



Weekly Precious Metals News Articles: July 8, 2022

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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

- [Gold Attempts Rebound As Dollar Stalls Ascent](#)
 - "We're seeing some good old-fashioned bargain hunting after gold's dramatic sell-off. There is clearly some interest in buying on dips after yesterday's move into the low \$1,700s," said David Meger, director of metals trading at High Ridge Futures.
 - "The dollar not increasing further today has also allowed gold to bounce back."
- [Gold ETFs Keep Shining for Investors as Silver, Platinum, Palladium Fade](#)
 - Investors cut holdings in ETFs for silver, platinum and palladium in the second quarter on fears that a potential recession will reduce industrial demand, but gold assets held up because of its role as a haven, and that may persist.
 - Gold-backed ETFs shrank by just over 1% in the three months through June, or 43 tons, after an 8% surge in the first quarter helped by Russia's invasion of Ukraine.
 - Silver holdings contracted almost 5%, and the outflow in tonnage terms was the biggest since 2011.
- [Laser-charged gold nanoparticles destroy prostate tumors in first-in-human study](#)
 - By saturating cancerous tissues with nanoparticles that covert light into heat, tiny shells, made of gold and silicon, clinicians were able to destroy prostate tumors with laser precision in a first-in-human trial.
 - After one year, 14 out of the 16 treated lesions tested negative for signs of cancer, according to procedure developer Nanospectra Biosciences.
 - The company's gold-silica particles, dubbed AuroShells, are designed to absorb wavelengths of light that approach the infrared spectrum but are still able to pass through tissue. When charged up by a laser beam, they release heat energy that ablates the immediately surrounding tumor cells, allowing a tightly controlled treatment that aims to spare the adjacent healthy tissue.

Semiconductor Related Articles (impacting Precious Metals electronics):

- [In chip war, Korea spends big to stay ahead of China](#)
 - In the rural township of Wonsam 40 kilometers south of Seoul, local residents are awaiting seismic changes after a groundbreaking ceremony for a semiconductor cluster set to be held this month.
 - The land area of the cluster, which was first announced in 2019, will makes it the single biggest project in semiconductor history, according to South Korean media.
- [2022 Semiconductor Materials Outlook](#)

- TECHCET, the electronic materials advisory firm providing business and technology information, is forecasting semiconductor manufacturing materials to top US\$65 B for 2022, a healthy 8% above 2021. “Semiconductor demand has remained strong through the first part of the year and average selling prices for materials are trending upwards,” cited Lita Shon-Roy, TECHCET’s President/CEO. In anticipation of slower market conditions, semiconductor materials market growth is currently forecasted to increase just over 2% in 2023 before further improving in 2024. “This is in keeping with cycles in demand and inventory volumes,” said Shon-Roy, as “per the latest TECHCET Critical Materials Reports™,” shown in the figure below.
- [**IC IDMs \(Integrated Circuit InDirect Manufacturers\) see lead times shorten**](#)
- Deceleration in pull-ins of orders for HPC and handset chips has significantly shortened delivery lead times at IDMs, according to industry sources in China. However, the available fab capacities at IDMs for automotive chip orders continue to fall short of demand.
- IDMs continue to run their automotive-grade fab lines at full capacity utilization, while seeing falling capacity utilization rates at other fab lines, the sources said. Nevertheless, the capacity can be used to fulfill automotive chip orders only if it is automotive certified.
- [**Global Semiconductor Sales Increase 18.0% Year-to-Year, 1.8% Month-to-Month in May**](#)
- The Semiconductor Industry Association today announced global semiconductor industry sales were \$51.8 billion in the month of May 2022, +18.0% over the May 2021 total of \$43.9 billion and +1.8% than April 2022.

