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An Overview of the Nuclear Energy Industry: Opportunities & Challenges

Saskatchewan Suppliers Energy Forum

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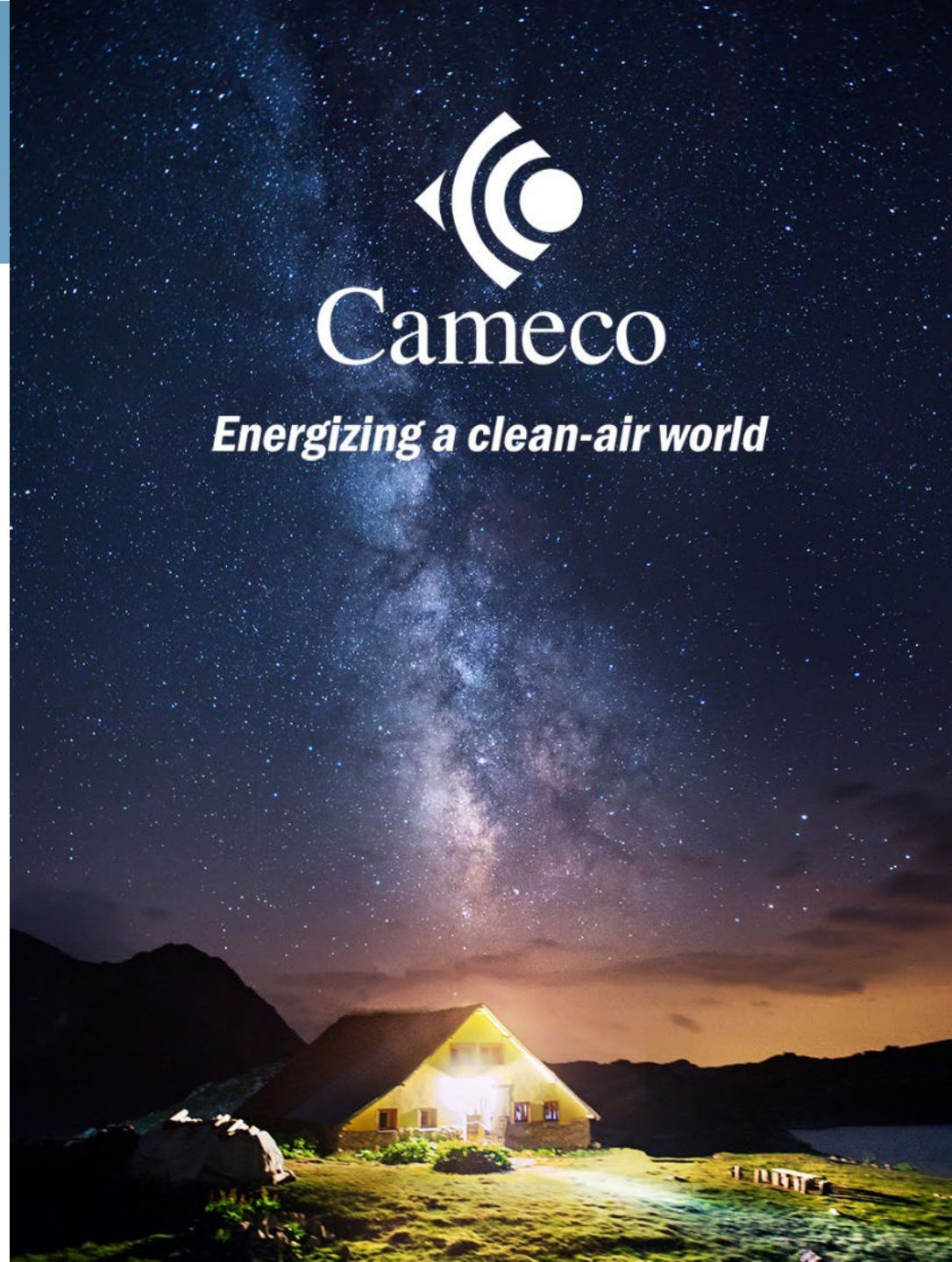
This presentation includes forward-looking information or forward-looking statements under Canadian and US securities laws, which we refer to as forward-looking information. This information about our expectations for the future is based upon our current views, which can change significantly, and actual results and events may be significantly different from what we currently expect. Examples of forward-looking information that may appear in this presentation include our expectations regarding uranium demand, supply, consumption, prices, long-term contracting, production and our ability to meet delivery commitments; the outcome of litigation or other disputes; our future plans, strategies and outlook; our objectives regarding contributing to a net-zero carbon emission target and other environmental, social and governance goals. Material risks that could lead to a different result include: unexpected changes in uranium supply or demand, our production, purchases, sales, costs, taxes, our mineral reserve and resource estimates, prices or availability of secondary supply, spot and long-term contract prices, currency exchange rates, or government regulations or policies; the risk of litigation or arbitration claims against us that have an adverse outcome, including tax disputes; the risk that our contract counterparties may not satisfy their commitments; we may face disruptions to our operations, workforce, required supplies or services as a result of social, economic or health developments, including the COVID-19 pandemic; we may face unexpected challenges in addressing environmental, social and governance risks and opportunities; the risk that our strategies may be unsuccessful or have unanticipated consequences; and the risk our estimates and forecasts prove to be inaccurate. In presenting this information, we have made material assumptions which may prove incorrect about: uranium demand, supply, consumption, long-term contracting and prices; our production, purchases, sales, and costs; taxes and currency exchange rates; market conditions and other factors upon which we have based our future plans and outlook; the success of our plans and strategies; the agreement of our partners with our plans and strategies; the accuracy of our estimates; the absence of new and adverse government regulations or policies; the successful outcome of any litigation or arbitration claims against us, including tax disputes; our ability to successfully manage operational and other impact of any disruption resulting from social, economic or health developments, including the COVID-19 pandemic; our ability to address ESG risks and opportunities successfully; and our ability to complete contracts on the agreed-upon terms. Please also review the discussion in our most recent annual MD&A, any subsequent quarterly MD&A and our most recent annual information form for other material risks that could cause actual results to differ significantly from our current expectations and other material assumptions we have made. 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.

