



## Weekly Precious Metals News Articles: August 5, 2022

*Distribution: If you no longer wish to be on this mailing list, send me a note. If others want to be added to distribution, again let me know.*

**Below is a cross section of relevant news article to the world of Precious Metals:**

Markets, Supply & Demand, Investment, and Industrial Applications.

**Printable PDF version attached.** Enjoy-

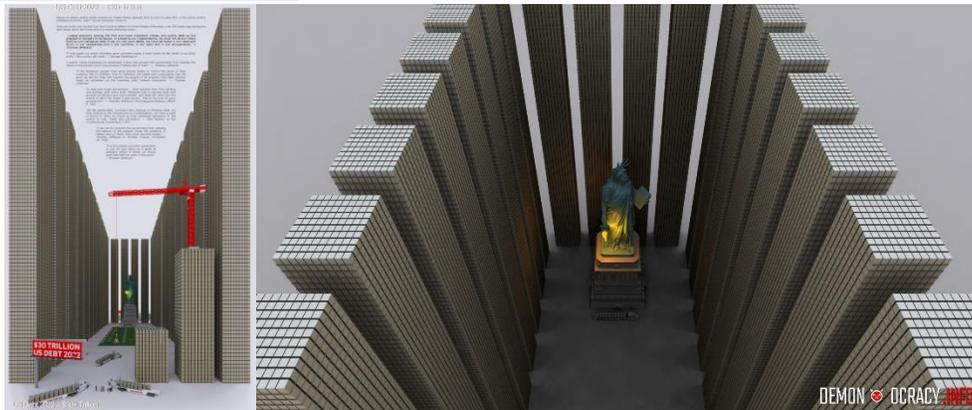
### Gold



**Friday LBMA: Gold \$1,783.20/toz Silver \$20.26/toz**

- **Switzerland Bans Imports of Russian Gold and Gold Products**
  - The Swiss government has banned imports of Russian gold and gold products.
  - The measure, which came into effect Aug. 3 as part of new sanctions on Russia in response to its invasion of Ukraine, covers the purchase, import and transport of gold and gold products as well as services connected to them. Similar bans were made by the U.S. and European Union in a bid to curtail Russia's effort to alleviate other sanctions by selling off its gold reserves.
- **Gold dips nearly 1% as robust U.S. jobs data eases recession concerns**
  - Gold prices extended losses to slide nearly 1% on Friday as an encouraging U.S. jobs report eased recession worries and raised hopes the Federal Reserve will stick to its aggressive tightening path.
  - Spot gold fell 0.92% to \$1,774.97 per ounce, while U.S. gold futures eased 0.87% to \$1,791.1.
  - "Gold had recently rallied on the thought that the Fed will shift from hawkish to dovish. But the jobs data shows the U.S. economy is strong and this can prompt Fed to be more aggressive, which is not a good story for gold," said Bart Melek, head of commodity strategies at TD Securities.
- **'Calm before the storm': Canadian banks expected to start shoring up reserves as consumer credit risks build**
  - Pressure is building on consumers amid rising interest rates and the loss of pandemic loan supports

- Canada's big banks may need to start shoring up their loan-loss provisions as the economic cycle turns and they eye growing consumer credit risks, according to a new report from Toronto-based Veritas Investment Research.
- [\*\*US Debt Visualized in \\$100 Bills\*\*](#)



