

EXPLORING FOR CLEAN ENERGY

PUC Battery Metals Report

December 2018

INCLUDED IN THIS REPORT

Battery metals stock performance

- MoM and YTD exploration, developer and producer charts

Exploration News

- Cobalt shares rally after Glencore shocks market with sudden sales halt
- Why finding radioactive cobalt is a good thing for Glencore
- Nornickel aims to boost output to tap electric car boom

Political News

- South Korean EV sales rise amid air quality push
- China set to embrace electric vehicle revolution
- Australia set to be a leader in \$850 billion battery industry
- New and ethical cobalt sources are needed worldwide for electric vehicles and batteries
- Chinese nickel demand to increase, but build-up in capacity to cap prices
- Stung by Asian dominance, Germany pours cash into EV battery ventures

Electric Vehicle News

- Electric cars real world range reviewed
- Volvo and Baidu join forces to mass produce self-driving electric cars in China
- China has record electric car sales month
- Chevy's new electric Camaro is the near future of EV drag racing
- 2019 will be litmus test for electric vehicles
- Volkswagen to devote 3 German plants to electric car push

+++ PLUS: Lots of news on Battery Metals Supply & Demand

COMMODITY PRICES (in US\$ per tonne)

	Nickel (Ni)	Cobalt (Co)	Copper (Cu)	Gold* (Au)
October 31, 2018	\$11,620.00	\$54,500.00	\$6,072.00	\$1,213.60
November 30, 2018	11,010.00	\$54,750.00	\$6,237.00	\$1,220.60
Change (+ -)	\$610.00 ↓	\$250.00 ↑	\$165.00 ↑	\$7.00 ↑

Source: The London Metal Exchange

* Gold price per ounce

THE BATTERY BOOM TO ATTRACT \$620 BILLION IN INVESTMENT BY 2040

Source: [Bloomberg News](#)
November 20, 2018

The battery boom is coming to China, California and basically everywhere else—and it will be even bigger than previously thought.

The global energy-storage market will surge to a cumulative 942 gigawatts by 2040, according to a new forecast from Bloomberg NEF published Tuesday, and that growth will necessitate \$620 billion in investment. Sharply falling battery costs is a key driver of the boom. BNEF sees the capital cost of a utility-scale lithium-ion storage system falling another 52 percent by 2030.

But cost isn't the only factor. Governments from China to California are spurring demand, as is the rise of electric vehicles and solar power. There's also been a greater focus on storage for electric-vehicle charging as well as energy access in remote areas.

"Costs have come down faster than we expected," Yayoi Sekine, a New York-based analyst at BNEF, said in an interview. "Batteries are going to permeate our lives."

The implications of cheaper batteries are far-reaching, upending multiple industries and helping spur technologies necessary to help fight climate change. Batteries power the electric vehicles that are popping up on our freeways. They also unlock solar power from the exclusive confines of the sun.

Two important markets come into particular focus. China, which is building up its battery-manufacturing capacity, will be a central player in the boom. California, meanwhile, has pushed through a series of measures in recent years that will directly or indirectly spur more batteries, including legislation that would require all of the state's electricity to come from carbon-free sources by 2045.

CONTINUED ON PG 4

PANCONTINENTAL RESOURCES CORPORATION (TSXV: PUC)

Pancontinental Resources Corporation ("Pancon" or the "Company") (TSXV: PUC) is a Canadian-based mining company focused on exploring and developing 4 nickel-cobalt-copper projects in Ontario :

- Three early stage projects near Timmins: Montcalm, Nova and Gambler Projects, and
- The advanced stage McBride Project near Bancroft

Pancon's purpose is generating value through responsible exploration. Our strategy is to create value from prospective assets in areas with existing resources and/or in proximity to producing or former mines.

The Company also holds a 100% interest in the Jefferson Gold Project in South Carolina, USA. In 2015, Pancon sold its interest in its Australian rare earth element (REE) and uranium properties, formerly held through a joint venture, and retains a 1% gross overriding royalty on 100% of future REE production.