Introduction

- Nuclear Energy Tailwinds
- Uranium market fundamentals "best ever"
- Cameco's state of operational readiness in uranium and conversion
- Working together towards a brighter and cleaner future
- Opportunities for Saskatchewan Suppliers



Nuclear Growth Potential

Clean Energy Transition

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Triple Challenge of Net-Zero Carbon Targets

- **Energy Poverty**
  - Lift 1/3 of the global population out of energy poverty
- **Thermal Replacement**
  - Replace 85% of grid running on carbon-emitting thermal power with a clean, reliable alternative
- **Electrifying Industry**
  - Electrify industries, such as private and commercial transportation, largely powered by carbon-emitting thermal energy today

Nuclear Growth Potential

Clean Energy Transition

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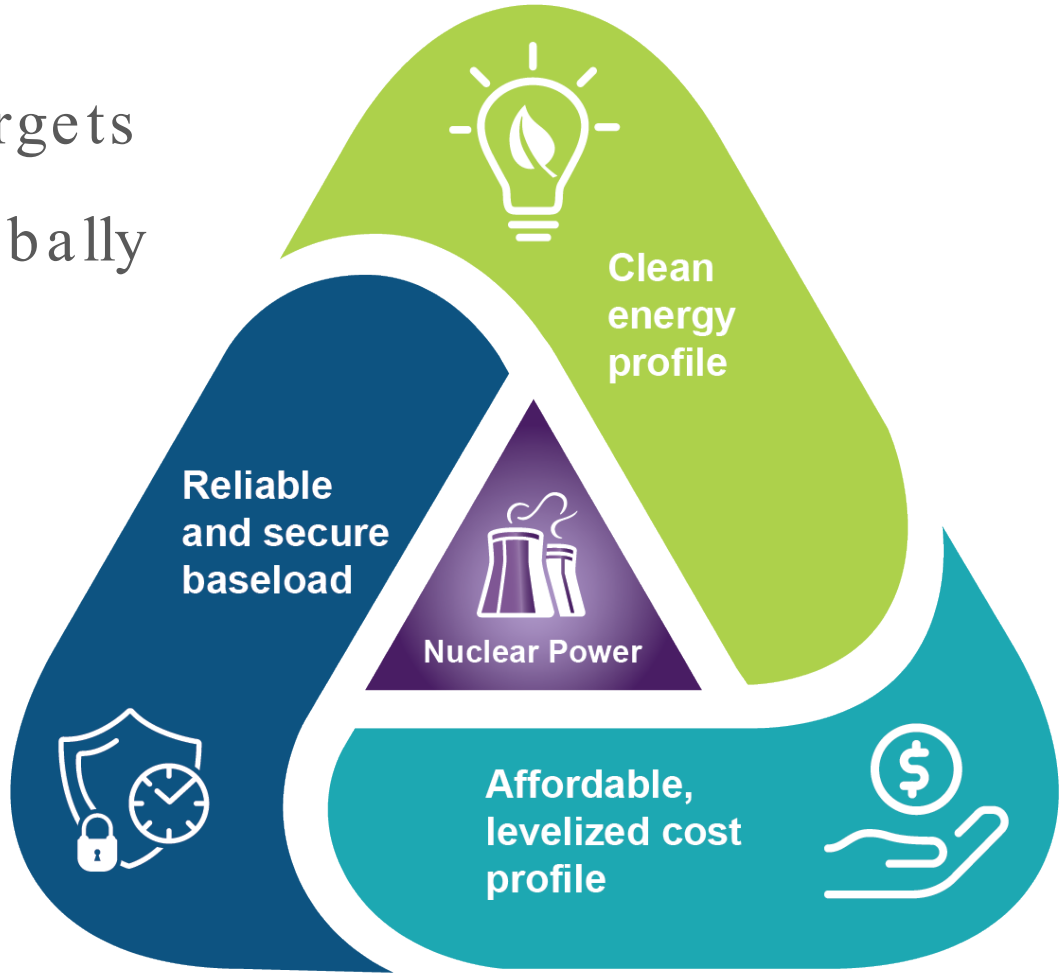
- Growing focus on Net-zero Carbon Targets
- Increasing Public & Policy Support Globally
- Transportation
  - Electrification & Decarbonization
- Nuclear for Process Heat
- Small Modular Reactors
  - Scalable next generation solutions



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Nuclear Growth Potential

Energy Security Driven by Geopolitical Risk

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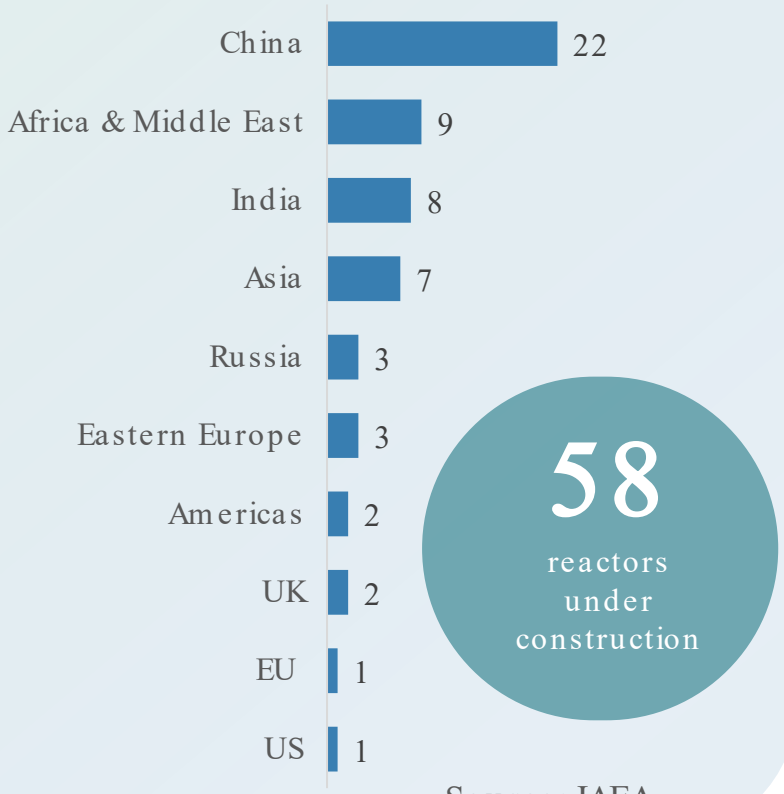
Growth from New Reactors