## Semiconductor Related Articles (impacting Precious Metals electronics):

- [\*\*Global Semiconductor Sales Increase 13.3% in Q2 2022 Compared to Q2 2021\*\*](#)
  - The Semiconductor Industry Association announced worldwide sales of semiconductors totaled \$152.5 billion during the Q2'22, +13.3% over the Q2'21 and 0.5% more than the first quarter of 2022.
- [\*\*U.S. Passes Landmark Act to Fund Semiconductor Manufacturing\*\*](#)
  - CHIPS and Science Act of 2022 provides billions for new fabs and other incentives
  - Legislation aimed at increasing semiconductor manufacturing in the United States has finally passed both houses of Congress, following a multiyear journey that saw many mutations and delays. The CHIPS and Science Act, provides about US \$52 billion over 5 years to grow semiconductor manufacturing and authorizes a 25 percent tax credit for new or expanded facilities that make semiconductors or chipmaking equipment. It's part of a \$280 billion package aimed at improving the United States' ability to compete in future technologies. And it comes amidst efforts by other nations and regions to boost chip manufacturing, an industry increasingly seen as a key to economic and military security.
- [\*\*Materion Establishes New Facility to Accelerate Growth in the Semiconductor and Electric Vehicle Markets\*\*](#)
  - Materion, a world leader in high-performing advanced materials, announced today that it has established a new facility in Milwaukee, Wisconsin to accelerate the growth of advanced chemical solutions for the semiconductor and electric vehicle (EV) battery markets.
  - The new 150,000 square foot facility expands the company's capacity to produce Atomic Layer Deposition (ALD) materials for the most sophisticated semiconductor chips and provide advanced chemicals for the development of next-generation battery technology for EV's. Prod
- [\*\*TSMC Arizona fab nears completion\*\*](#)
  - TSMC held recently a topping-out ceremony for a new 5nm fab in the US state of Arizona, according to the pure-play foundry. TSMC is scheduled to kick off equipment move-in at the Arizona fab in the second half of 2022, the company disclosed previously. The foundry expects to enter volume production at the phase-one facility of the fab, designed for a monthly production capacity of 20,000 wafers, in the first quarter of 2024.
- [\*\*Toshiba energizes PV-powered hydrogen refueling station in Japan\*\*](#)

- The system is reportedly able to refill about eight hydrogen fuel cell vehicles, each in three minutes. It is also able to supply electric power by using hydrogen produced with renewable energy within the station.
- [Microsoft to deploy H<sub>2</sub> fuel cell system that could replace diesel-powered data center generators](#)
  - Microsoft Corp. said it has conducted a successful test of a large, three-megawatt hydrogen fuel cell system that could one day serve as an environmentally friendly backup power source in its data centers.
- [TSMC 'non-operable' if China invades Taiwan: Chairman](#)
  - When asked by Zakaria what would happen to Taiwan and its economy if China were to invade, Liu replied that a war would have "no winners." The impact of such a conflict would go well beyond semiconductors, and would bring about the "destruction of the world's rules-based order" and "totally change" the geopolitical landscape, he said.
  - On the question of TSMC's integral role in the Chinese economy, Liu suggested that he viewed it as more of a deterrent to war than a risk. Because an invasion or military attack would render the company's factories "non-operable," Liu said that this meant "nobody can control TSMC by force."
- [US, Japan reaching for a 2-nm chip breakthrough](#)
  - Reports say two sides jointly aim to make leading-edge 2-nm chips by 2025 in state-led bid to hedge their mutual exposure to TSMC
  - The joint statement is short on detail, but according to reports in the Japanese press, a new R&D organization with significant US participation will be established in Japan by the end of this year to develop and prove the 2-nm technology with a goal of starting production by 2025.
  - TSMC also aims to start 2-nm production in 2025 but has already started building a factory. The US and Japan are playing catch-up, likely driven in part by fear of a Chinese take-over of Taiwan. IBM announced a 2-nm design in May 2021 but it is not ready for mass production.

## Silver

- [Global solar capacity to grow 30% this year, said analyst](#)
  - Bloomberg senior clean energy analyst Rob Barnett forecasts a 30% increase in global PV deployment this year, and double-digit growth through 2025.
  - "The global solar picture is just staggering at this point," Barnett told Yahoo Finance. "We are on track to install something like 250 gigawatts of solar capacity this year."
- [DSP MF launches silver ETFs amidst market volatility](#)
  - DSP Investment Managers launches a silver ETF, which will invest in physical silver and silver related instruments. Investment in silver can be a hedge against traditional equity and debt products.
  - Silver ETF is more suited to experienced investors who understand commodity cycles.
- [Gold, Silver ETFs Are Climbing](#)
  - Precious metals-related exchange traded funds surged Thursday as traders looked to hedge against lingering geopolitical tensions and turned to hard assets with U.S. Treasury yields slipping.
  - Among the better-performing non-leveraged ETFs of Thursday, the ETFMG Junior Silver Miners ETF (SILJ) advanced 5.5%, the VanEck Vectors Gold Miners ETF (GDXJ) increased 5.5%, the Global X Silvers Miners ETF (SIL) rose 4.7%, and the VanEck Gold Miners ETF (GDX) gained 4.2%.
  - Meanwhile, the SPDR Gold Shares (GLD) was +1.6% & iShares Silver Trust (SLV) +0.7% as Comex gold futures pushed +1.7% to \$1,806.20/toz and Comex silver futures +1.2% to \$20.10/toz.
- [Silver Market \(Manipulated\) could now move Forcefully to the Upside](#)

- The pain in the silver market could soon find some relief. While the monetary and industrial metal is down substantially from a year ago (-27%), King World News points to the latest Silver Hedgers Position report as showing “The setup in the silver market has turned extremely bullish.”
- “There is no question the setup in the silver market is extremely bullish at this point from a historic perspective,” King World News writes, adding that “right now and on any further weakness it is a good idea to be extremely aggressive in accumulating physical silver.”