MONTHLY PUC BATTERY METALS REPORT

Presented by Pancon, the monthly Battery Metals Report highlights the latest news on the Battery Metals space.

It includes news that affects the market as well as companies that are exploring, developing and producing essential minerals and materials that will lead a clean energy revolution.

BE IN THE KNOW

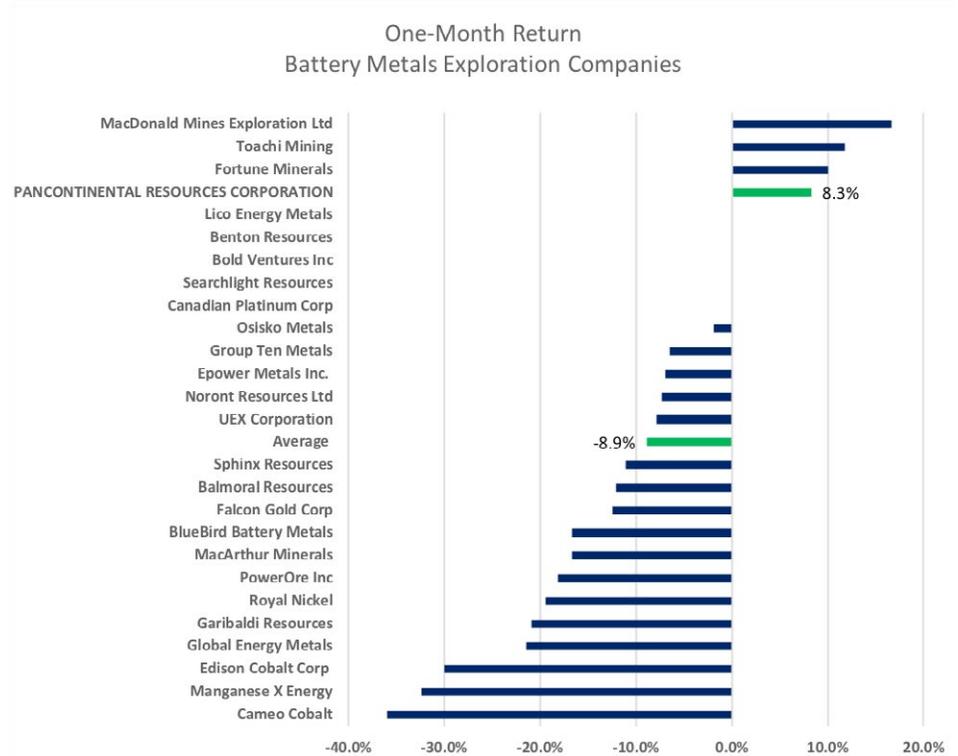
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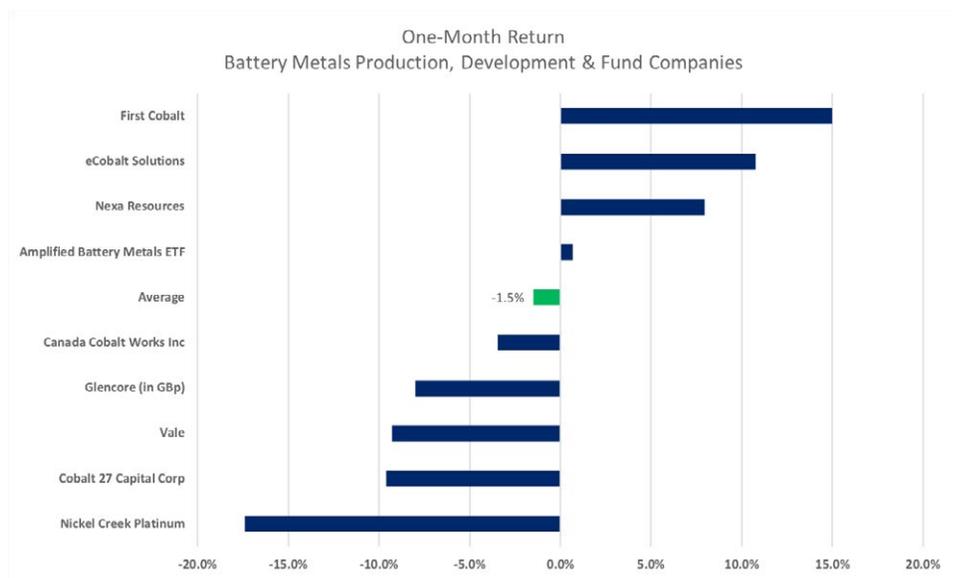
[@PanconResources](#)

