

**Cobalt for the Electric Vehicle Market** 

**Putting North America in the Driver's Seat** 

PDAC CONVENTION Toronto, March 1-4, 2020

TSX-V: **FCC** OTCQX: **FTSSF** 

## **FORWARD** LOOKING **STATEMENTS**

All statements in this presentation other than statements of historical fact constitute "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995, and "forward-looking information" under similar Canadian legislation and are based on the reasonable expectations, estimates and projections of First Cobalt Corp. as of the date of this presentation. Forward-looking statements and forward-looking information include, without limitation, possible events, trends and opportunities and statements, including with respect to the state of the cobalt market, global market conditions, results of exploration activities, potential

acquisitions, capital expenditures, successful development of assets, currency fluctuations, government policy and regulation and environmental regulation. In particular, forward-looking information included in this presentation includes, without limitation, the opportunity to restart the First Cobalt refinery and targeted metrics. Generally, forward-looking statements and forward-looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", "believes", or variations of such words or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". Forward-looking statements and forward-looking information are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements and forward-looking information. Such factors include changes in supply and demand for cobalt, the results of metallurgical and engineering studies, changes in competitive pressures, timing and amount of capital expenditures, changes in capital markets, changes in exchange rates, unexpected geological or environmental conditions, changes in and the effects of, government legislation, taxation and regulations and political or economic developments, success in attracting officers for the future success of the Company's business, success in obtaining any required additional financing to advance strategic priorities, and risks associated with obtaining necessary licenses or permits.

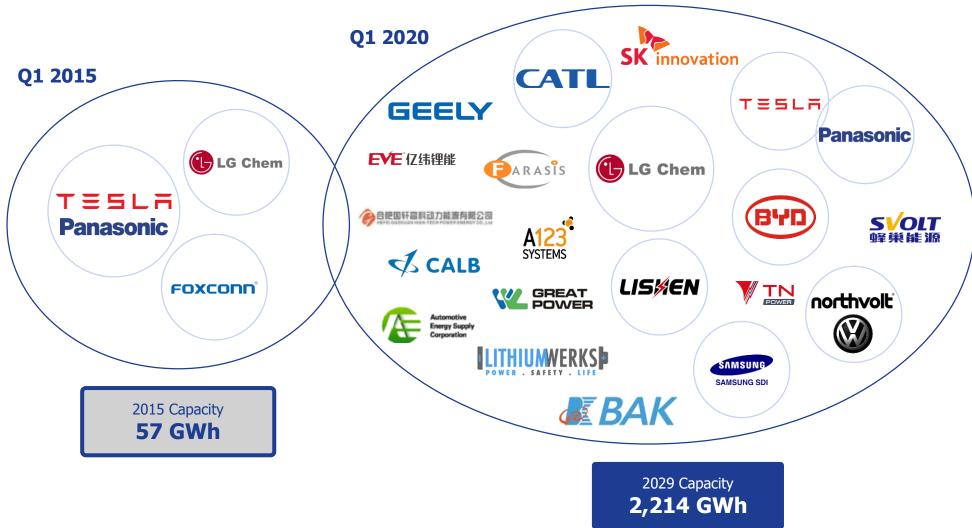
Many of these uncertainties and contingencies can affect the Company's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements and forward-looking information made by, or on behalf of, the Company. There can be no assurance that forward-looking statements and forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. All of the forward-looking statements and forward-looking information made in this presentation are qualified by these cautionary statements. Although management of the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements or forward-looking information, there may be other factors that cause results not to be as anticipated. There can be no assurance that such statements will prove to be accurate, as actual results could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements and forward-looking information. The Company does not undertake to update any forward-looking statements or forward-looking information that are incorporated by reference herein, except in accordance with applicable securities laws.

Timelines used in this presentation are for the purpose of aiding management in the planning and implementation of the projects and are not based on a detailed assessment of project requirements. Consequently, the timelines are subject to material revision as subsequent technical reports and assessments are completed. Future phases of the project are contingent upon completion of preceding phases. Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

Peter Campbell, P.Eng. and Dr. Frank Santaguida, P.Geo. are Qualified Persons as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Project ("NI 43-101") and have reviewed and approved the technical content in this presentation. Both are employed on a full-time basis as officers of First Cobalt. See website for additional Notes To Mineral Resource Estimate.