## **Precious Metals Mining:**

- **Falling mine production is key to gold and silver's long-term bull market**
  - In a report published Tuesday, Erik Norland, Exec. Dir. & Sr. Economist at CME Group, said that falling mine supply in gold and silver should provide long-term support for prices as demand remains robust.
  - He noted that between 2016 and 2021, mining production in gold fell 7%. At the same time, the silver mine supply has dropped 8.5%.
  - "A reduction in new supplies may be part of the reason why precious metals prices rose over the last five years," he said in the report.
- **Impala Platinum 3.6% Decline in Gross Concentrate Volumes for FY 2022**
  - Gross concentrate volumes fell to 3.17 million 6E ounces from 3.29 million 6E ounces a year earlier, the company said.
  - Sales volumes were 3.15 million 6E ounces, compared with 3.27 million 6E ounces, it said.
- **Zimbabwe to Double Royalty Rate on Platinum Group Metals**
  - Zimbabwe will double the royalty rate it charges mining companies on the platinum group metals (PGMs) they produce to 5% from January 2023 in a bid to increase government revenues, Finance Minister Mthuli Ncube announced on Thursday.
  - The southern African country is the third largest producer of platinum, after South Africa and Russia, with major miners Anglo American Platinum AMSJ.J, Impala Platinum IMPJ.J and Sibanye Stillwater SSWJ.J operating there.
- **Northam Platinum is a good bet for investors who think PGM prices peaked in 2021**
  - Northam is expected to double production from 2020 to ~1 Moz in 2026. This is a powerful argument for the stock in the context of inflation as higher volumes provide an opportunity for lower unit costs. On this basis, the company is strongly cash generative and according to Hammond could be net debt free within 18 months of taking a controlling stake of RBPlat should it eventually turn out that way.

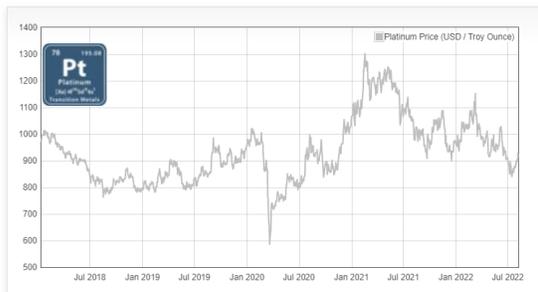
## **E-Waste & Precious Metals Recycle Related:**

- **Japanese metals giant buys Canadian e-scrap processor**
  - Japanese company JX Nippon Mining and Metals has purchased one of Canada’s largest e-scrap companies, eCycle Solutions. It’s the second example in the past month of an Asian smelting giant acquiring North American e-scrap operations to ensure a steady supply of feedstock.
  - JX Nippon Mining and Metals announced on Aug. 3 it bought 100% of the shares of eCycle Solutions from Montreal-based Horizon Capital Holdings. A press release did not disclose the sale price.
  - The acquisition came less than a month after Korea Zinc acquired Igneo Technologies, which owns fast-growing U.S. e-scrap recycling company evTerra.
  - *Matt: JX is the biggest PVD maker for semiconductor, and is one of the worlds largest Copper miners. Entering into the crowded Japanese e-waste market actually makes a lot so sense for JX Nippon.*
- **Turning E-Waste Back Into Tech**
  - REEs are strategic resources in high demand but in limited supply for advanced clean energy and defense technologies. Domestic pathways for securing supply chains are needed.

