

# Weekly Precious Metals News Articles: Feb 16, 2024

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# **Below is a cross section of relevant news article to the world of Precious & Critical Metals:** This markets, supply & demand shifts, investment, mining, recycle and industrial applications.



#### A printable PDF version with more embedded graphics is attached. Enjoy-

- Gold slides below \$2,000/oz for first time in two months after US inflation data
  - Gold prices fell below the key \$2,000 per ounce level to a two-month low on Tuesday, as a stronger-thanexpected U.S. inflation report tempered prospects of an early interest rate cut from the Federal Reserve.
- Stocks shrug off patchy data; gold set for first weekly loss of 2024
  - With the dollar in the ascendant, gold has been under pressure this week. The spot price is heading for a weekly fall of nearly 1%, its biggest weekly decline since late December. Gold, which has traded consistently above \$2,000 an ounce for most of the past two months, was flat at \$2,005.
- Fed's Main Inflation Gauge to Get Boost From Rally in Stocks
  - The Federal Reserve's main inflation gauge is set to receive a boost from the rally in US stocks late last year, based on data published Friday. Prices of portfolio management and investment advice jumped 5% in January, according to a monthly Bureau of Labor Statistics report on producer prices. That category which is calculated using reported market returns feeds directly into the US central bank's preferred inflation measure based on personal consumption expenditures, set to be published on Feb. 29.
- <u>Russia jumps to sixth place in terms of forex holdings World Gold Council</u>
  - In terms of total international reserves, which include monetary gold, Russia is also in sixth place with holdings worth \$598.4 billion as of January 1. The value of its holdings rose by roughly \$16 billion over the past year, largely due to higher gold prices, according to the Russian central bank.

# Semiconductor Related Articles (impacting Precious Metals electronics):

- No Slow Down In Sight for Semiconductor Growth in China
  - According to SEMI's market research group, China isn't slowing down. SEMI is forecasting China's capacity to keep growing at a significant rate over the next few years. For 300mm, SEMI expects China to have 29% of the worldwide capacity in 2026, increasing from 21% in 2022. The 200mm capacity is expected to grow from 16% to 24%. And foundry capacity is expected to reach 42% in 2026 up from 27% in 2022, outpacing the Taiwan foundry capacity expansions.
- Nvidia is now worth more than Amazon thanks to the AI chip boom
  - Nvidia surpassed Amazon in market capitalization on Tuesday.
  - It's a sign of how strong demand is for chips that can run cutting-edge AI, as well as the investor appetite for the companies that make the semiconductors.
  - Nvidia is more valuable than Amazon at the close of trading for the first time since 2002.
- <u>Google doesn't want to be outsmarted by Apple again and is ensuring that TSMC & Samsung will</u> deliver 2nm chips on time for 2025
  - In a surprise move, Apple procured TSMC's entire first run of 3nm chips in 2023. Google was supposed to introduce their Pixel 8 Pro smartphones using Samsung's 3nm chip, but that didn't pan out. Instead the Pixel 8 Pro used a 4nm processor from Samsung. That was a little embarrassing for Google while killer smart on Apple's part.
  - Google doesn't want that situation to be repeated when it comes to next-generation 2nm processors. In
    a report from ETNews today, it was confirmed that Qualcomm, the world's largest mobile application
    processor (AP) company, has asked Samsung Electronics to develop a 2nm AP. Although there are still
    procedures left until mass-production, it's drawing keen attention as it will lead to final orders if its
    superiority in performance and yield are confirmed.
- US announces US\$5bn for computer chip R&D
  - The National Semiconductor Technology Center (NSTC) is being funded through the CHIPS and Science Act. That 2022 law aims to reinvigorate the computer chip sector within the US through tens of billions of dollars in targeted government support.
- China slump drags on for Japan's chip and component suppliers
  - "The pace of recovery in shipments is slow, and a full recovery is taking longer than in the past because the unusual demand during the pandemic in 2020 to 2021 brought forward demand," said Koichi Fujishiro, chief economist at Dai-ichi Life Research Institute.
  - Electronic components and semiconductors -- used in smartphones, computers, electric vehicles and other products -- are considered a leading economic indicator because their inventory and shipment levels fluctuate ahead of consumer spending.
- Automotive chips tap out to make way for commercial cousins
  - The strategy of replacing automotive chips with commercial chips has been trending for the past two years since the chip shortage and despite significant improvement to the chip shortage issue in 2024, with some cases experiencing oversupply and price reductions, the primary reason for the expanded adoption of this strategy has shifted to the cost considerations of automotive manufacturers.
- China making more advanced chips but Beijing still faces challenges
  - China's biggest chipmaker SMIC seems to have been manufacturing advanced chips in the last few months defying U.S. sanctions designed to slow down Beijing's progress.
  - But there are still some major challenges to China's bid to become more self-sufficient in the semiconductor industry, with questions swirling around the long-term viability of its latest advancements.

