Please note that statements made in this handout, including statements regarding the outlook, company's objectives, projections, estimates, expectations or predictions, contain forward-looking information and statements within the meaning of applicable Canadian and U.S. securities laws. The company cautions that such information and statements involve risk and uncertainty, and that actual results could differ materially from those contained in them. In addition, certain material factors or assumptions were applied in drawing the conclusions or making the forecasts or projections reflected in them. Additional information about the material factors that could cause actual results to differ materially, and the material factors or assumptions that were applied, are contained at the end of this handout.
Growing electricity demand

By 2040, global demand is expected to increase by almost 60% from 2017 levels
Drivers for nuclear energy growth

- Global Energy Growth
- Baseload Electricity
- Clean Air/Climate Change
- Economic Development
- Energy Security
- Fuel Diversity

---

Uranium market Future growth

- **53** reactors under construction

**CURRENTLY UNDER CONSTRUCTION**

- China: 11
- Asia: 10
- Africa: 7
- Russia: 7
- Europe: 7
- Others: 4

---

**China’s reactor fleet**

- **45 Operating**
- **11 under construction**
Strong nuclear growth

53 nuclear reactors under construction today, many more planned

Reactors Under Construction
Non-traditional markets

China 11
India 7
UAE 4

Uranium market

Prices increasing but still low
(since beginning of 2018)

Long-term
$40
$30
$20
$10
$0

Spot
$40
$30
$20
$10
$0

↑ -2%
↑ -4%
Cyclical and driven by sentiment
Low price = abundant uranium – no urgency
High price = scarcity – active contracting

Origin disconnect
Gap is highlighted

*Based on 2018 final production and current operable reactors
**Operable reactors in Asia include 38 in Japan, of which 9 have restarted
Signposts of a market shift

Meaningful contracting activity drives price and market improvement

- Sentiment
- Reactor construction
- Long-term Contracting
- Supply performance
- Inventories
- Uncovered requirements

A deliberate strategy
Build long-term shareholder value

- Operations
- Strategy Execution
- Market
- Financial

Second Quarter - 2019
Strategy execution: Operations

Suspension of McArthur River/Key Lake

- Preserve tier-one assets
- Removed 18 million pounds from the market (100% basis)
- Need acceptable long-term contracts for restart

Strategy execution: Market

Cameco’s market demand

- Need 21 to 23 million pounds to meet 2019 sales commitments (now 30 to 32 million lbs)
- Sourced from: majority - spot market, remainder - long-term commitments and JV Inkai
- Purchase ahead for 2020
Strategy execution: Financial

Strong balance sheet and ability to self-manage risk

- $1.1 B in cash and short-term investments
- Generating cash flow
- Ability to retire 2019 debenture

2019 outlook
Meeting our commitments

Uranium Required
30 - 32 million lbs*

Production
9.0m lbs
Purchases*
(committed & required)
21-23m lbs
Inventory*

* We report our results and outlook based on a calendar-year view, at a point in time. However, under our marketing framework, we plan on a rolling 12-month basis, which means our sales, inventory and purchases are all variables. Therefore, in accordance with market opportunities and as the year unfolds, we expect our actual sales, purchases and inventory will vary from what we are reporting in the 2019 Financial Outlook table in our MD&A.
**Cameco specific updates**

**CRA Dispute**
- September 2018 Tax Court decision unequivocally in our favour
  - CRA filed appeal
- April 2019 cost award
  - $10.25M legal fees incurred, plus disbursements

**TEPCO Dispute**
- TEPCO did not have the right to terminate its uranium supply agreement
- Awarded damages of $40.3M (US)
  - Tribunal’s interpretation of the circumstances
  - Not in financial outlook

---

**McArthur River**
The world’s largest, high-grade uranium mine

Proven and Probable Reserves*  
273.6 million lbs  
Average grade U₃O₈  6.91%

**Production**
- 2018 production: 0.1 M lbs*  
- 2019: indeterminate suspension

**Cameco’s Share**
69.8%
Cigar Lake
Uranium grades 100 times the world average

Proven and Probable Reserves* 88.3 million lbs
Average grade U₃O₈ 14.48%

Production
- 2018 production: 9.0 M lbs*
- 2019 forecast: 9.0 M lbs*

Cameco’s Share
*Our share

Inkai
A significant low-cost source of uranium

Proven and Probable Reserves* 104.6 million lbs
Average grade U₃O₈ 0.03%

Production
- 2018 production: 6.9 M lbs (100% basis)
- 2019 forecast: 8.3 M lbs (100% basis)

Cameco’s Share
40%
*Our share
Focus on value
Well positioned for future demand with world-class, tier-one assets

- Extensive reserves and resources
- Diversified supply
- Decisions driven by profitability

467 m lbs
Proven & Probable Reserves

423 m lbs
Measured & Indicated Resources

176 m lbs
Inferred Resources

Please see Cameco’s most recent management’s discussion and analysis (MD&A) for more information about these reserves and resources.