Silver

- [**Silver Price Analysis: XAG/USD clings to modest recovery gains around mid-\\$19.00s**](#)
 - Silver gained some positive traction on Thursday and built on the previous day’s modest rebound from sub-\$19.00 levels or a two-year low. The XAG/USD held on to its gains through the early North American session and was last seen trading near the daily high, just below the mid-\$19.00s.
 - Given last week’s convincing breakthrough a nearly one-month-old descending channel, the bias remains tilted in favour of bearish traders. That said, RSI (14) on the daily chart is still flashing oversold conditions and warrants some caution before positioning for any further losses.
- [**No let-up in sight for polysilicon price hikes**](#)
 - A prominent analyst in China expects the price of the solar panel raw material to pass CNY 300 (\$44.70) per kg soon and says the sky-high prices will continue at least through September.
 - Matt: Recall I highlighted how Solar PV Module prices likely to increase 14% this year, with
- [**One-third of global PV manufacturing capacity is at medium or high risk of bankruptcy, IEA says**](#)
 - A new report from the International Energy Agency stresses the importance of geographically diversifying the global PV supply chain. This would prevent supply chain vulnerability to bankruptcies and underinvestment.

Precious Metals Mining:

- [**Vladimir Potanin: we are ready to discuss merger of Norinickel and Rusal**](#)
 - In his interview with RBC TV, Vladimir Potanin, Norilsk Nickel President and BoD Chairman, President of Interros Holding Company, said he agreed to discuss a merger of Norinickel and Rusal.
 - “We have always been negative about such mergers since we did not see and still do not see any production synergies. We have different competitive advantages... However, other factors have emerged now. It’s sustainability, it’s a ‘green’ agenda. Rusal produces the greenest aluminum among other companies. Norilsk Nickel also undertakes great efforts to this end and produces nickel and palladium for batteries, for the future green economy,” said the head of Norinickel.
- [**Implats signs five-year wage agreement in line with 6.5% inflation**](#)

- As reported on Monday, the agreement is for five years – a first for Implats – and provides employees with increases to all major components of remuneration including living out and home ownership
- [Amplats' Viljoen says PGM price resilience is helping firm outpace inflation](#)
 - “In the short term, yes,” Viljoen said in response to a question as to whether PGM prices have been able to outpace the effect of inflation on the group.
 - “If you just look at what the (PGMs) price has done in the last week. It has come down from recent highs, but it has stabilised. Just when we thought we were out of the woods with the (semi-conductor) chip shortages, the lockdown in China happened.
- [Eskom increases evening peak load-shedding stage — here's the new schedule](#)

Load shedding schedule for 5 July – 10 July 2022
Published on Tuesday 5 July 2022

Date	Day	Start time	End time	Stage
05 July 2022	Tuesday	00:00	05:00	2
		05:00	16:00	4
		16:00	22:00	5
		22:00	24:00	4
06 July 2022	Wednesday	00:00	05:00	2
		05:00	16:00	4
		16:00	22:00	5
		22:00	24:00	4
07 July 2022	Thursday	00:00	05:00	2
		05:00	16:00	4
		16:00	22:00	5
		22:00	24:00	4
08 July 2022	Friday	00:00	05:00	2
		05:00	24:00	3
09 July 2022	Saturday	00:00	24:00	2
10 July 2022	Sunday	00:00	24:00	2

• NOTES:

- Wednesday and Thursday loadshedding stages are confirmed.
- The stage of loadshedding for Friday – Sunday is dependent on returning generating units to service and will be confirmed closer to the time.

E-Waste & Precious Metals Recycle Related:

- [Should We Federally Regulate the Buying & Selling of Scrap Catalytic Converters?](#)
 - Nobel6 Metals interviews 3 members of the new IPMI Auto Cat Theft Committee: Oliver Krestin, Steve Contreras, and Lee Hockey
- [E-scrap processor plots fast expansion to supply smelter](#)
 - Electronics recycling firm evTerra has plans to soon be running four plants across the U.S., part of a strategy to ensure a steady stream of material to the Igneo secondary smelter slated for Savannah, Ga.
 - Igneo is evTerra's parent company and launched the processing arm in 2021.
 - The first evTerra facility is a roughly 100,000-square-foot site in Atlanta that began shredding low- and mid-grade e-scrap in 2022.
 - Igneo (formerly called WEEE Metallica) operates a secondary smelter in France that processes exclusively e-scrap, as opposed to other smelters/refineries that take in a wide variety of virgin mined and scrap resources. A White Plains, N.Y.-headquartered company, Igneo uses a pyrolysis technology to process low-grade electronic scrap into a copper concentrate, which is shipped to refineries for further processing into precious and base metals fractions. Igneo last fall announced plans to build an \$85 million secondary smelter at the Port of Savannah using its technology.

