



## Weekly Precious Metals News Articles: April 8, 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

- [How Long Can The War Support Precious Metals?](#)
  - There are several reasons why the war in Ukraine has and will likely continue to support precious metals prices. First, the extent of the conflict, its proximity to Western Europe and the risk that it could spread to include other countries, whether intentionally or accidentally, have all pushed investors towards defensive assets.
  - Second, reacting to the events, Western countries have imposed widespread sanctions on numerous Russian individuals and entities. Among precious metals, the impact of this risk has been most pronounced for palladium, given that Russia accounts for nearly 40% of global mine production.
  - Third, even assuming commodity export bans continue to be avoided, trade frictions are already emerging and could get worse.
- [Russia sets fixed gold price as it restarts official bullion purchases](#)
  - Starting this week, the Russian central bank will pay a fixed price of 5,000 roubles (\$52) per gram between March 28 and June 30, the bank said on Friday. This is below the current market value of around \$68.
- [What Countries Have No Gold Reserves?](#)
  - Canada, Croatia, Norway, Costa Rica, Republic of Azerbaijan
  - The other nations that do not hold reserves in gold include Nicaragua, Cameroon, Armenia, Gabon, Turkmenistan, Congo, Chad and Eritrea.
- [U.S. Mint sees strongest gold bullion demand in 23 years, sells 426k ounces in Q1](#)
  - March ended a solid quarter for bullion demand. The U.S. mint sold 426,500 Toz gold between January and March, +3.5% from the Q1'2021. This was the mint's best quarter in 23 years.
  - According to analysts, two factors are driving demand for physical precious metals: inflation and Russia's war with Ukraine.

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

- [Congress selects lawmakers to hammer out deal on semiconductor chips funding](#)
  - U.S. House and Senate lawmakers said Thursday they have chosen negotiators to hammer out a deal on a bill to provide \$52 billion in government subsidies for semiconductor production after months of discussion. House Speaker Nancy Pelosi, a Democrat, and Republican House Leader Kevin McCarthy named about 80 House lawmakers including the chairs and top Republicans on some key committees that will take part in a process known as a "conference committee" to reach a compromise version.

- In 1990, the US produced 37% of all chips while today it accounts for only 12% of global production.
- **Arizona poised to double workforce in semiconductor industry - tens of thousands of jobs**
  - Lawmakers in Washington D.C. are considering legislation called the CHIPS Act that would pump \$52 billion worth of incentives into the semiconductor industry. “You could easily see Arizona going from 30,000 jobs to 60,000 or 70,000 jobs if this bill passes,” Raimondo projected.
  - Last year, Intel announced a \$20 billion expansion in Chandler.
  - TSMC is making a \$12 billion investment in a new Phoenix facility. “What we’re seeing here in Arizona is not only growth in these incredible leaders but also in the entire supply chain,” “We have over 200 semiconductor companies here in Arizona today.”
- **Automotive: Staring down disruptions**
  - While the chip shortage remains the biggest snag in auto production, other issues are at hand. “There’s general inflation to deal with, too,” says Richard Canny, president of Ultimation Industries. “We’ve seen spikes in steel prices and electrical components, and it contributes to a general increase in cost and difficulty in bringing product to market.”
- **Forecasts Show Fab Equipment Spending to Hit All-Time High**
  - As industry leaders push for increased fab capacity to address persistent chip shortages, global front-end fab equipment spending is expected to increase by 18 percent over the next year, according to SEMI’s latest World Fab Forecast report. The industry group forecasts spending to reach \$107 billion in 2022 and expects a growth trajectory well into 2023.
- **Slowdown, But No Correction**
  - The market for chips will continue to grow over the next few years, but not as quickly as over the past couple years when the work-at-home market drove up demand for everything from laptops and TVs to home video equipment. Economists painted a mixed picture for the semiconductor industry at this week’s SEMI Industry Strategy Symposium, projecting continue growth in all major markets, but tempered by people returning to work, saturated demand for some products, and continued shortages that will weigh down results.

## **Silver**

- **Silver Markets Recover After an Initial Dip on Friday**
  - Silver markets initially pulled back during the trading session on Friday but turned around to show signs of life again.
- **Silver Prices Traded Flat as Ukraine Concerns Counter Hawkish Fed Policy**
  - Silver prices remain little change as the focus remains on the Russia-Ukraine war and rising inflation concerns.
  - Silver prices held steady despite growing inflation concerns
  - The dollar strengthens following release of Fed minutes
  - Benchmark yields fell after surging higher during the week
  - Oil prices decline as US and EIA members commit to releasing strategic reserves
- **UK government to ramp up solar capacity**
  - The UK government aims to expand solar deployment by up to five times by 2035, in addition to developing 24 GW of nuclear power by 2050 and 50 GW of offshore wind by 2030.