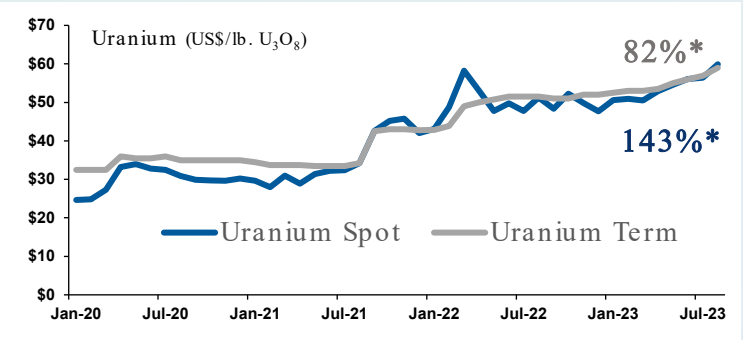
58 reactors under construction

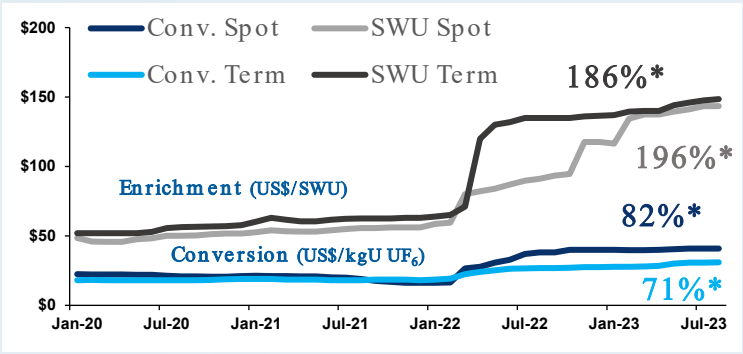
Source: IAEA

Demand Increasing

Near-Term	• Reversal of early retirement / closures • Geopolitical impacts
Medium-Term	• Clean, secure energy focus, reactor life-extensions
Long-Term	• Reactor new builds and development of small modular and micro reactors

Price Increases Across the Fuel Cycle[1]





*Increase since January 2020

Full-Cycle Demand

"Best Ever Fundamentals"

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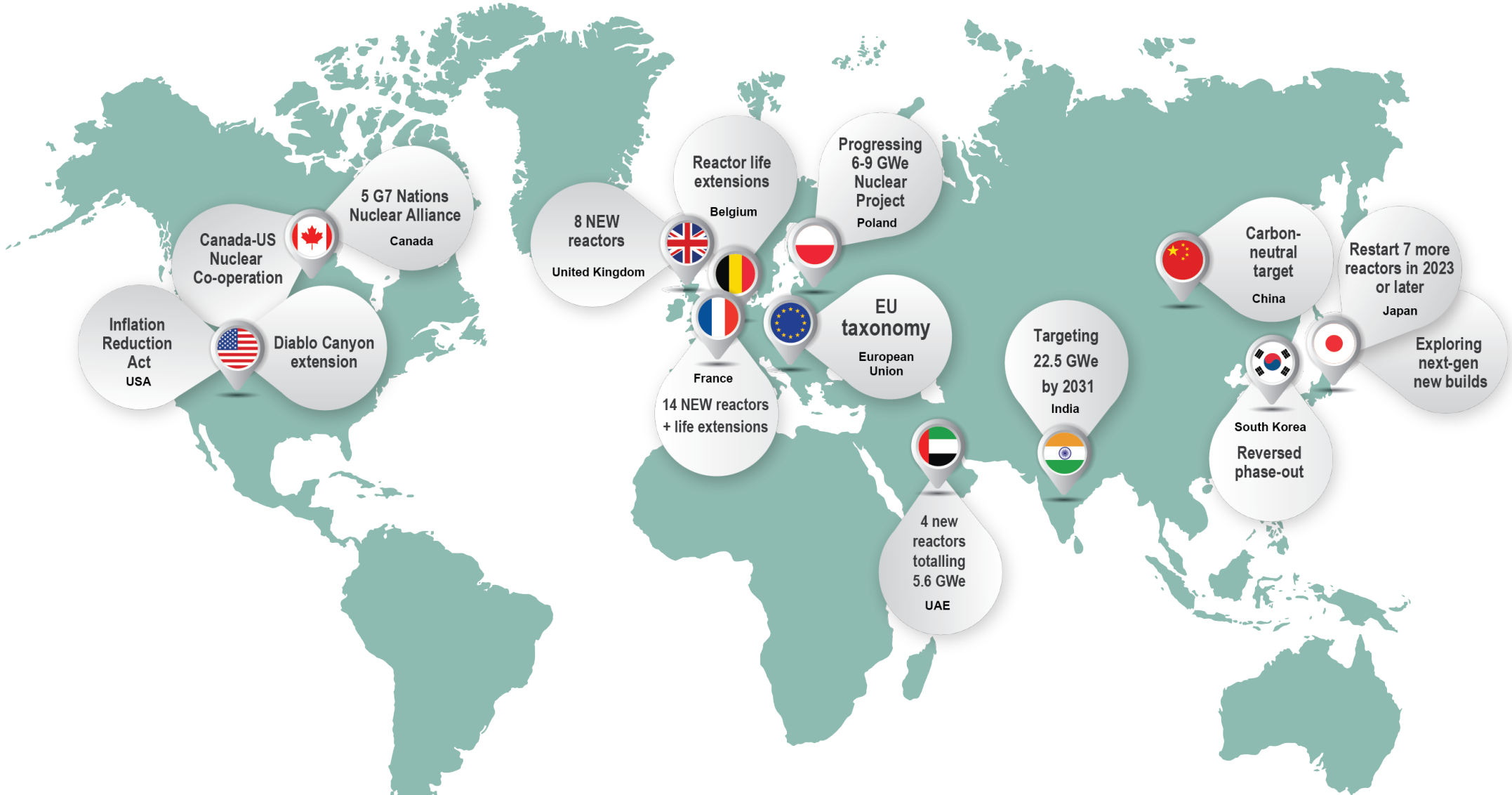

