov 2022)
 - Eagle Point/Rabbit – production suspended in 1Q 2016
- 15.3 M lbs U₃O₈ in 2022; values of sales \$1 Billion
- Pre-Production:
 - Denison – Phoenix ISR
 - NexGen - Arrow – feasibility study

Uranium Economic Contributions

- Significant contributor to SK GDP
- Largest employer in northern SK
- Significant community investment
- Significant provider of procurement opportunities
- Safety as a value in the uranium sector



Statistics have been compiled from information provided by Saskatchewan's two producing uranium mining companies, Canadian Nuclear Association, Government of Saskatchewan Dashboard and Statistics Canada. All numbers are from 2022.



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Cameco's Key Lake, McArthur River and Rabbit Lake Operations

Strong, Mature and Effective Management Systems

- Cameco continues to maintain strong and mature management systems, particularly in the areas of conventional and radiological safety, protection of the environment, and health of their employees.
- Cameco's ability to safely curtail production, and effectively manage these operations in care and maintenance during the height of the COVID-19 pandemic, as well as their ability to safely resume production, are a testament to the strength and efficacy of these systems.
- These operations have received:
 - SMA's Safety Award 5 times in the last 10 years – these awards are based on having zero lost time or modified work injuries in a calendar year
 - SMA's Safety Achievement recognition 4 times in the last 10 years – these awards are based on a SMA rating lower than both the median SMA rating for that year and the previous seven-year average median

Cameco's Key Lake, McArthur River and Rabbit Lake Operations

Responsible Environmental Practices

- Long-term compliance with all federal and provincial environmental monitoring requirements
- Cameco supports community-based monitoring programs such as the Eastern Athabasca Regional Monitoring Program that are conducted in northern Saskatchewan
 - Results continue to highlight that water and country foods are not being impacted and that they are safe to drink and eat
- Transparency in reporting
 - easily accessible information on the Cameco website

Cameco's Key Lake, McArthur River and Rabbit Lake Operations

Community Engagement and Benefits

- A long history of effectively engaging with communities in northern Saskatchewan – including Indigenous communities
- Collaboration agreements - mutually beneficial partnerships with formalized commitments under five pillars (workforce development, business development, community investment, community engagement and environmental stewardship)
- Cameco's Public Information Programs and Public Disclosure Protocol – a leading practice in public engagement
- Public engagement will continue in the same fashion as previous licence terms even if a 20-year licence is granted to these operations

Cameco's Key Lake, McArthur River and Rabbit Lake Operations

20-Year Licencing Renewal Request

- Cameco is not proposing any new activities as part of this licensing renewal request and will continue to operate these facilities in the same safe and responsible manner that they have under their current licences
- Cameco has a long history of demonstrated leadership with respect to all aspects of their operations
- Saskatchewan Uranium is critical in ensuring a stable, secure and responsibly sourced nuclear fuel that the world needs to power a low carbon economy
- **The SMA fully supports Cameco's request for a 20-year licence renewal for their Key Lake, McArthur River and Rabbit Lake operations**



Thank you

Saskatchewan's Uranium
Essential to Global Clean
Energy Security