

Leading Producers and Junior Miners Who Benefit as EV Boom Drives Cobalt Demand

written by Matt Bohlsen | March 1, 2023

Cobalt is a key component of the lithium-ion ("Li-ion") battery used in electronics and many types of electric vehicles ("EVs"). The EV boom is causing cobalt demand to surge higher.

In 2021, the International Energy Agency [forecasted](#) that cobalt demand could grow between **6x to 21x** from 2020 to 2040 depending upon various scenarios. The main driver is the forecast surge in sales of EVs. Our Trend Investing [forecast](#) is for a **5.7x** increase from 2020 to 2037. The reason it is lower than the IEA is due to the emergence of lithium-iron-phosphate ("LFP") batteries which do not use cobalt. Nonetheless, a 5.7x increase is still very significant, especially when we consider that cobalt has the most difficult supply chain of all EV metals.

The cobalt market is currently quite balanced with a mild surplus as demand from electronics remains weak; however, Trend Investing forecasts that by 2027 onwards this will become a growing deficit, assuming EVs sales continue to grow strongly.

As a result of the above, the cobalt price ([US\\$15.20/lb](#)) and many of the cobalt miner's stock prices are depressed allowing a more attractive entry point for long-term investors into the sector.

Trend Investing vs IEA demand forecast for EV metals

Trend Investing v IEA demand forecast for EV metals ([Trend Investing](#)) ([IEA](#))

Increase in metal demand 2020 to 2037 (100% EV and sustainable energy world)			
	Trend Investing (f) to 2037	IEA (f) to 2040	
Lithium demand	35	13 --42	
Cobalt demand	5.7	6--21	
Nickel demand	2.8	7--19	
Manganese demand	1.7	3--8	
Flake Graphite demand	17	8--25	
NdPr demand	5.9	3--7	
Copper demand	2.3	2--3	

Sources: [IEA](#) and [Trend Investing](#)

The leading cobalt miners in 2023

[Glencore PLC](#) (LSE: GLEN | OTC: GLCNF | HK: 805) is the leading global producer of cobalt with production of [43,800t](#) in 2022. Most of this production came from the Democratic Republic of the Congo ("DRC"). In 2023, Glencore's guidance is for the production of [38,000t of cobalt plus or minus 5,000t](#). On the plus end, this would lead to the production of 43,000t in 2023 or slightly lower than the production in 2022.

From the Mutanda and Katanga mines in the DRC, Glencore has the potential to increase cobalt supply to approximately 57,000 tonnes-per-annum ("tpa") if market conditions suit. They also produce about 3,000tpa from their Murrin Murrin operation in Australia. Given total global cobalt supply was approximately 200,000t in 2022 it means that Glencore is a critical player in the market and can influence pricing by altering its supply. Glencore has agreed to [supply General Motors Co. \(NYSE: GM\)](#) with cobalt from its Murrin Murrin operation in Australia.

[CMOC Group Limited](#) (HKSE: 3993 | SHE: 603993 | OTC: CMCLF)

(formerly China Molybdenum) is the second largest global producer of cobalt producing [18,501t](#) in 2021 from their Tenke Fungurume mine in the DRC. For the first 3 quarters of 2022, CMOC's cobalt production stood at 15,300t. However, 2022 has seen a dispute with the DRC's Gecamines which has resulted in exports being suspended since July 2022. On a more positive note, CMOC [announced](#) in January 2023 that mining from their other DRC mine (KFM copper-cobalt mine) had begun.

[Zhejiang Huayou Cobalt](#) (SHA: 603799) is the third largest global cobalt producer at around 20,000tpa. They also rely on mines in the DRC. Huayou Cobalt [agreed to supply cobalt](#) to Tesla, Inc. (NASDAQ: TSLA) from July 1, 2022 until 2025.

Other cobalt producers

Other global cobalt producers include **Eurasian Natural Resources Corp. (private)**, **GEM Co Ltd. (SHE: 002340)**, **Jinchuan Group International Resources (HK: 2362)**, **Shalina Resources subsidiary Chemaf**, and several other smaller cobalt producers such as **Vale SA (NYSE: VALE)**, **Norilsk Nickel**, **Sumitomo Metal Mining Co. (TYO: 5713)**, **Sheritt International Corporation (TSX: S | OTC: SHERF)**, **Korea Resources Corporation**, **Umicore SA (Brussels: UMI | OTC: UMICY)**, and [Nickel 28 Capital Corp.](#) (TSXV: NKL).

Junior cobalt miners

The most advanced junior cobalt miners are **Jervois Global Limited (ASX: JRV | TSXV: JRV | OTCQX: JRVMF)** and **Electra Battery Materials Corporation (NASDAQ: ELBM | TSXV: ELBM)**. Jervois aims to commence commercial concentrate production by the end of Q1/2023 from their Idaho Cobalt Operations in the USA. Jervois also now owns the Kokkola producing refinery in Finland and plans to have a second refinery in Brazil up and

running [by the end of Q1/2024](#).

Electra targets to have their Ontario cobalt refinery (North America's first cobalt sulphate refinery) operational with ore feed from Glencore by the [Spring of 2023](#). They are also working on battery recycling and own the [Iron Creek Cobalt-Copper Project](#) in Idaho, USA.

Closing remarks

The cobalt market is quite small and is dominated by supply from the DRC, making it a rather risky market from a supply chain point of view. The current slowdown in electronics (smartphones, PCs) sales has temporarily hurt cobalt demand. Looking ahead this should recover and as electric car sales grow the demand for cobalt rises dramatically. It is looking like a fairly tight market from now to 2027, but from 2027 onwards the world will need multiple new junior cobalt miners to meet supply.