# \$600 BILLION TO BE INVESTED IN BATTERY MARKET

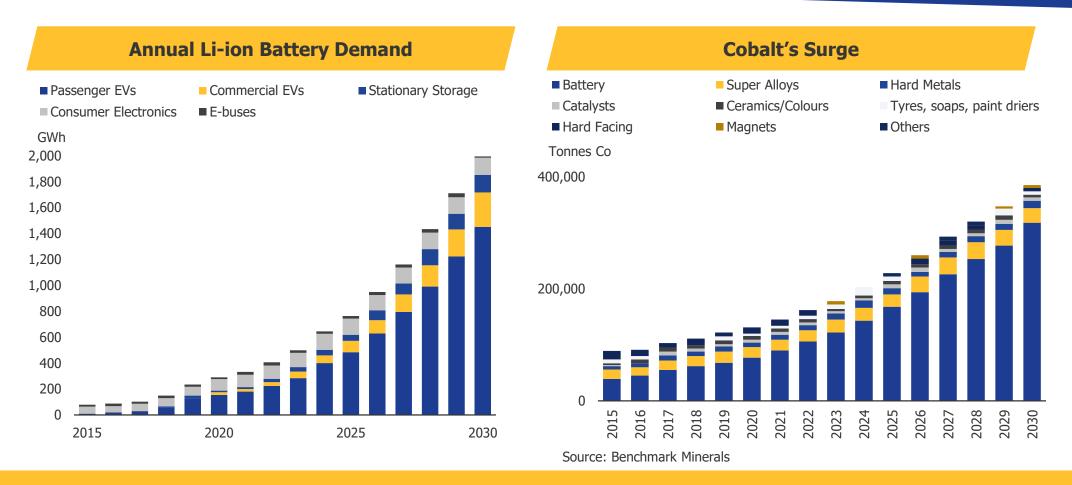


- Benchmark Minerals is tracking 115 battery plants globally
- North America is playing catch-up

Source: Benchmark Mineral Intelligence, November 2019



# COBALT DEMAND DRIVEN BY BATTERY MARKET



- Demand will soar on rise of lithium-ion batteries used in electric vehicles
- Lithium-ion batteries already account for >50% of cobalt demand today



# MINING CONCENTRATED IN DRC

	2019 Production est. (t)	Market Share	Company	Project	Location	Primary Metal
	25,000	22%	Glencore	Mutanda	DRC	Copper
	17,200	15%	CMOC	Tenke Fungurume	DRC	Copper
	14,000	8%	Glencore	Katanga	DRC	Copper
-	6,500	5%	Chemaf	Etoile & Usoke	DRC	Copper
	5,550	4%	Zhejiang Huayou Cobalt	CDM	DRC	Copper
-	5,550	4%	Hanrui	Metal Mines	DRC	Copper

- In 2019, the top 6 cobalt producers accounted for almost 60% of global mine production
- Price outlook is constructive after actions by Glencore, ERG, CTT and Huayou to limit supply, with analysts predicting a looming deficit

Source: Benchmark Mineral Intelligence



## **REFINING CAPACITY** PRIMARILY IN CHINA

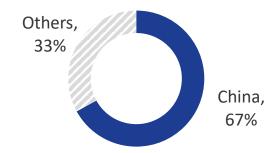
U.S. almost 100% reliant on cobalt imports for industrial and military needs