Second Quarter - 2019

Strong asset portfolio
Including curtailed tier-two production due to current market conditions

Tier-Two Curtailed Operations
- Rabbit Lake
- US ISR Operations

Advanced Projects
- Millennium
- Yeelirrie
- Kintyre

Second Quarter - 2019
A deliberate strategy
Build long-term shareholder value

✓ Well positioned to respond to changing dynamics
✓ Diversified portfolio, including tier-one assets
✓ Ability to restart and expand existing tier-one assets (when market transitions)
✓ Commercially motivated
✓ Best global exploration and advanced exploration portfolio
✓ Proven track record: licensing, permitting, operating and community development
Maps and Reference Figures
Cigar Lake - Jet Bore Mining System (JBS)

- Orebody frozen prior to mining
- Ore removed using high-pressure water jet
- Cavity monitored using survey equipment
- Cavity backfilled with concrete
- Ore slurry contained to control radiation, eliminate dust

Diagram showing the mining process, including:
- Sandstone
- Uranium orebody
- Unconformity
- Basement rock
- Mining cavity
- Backfilled cavities
- High-pressure water jet
- Rod cars
- Drilling car
- Slurry car
- Storage ROM
Cigar Lake - Underground Ore Processing

From Jet Boring Machine

ROMs

North ROM

Ore slurry hoisting pump

Crusher

South ROM

Ore slurry hoisting pump

Clarifier

Ball mill

To ore loadout on surface

Cigar Lake - New Austrian Tunneling Method (NATM)

Top-Heading Internal Support

Advantages
- Adaptive ground support, varies with rock strength
- Smaller amount of area open and unsupported ground at any given time
- Yielding elements absorb stress in a controlled, measured manner

Invert Internal Support

Comparison
- Overall time to develop a cross cut similar to tunnel boring
- NATM advance rate is slower, but setup and finish steps are faster
- Costs are similar between the two methods
Cigar Lake - Surface Freezing

Freeze hole specifications
- 462 m long, overburden to ~40 m
- ~8 - 10 days / drill hole
- required accuracy of ~1.5 m
- 100 - 120 holes / production panel

Timeline
- ~1.5 - 2 years to drill, outfit and activate a production panel
- freezing takes 2 - 5 years, depending on hole spacing and ground conditions
Mineral reserves

As at December 31, 2018 (100% – only the shaded column shows our share)

PROVEN AND PROBABLE

(to tonnes in thousands; pounds in millions)

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>MINING METHOD</th>
<th>TONNES</th>
<th>GRADE % U₃O₈</th>
<th>CONTENT (LBS U₃O₈)</th>
<th>TONNES</th>
<th>GRADE % U₃O₈</th>
<th>CONTENT (LBS U₃O₈)</th>
<th>TONNES</th>
<th>GRADE % U₃O₈</th>
<th>CONTENT (LBS U₃O₈)</th>
<th>METALLURGICAL RECOVERY (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigar Lake</td>
<td>UG</td>
<td>171.0</td>
<td>15.74</td>
<td>59.4</td>
<td>382.1</td>
<td>13.91</td>
<td>117.2</td>
<td>553.1</td>
<td>14.48</td>
<td>176.6</td>
<td>88.3</td>
</tr>
<tr>
<td>Key Lake</td>
<td>OP</td>
<td>61.1</td>
<td>0.52</td>
<td>0.7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>61.1</td>
<td>0.52</td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td>McArthur River</td>
<td>UG</td>
<td>2,034.0</td>
<td>7.14</td>
<td>320.2</td>
<td>538.5</td>
<td>6.04</td>
<td>71.7</td>
<td>2,572.5</td>
<td>6.91</td>
<td>391.9</td>
<td>273.6</td>
</tr>
<tr>
<td>Inkai</td>
<td>ISR</td>
<td>205,349.0</td>
<td>0.04</td>
<td>164.3</td>
<td>155,529.5</td>
<td>0.03</td>
<td>97.2</td>
<td>360,878.5</td>
<td>0.03</td>
<td>261.6</td>
<td>104.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>207,615.1</td>
<td>-</td>
<td>544.5</td>
<td>156,450.1</td>
<td>-</td>
<td>286.1</td>
<td>364,065.2</td>
<td>-</td>
<td>830.8</td>
<td>467.1</td>
</tr>
</tbody>
</table>

(UG – underground, OP – open pit, ISR – in situ recovery), totals may not add up due to rounding.