#### Silver

- <u>The Gold/Silver Ratio Says Silver's Still Cheap</u>
  - A high gold/silver ratio signals that silver is being potentially undervalued, and in December the number was 81-1, far above the modern average between 40-1 to 60-1. Since then, it has ratcheted up another 5-10 points, currently above 1-90.
- Solar PV module supply chain accelerates consolidation in the top 10 suppliers
  - The market share of top 10 companies through the module supply chain achieved over 80% in the first three quarters of 2023. Only four companies included in the top 10 rankings are headquartered outside mainland China, showing the dominance of mainland China companies over the module supply chain.
- Silver Set To Rise To \$30 This Year, But Where Is Momentum? InvestingHaven
  - A recent research on the physical silver market revealed a growing supply deficit, suggesting a silver price of \$30 in 2024.
- Precious metals analysts are optimistic that 2024 could be a stellar year for silver Resource World Magazine
  - "We think silver will have a terrific year, especially in terms of demand," said Michael DiRienzo executive director of the Silver Institute during a recent interview. He expects silver prices to reach US\$30 an ounce this year, the highest level in 10 years. On February 7, 2024, spot silver was trading at US\$22.26 an ounce.

## **Precious Metals Mining:**

- SA's platinum group metal miners hit rock bottom hopefully Miningmx
  - The year 2023 was not a good time to be a platinum group metals (PGM) miner. Amplats, Implats and Sibanye-Stillwater shed between 64% and 36% in value as prices for palladium and rhodium cratered. After a hopeful ripple in the palladium price during the first two weeks of January — likely driven by traders covering short positions — another price correction followed. Share prices so far this year have been a continuation of last year's form, slipping by between 12% and 14%.
- Barrick Gold forecasts higher production in 2024, beats profit estimate
  - Barrick expects gold production between 3.9 Moz and 4.3 Moz this year, compared with 4.05 Moz in 2023.
  - The company expects its Porgera gold mine in Papua New Guinea to produce 50,000 to 70,000 ounces during the year. The mine was placed on care and maintenance in 2020 following a dispute over benefit sharing as part of the lease renewal.
  - Gold production rose 1.4% to 1.05 million ounces while the average realized price per ounce increased 3% to \$1,986 in the fourth quarter, from the previous quarter.
- Implats warns of more than 80% decrease in interim earnings
  - Implats expects to report an up to 83% YoY decrease in headline earnings for the six months to December 31, 2023, as a result of lower revenue arising from a 37% lower achieved dollar price per platinum, palladium, rhodium, iridium, ruthenium and gold (6E) ounce sold, partially offset by an 8% weaker rand.
  - Sales volumes for the six-month period were 12% higher year-on-year, benefitting from the maiden interim consolidation of Impala Bafokeng and improved operational momentum.
- <u>Two Anglo American mines are first South African operations audited against the IRMA Standard for</u> <u>Responsible Mining</u>
  - " "This report demonstrates that mines can point to transparent, independent evaluations of their environmental and social performance," said Aimee Boulanger, Executive Director of IRMA. "Through detailed IRMA audit reports, mining companies, communities and companies that purchase mined materials can gain the information they need to decide what's going well — and what may require more attention at specific mines."