No cobalt mining or sulfate refining in North America

#### **2019 Global Cobalt Mine Production**



#### **2019 Refined Supply All Cobalt Products**



#### **Projected Refined Supply Battery-grade Cobalt**



Commanding control over cobalt used in lithium-ion batteries

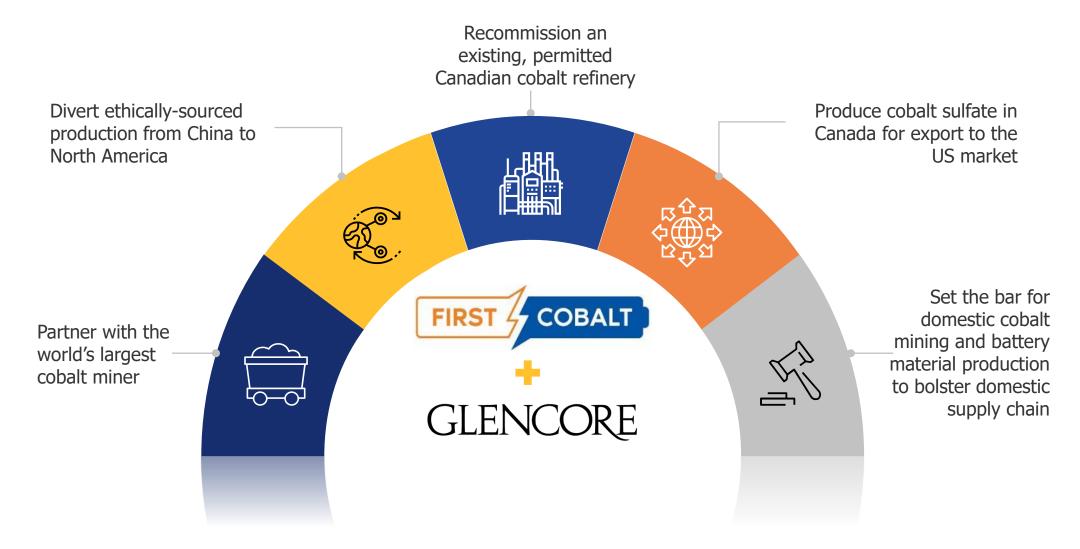


Source: Benchmark Mineral Intelligence



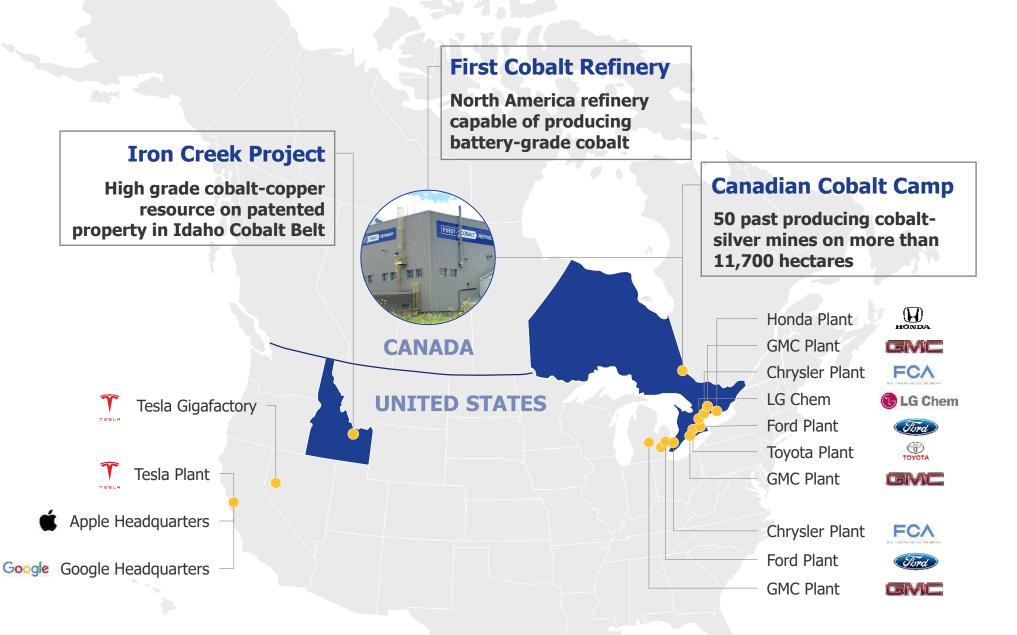
### FIRST COBALT HAS THE SOLUTION

#### An Emerging Canadian Champion, Competing on the Global Stage





### **FIRST COBALT ASSETS**





### **LEADERSHIP TEAM**



TRENT MELL President, CEO & Director



RYAN SNYDER CPA Chief Financial Officer



**GOV. BUTCH OTTER** 

**Director** Retired, Governor of Idaho ('07-'19)



PETER CAMPBELL P.ENG

Vice President, Business Development



**JOHN POLLESEL** 

Chairman Founder, Boreal Agrominerals



**SUSAN UTHAYAKUMAR** 

**Director** President, Schneider Electric Canada



DR. FRANK SANTAGUIDA P.GEO

Vice President, Exploration



**GARETT MACDONALD P.ENG** 

**Director** President & CEO, Maritime Resources



**HENRIK FISKER** 

**Special Advisor** Chairman & CEO Fisker Inc.





### **NORTH AMERICA'S ONLY PRIMARY COBALT REFINERY**

- Hydrometallurgical cobalt refinery located in Ontario, Canada
- Uniquely positioned to supply North American auto markets







Commissioned in 1996 and on care and maintenance since 2015



2020

**Potential Restart of the Refinery** 



5,000 tpa cobalt

**Production Scenario<sup>1</sup>** 



\$100M

Replacement Value (Hatch Report, 2012)

1. See Ausenco scoping study, available on our website



Successful test work using First Cobalt Flowsheet and Third-Party Cobalt Hydroxide



**Battery-grade cobalt sulfate** 

20,8%<sup>1</sup>

99.96%1