## **Precious Metals Mining:**

- **Sibanye-Still not budging on wage offer**
  - Negotiations between the miner and the unions have been deadlocked for months.
  - AMCU and NUM demanding wage increases of R1,000 (US \$62) each year for the next three years.
  - Sibanye is currently offering R700 (\$48 USD) for each of the next three years.

- [Anglo American Platinum says carmakers looking for palladium after Russia sanctions](#)
  - AMPLATS has received enquiries from manufacturers and carmakers about sourcing palladium in the wake of Western sanctions on top producer Russia, CEO Natascha Viljoen said on Wednesday.
- [Sanctions not expected to extend to Russian PGM exports, says SFA Oxford](#)
  - Exports of platinum group metals (PGM) from Russia have not been blocked by international sanctions so far and are not expected to be affected in future according to Henk de Hoop, CEO of UK research and consultancy firm SFA Oxford. “At the moment, we do not have limits on Russia supply coming through,” he told delegates to the PGMs Industry Day conference being held in Johannesburg.
- [Tharisa presses button on \\$250m Karo Platinum project after taking control of 150k oz/y venture](#)
  - Karo Mining has an 85% stake in the Karo Platinum Project which Tharisa said today was a 20-year PGM endeavour in its first phase costing \$250m in capital to build. At some 150,000 ounces a year in PGM concentrate production, it would double Tharisa’s PGM footprint when complete – about 24 months after construction begins.
- [Tharisa presses button on \\$250m Karo Platinum project after taking control of 150k oz/y venture](#)
  - Tharisa pressed the button today on its Zimbabwe expansion announcing it had taken control of Karo Mining Holdings which owns the Karo Platinum Project. The Johannesburg-listed company will issue The Leto Settlement \$27m in shares in order to increase its stake in Karo Mining to 66.3% stake from 26.8% previously.

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

- [Supply chain jam creates long delays for recycling equipment](#)
  - Equipment manufacturers and their customers are feeling the pressure of extended lead times and supply chain backups, forcing them to adapt as demand soars and supply dwindles.
  - “I’ve never seen anything like this before,” Pieter van Dijk, president of Van Dyk Recycling Solutions, told Resource Recycling. “Not only is the supply a problem, but the demand has just gone through the roof. Our sales are double what they used to be.”
- [Opportunities and challenges for the auto recycling industry](#)
  - There are essentially two types of auto recyclers out there, but a lot of overlap exists between the two, and even within a business, as the price of scrap, vehicles, and their parts fluctuates.
  - There are businesses that look at ELVs as a collection of parts that can be reused, with a bit of material (almost exclusively metals) that can be recovered profitably. The other class of business is one that looks at an ELV as just a collection of materials – again, almost exclusively metals, and they do not have the capacity, knowledge, or plans to sell parts.
- [ISRI Applauds Introduction of Recycling Infrastructure and Accessibility Act in U.S. Senate](#)
  - ISRI joins more than 20 industry and environmental groups that expressed support for the legislation, which establishes a pilot rural recycling program at the Environmental Protection Agency (EPA).
- [The hottest commodity in e-scrap? Warehouse space](#)
  - The difficulty comes from fast-rising lease rates for commercial properties across North America. Interviews with a range of electronics reuse and recycling companies made clear that virtually all industry companies leasing warehouse space are enduring higher costs on the real estate front. That reality, driven by pandemic-influenced shifts in retail and supply chains, is forcing some to rethink the way they expand and utilize their existing square footage.

## **Platinum**

- [Shanghai Platinum Week: Strengthening China’s Links with the Global PGM Market](#)
  - China’s affinity for platinum is indisputable – the country is the world’s largest consumer of platinum and the largest market for platinum jewelry. Imports of platinum into China reached 3.5 Moz in 2021, +1.2 million ounces larger than identified platinum demand in the entire country.