# E-Waste & Precious Metals Recycle Related:

- There is a great opportunity to do gold refining in India: IFSCA Chairman Hindustan Times
  - India is the largest importer of gold, which mainly caters to the demand of the jewellery industry. In volume terms, the country imports 800-900 tonne of gold annually. Rajaraman said that the authority is also working with the RBI on the gold metal loans and the leasing ecosystem. He also pitched for developing an index of financialisation of gold as it is an important commodity like land.
- <u>Sims rolls out robotic disassembly system</u>
  - SLS is using the robotic equipment to process hardware retired from data centers. The company has made data center decommissioning a priority business segment in recent years, a move that has proven profitable for the global ITAD firm. It now performs data center processing services at multiple facilities in the U.S.
  - Data center decommissioning involves retiring IT equipment, performing data destruction and refurbishing, redeploying or recycling the assets depending on their condition.
- E-waste recycling in India increases 22.59 times in five years
  - Union Minister of State for Environment, Forest and Climate Change Ashwini Kumar Choubey in a written reply in the Rajya Sabha said that the quantity of e-waste processed in the country increased from 23,330.3 tonnes in 2016-17 to 5,27,131.57 tonnes in 2021-22, registering a 22.59 times increase.
  - The MoEFCC attributed this achievement to the scientific and environmentally sound techniques adopted by the registered e-waste recycling units, which help to protect the environment, conserve natural resources, prevent soil and water contamination, and promote sustainable development and circular economy.
- <u>Qcells partners to recover 95% of solar panel value with recycler</u>
  - Qcells, a solar module manufacturer providing residential and commercial markets, announced it has entered a partnership with Solarcycle, a recycling company. Under the agreement, Qcells owned and installed solar panels will be recycled after decommissioning.
  - The agreement marks a landmark deal in solar recycling in the US. Qcells operates one of the largest solar manufacturing operations in the US, with plans to expand production to 8.4 GW by the end of 2024.
  - Solarcycle said its patented recovery process retains 95% of the value of materials in the panel, as opposed to conventional methods, which extract about 50% of the material value. The company recycles aluminum, silver, copper, silicon, and low-iron glass and will send these materials back to the domestic manufacturing value chain, thereby supporting a circular economy.

#### • Explained – Innovative Approaches To Solar PV Panel Recycling: Technology Trends & Developments

- One of the most notable trends in solar PV panel recycling involves the development of advanced mechanical separation techniques. Leveraging robotics and automation, these cutting-edge processes enable the efficient disassembly of panels, allowing for the separation and recovery of valuable materials such as glass, metals, and silicon wafers. This approach not only minimizes waste but also facilitates the reuse and repurposing of components, aligning with the principles of the circular economy.
- Furthermore, chemical recycling solutions are gaining traction as a promising avenue for breaking down solar PV panels into their constituent materials. Solvent-based techniques and chemical baths are used to dissolve encapsulation materials, enabling the extraction of valuable components like silicon and silver. These methods offer the potential to recover materials with high purity levels, which can then be reintegrated into the manufacturing process, reducing the need for new or unused resources

## <u>Platinum</u>

Platinum Prices for the Last Year





- Class 8 Truck Sales Down 6.7% in January
  - It Marks the Sixth Straight Month With a Year-Over-Year Decline
- Platinum: A break of \$1,000 will mark the beginning of a bullish trend ANZ
  - If the price holds above \$900, a recovery looks possible towards \$936. However, a sustained price above \$950 is required to reverse the downtrend that started in late December last year.
  - Price near \$1,000 is a strong resistance, and a break of this will mark the beginning of a bullish trend. On the other hand, if the price breaks below \$900, could trigger a fresh sell-off, dragging prices lower towards \$850.