**Purity** 



Conventional process of leaching, solvent extraction & sulfate crystallization



2018 test was a single process, batch test that offers ample opportunity to further enhance product specs



2019 advanced metallurgical testing of Glencore feed material is a key deliverable for the Q1 2020 feasibility study

1. Preliminary Lab Results



# **STEP 2 – SCOPING STUDY**

Can produce cobalt sulfate or metallic cobalt for North America using Cobalt Hydroxide feed

Existing autoclave circuit not required to process cobalt hydroxide, eliminating a bottleneck

Ausenco study outlines potential to produce over 5,000 tpa of cobalt in sulfate at a capital cost of US\$37.5 million to expand the flow sheet and optimize the existing building footprint

<sup>1.</sup> Based on Ausenco scoping study. A feasibility level study is in progress to confirm the economic viability of operating the refinery.



#### Refinery (top left) and Empty Warehouse (lower right)



#### **Projected Metrics<sup>1</sup>**

Throughput	TPD	55
Capital Cost (incl. 30% Contingency)	US\$M	40
Operating Cost per lb.	US\$	2.29
<b>Head Grades</b>	%	30
Availability	%	91
Recoveries	%	95
<b>Cobalt in Product</b>	Tonnes	5,020

# STEP 3 – GLENCORE PARTNERSHIP

Fully-Funded Opportunity to Restart Refinery







**US\$5M** from Glencore to study a long-term supply agreement to treat Glencore material

Feasibility study underway for 55 tpd expansion, to produce 5,000 tonnes/yr of cobalt in content  $(\sim 7.5\% \text{ of cobalt}$ sulfate market)

Established framework to fund full expansion<sup>1</sup>

• Up to **US\$40M**, repaid from refinery cash flow

Would be the only North American cobalt sulfate supply

- Targeting 12 tpd in late 2020 for early cash generation and product qualification process
- Targeting 55 tpd in 2021