Note that the estimates in the above table:
- Use a constant dollar average uranium price of approximately $44 (US) per pound U₃O₈
- are based on exchange rates of $1.00 US=$1.25 Cdn and 298 Kazakhstan Tenge to $1.00 Cdn

Please see our mineral reserves and resources section of our 2018 annual information form dated March 29, 2019 for the specific assumptions, parameters and methods used for our McArthur River, Inkai and Cigar Lake mineral reserve estimates and for identification of known risks that could materially affect these estimates.

Metallurgical recovery

We report mineral reserves as the quantity of contained ore supporting our mining plans, and provide an estimate of the metallurgical recovery for each uranium property. The estimate of the amount of valuable product that can be physically recovered by the metallurgical extraction process is obtained by multiplying the quantity of contained metal (content) by the planned metallurgical recovery percentage. The content and our share of uranium in the table above are before accounting for estimated metallurgical recovery.
Caution About Forward-Looking Information

Statements contained in this handout include statements and information about our expectations for the future. When we discuss our strategy, plans and future financial and operating performance, or other things that have not yet taken place, we are making statements considered to be forward-looking information or forward-looking statements under Canadian and U.S. securities laws. They represent our current views, and can change significantly. These statements are based upon a number of material assumptions, which may prove to be incorrect. Actual results and events may be significantly different from what we currently expect because of the risks associated with our business. We recommend that you review our most recent annual and any subsequent quarterly management’s discussion and analysis for more information about these assumptions and risks. You should also review our current annual information form, which includes a discussion of other material risks that could cause actual results to differ significantly from our current expectations. Forward-looking information is designed to help you understand management’s current views of our near and longer-term prospects, and it may not be appropriate for other purposes. We will not necessarily update this information unless we are required to by securities laws.

Examples of forward-looking information that may appear in this handout include: our expectations regarding future world electricity consumption; our expectations regarding nuclear growth and uranium supply, demand, consumption, production, long-term contracting, prices and market conditions; our plans and outlook; production forecasts for uranium properties; mineral reserve and mineral resource estimates; and the outcome of litigation or other disputes.

The material risks that could cause actual results to vary include: uranium prices remain depressed by reduced demand for nuclear energy for a prolonged period or continue to decline; we are not successfully able to manage our costs, risks and operations; we are adversely affected by changes in currency exchange rates, interest rates, royalty rates, or tax rates; our production costs are higher than planned; necessary supplies are not available, or not available on commercially reasonable terms; our estimates of production, purchases, costs, cash flow, decommissioning, reclamation expenses, or our tax expense prove to be inaccurate; we are unable to enforce our legal rights under our existing agreements, permits or licences; we are subject to litigation or arbitration that has an adverse outcome; there are defects in, or challenges to, title to our properties; our mineral reserve and resource estimates are not reliable; there are unexpected or challenging geological, hydrological or mining conditions at uranium properties; we are affected by environmental, safety and regulatory risks, including increased regulatory burdens or delays; necessary permits or approvals from government authorities cannot be obtained or maintained; we are affected by political risks; we are affected by terrorism, sabotage, blockades, civil unrest, social or political activism, accident or a deterioration in political support for, or demand for, nuclear energy; we are impacted by changes in the regulation or public perception of the safety of nuclear power plants; government regulations or policies that adversely affect us, including tax and trade laws and policies; our uranium suppliers or purchasers fail to fulfil commitments; development, mining or production plans are delayed or do not succeed for any reason; the risk our estimates and forecasts prove to be inaccurate; the risk our strategies are unsuccessful or have unanticipated consequences; we are affected by natural phenomena, including inclement weather, fire, flood and earthquakes; operations are disrupted due to problems with facilities, the unavailability of reagents, equipment, operating parts and supplies critical to production, equipment failure, lack of tailings capacity, labour shortages, labour relations issues, strikes or lockouts, underground floods, cave-ins, ground movements, tailings dam failures, transportation disruptions or accidents, or other development and operating risks.