## Fuel Cells/H<sub>2</sub> Economy Related Articles:

- It Was Already Difficult to Refill a Hydrogen Car—and Shell Just Made It Harder
  - Shell closing several Bay Area hydrogen filling stations is a blow to FCEV infrastructure.
- The Fuel Cell Industry Faces a "Chicken and Egg" Dilemma
  - Much like the chicken and egg's circular problem, we find ourselves asking what should come first: investment in building the necessary infrastructure or a focus on improving the cost-effectiveness and durability of fuel cell technologies?
- Green Hydrogen: A Multibillion-Dollar Energy Boondoggle
  - The key problem with using hydrogen as an "energy carrier" is that, unlike coal or natural gas, hydrogen cannot be extracted directly in elemental form and then used. Instead, hydrogen, like electricity, must be manufactured. And in contrast to crude oil that must be refined into usable products like gasoline and diesel fuel, more energy is required to manufacture hydrogen than that hydrogen contains. No technology can change this immutable thermodynamic fact. Consequently, and in contrast to fossil fuels and nuclear power, hydrogen's "energy return on investment" (EROI), i.e., the ratio of energy output to energy input, is less than one. Coupled with the additional lost energy from combusting (burning) hydrogen directly or using it in a fuel cell, hydrogen's overall energy efficiency is dismal, making its use as a primary energy carrier self-defeating.
- Building over 1,200 hydrogen fuel stations is part of China's H2 strategies H2 News
  - Thirty of the country's municipal cities and provinces have issued government plans and policies with this type of target. Among them, 29 have outlined targets for 2025 regarding the construction of refueling locations. In total, this will involve building more than 1,200 places for H2 vehicles to refuel.
- World's biggest ever gold (or white) hydrogen flow found in Albania
  - A geologist team affiliated with a number of French institutions teamed up with two Albanian colleagues and have measured the biggest gold hydrogen flow ever found.
  - Naturally occurring H2 in large quantities is an increasingly sought-after resource as it is being viewed as an important fuel source in the world's transition away from fossil fuels.
- Koloma startup backed by Bill Gates to find white hydrogen

- Clean fuel startup Koloma, a company backed by Bill Gates, has completed its largest round of funding yet, bringing in \$246 million to support their goals to drill for white hydrogen deposits.
- <u>Celadyne coats membranes with nanoparticles to make hydrogen fuel cells more efficient</u>
  - Chicago-based Celadyne has developed a nanoparticle coating that can be applied to existing fuel cell and electrolyzer membranes. The material could drastically improve the durability of existing fuel cell designs while also improving the efficiency of hydrogen production by 15% to 20%, said Gary Ong, the company's founder and CEO.