- Increasingly, the role Pt catalysts can play in enabling the H<sub>2</sub> is being recognised, especially as “green” H<sub>2</sub> initiatives are gaining momentum. Pt-based PEM technology is used in both H<sub>2</sub> fuel cells to power FCEVs and PEM electrolyzers which, when powered by renewable electricity, produce carbon-free green H<sub>2</sub>. Growth in hydrogen applications could lift annual platinum demand by over 3 Moz by 2035, a major increase from annual demand levels of ~8 Moz today.
- [\*\*LPPM blocks platinum, palladium from Russian refineries from the London market\*\*](#)
  - The London Platinum and Palladium Market (LPPM) said on Friday it was suspending two Russian precious metals refineries from its good delivery lists with immediate effect.
- [\*\*Mobility Notes: 5-Min Monthly Read March 2022\*\*](#)
  - On road emissions testing done by Emissions Analytics showed that same vehicle models sold in Europe emit 76 - 96% lower particulates compared those sold in the US. The difference is that EU cars were equipped with GPFs, the US weren't due to the lack of particle number or tighter particle mass standards in the US (currently at 3 mg/mi).
  - EPA Clean Trucks Plan: The US EPA has published a proposed rule for reducing NO<sub>x</sub> and particulate emissions from heavy-duty engines starting with model year 2027. There are two options proposed:
    - Option 1 (~ California standards after MY 2031): NO<sub>x</sub> limit MY2027–2030: 35 mg/mi, MY 2031: 20 mg/bhp-hr Full Useful Life (FUL): Increases to 600K mi in 2027 and 800,000 mi in 2031
    - Option 2: NO<sub>x</sub> limit: 50 mg/bhp-hr after MY2027, FUL: Fixed at 650,000 m

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

- [\*\*Air Liquide hydrogen plant nears completion in North Las Vegas\*\*](#)
  - “The plant, which is dedicated to the mobility market and will produce and liquefy 30 tonnes per day of hydrogen, is expected to be commissioned by the end of the month.”
- [\*\*Vattenfall-led hydrogen-fuelled green steel pilot lands \\$160m in EU grants\*\*](#)
  - The Hybrit (Hydrogen Breakthrough Ironmaking Technology) initiative — a joint venture between utility Vattenfall, mining company LKAB and steel firm SSAB — has received €143m (\$158m) of grants from the EU Innovation Fund, which will mainly be spent on the world's first large-scale demonstration project, to be built in Sweden.
- [\*\*German retailer switches battery electric logistics fleet to green hydrogen fuel cell\*\*](#)
  - Supermarket chain Lidl is switching the entire BEV fleet of a logistics hub to fuel cells powered by green hydrogen, making it the first of its kind in Europe, according to a press release.
  - Around 100 forklifts or 80% of the vehicle fleet in the German retailer's logistics centre in Carquefou, in Western France, already operate on green hydrogen, and the rest is to follow by the end of the year. The centre will be supplied with 75 kilograms of green hydrogen per day generated 75 kilometres away by company Lhyfe using wind energy.
- [\*\*Green hydrogen strategy set up by Siemens Gamesa and SSE\*\*](#)
  - The new plan would power the H<sub>2</sub> production using the more than 100 MW wind farm in the highlands. The green hydrogen will be produced at the Gordonbush SSE Renewables wind farm and will use the Siemens Gamesa Renewable Hydrogen Upgrade solution. The renewable H<sub>2</sub> will then be used as a fuel alternative to gasoline, diesel or natural gas. In this way, it can be integrated into decarbonization strategies. It is particularly helpful in sectors that are difficult to abate, such as transportation, industry and manufacturing.
  - The new facility will have a production capacity as high as 2,000 tons of green hydrogen per year.
- [\*\*ABB to electrify two plants in North America set to produce 60 tons of green hydrogen daily\*\*](#)
  - ABB has been awarded two major contracts by Plug Power Inc.
  - The first plant, Project Gateway, in Genesee County, New York, will be North America's largest green H<sub>2</sub> production facility, providing the northeastern US daily with 45mt of green liquid H<sub>2</sub>. The

plant will use Plug Power's state-of-the-art PEM electrolyzers to split water into H<sub>2</sub> and oxygen through an electrochemical process, using clean New York hydropower.

- Plug Power's second plant, Peachtree, in Camden County, Georgia, will produce 15 tons of liquid green hydrogen per day using 100 percent renewable energy, serving customers in the southeastern US.
- [IPCC report | 'Clean hydrogen needed for net zero, but only where green electric solutions not feasible'](#)
  - All 193 UN nations sign off on document that casts doubt on widespread use of H<sub>2</sub> for heating and cars, while pointing out the many challenges the sector must overcome
- [Power-to-gas-to-power designs to incorporate hydrogen in solar-wind microgrids](#)
  - Researchers in Mexico have looked at integrating hydrogen-based power-to-gas-to-power into an existing rural microgrid. They said this solution could become competitive if electrolyzer, fuel cell and hydrogen tank costs are halved, or if diesel prices keep rising.
- [Government to double hydrogen power target](#)
  - The government is expected to double its target for hydrogen production in the Energy Security Strategy to be published on Thursday.
  - Last year U.K. Business Secretary Kwasi Kwarteng set a target of 5GW of low-carbon H<sub>2</sub> capacity by 2030. That ambition is set to be doubled, with industry sources anticipating a new target of 10GW of capacity, made up of 50% "green" H<sub>2</sub>, produced using renewable power sources; and 50% "blue", which generates CO<sub>2</sub> as a byproduct that is captured.
- [Green hydrogen capacity in Germany could reach 28GW in 8 years](#)
  - The DWV said that it is possible that the country will have reached a maximum green hydrogen supply capacity of 16.25 GW per year by 2025. Then, by 2030, that number will have exploded to 27.8GW. This represents a considerably higher achievement than the goal the country set for itself.