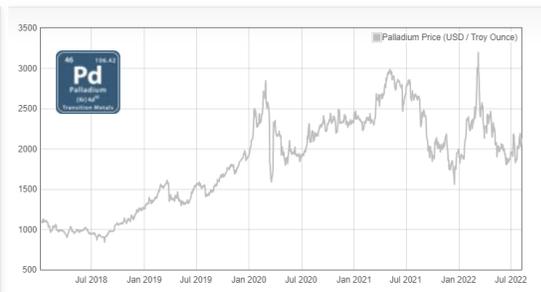
- Researchers previously demonstrated a method for recycling scrap permanent magnets in consumer electronics using membrane solvent extraction. Now the technology has met a critical step toward deployment. The system has been scaled up to achieve high-purity separations, as reported in *Advanced Engineering Materials*. “The system is modular and scalable with a small footprint and minimal waste,” said ORNL’s Ramesh Bhawe.
- “We’re working with partners toward commercialization and exploring applications to recycle REEs used in growing technology areas, such as wind power and electric vehicles,” said ORNL’s Syed Islam.
- [Here are tips to help deter catalytic converter theft](#)
  - A mechanic at Courtesy Chevrolet in Phoenix applies acid to a Safecat sticker. The acid will eat into the metal through the perforations in the sticker, etching the code onto the catalytic converter.
- [Umicore reports slight profit dip](#)
  - Umicore says its first-half results were the second highest in its history, despite what it calls “severe market disruptions, rising cost inflation and a volatile precious metal price environment.”
  - The company says revenue & earnings in its Recycling business unit decreased, “reflecting primarily the impact of a lower precious metal price environment in precious metals refining & management.”
  - As with its overall results, Umicore describes those from the Recycling unit as “below the record levels of the previous year [but representing] the second-highest level achieved in the history of the Recycling business group.”

## Platinum

Platinum Prices for the Last 5 Years



Palladium Prices for the Last 5 Years



**Friday active trading 16:00 EST: Platinum \$944/toz Palladium \$2,214/toz**

- [U.S. EPA Continues Its Aggressive Emissions Standards Stance with Proposed Standards for Heavy-Duty Highway Engines and Vehicles](#)
  - Following its final rule for light-duty vehicles issued at the end of 2021, the U.S. Environmental Protection Agency proposed new emission standards for heavy-duty highway vehicles and engines.
- [See the first video of solitary solid atoms playing with liquid](#)
  - To catch "swimming" platinum atoms, materials scientists made a graphene sandwich.
- [New-Generation Platinum Agents for Solid Tumors](#)
  - 40 years after the initial discovery of cisplatin, only two platinum agents have garnered US FDA approval: carboplatin and oxaliplatin. Although hundreds of promising agents were tested in clinical trials during the 1990s, only oxaliplatin made it past clinical development. For a brief period, the economic cost of these unsuccessful efforts retarded further efforts to develop new agents.
  - However, two exciting platinum agents have been brought to Phase III trials: satraplatin in hormone-refractory prostate cancer and picoplatin in small-cell lung cancer. If successful, they may inspire a new effort to bring better-designed platinum agents to market. This article reviews the clinical development of platinum agents to date and speculates on the role of platinum agents in the near future.

## **Fuel Cells/Hydrogen Economy Related Articles:**

- [\*\*Plug Power Selected by New Fortress Energy for 120 MW Green H<sub>2</sub> Plant on Gulf Coast\*\*](#)
  - Plug To Supply PEM Electrolyzer Technology, Equipment for NFE's First Investment in Green Hydrogen Production
- [\*\*WSP USA to Manage World's Largest Green Hydrogen Underground Storage Project\*\*](#)
  - WSP will manage engineering, procurement and construction of an advanced clean energy storage project in Utah for the Magnum Development and Mitsubishi Power Joint Venture.
- [\*\*Green Hydrogen: Industry's next development boom\*\*](#)
  - Flexibility of transmission, storage and distribution make it a perfect complement to green electrons
- [\*\*Johnson Matthey agrees deal to explore hydrogen and other decarbonisation options for China\*\*](#)
  - Johnson Matthey PLC (LSE:JMAT) is in talks about a possible collaboration with Chinese state-run Sinopec's investment arm about decarbonisation technologies in the People's Republic.
  - The FTSE 100 chemicals company, which recently gained UK support for a hydrogen battery gigafactory, has signed an agreement via its China arm with Sinopec Capital and has started discussions about hydrogen technologies, fuel cells, and decarbonisation.
- [\*\*Fuel cells for backup power\*\*](#)
  - The PEM fuel cell test in New York demonstrated the viability of this technology at 3 MW, the first time at the scale of a backup generator at a data center. Meanwhile, a Spanish-Indian venture will develop up to 300 MW of installed green hydrogen production capacity in the Iberian Peninsula, and a Norwegian-German partnership aims to have a demo track powered by a fuel cell system on the road in mid-2023.
- [\*\*Marvel Stadium treated to a Toyota hydrogen fuel cell technology demonstration\*\*](#)
  - "Toyota sees hydrogen fuel cells as a key source of clean, renewable electrical energy going forward, as evidenced by vehicles like the Mirai FCEV," said Mcleod. "Partnering with the AFL to help power the Round 19 game at Marvel Stadium shows the incredible scope this technology has, all while producing no CO<sub>2</sub> emissions."
- [\*\*Hyundai Motor's XCIENT Fuel Cell Heavy-Duty Trucks to Hit German Roads\*\*](#)
  - Hyundai has announced the export of its XCIENT Fuel Cell heavy-duty trucks to Germany, the biggest commercial vehicle market in Europe. Seven German companies in logistics, manufacturing and retail will put 27 XCIENT Fuel Cell trucks into fleet service.
  - The XCIENT Fuel Cell is equipped with a 180-kW hydrogen fuel cell system (2x 90-kW stacks).
  - Seven large H<sub>2</sub> tanks offer a combined storage capacity of around 31 kg of fuel
  - The maximum driving range is 400 km (250 miles) per charge.