North American Announcements

Nuclear Growth in Sync with Positive Global Landscape

ALBERTA
- MOU in place for potential SMR

SASKATCHEWAN
- Considering sites for potential SMR

ONTARIO
- **Bruce Power -** potential 4.8 GWe additional nuclear
- **OPG -** potential refurbishing of Pickering
- **OPG -** 1 SMR planned; 3 more considered

NEW BRUNSWICK
- **NB Power -** planning SMR at Point Lepreau

USA
- **Brookfield Properties -** entire US office portfolio to be powered with zero-emission electricity, including nuclear

VIRGINIA
- **Constellation Energy/Microsoft -** data center to be powered with zero-emission electricity, including nuclear

TEXAS
- **Dow Inc/X-energy -** SMR planned for Seadrift site (Gulf Coast)

Market History & Potential

Transitioning from Maintenance to Growth

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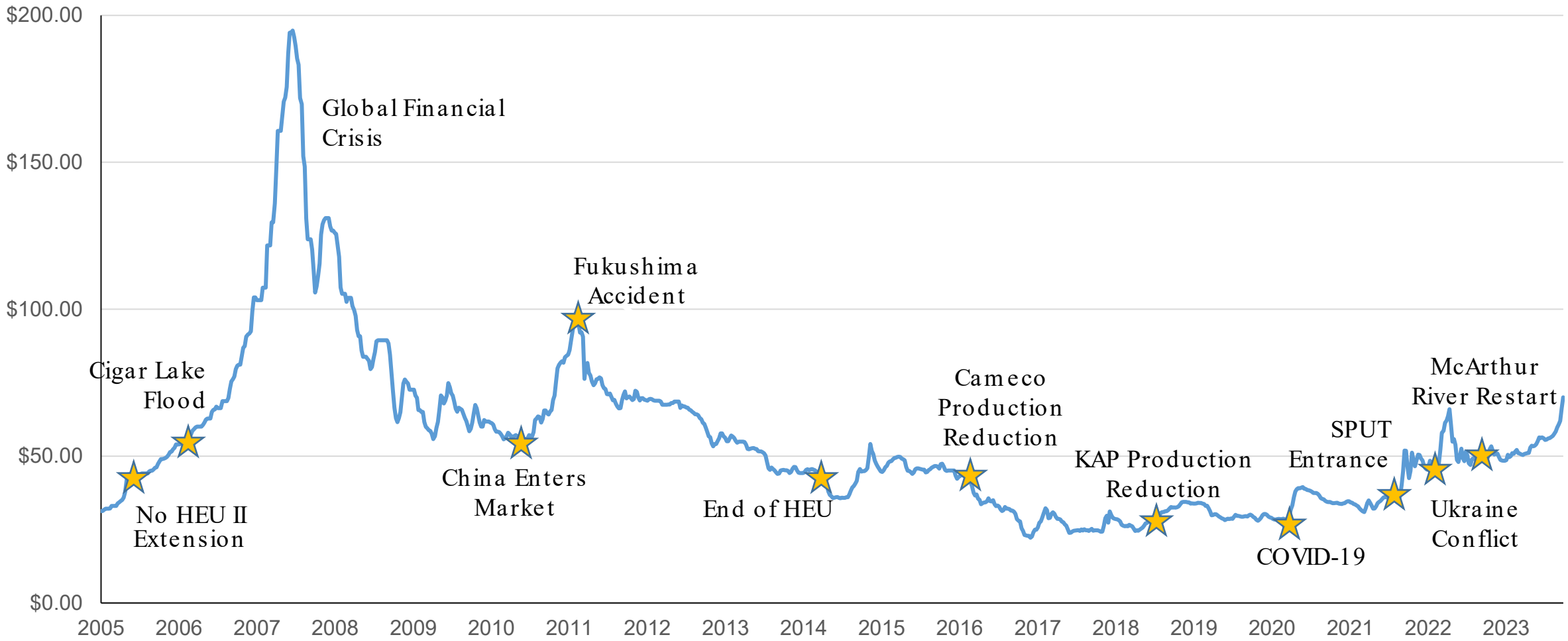
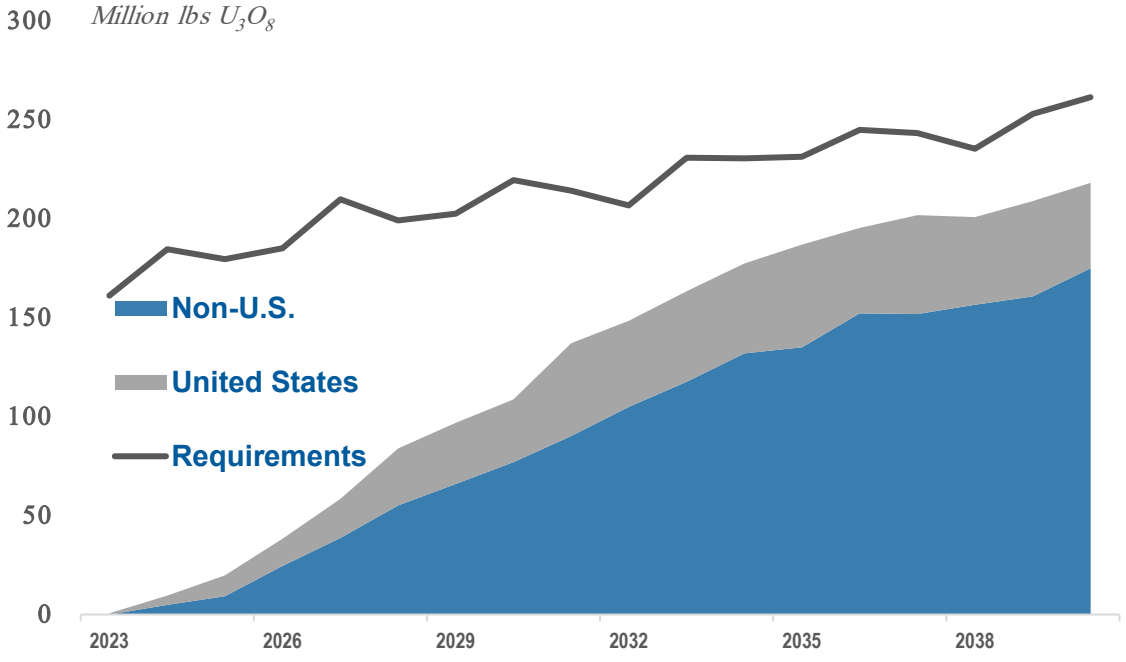