## Palladium



[Palladium Price Today | Price of Palladium Per Ounce | 24 Hour Spot Chart | KITCO](#)  
 Friday April 8 2022 @ Noon PST Pd Bid \$2,339 Ask \$2,489/Toz +\$183/Toz or +8.5%

- [London market blocks newly refined Russian platinum and palladium](#)
  - The LPPM said it would suspend with immediate effect both Russian refiners on its list, JSC Krastsvetmet and the Prioksky Plant of Non-Ferrous Metals.
  - The suspension blocks platinum and palladium produced by these refiners after April 8 from trading in London, though products they made while accredited remain eligible to trade, the LPPM said.

- Prices of palladium surged as much as 11%, with traders fearing the move could worsen a shortage of the metal automakers use in exhaust pipes to reduce emissions.
- Nor Nickel produces 25-30% of the world's palladium supply and about 10% its platinum, which is also used to curb vehicle emissions as well as in other industries and to make jewelry.
- Platinum prices were up about 1% at 1600 GMT, with palladium up 8%.
- [LPPM Good Delivery Platinum & Palladium Update](#)
  - Joint Stock Company, The Gulidov Krasnoyarsk Non-Ferrous Metals Plant "Kratssvetmet"
  - Joint Stock Company, Prioksky Plant of Non-Ferrous Metals "PZCM"
  - These two refiners will no longer be accepted for LPPM Good Delivery into the London/Zurich Bullion market until further notice.
- [USDOT Announces New Vehicle Fuel Economy Standards for Model Year 2024-2026 | US Department of Transportation](#)
  - The new Corporate Average Fuel Economy standards require an industry-wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026, the strongest cost savings and fuel efficiency standards to date. The new standards will increase fuel efficiency 8% annually for model years 2024-2025 and 10% annually for model year 2026. They will also increase the estimated fleetwide average by nearly 10 miles per gallon for model year 2026, relative to model year 2021.

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

- [The first 1GW of manufacturing capacity is due to come on line next year](#)
  - (~16.5GW/10GW PEM) Giga-scale electrolyser factories announced – 60% PEM based
    - Germany - Thyssenkrupp (5GW Alkaline)
    - Australia's Fortescue Future Industries (2GW PEM with Plug Power)
    - UK's ITM Power (5GW PEM)
    - France's McPhy (1GW Alkaline+)
    - Plug Power (1GW in the US and 1GW in South Korea) PEM
    - US manufacturer Cummins/Hydrogenics (two 1GW PEM plants, Iberdrola and also Chinese oil giant Sinopec)
    - India's Ohmium (500MW "expandable to 2GW").
- [Future catalytic converters could give more bang for your buck](#)
  - Study points way to better use of the expensive metal rhodium
- [Iridium: Vattenfall-led hydrogen-fueled green steel pilot lands \\$160m in EU grants](#)
  - A total of €108m of the new funding will go towards the pilot in Gällivare, in the north of the country, which will produce about 1.2Mt of emission-free crude steel annually, a quarter of Sweden's yearly production, using direct reduction using H<sub>2</sub> produced from 500MW of electrolyzers.
  - A further €30m will be spent on two new electric-arc furnaces at SSAB's plant in the town of Oxelösund, near Stockholm, to melt the sponge iron, and the final €5m was awarded for the demonstration of fossil-free iron-ore pellets for the hydrogen reduction process.