### **Palladium**

- A First Since 2018: Auto Industry Drives Palladium Prices Below Platinum
  - For last week, the price of palladium slumped below platinum for the first time since April 2018. At 8:03am EST on Thursday (Feb.8'24), palladium traded -2.8% at \$869.60 /Toz while platinum traded at \$874.50/Toz.
  - The development may be headline grabbing but the writing has been on the wall for a while. According to WPIC around 620,000 Toz of palladium were replaced by platinum in 2023, up from 385,000 Toz in 2022. It inevitably caused global palladium prices to slump by nearly -40% in 2023.
- <u>Kelley Blue Book Reports New-Vehicle Transaction Prices Continue to Tumble, Down 3.5% Year Over</u> <u>Year in January - Cox Automotive Inc.</u>
  - New-vehicle sales incentives increased in January 2024 for the third straight month as the sales pace slowed; in the past year, incentive packages have risen from 2.8% of the average transaction price to 5.7%.
  - Transaction prices -3.5% YoY in January and -2.6% MoM; price declines in Jan. accelerated compared to Dec.
  - EV prices were -10.8%YoY, led by strong incentive packages in January; volume leader Tesla Model Y prices were -21.4% from January 2023.
- Hybrids in U.S., Europe reward Toyota and Honda as EV sales slow
  - Japanese automakers, long criticized for lagging foreign counterparts in launching EVs, are being rewarded
    now for their steady efforts to develop energy-saving hybrid cars as demand for EVs slows in major markets
    like the U.S. and Europe. Demand for hybrids, which combine an internal combustion engine with an electric
    motor, is rising. The shift reflects consumer demand for products "in between" conventional cars and EVs,
    and is a tailwind for the companies. But the benefits of hybrid sales should be leveraged to accelerate the
    launch of EVs to tackle fierce competition in other key regions like China and Southeast Asia, analysts say.
- Palladium price heads for biggest one-day gain in two months on short covering
  - Palladium rose by 8% on Wednesday, regaining a premium against its sister metal platinum, as some investors covered their short positions after the volatile metal held above the \$900 level.
  - Spot palladium was up 7.9% at \$932.14 per troy ounce by 1653 GMT. This was the metal's biggest one-day gain in two months. Prices had touched their lowest in more than five years of \$849.13 on Tuesday.
  - "We believe some short positions are getting covered which was to be expected at one point in time," said Dominik Sperzel, co-head of trading at Heraeus.
- Heraeus Precious Metals and Sibanye-Stillwater to explore new applications with palladium for H<sub>2</sub>
  - Heraeus Precious Metals and Sibanye-Stillwater are partnering to explore new applications for platinumgroup metals (PGM) in the hydrogen economy, specifically how existing or new applications could profit from the unique traits of palladium. The joint aim is to develop alternative markets for palladium and support the emerging hydrogen sector with technical innovations. The project will be equally funded by both parties.
  - Palladium has a very high selectivity for hydrogen and thus can be used in a broad range of applications. The
    increasing demand for the purification of hydrogen during blue hydrogen production is one possible example
    of a palladium-based application. Further examples include the cracking of hydrogen carriers and the
    semiconductor industry, where high-purity hydrogen is needed as a process gas.

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



#### Detecting Forever Chemicals: New Luminescent Sensor Insights

- Innovative luminescent sensor technology has been developed to detect 'forever chemicals' like PFOA in water, offering a rapid and effective solution for identifying pollution sources.
- This new sensor utilizes iridium and gold to create a luminescent reaction when exposed to UV light and PFOA, changing the light emitted and indicating the presence of these harmful chemicals.
- The technology aims to significantly improve environmental protection by providing a cost-effective, simple, and quick method for monitoring water quality and safety.
- <u>Cracking ammonia: how Amogy is developing fuel for the future</u>
  - What (Amogy does) is develop ammonia power solutions, so we have a proprietary ammonia cracking solution with direct fuel cell integration that allows for distributed power generation and a zero-carbon energy source predominantly targeting applications in the maritime sector.
  - One of the things that makes us most competitive on the market, and somewhat revolutionary in the space, is a very highly efficient catalyst that we develop in-house.
  - That catalyst is the key to our reactor and being able to 'crack' the ammonia at lower temperatures than conventionally available crackers currently on the market, and therefore also allowing for our solution to be much smaller than those crackers that are on the market.
- Italian Scientists Develop New System for Producing Green Hydrogen Cheaply and Efficiently
  - By using ruthenium, the researchers at IIT and BeDimensional have improved the efficiency of alkaline electrolyzers, a technology that has been used for decades due to its robustness and durability. For example, this technology was on board of the Apollo 11 capsule that brought humanity to the moon in 1969. The new family of ruthenium-based cathodes for alkaline electrolyzers that has been developed is very efficient and has a long operating life, being therefore capable of reducing the production costs of green hydrogen.
- Ruthenium PVD Materials: <u>PSMC collaborates with Power Spin for MRAM production by 2029</u>
  - Reports in Japan suggest that Taiwan's Powerchip Semiconductor Manufacturing (PSMC) will enter into a new MRAM R&D project, together with Japan's Power Spin. PSMC plans to start producing MRAM chips by 2029, at its 12-inch factory that it is now building in Japan.
- <u>Ultralow ruthenium modification of cobalt metal-organic frameworks for enhanced efficient</u> bifunctional water splitting
  - An ultralow Ru-modified cobalt metal–organic framework (CoRu<sub>0.06</sub>-MOF/NF) two-dimensional nanosheet array bifunctional catalyst was fabricated through a strategy under mild experimental conditions. The obtained CoRu<sub>0.06</sub>-MOF/NF exhibited excellent bifunctional electrocatalytic activity and stability in alkaline media, with low overpotentials of 37 and 181 mV