BATTERY METALS MONTH-OVER-MONTH STOCK PERFORMANCE

Battery Metals Explorers

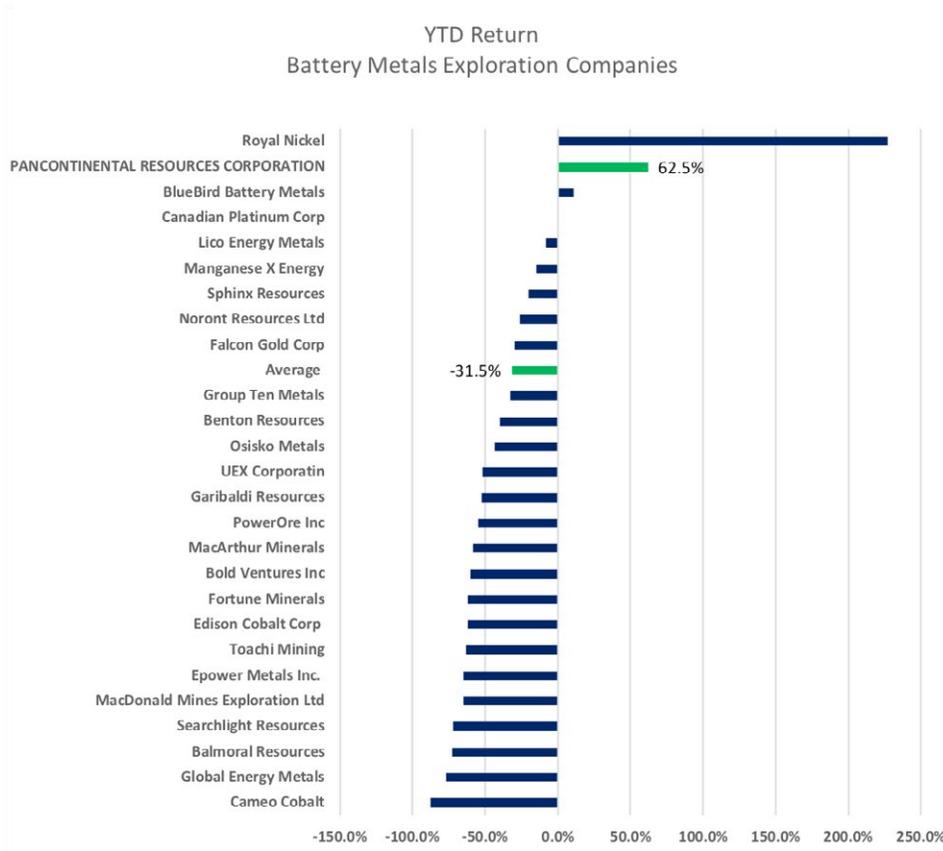


Battery Metals Producer/Developers and Funds

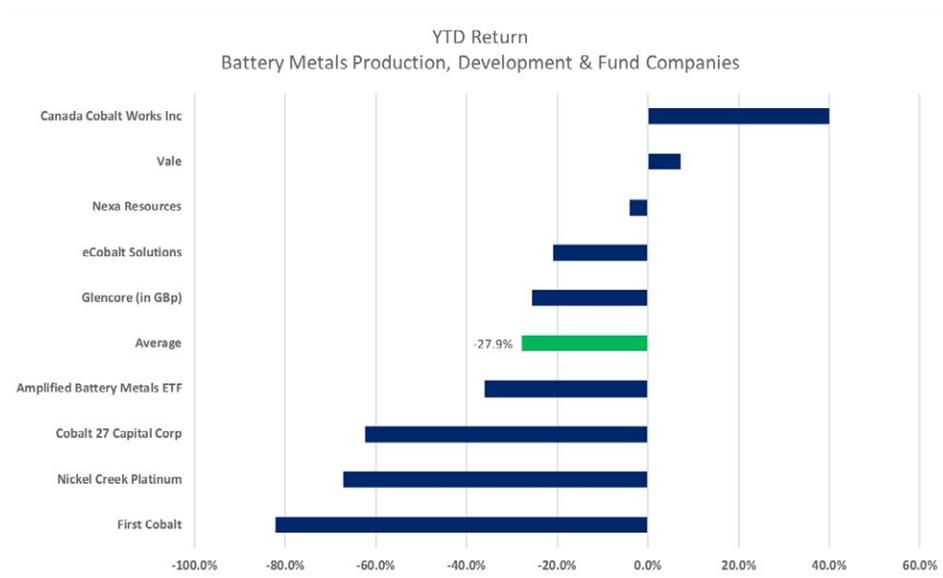


BATTERY METALS YEAR-TO-DATE STOCK PERFORMANCE

Battery Metals Explorers



Battery Metals Producer/Developers and Funds



MONTCALM PROJECT

The Montcalm Project (3,780 hectares, 37.8 square kilometres) is located within the prospective Montcalm Gabbro Complex in the Montcalm Greenstone Belt, 65 kilometres northwest of Timmins, Ontario. The Project is contiguous to and surrounds the western, northwestern and southwestern portion of the former Montcalm Mine, which was discovered and developed based on a single airborne electromagnetic anomaly identified in the 1970s and previously mined 3,931,610 tonnes of ore grading 1.25% nickel (Ni), 0.67% copper (Cu), and 0.051% cobalt (Co), producing in excess of 4 million pounds of Co (Ontario Geological Survey, Atkinson, 2011).

NOVA PROJECT

Also located in the Montcalm Greenstone Belt, the Nova Project (2,080 hectares) is located 19 kilometres southwest of Glencore's former Montcalm Mine.

Regionally, the Nova Project covers a portion of the eastern boundary of a major regional structure known as the Kapuskasing High (also known as the Kap High).

Very little exploration has been conducted on this structure until recently, leading up to Goldcorp's recent announcement of plans to develop its Borden Lake Gold Mine, located in the Kap High.

GAMBLER PROJECT

The Gambler Project is adjacent to the Montcalm Project and covers 7,620 hectares (76.2 square kilometres) of the Montcalm Gabbro Complex in the Montcalm Greenstone Belt.

MCBRIDE PROJECT

The McBride Project is an advanced-stage nickel-cobalt-copper project, covering 880 hectares of patented mining land located in Limerick Township, 25 km south of Bancroft, Ontario. The project contains Historical Resources of an estimated 5.1 million tons of near-surface nickel-cobalt-copper mineralization that includes the North Zone deposit, the South Zone deposit, and the South Extension prospect [Reno Pressacco, Micon International Limited ("Micon"), 2004, NI 43-101 Technical Report].

THE BATTERY BOOM TO ATTRACT \$620 BILLION IN INVESTMENT BY 2040 (cont'd)

"Storage is just so sensibly the next step in the evolution of renewable energy," Edward Fenster, the executive chairman of San Francisco-based rooftop-solar company Sunrun Inc., said in an interview. "If we're going to get to 100 percent renewable energy, we'll need storage."