## **Clean Energy General News**

- [Copper tightness 'is far beyond a price issue,' Freeport CEO says](#)
  - Freeport-McMoRan Inc. and Goldman Sachs Group Inc. share a bullish outlook for copper. They appear to diverge, however, on how much of an impact higher price would have on supply growth.
  - Goldman analyst Nicholas Snowdon told a copper conference Wednesday that current near-record prices need to go much higher in order to stimulate a supply response. The next day, Freeport boss Richard Adkerson said market tightness "is far beyond a price issue."
- [EU will do 'whatever it takes' to rebuild solar energy manufacturing in Europe](#)

- A specific strategy for solar energy will attempt to speed up permitting that has held up installations, support more solar power purchase agreements, and build up Europe's solar manufacturing capacity, Kadri Simson told the Solar Power Summit conference in Brussels.
- [\*\*President Biden Authorizes Defense Production Act to Spur Mining for EV Battery Materials\*\*](#)
  - The United States shall, to the extent consistent with the promotion of the national defense, secure the supply of such materials through environmentally responsible domestic mining and processing; recycling and reuse; and recovery from unconventional and secondary sources, such as mine waste.
  - These actions shall be conducted, to the extent consistent with the promotion of the national defense and applicable law, with strong environmental, sustainability, safety, labor, Tribal consultation, and impacted community engagement standards, to rebuild and maintain American expertise and productive capacity in these critical sectors.
- [\*\*The Titanium Supply Chain For The Aerospace Industry Goes Through Russia\*\*](#)
  - VSMPO-AVISMA Corp. is the largest titanium producer in the world. It is located in Verkhnyaya Salda, Russia, about 1,800 km east of Moscow. It produces titanium sponge and converts it into ingots. These ingots are in turn converted to billets or slabs. The billets are made into a wide variety of shapes including tubes, disks, and rings, as well as forgings.
- [\*\*Metals world agonizes over war but keeps buying from Russia\*\*](#)
  - For now, Russian metal is largely still flowing to the world's factories and building sites. Many traders and fabricators who buy from Russian companies are tied in to pre-existing purchase deals that can extend over years. And commodities merchants have a well-earned reputation as buyers and financiers of last resort when others have long backed away.

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

- [\*\*Tesla co-founder and former CTO JB Straubel says EV batteries should last about 15 years\*\*](#)
  - Now, in a new interview, Tesla co-founder and former CTO JB Straubel says that he believes EV batteries should last 15 years, depending on utilization:
  - It's a subjective thing depending on what people's goal is for the car, but I think it's going to easily be 15 years in most cases. I think battery life will probably track the life of the vehicle life. Personally, I think it's less likely that people will place a new battery in an old car.
- [\*\*IBC Ships First Pilot Module for the Green, Direct Extraction of Lithium from Brine at Salar de Maricunga in Chile\*\*](#)
  - The SuperLig® MRT process was chosen for the Project because of its very high selectivity for Li over other components of the brine, thereby allowing the green, direct extraction of Li from brines using no solvents, just dilute acid, water and base.
- [\*\*Japan battery material producers lose spark as China races ahead - Nikkei Asia\*\*](#)
  - Japanese companies once held the biggest market shares for each of the four main battery components: anodes, cathodes, separators and electrolyte. Now, Chinese rivals are on top in three of these categories.
  - Cathodes are the exception. The positive terminal can make up half the cost of a battery, containing pricey metals like lithium, nickel and cobalt that require advanced technology to work with. Sumitomo Metal 49% market share for the nickel cobalt aluminum cathodes used in Tesla's flagship models.
- [\*\*Global Nickel Smelting up in March Despite Ukraine, Satellite Data Shows\*\*](#)
  - Global nickel smelting activity climbed in March, including in major producer Russia despite the Ukraine conflict, data from satellite surveillance of nickel plants showed.
- [\*\*Tesla co-founder and former CTO JB Straubel says EV batteries should last about 15 years\*\*](#)
  - Now, in a new interview, Tesla co-founder and former CTO JB Straubel says that he believes EV batteries should last 15 years, depending on utilization:

- It's a subjective thing depending on what people's goal is for the car, but I think it's going to easily be 15 years in most cases. I think battery life will probably track the life of the vehicle life. Personally, I think it's less likely that people will place a new battery in an old car.
- [LFP Battery News — Is The End Of Nickel In Sight?](#)
  - Gotion High Tech plans to start production of an LFP battery with an energy density of 230 Wh/kg before the end of this year. It already has similar batteries with an energy density of 210 Wh/kg in production. By comparison, the energy density of today's cells that use cobalt and nickel is around 250 to 270 Wh/kg. "At that moment, ternary lithium batteries will be replaced by LFP ones on a larger scale in Gotion," Li Zhen, Gotion CEO, told the China EV100 Forum 2022 this week.
  - Gotion is continuing to invest in new ternary battery technologies that use reduced amounts of nickel and cobalt. It expects to bring production of a semi-solid-state battery with an energy density of 360 Wh/kg in the near future.
  - Meanwhile, PushEVs reports that SVolt has reached the 200 Wh/kg benchmark with its own LFP batteries and expects to reach 230 Wh/kg by sometime next year.

**Regards –**