and significant durability for more than 95 and 110 h toward the HER and OER at 10 mA cm<sup>-2</sup>, respectively. The experimental results showed that the two-dimensional nanoarray structure had a large specific surface area and abundant exposed active sites. Additionally, ultralow Ru modification optimized the electronic structure and improved the conductivity of the cobalt metal–organic frameworks, thereby reducing the energy barrier of the rate-limiting step and accelerating the water splitting reaction.

- De Nora to supply electrolyzer cells for large green-hydrogen project in Sweden
  - The project still under construction, which will produce green H<sub>2</sub> with a total installed capacity of more than 700 MW, ranks among Europe's largest water electrolysis plants. Green H<sub>2</sub> will be used in a hard-to-abate industry decarbonization project and will, once completed, significantly reduce the carbon footprint of the end customer compared to the use of traditional technologies.
  - The orders, that have been awarded to De Nora under the existing Toll Manufacturing and Services Agreement with thyssenkrupp nucera, are among those previously reported in the pipeline, and will contribute significantly to increasing the backlog of the Energy Transition segment.



#### Wind turbine technology evolution is diverging quickly between China and the rest of the world

- Western OEMs reduce the pace of NPI and focus on product standardisation while Chinese peers continue the frenetic pace of new wind turbine introduction.
- Copper Prices Could Be in Early Stages of Uptrend
  - A confluence of factors could be brewing that may work in favor for bullish copper prices. Short- or long-term investors may want to get ahead of the move given the drop in copper prices the past year.
  - One of the key drivers for bullishness will stem from demand in China. With the second largest economy looking to revitalize its economy after a real estate development crisis, copper demand has been tempered. However, recent government stimulus measures could help resuscitate its ailing economy and thus, its demand for the metal.
- Why Europe's Energy Transition Leader Doubles Down On Natural Gas
  - Germany is building 10 GW in new natural gas generation capacity.
  - Germany has been the poster child for the transition thanks to the massive resources it directed towards turning the vision into reality.

- Now, cracks are appearing in that vision as energy security becomes increasingly important.
- The complex legacy of Fritz Haber (inventor of the Habor Bosch synthetic ammonia process)
  - In his laboratory, he created apparatuses to produce and synthesise ammonia. Since nitrogen is inert in reactions, Haber had to create temperatures up to 500 °C to make it react with hydrogen under extreme pressure. Using iron as a catalyst, Haber invented this fertiliser that would revolutionise agriculture and pave the way for a sustained supply of food that grew just as fast as the population.
  - The world will forever be grateful to Fritz Haber, maybe with some bitterness.
- NI (Northern Ireland) ammonia proposals could reduce farm income by 38%, report warns
  - Without investment in farm infrastructure, farmers could struggle to introduce ammonia mitigation measures such as improved scrapers, slat mats in livestock sheds and covers for slurry pits.
  - When a farm's planning application is rejected, not only will this derail their morale to reduce ammonia emissions, but the cost will be significant for the business, the UFU said.
- <u>Activists Sue LME for 'Ignoring Environmental Impact of Metals'</u>
  - Latest legal headache for exchange after nickel case last year
  - LME rejects claim, saying its rules reflect best practice
- How China is Tightening its Noose on Critical Minerals
  - Unfortunately, decoupling from China's sprawling renewable energy sector is proving to be easier said than
    done with the country tightening its grip on the industry. The Middle Kingdom is using its overwhelming
    dominance in rare earth elements (REE's) and critical clean energy minerals to kick out Western competitors
    and protect its market share. Chinese producers have been flooding the markets with REE and battery metals
    like lithium, leading to big price crashes and making it untenable for competitors to continue operations.
    Since last year, lithium is down by more than 80%, while nickel and cobalt have both tumbled over 40%.
- Westinghouse begins UK licensing process for AP300 : Regulation & Safety World Nuclear News
  - Westinghouse is one of six small modular reactor (SMR) suppliers shortlisted in October 2023 to bid for support from the UK government as part of plans to quadruple the country's nuclear energy capacity to 24 GW by 2050, and earlier this month announced it has signed an agreement with Community Nuclear Power Limited to build four AP300s in northeast England. This would be the UK's first privately-financed SMR fleet.
  - The 300 MWe reactor design is based on Westinghouse's AP1000 technology, a design which is already
    licensed in the UK. AP1000 units have regulatory approval and are in operation in China and the USA and
    the design is also compliant with European Utility Requirements standards for nuclear power plants.
    Westinghouse says this brings licensing advantages and substantially reduces delivery risk for customers.
- IEA Ministerial Meeting stresses energy security and clean energy transition
  - While the press release on the meeting made no mention of nuclear, it did receive mention in one small paragraph of the 46-paragraph ministerial communique. Paragraph 15 of the communique noted: "Those countries that opt to use nuclear energy or support its use recognise its potential as a clean energy source that can reduce dependence on fossil fuels, to address the climate crisis and improve global energy security. These countries recognise nuclear energy as a source of baseload power, providing grid stability and flexibility, and optimising use of grid capacity, while other countries choose other options to achieve the same goals. We recognise the importance of ensuring the highest standards of nuclear safety, security and non-proliferation.
- <u>Climate and energy ministers commit to accelerating transition to clean energy at IEA meeting The</u> <u>Irish Times</u>
  - The ministers agreed that "no new unabated coal power plant should be built" and "declines in [fossil fuel] demand are sufficiently steep that no new long lead-time conventional oil and gas projects are required".