## **Palladium**

- [\*\*Analysts slash platinum and palladium forecasts amid global slowdown\*\*](#)
  - The median forecasts from a survey of 27 analysts and traders were for platinum to average \$900/oz in Q3'22, \$914/oz in Q4 and \$1,013/oz in 2023.
  - That is down from a forecast of \$1,170/oz for 2023 returned by a similar poll three months ago.
  - Palladium, the poll forecast average prices of \$1,950/oz in Q3'21, \$1,975/oz in Q4 and \$2,060/oz in 2023, down from a forecast of \$2,250 for 2023 in the poll in May.
- [\*\*Unit Auto Sales Rose For A Second Consecutive Month But Remain Weak\*\*](#)
  - US Sales of light vehicles totaled 13.3 million at an annual rate in July, up from a 13.0 million pace in June. The July result was a 2.6 percent increase from the prior month and the third increase in the last four months. It was the fourteenth consecutive month below the 16 to 18 million range, averaging just

13.6 million over that period (see the first chart). Weak auto sales are largely a result of component shortages that have limited production, resulting in plunging inventory and surging prices.

## **PGM Minor Metals (Rhodium, Iridium, Ruthenium, Osmium)**



**Friday: Rhodium \$14,750/toz Iridium \$4,750/toz Ruthenium \$585/toz**

- [Itochu links with South Korea's Lotte Chemical for ammonia trade](#)
  - Japanese trading house Itochu has penned an agreement with South Korean petrochemical firm Lotte Chemical to collaborate on ammonia fuel businesses for shipping and other industries such as the power sector.
  - Itochu said the plan is for the two companies to trade ammonia as fuel, to study the demand and use of ammonia infrastructure targeting the Japanese and Korean markets, and also invest in clean ammonia production facilities.
  - The government of Japan forecasts domestic ammonia demand of 3m tons in 2030 and 30m tons in 2050 and the country, as well as South Korea, is expected to have a significant presence as major importers of decarbonised fuels, Itochu stated, adding that it aims to secure competitive decarbonised fuel through joint procurement and optimisation of logistics under a memorandum of understanding signed with Lotte Chemical.
- [Adding Value To MMO Anodes - Iridium Recovery & Recycling | Electrowinning of Base Metals](#)
  - "On one hand, McCol Metals customers can derive benefits from the value of the precious metals at the recovery stage of the process. On the other, anodes can either be re-coated for re-use, or be scrapped for base metal value."
  - If you are a manufacturer or user of Mixed Metal Oxide anodes with PGM coatings or valuable metal substrates, please contact us to find out how we can help in returning value from your waste stream.
- **Ru and Pt PVD: [Everspin announces a new 128Mbit xSPI STT-MRAM product](#)**
  - Today Everspin announced a new xSPI MRAM device, the EM128LX, that expands the product line to 128Mbit. Everspin says that the combination of increased density with up to 233 MB's/second full read and write bandwidth means that system designers now have the option of merging code and data memory on the same device, reducing cost, power, and area.