Market Fundamentals

Driving Contracting Interest & Need for Future Production

Utility Uncovered Uranium Requirements

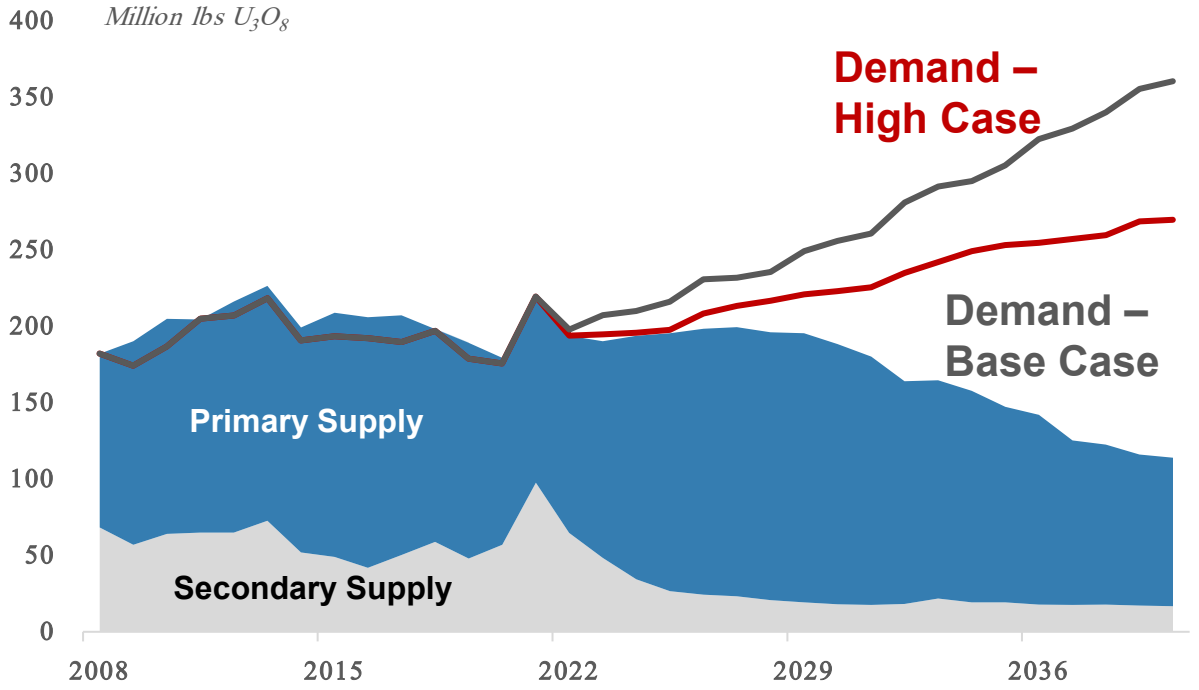
~ 2.3 Billion pounds through 2040



Source: UxC Q3 2023 Uranium Market Outlook

Supply Outlook is Uncertain

Structural Primary & Secondary Supply Gap



Source: UxC Q3 2023 Uranium Market Outlook

Cameco's Actions in a Transitioning Market

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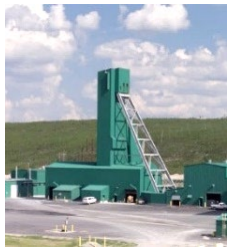
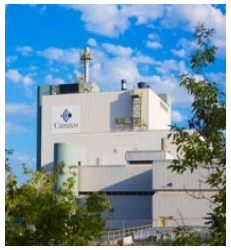
Contract Portfolio increased to:

- ✓ 215 M lbs uranium
- ✓ 70 M kgU conversion services

Transitioning to tier-one run rate

- ✓ Cigar Lake 16 m lbs (100% basis) in 2023 → plan for 18 m lbs in 2024
- ✓ McArthur River/Key Lake 14 m lbs (100% basis) → plan for 18 m lbs in 2024
- ✓ Record UF_6 production