# **BEV / LiB Mineral & Battery Market News**



#### • Electric vehicles not a panacea for climate change: Steven Guilbeault

- Electric cars are among the many necessary solutions to Canada's environment problems, but they are far from a panacea, Environment and Climate Change Minister Steven Guilbeault told a conference on public transit in Montreal on Monday.
- "We must stop thinking that electric cars will solve all our problems," said Guilbeault, who was the keynote speaker at a fundraising luncheon at the Westin Montreal via live video feed from Ottawa. The event was organized by the public transit advocacy group Trajectoire Québec, and brought together about 250 key players in the fields of public transportation, municipal politics, energy and environment.
- <u>Carmakers pumped the brakes on hybrid cars too soon</u>
  - So it's no surprise that hybrid cars models that blend electric and gasoline power are more popular than ever, even as some manufacturers have begun pulling them from their lineups. "The number of hybrid model offerings declined in 2023, but sales increased significantly across existing models," according to the Energy Information Administration.
  - Americans are buying around as many hybrid cars as fully electric vehicles, and demand is growing.
  - Traditional ICE Businesses Offset EV Slowdown for European Automakers
    - The slowdown is incorporated in our projections for rated European car manufacturers, while we still expect investments in longer-term electrification to increase.
    - German manufacturers are likely to be more affected by slower EV demand growth than Stellantis or US automakers, such as General Motors and Ford. The latter have a lower EV penetration of about 6% and a slower EV adaptation plan compared with EU companies. Still, German automakers are less exposed than Volvo, whose share of battery electric vehicles (BEVs) in sales is already 13%, or all-electric Tesla
- Hybrid profits today, EV sales tomorrow | Automotive News
  - Many of Japan's automakers are booking big profits on hybrids today to pay for the shift to EVs tomorrow.
- <u>Electric vehicle sales growth is slowing globally. Here's why | The Straits Times</u>
  - Global sales of EVs are still rising, but growth is slowing. According to BloombergNEF, sales of all-electric vehicles plus plug-in hybrids that can also be powered by petrol or diesel more than doubled in 2021 and grew 62 per cent in 2022. But the figure was 31 per cent in 2023, when 15 per cent of all vehicles sold were plug-ins. BNEF forecasts that the annual increase will slow again to 21 per cent in 2024.
- EV Sales in Germany Are Plummeting. Here's why
  - According to recent data, the repercussions of Germany's decision were stark. Comparing Jan'24 to Dec'23, sales of new EVs plummeted by a staggering -54.9%, while sales of Plug-In Hybrid Vehicle's (PHEVs) also experienced a significant decline of -19.6%. Meanwhile, the market for vehicles with internal combustion engines (ICE) rose +9.1% and diesel vehicles +9.5%.
- Tesla makes money from carbon credits as Elon Musk EV company struggles
  - Elon Musk's EV maker made almost \$2 billion from the tax credits last year
- <u>Elon Musk makes surprising admission about Tesla's biggest rivals: 'They will pretty much demolish</u> <u>most other companies'</u>