Here are six key takeaways from the latest BNEF battery forecast:

Cumulative energy-storage deployments are now forecast to exceed 50 gigawatt-hours by 2020. That's three years earlier than BNEF's outlook from just last year. Energy storage may be equivalent to 7 percent of the world's total installed power capacity by 2040. The Asia-Pacific region will be home to 45 percent of total installations on a megawatt basis by 2040. Another 29 percent will be spread across Europe, Middle East and Africa. The remainder will be in the Americas. The majority of storage capacity will be utility-scale until the mid-2030s. But then so-called behind-the-meter projects—installations at businesses, industrial sites and residential properties—will overtake utility-scale. A list of the leading battery countries is topped by who you would expect: China, U.S., India, Japan, Germany, France, Australia, South Korea and the U.K. South Korea today dominates the market but will be overtaken by the U.S. early in the 2020s—and both will later be eclipsed by China. Storage is coming to developing countries in Africa, too. BNEF explains it thusly: utilities will likely recognize that the combination of solar, diesel and batteries in "far-flung sites" is cheaper than extending the power grid or building a fossil-only generator. ■

BATTERY METALS SUPPLY & DEMAND TOP NEWS

[Researchers propose a cheap nickel-hydrogen battery for grid storage](#)
November 1, 2018

[New battery tech that could power a flight?](#)
November 1, 2018

[Can we source cobalt legally and ethically to fuel electric cars?](#)
November 2, 2018

[Bullish Cobalt 27 chief ready to turbocharge Swiss summit](#)
November 5, 2018

[Big investors are loving small nickel and copper stocks as electric car market grows](#)
November 6, 2018

[Electric car batteries will contribute \\$1.2 Trillion to global economy](#)
November 9, 2018

[Different cogs in the EV revolution moving in unison to make the shift to EVs a reality](#)
November 9, 2018

[EV growth to boost nickel consumption](#)
November 12, 2018

[Cobalt disruption could prevent surplus next year and support pricing](#)
November 12, 2018

[EV solid state battery technology likely a decade away](#)
November 13, 2018

[Cobalt – a potential bottleneck in the transition to electric mobility](#)
November 14, 2018

[The popularity of electric vehicles are influencing cobalt demand](#)
November 20, 2018

[The battery boom to attract \\$620 billion in investment by 2040](#)
November 21, 2018

[EV sales to see a big lift over the next 2 to 3 years](#)
November 22, 2018

[Electric car revolution could stall on cobalt shortage](#)
November 23, 2018

[Goldman predicts commodities will soar in 2019](#)
November 26, 2018

[Electric vehicles motor ahead towards inflection point](#)
November 27, 2018

[Electric vehicles to grow battery market tenfold by 2025, UBS says](#)
November 27, 2018

[The world's largest network on EV chargers just raised another \\$240 million](#)
November 28, 2018

EXPLORATION NEWS

[Cobalt shares rally after Glencore shocks market with sudden sales halt](#)
November 8, 2018

[Why finding radioactive cobalt is a good thing for Glencore](#)
November 8, 2018

[Nornickel aims to boost output to tap electric car boom](#)
November 20, 2018

POLITICAL NEWS

[South Korean EV sales rise amid air quality push](#)
November 6, 2018

[China set to embrace electric vehicle revolution](#)
November 7, 2018

[Australia set to be a leader in \\$850 billion battery industry](#)
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[New and ethical cobalt sources are needed worldwide for electric vehicles and batteries](#)
November 7, 2018

[Chinese nickel demand to increase, but build-up in capacity to cap prices](#)
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[Stung by Asian dominance, Germany pours cash into EV battery ventures](#)
November 12, 2018

ELECTRIC VEHICLE NEWS

[Electric cars real world range revealed](#)
November 1, 2018

[Volvo and Baidu join forces to mass produce self-driving electric cars in China](#)
November 2, 2018

[China has record electric car sales month](#)
November 3, 2018

[Chevy's new electric Camaro is the near future of EV drag racing](#)
November 5, 2018

ELECTRIC VEHICLE NEWS (CONT'D)

[2019 will be litmus test for electric vehicles](#)
November 8, 2018

[Volkswagen to devote 3 German plants to electric car push](#)
November 16, 2018

[Tesla challenger Xpeng to roll out first electric car designed to promote China's EV market](#)
November 19, 2018

[Company leadership on electric vehicles: there is no middle road](#)
November 20, 2018

[Electric vehicle adoption through the consumer lens](#)
November 20, 2018

CANADA & THE GREEN ECONOMY REVOLUTION

How Canada's mining sector impacts the economy

Canada is primed to respond to growing global demand for commodities required in clean energy technologies.