GLE

Westinghouse

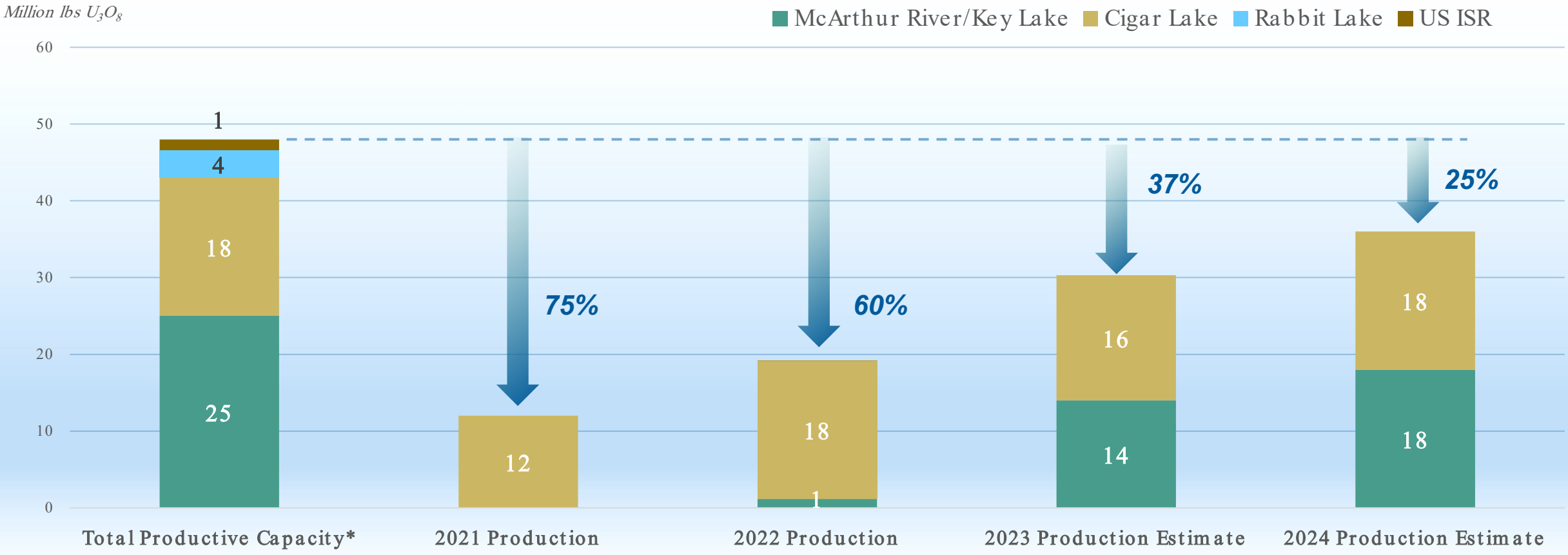
Investments in the nuclear fuel cycle

- ✓ Increased ownership of Cigar Lake, tier-one high-grade mine
- ✓ Advancing next generation enrichment technology
- ✓ Proposed joint acquisition of Westinghouse with Brookfield Renewable

Cameco's Response

Transition from Supply Discipline to Restart & Expansion

Annual Capacity vs. Production (100% basis)



McArthur River Restart

Contracting First, then Production

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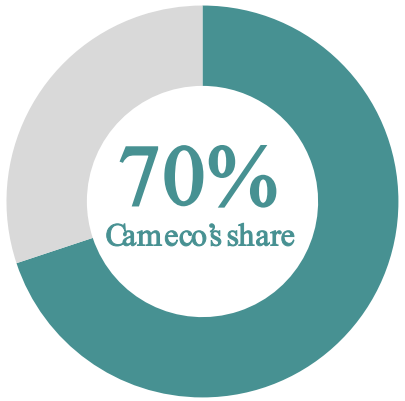
Recent Developments

- Care and maintenance from July 2018 to November 2022
  - Removed 18 million lbs from the market annually (100% basis)
- Digital Transformation ongoing to build the mine of the future
- 2023 production reduction from 15 to 14 million lbs (100% basis)
  - 9.8 million lbs (Cameco's share)
- 2024 production plan of 18 million lbs (100% basis)
  - 12.6 million lbs (Cameco's share)



0.8 million lbs
2022 Production (Cameco share)

275 million lbs
Proven &Probable Reserves (Cameco share)

6.70%
Average grade U_3O_8

Cigar Lake

Uranium Grade 100x the World Average

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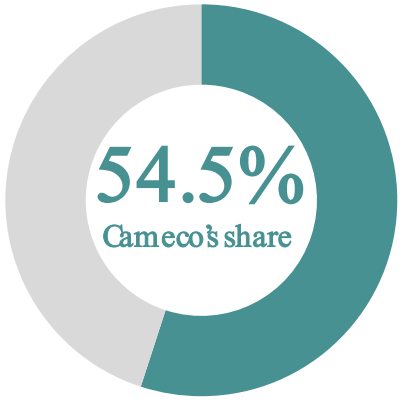
Recent Developments

- 2023 production reduction from 18 to 16.3 million lbs (100% basis)
  - 8.9 million lbs (Cameco's share)
- 2024 production plan of 18 million lbs (100% basis)
  - 9.8 million lbs (Cameco's share)
- Acquired 4.522% of Idemitsu's 7.875% participating interest
- 2023 Plans include continued mine development (freezing, construction, etc.) in support of future construction



9.6 million lbs
2022 Production (Cameco Share)

84.4 million lbs
Proven & Probable Reserves (Cameco Share)

17.21%
Average grade U_3O_8

Curtailed & Potential Cameco Production

Rabbit Lake

Mine Type: Underground
Status: Suspended
Location: Saskatchewan, Canada
Average Grade: 0.80%
Reserves & Resources: 72.3M lbs