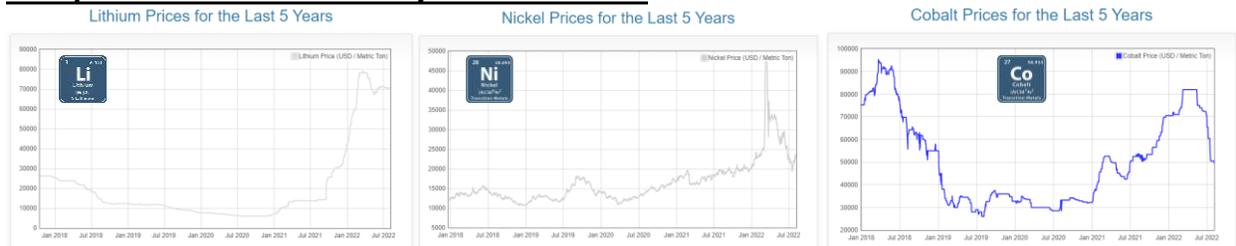
## **Clean Energy General News**

- [Biden-Harris Administration Announces \\$26 Million Program From Bipartisan Infrastructure Law To Demonstrate How U.S. Power Grid Can Run On 100% Clean Energy](#)
  - The Biden-Harris Administration, through the U.S. Department of Energy, today announced \$26 million to fund projects that will demonstrate that America's electricity grid can reliably run with a mix of solar, wind, energy storage, and other clean distributed energy resources. Funded by President Biden's Bipartisan Infrastructure Law, the Solar and Wind Grid Services and Reliability Demonstration Program will show how clean energy resources can address key reliability challenges facing the grid by developing and testing tools and plant functions that allow the grid to stay online amid disturbances

and restart if it goes down. The demonstration projects will provide data to underscore how President Biden's goal of 100% clean electricity by 2030 can be achieved while supporting grid reliability.

- *Matt: Now that we are spending trillions per year on variable renewables, lets spend some money to figure out how to best balance the global power grid.*
- **Tonga volcano blasted unprecedented amount of water into atmosphere**
  - The Hunga Tonga-Hunga Ha'apai eruption lasted less than a day, but it unleashed the most water vapor into the atmosphere by a volcano on record. Researchers say the blast may temporarily warm surface temperatures in years to come and also deplete stratospheric ozone.
- **Glencore boosts annual payout to \$8.5bn driven by "dislocation" in energy markets**
  - Glencore stuck to its thermal coal whilst its peer group quit the sector amid stakeholder pressure. Although controversial, continued ownership of coal production has delivered big time for Glencore. Current thermal coal prices are still hovering around \$400 per ton – a function of supply uncertainty amid Russia's invasion of Ukraine in Februa
- **Diggers and Dealers: Booming rare earths market could more than double in size by 2030, Lynas says**
  - Lynas Rare Earths chases doubling of rare earths market by promising a \$500 million expansion of the Mt Weld mine near Laverton. Lynas is the only scale producer of rare earths outside of China, but Lacaze welcomes competition from emerging local players
  - Boss Amanda Lacaze says investors overwhelming want to grow production as its main priority
- **How clean are Electric Vehicles "EV" versus Gas Internal Combustion Engine "ICE" vehicles?**
  - Video interview: We had the pleasure of once again sitting down with our special guest Matt Watson at the IPMI, this time to discuss the important topic of how clean electric vehicles actually are versus gasoline vehicles. We also dive deep into the precious metals required for these vehicles and provide an outlook on the future of this marketplace.

## BEV / LiB Mineral & Battery Market News



Friday: Lithium \$70,474/mt Nickel \$22,342/mt Cobalt \$49,445/mt

- **A precious metals shortage is pushing Nissan to rent, not sell, electric vehicles to customers**
  - The initiative will make it easier for Nissan to keep their electric cars inside the country, where their batteries can be reused.
  - Keeping more of the valuable and recyclable batteries within arm's reach could prove to be a financial boon for Nissan, as all electric car manufacturers continue to run into rising costs for electric car batteries that are projected to only go higher over the next decade due to a growing shortage of the critical metals used to power them.
- **Race to Secure Battery Metals Heats Up as GM, Ford Ink Deals**
  - GM announced three deals Tuesday for supplies of raw materials needed for its EV fleet. Less than a week ago, Ford Motor Co. revealed a list of suppliers of inputs ranging from Argentine lithium to Indonesian nickel — enough to build 600,000 EVs a year.