Canada is a key global producer of copper, nickel and cobalt, and hosts advanced mineral projects for rare earth elements, lithium and graphite. These commodities are crucial in the production of solar cells, high-density batteries and wind turbines.

In 2017, the minerals sector directly and indirectly contributed \$97 billion or 5% to Canada's total nominal GDP.

The minerals sector directly and indirectly accounted for 634,000 jobs throughout the country in urban, rural and remote regions in 2017.

The minerals industry is an important employer of Indigenous peoples, providing jobs to over 16,500 individuals in 2017.

Source: [Natural Resources Canada](#)

MANAGEMENT TEAM

Layton Croft, President & CEO: More than 25 years of leadership and management experience in North America, Asia, Europe, Africa and Latin America, including executive and strategic advisory roles with Ivanhoe Mines, Rio Tinto, Peabody Energy and Duke Energy. Director of Erdene Resource Development (TSX: ERD) since 2015.

Kevin Filo, P.Geo., Montcalm, Nova & Gambler Project Manager: Exploration geologist, mining geologist and project generator with nearly 40 years of experience, including 30 years in the Abitibi Greenstone Belt region, Ontario. Former VP Exploration for acquisition team which acquired the Detour Gold Mine from Placer Dome, now one of the largest gold mines in Canada.

Todd Keast, P.Geo., Consultant Geologist: Exploration and project geologist with nearly 30 years of experience in a diverse field of commodities. With an active approach to exploration, has advanced projects from grassroots target generation and evaluation through to deposit discovery, delineation, environmental permitting and PEA.

Mark McMurdie, CFO: Chartered Professional Accountant with more than 30 years of senior leadership experience in public and private companies. Currently serving as CFO for Roscan Minerals (TSX-V: ROS), as well as Director of Finance for franchisor H&S Massage Spa Canada.

Jeanny So, Manager, External Relations: More than 15 years of investor relations, public relations, corporate affairs, corporate development and communications experience in the natural resource sector. She also serves as a consultant to Purepoint Uranium Group (TSXV: PTU) and is a member of Prospector and Developers Association of Canada (PDAC) and Women In Mining.

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Qualified Person: The technical information in this newsletter has been prepared in accordance with Canadian regulatory requirements as set out in NI 43-101 and reviewed and approved by J. Kevin Filo, P.Geo., a Qualified Person as defined by NI 43-101, a member of Pancon's Technical Advisory Committee, and Pancon's Project Manager for the Montcalm, Nova and Gambler Projects. Certain technical information within this newsletter is historical in nature and pre-dates NI 43-101 standards, this information is believed to be reliable however the Company has not verified this material.

CAPITAL STRUCTURE

Shares Outstanding	141,542,854
Share Price (11-30-18)	\$0.065
52 Week Range	\$0.09 / \$0.02
Average Daily Volume	45,000
Options	11,500,000
Warrants	13,835,000
Fully Diluted	166,877,854
Insider Ownership	10%
Institutional Ownership (CMP, Dundee, Ninepoint)	22%
Cash on Hand (09-31-18)	\$380,000

BOARD OF DIRECTORS

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Layton Croft
Rick Mark
David Mosher
David Petroff

TECHNICAL ADVISORY COMMITTEE

Dr. Laurie Curtis (Chairman)
David Mosher
Kevin Filo, P.Geo.
Todd Keast, P. Geo.

CONTACT INFORMATION

Twitter:
@PanconResources

Website:
www.panconresources.com

Email:
info@panconresources.com

Mailing Address:
365 Bay Street, Suite 400
Toronto, ON, M5H 2V1

Telephone:
+1.416.293.8437