We have made material assumptions regarding: our ability to manage our costs, risks and operations; sales and purchase volumes and prices for uranium and fuel services; trade restrictions; that counterparties to our sales and purchase agreements will honour their commitments; the demand for and supply of uranium; the construction of new nuclear power plants in various countries and the relicensing of existing nuclear power plants not being more adversely affected than expected by changes in regulation or in the public perception of the safety of nuclear power plants; our ability to continue to supply our products and services in the expected quantities and at the expected times; production levels; costs, including production and purchase costs; the success of our plans and strategies; market conditions and other factors upon which we have based our plans and
outlook; spot prices and realized prices for uranium; tax rates and payments, royalty rates, currency exchange rates and
interest rates; the successful outcome of any litigation or arbitration claims; our decommissioning and reclamation expenses;
the reliability of our mineral reserve and resource estimates; our understanding of the geological, hydrological and other
conditions at uranium properties; the success of development, mining and production plans; our and our contractors’ ability to
comply with current and future environmental, safety and other regulatory requirements, and to obtain and maintain required
regulatory approvals; and operations not being significantly disrupted as a result of political instability, nationalization,
terrorism, sabotage, blockades, civil unrest, breakdown, natural disasters, governmental or political actions, litigation or
arbitration proceedings, the unavailability of reagents, equipment, operating parts and supplies critical to production, labour
shortages, labour relations issues, strikes or lockouts, underground floods, cave-ins, ground movements, tailings dam failure,
lack of tailings capacity, transportation disruptions or accidents, or other development or operating risks.

Cautionary Note to Investors in the United States

Information contained in this handout regarding our mineral reserves has been prepared in accordance with the requirements
is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer
makes of scientific and technical information concerning mineral projects. Unless otherwise indicated, all mineral reserve
estimates contained in this handout have been prepared in accordance with NI 43-101 and the Canadian Institute of Mining,
Metallurgy and Petroleum Classification System. These standards differ significantly from the requirements of the U.S.
Securities and Exchange Commission, and mineral reserve information contained in this handout may not be comparable to
similar information disclosed by United States companies.

Qualified Persons

Information of a scientific and technical nature concerning McArthur River was prepared under the supervision of Greg
Murdock, general manager, McArthur River, concerning Cigar Lake was prepared under the supervision of Lloyd Rowson,
general manager, Cigar Lake, concerning Inkai was prepared under the supervision of Darryl Clark, consultant geologist and
concerning our reserve and resource estimates was prepared under Scott Bishop, director, technical services. Each of these
individuals is a qualified person for the purpose of NI 43-101.
The nuclear fuel cycle

1. **Mining**
   Once an orebody is discovered and defined by exploration, there are three common ways to mine uranium, depending on the depth of the orebody and the deposit's geological characteristics:
   - **Open pit mining** is used if the ore is near the surface. The ore is usually mined using drilling and blasting.
   - **Underground mining** is used if the ore is too deep to make open pit mining economical. Tunnels and shafts provide access to the ore.
   - **In situ recovery (ISR)** does not require large scale excavation. Instead, holes are drilled into the ore and a solution is used to dissolve the uranium. The solution is pumped to the surface where the uranium is recovered.

2. **Milling**
   Ore from open pit and underground mines is processed to extract the uranium and package it as a powder typically referred to as uranium concentrates (UO₂) or yellowcake. The leftover processed rock and other solid waste (tailings) is placed in an engineered tailings facility.

3. **Refining**
   Refining removes the impurities from the uranium concentrate and changes its chemical form to uranium trioxide (UO₃).

4. **Enrichment**
   Uranium is made up of two main isotopes: U-238 and U-235. Only U-235 atoms, which make up 0.7% of natural uranium, are involved in the nuclear reaction (fission). Most of the world’s commercial nuclear reactors require uranium that has an enriched level of U-235 atoms.
   The enrichment process increases the concentration of U-235 to between 3% and 5% by separating U-235 atoms from the U-238. Enriched UF₆ gas is then converted to powdered UO₂.

5. **Fuel manufacturing**
   Natural or enriched UO₂ is pressed into pellets, which are baked at a high temperature. These are packed into zircaloys or stainless steel tubes, sealed and then assembled into fuel bundles.

6. **Conversion**
   For light water reactors, the UO₂ is converted to uranium hexafluoride (UF₆) gas to prepare it for enrichment. For heavy water reactors like the CANDU reactor, the UO₂ is converted into powdered uranium dioxide (UO₂).

7. **Generation**
   Nuclear reactors are used to generate electricity. U-235 atoms in the reactor fuel fission, creating heat that generates steam to drive turbines. The fuel bundles in the reactor need to be replaced as the U-235 atoms are depleted, typically after one or two years depending upon the reactor type. The used – or spent – fuel is stored or reprocessed.

8. **Spent fuel management**
   The majority of spent fuel is safely stored at the reactor site. A small amount of spent fuel is reprocessed. The reprocessed fuel is used in some European and Japanese reactors.
Cameco will energize the world as the global leader of fuel supply for clean-air nuclear power.