- The first of GM's new arrangements for its next-generation EVs is with LG Chem Ltd. to supply 968,000 metric tons of cathode material through 2030. The 2<sup>nd</sup> is a multi-year agreement with Livent Corp. to secure lithium. The 3<sup>rd</sup> is a JV with Posco Chemical Co. to supply cathode materials from 2023 to 2025.
- Ford said it secured enough battery supply to build more than half a million electric vehicles annually by late next year, a quantum leap above the 27,140 battery-powered cars it sold in the US last year. It has signed contracts with suppliers representing 60 GWh of annual battery capacity. The two carmakers' suppliers mostly have or will have regional facilities to provide materials, highlighting efforts to rely less on Chinese refining and manufacturing.
- **Manchin Sets High Bar for Tesla and GM Electric-Car Tax Credits**
  - For EVs to qualify (for the subsidy or incentive), their batteries will need to contain minerals extracted from or processed in a country the US has a free trade agreement with, and a portion of components to be manufactured or assembled in North America.
  - These requirements would start phasing in for components after 2023 and minerals after 2024, timelines that could be tricky to meet. Automakers and battery manufacturers are spending billions on new North American factories, but many of these facilities are still being planned and constructed. China — America's trade nemesis — accounts for almost three-quarters of manufacturing capacity for lithium-ion batteries and more than half the world's capacity to refine lithium.
- **Ford's flurry of supply deals gives iron a starring role in EVs**
  - But it also struck a deal to buy a huge volume of CATL's iron-based battery packs for use in its Mustang Mach-E and the F-150 Lightning, easing its current-reliance on nickel-based cells while putting LFP chemistry into two of its most powerful models.
- **Toyota-Panasonic battery JV to buy lithium from ioneer's Nevada mine**
  - A joint battery venture of Toyota Motor Corp and Panasonic Corp will buy lithium from ioneer Ltd's Rhyolite Ridge mining project and use the metal to build electric vehicle batteries in the United States.
  - Under the terms of the deal, ioneer will supply 4,000 tonnes of lithium carbonate annually for five years to Prime Planet Energy & Solutions (PPES), which was formed by Toyota and Panasonic in 2020 to better compete with battery market leader Contemporary Amperex Technology Co Ltd (CATL).
  - Supplies slated to begin 2025, timeline depends in part on ioneer obtaining financing & permitting.
  - The deal includes a commitment from PPES that ioneer's lithium will be used to build EV battery parts inside the United States for the U.S. EV market. PPES, which is based in Japan, has reportedly been considering building a battery plant in western North Carolina.
- **EV tax credits could stall out on lack of US battery supply**
  - Rules call for US-made batteries and domestically sourced minerals, but there won't be enough of either if EV sales take off.
  - A tax credit in the Inflation Reduction Act of 2022 designed to spur adoption of EVs could fail to reach consumers because of the auto industry's heavy reliance on LiB materials and components from China.
  - The legislation is an attempt to incentivize companies to build more capacity for mining and battery manufacturing in the US. The restrictions could eventually help build a secure supply chain for batteries in the US and create more manufacturing and mining jobs. But some experts are uncertain how quickly US companies will be able to respond. The danger, then, is that the tax credits could have only a limited impact on EV sales in the near term, if qualifying batteries and the minerals that go into them are in short supply.
  - There are two major parts to the new rules. First are the limitations around the critical minerals used in the battery, like lithium, nickel, and cobalt. Starting when the tax credits kick in at the start of 2023, 40% of these minerals in the car's battery must be mined, processed, or recycled in the US or a free-trade partner. This ramps up over time, hitting 80% in 2026.
- **Rivian Is Furious Over New Government EV Bill**
  - The company's trucks are too expensive for credits and its customers are too rich.

- With many automakers about to run out of their electric vehicle tax credits (or already ran out), the United States Senate proposed a new bill that would reinstate the \$7,500 rebate and even add a \$4,500 credit on used vehicles. That sounds great on the surface, but we dove deeper into the wording to discover there are tons of stipulations about where the EV is built, how much it costs, and even what body style is it. There are so many barriers behind the bill, only around a dozen vehicles on sale would qualify, and none of them are made by Rivian.
- [Understand Latest Nickel Market from the Perspective of Future Demand](#)
  - We believe that there will be a shortage of nickel sulphate in the short term, especially in March, April and even May, when the cost of producing nickel sulphate with nickel briquette was very high, accompanied by extensive production cuts.

Regards –