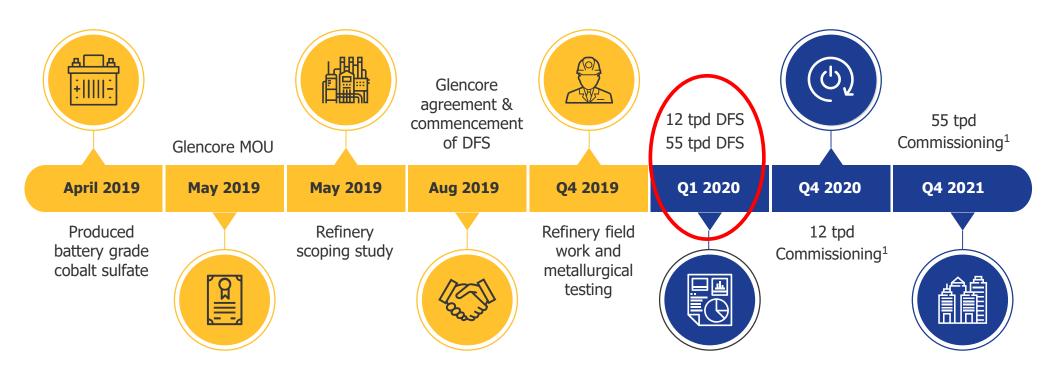
1. Subject to a positive feasibility study and negotiation of definitive commercial terms.



# STEP 4 - FEASIBILITY STUDY Pending



#### **Milestones and Upcoming Catalysts**







1. Subject to a positive feasibility study and negotiation of definitive commercial terms.

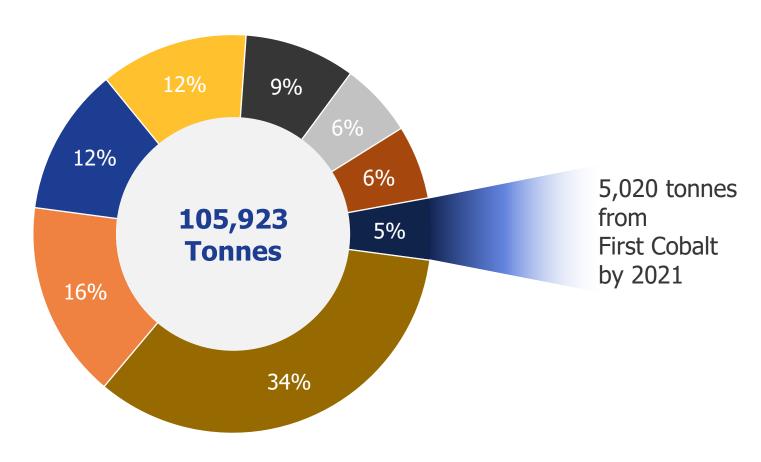


# POTENTIAL MARKET SHARE

First Cobalt could become the fourth largest cobalt refiner outside China



- Jinchuan Group
- Freeport Cobalt
- Shenzhen GEM
- Chambishi (ERG)
- Glencore
- First Cobalt
- Other









## STAKEHOLDER COMMITMENTS

#### **Vision**

 To provide an ethical supply of cobalt for the North American EV market



#### **Sustainability**

 We are committed to sustainable development and the goal of zero harm to people, the environment, and our host communities



# **Alignment with Global Climate Action**

- Supports up to 645,000 EVs on the road per year using refinery cobalt.
- (8)
- CO<sub>2</sub> reduction of 3m tonnes/year

### **Growth Opportunities**

 Opportunities to participate in growing ESG investment marketplace





### THE TIME IS NOW



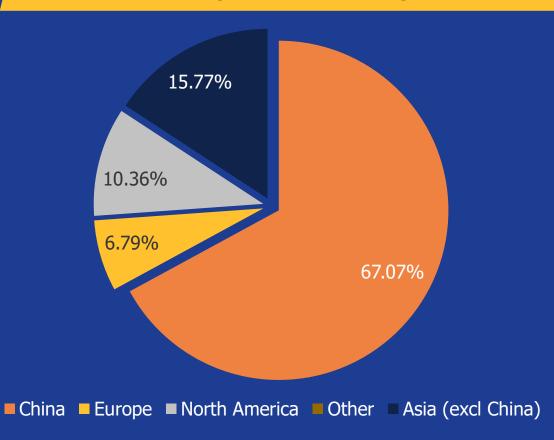
#### 2020 - Year of the Electric Vehicle

- European EV sales growth set to outpace China
- North American battery supply chain catching up

#### Global EV Penetration<sup>1</sup>

- 2019 2.8%
- · 2020 4.3%
- · 2025 17.4%

#### **Battery Cell Manufacturing 2018**





1 Benchmark Minerals 21