Crow Butte & Smith Ranch-Highland

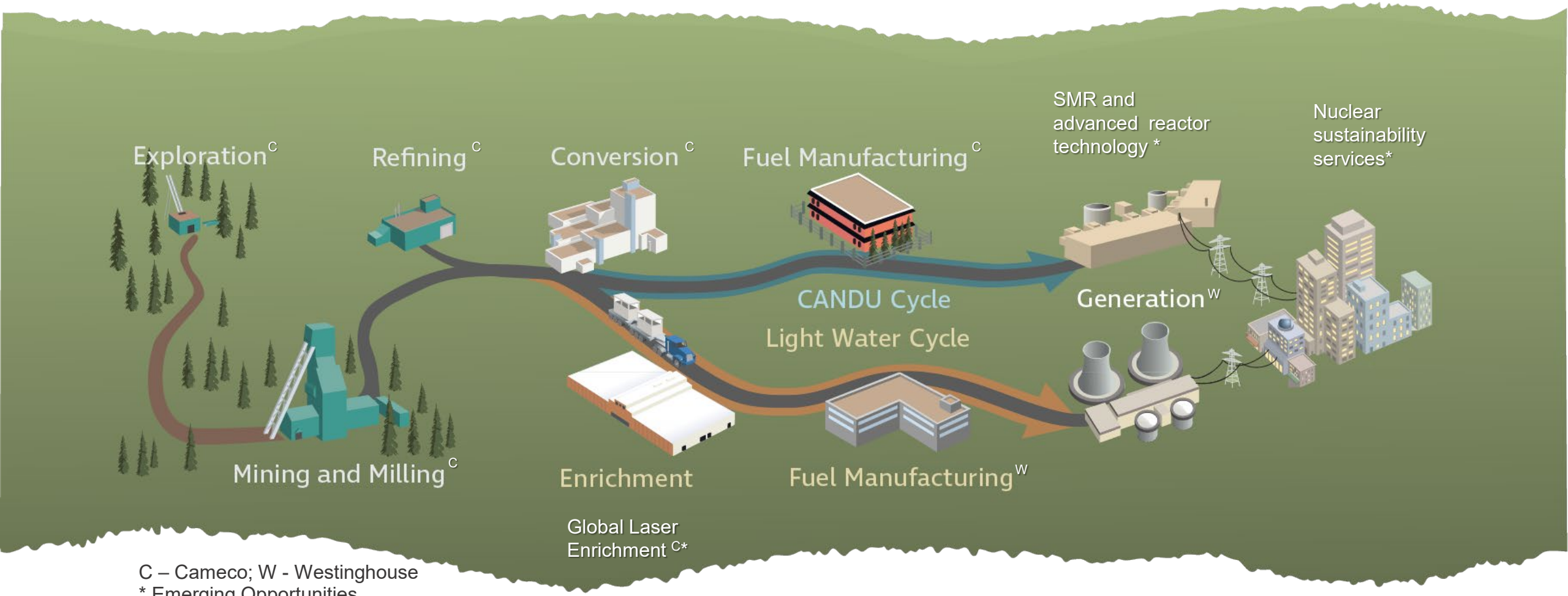
Mine Type: In Situ Recovery
Status: Suspended
Location: Nebraska & Wyoming, USA
Average Grade: 0.26% - 0.07%
Reserves & Resources: 58.2M lbs
* *Includes North Butte-Brown Ranch*

Millennium

Mine Type: Underground
Status: Awaiting Development Decision
Location: Saskatchewan, Canada
Average Grade: 2.61%
Resources: 73.2M lbs

Expanding Cameco's Role

Vertical Integration within the Nuclear Fuel Chain



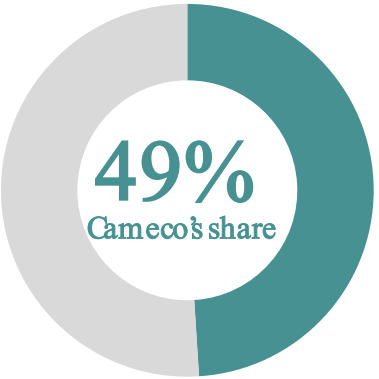
C – Cameco; W - Westinghouse
* Emerging Opportunities

Expanding Cameco's Role

Vertical Integration within the Nuclear Fuel Chain

- *Cameco has committed to acquire a 49% interest in Westinghouse Electric*
  - Subject to final closing
  - Brookfield Renewables will retain operational control with a 51% interest
- *Westinghouse Electric is valued at $7.875 billion*
- *Cameco financing mix of cash, debt & equity*

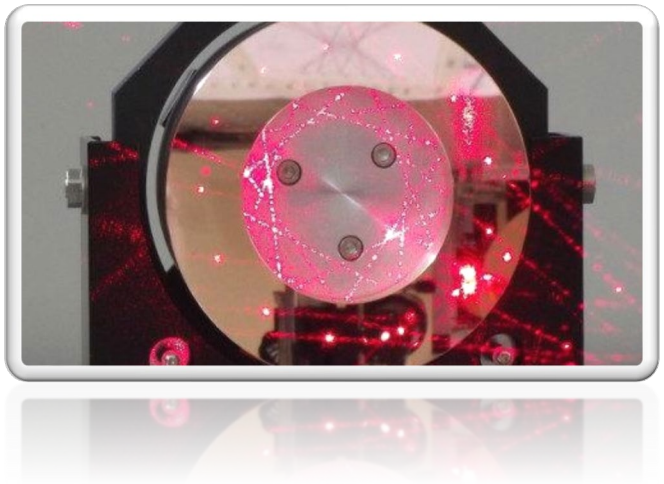
Westinghouse



Plant Operating Services				Environmental Services	Energy Systems
Outage Services	Engineered Systems	Parts	Nuclear Fuel	Decommissioning and Decontamination	New Power Plant Projects

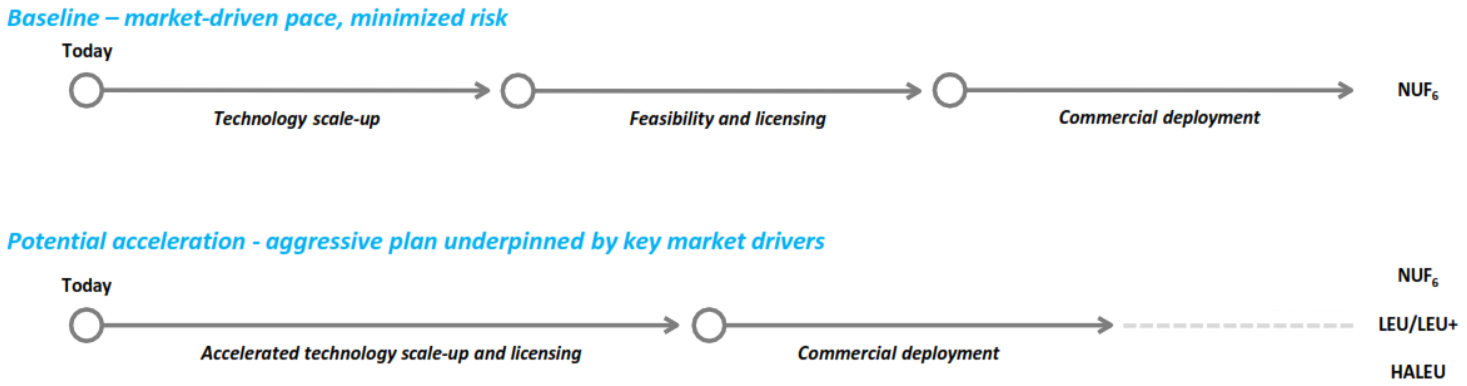
Global Laser Enrichment

Vertical Integration within the Nuclear Fuel Chain



Three advantages to offer the nuclear industry over the long-term:

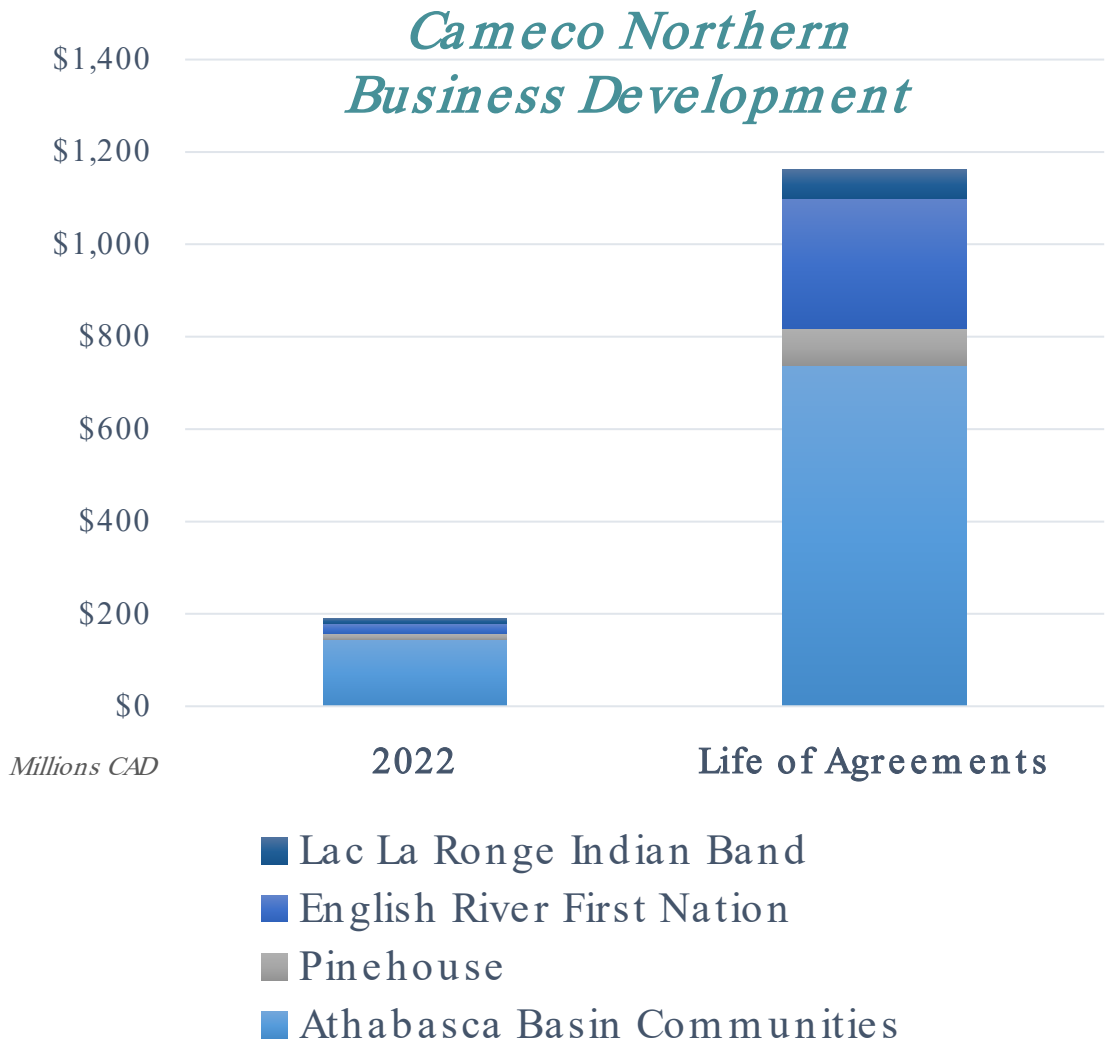
1. Re-enrichment of depleted uranium tails from previous generation enrichment technologies
2. HALEU/LEU/LEU+ for SMRs and advanced reactor designs
3. LEU for the world's existing and future light-water reactor fleet with greater efficiency and flexibility than current enrichment technologies



Saskatchewan's Opportunity

Cameco's Role in Saskatchewan

- 50% of Cameco's employees in Northern SK are Indigenous
- Step Up for Mental Health has raised over $2.3 million
- $1 million COVID-19 Relief Fund
- $50,000 in scholarships for Northern students in 2023
- Employee Giving campaign with $276,284 in donations
- $4.22 billion spent with northern businesses, including $1.1 billion related to key collaboration agreements



Looking Forward Targets

Commitments to Saskatchewan

Environment

- Net-Zero Ambition and 30 by 30 Target
- Decarbonization Pathways
- Scope 3
- Climate-Related Physical Risks
- Environmental Performance
- Tailings Management

Social

- Workplace Safety
- Indigenous and Community Relations
- Inclusion and Diversity

Governance

- Board Diversity
- Conduct and Ethics
- Cybersecurity

Positive Nuclear Energy Tailwinds

Cameco Well Positioned as Nuclear Energy Leader

- Growing demand for nuclear as green energy source
  - Cameco & Saskatchewan are uniquely situated to address
- Strong projected demand growth, further supplemented from market realignment
- Market transitioning with need for additional supply
- We believe our strategy of **contracting discipline, operationally flexible supply discipline**, and **financial discipline** will allow us to achieve our vision of **Energizing a clean-air world**

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