- Elon Musk surprised some in a recent earnings call when he praised his electric vehicle competitors. Not his domestic competitors in the United States but EV manufacturers in China.
- "Our observation is generally that the Chinese car companies are the most competitive car companies in the world. So, I think they will have significant success outside of China depending on what kind of tariffs or trade barriers are established," Musk said. "Frankly, I think if there are no trade barriers established, they will pretty much demolish most other companies in the world. So, they're extremely good."
- <u>GM slashes EV production in half for 2024, still plans to have 1,000,000 electric cars by 2025</u>
  - Back in October 2023, GM announced plans to produce 400,000 EVs by the middle of 2024 and reach an annual production capacity of a million EVs by the end of 2025.
  - Instead of having 400,000 more EVs ready to go by summer, GM will instead aim to have 300,000 of the zeroemission vehicles ready to roll at best. That number could also be as low as 200,000 if production hits the low end of GM's estimates. The decision to scale back the company's EV goals was revealed by CEO Mary Barra during GM's Q4 2023 earnings call.
- <u>China, Indonesia face deeper output cuts to tackle nickel price slide</u> | Reuters
  - Cuts of at least 100,000 metric tons expected
  - Much deeper cuts could be needed to remove oversupply
  - Nickel pig iron faces biggest surplus
  - Glencore to halt New Caledonia nickel plant and sell stake | Nasdaq
    - Glencore Plc GLEN.L said on Monday it will sell its stake in Koniambo Nickel SAS in New Caledonia and that
      production at KNS's processing plant will be put on hold for six months while a new investor is sought for the
      loss-making business.
- BHP ramps up cost-cutting as axe hangs over thousands of nickel jobs
  - BHP has told suppliers & workers at its W.Australian nickel operations that it needs to cut costs for the business to have any chance of surviving the Ni rout that has claimed mines run by IGO and Andrew Forrest's Wyloo. Chief executive Mike Henry and the BHP board face tough calls on Nickel West amid estimates the business is losing up to \$50 million a month at current nickel prices.
- <u>Chinese researchers develop calcium-based battery that lasts 700 cycles</u>
  - Calcium-based battery technology: Chinese researchers have developed a battery capable of undergoing complete charging and discharging cycles up to 700 times at room temp., a first for such kind of technology.
  - The researchers also claim to have integrated their calcium-oxygen device into fibers, producing a flexible textile battery suitable for smartphone usage.
- LG Chem in GM cathode material deal
  - Under a new supply contract (\$18.7 billion), LG Chem will supply GM with over 500,000 tonnes of cathode materials from its new plant in Tennessee between 2026 and 2035. This equates to powering 5 million units of high-performance pure electric vehicles (EVs) with a range of 500 km on a single charge.
  - The agreement follows a comprehensive agreement between the two firms in July 2022 for long-term supply of cathode materials. The nickel-cobalt-manganese-aluminium materials produced at the Tennessee plant are expected to be primarily used by Ultium Cells, a joint venture between LG Energy Solution and GM.

### **Regards – Matt**



Matt Watson, President Precious Metals Commodity Management LLC. 1694 Cairo Street, Livermore, CA 94550 (925) 321-2686 Email: <u>MatthewWatsonJr@Yahoo.com</u> Email: <u>MattWatson@PreciousMetalsCommodityManagement.com</u> URL: <u>https://www.PreciousMetalsCommodityManagement.com/</u>