Platinum

- [Turning CO2 to CH4 and CO over CeO2 and MCF-17 supported Pt, Ru and Rh nanoclusters – Influence of nanostructure morphology, supporting materials and operating conditions](#)
 - Highlights: <2 nm Pt, Ru and Rh NCs were anchored over CeO2/MCF17.
 - Supported metal NCs exhibited excellent catalytic performance for CO2 reduction.
 - Ru NCs/CeO2 exhibited ~ 99% selectivity to CH4.
 - Effect of two entirely different supports (CeO2 and MCF 17) was evaluated.

Fuel Cells/Hydrogen Economy Related Articles:

- [**Next Hyundai Nexo hydrogen car launch faces delays**](#)
 - Hyundai's upgraded hydrogen car, the Nexo SUV, won't be launched until 2024, according to new reports, as the automaker has been struggling with fuel cell development issues.
 - The launch schedule for the fuel cell vehicles Hyundai intends to roll out under its premium Genesis brand has yet to be determined. The project will be the first to develop fuel cell vehicles under the brand and was suspended for an unknown length of time near the end of 2021.
- [**Building the world's most durable hydrogen fuel cell**](#)
 - A research team led by the Department of Chemical and Biological Engineering at HKUST has found a new formula which not only could cut down the proportion of platinum used by 80%, but also set a record in terms of the cell's durability level.
 - Despite containing little platinum, the new hybrid catalyst developed by the team managed to maintain the platinum catalytic activity at 97% after 100,000 cycles of accelerated stress testing, compared to the current catalyst which normally sees a drop of over 50% in performance after 30,000 cycles. In another test, the new fuel cell did not show any performance decay after operating for 200 hours.
 - One reason behind such outstanding performance was the fact that the new catalyst has three different active sites for the reaction, instead of the single one in current catalysts. Using a formula containing atomically dispersed platinum, iron single atoms and platinum-iron nanoparticles, the new mix accelerates reaction rate and achieves a catalytic activity 3.7 times higher than the platinum itself. Theoretically, the higher the catalytic activity, the greater the power it delivers.
- [**Shell Decides to Build Europe's Largest Green Hydrogen Plant**](#)
 - Plant in the Netherlands to supply Shell's Rotterdam refinery
 - The project is 10 times larger than Europe's biggest plant
 - Holland Hydrogen will include 200 MWs of electrolyzers, powered by a wind farm off the coast of the Netherlands, according to a statement from Shell on Wednesday. That's 10 times the size of the largest existing green-hydrogen facility in Europe. Shell didn't disclose the value of the investment.
- [**US green hydrogen hub will put long-haul energy storage to the test**](#)
 - The ACES Delta project in Utah is betting billions of dollars that clean hydrogen can provide months of energy storage. Will it work?
 - But the ACES Delta project isn't designed to store energy for hours or even days, said Ducker, who is also senior vice president of hydrogen infrastructure for Mitsubishi Power Americas, one of two main ACES Delta project partners. Instead, it's meant to store energy for months — soaking up solar and wind power that will flood an increasingly clean-powered Western U.S. grid during the spring and fall and saving it to make electricity that can cover the inevitable shortfalls in renewable power supply during summer heat waves and droughts, and during cloudy or windless winter months. It's intended to ultimately be an integral part of a 100 percent clean electricity system.
- [**China Yuchai Introduces China's Largest and Highest Horsepower Hydrogen Engine**](#)
 - With a displacement of 15.93 liters and a maximum horsepower of 560 horsepower, YCK16H is the largest and most powerful hydrogen internal combustion heavy-duty engine being launched in China.
- [**WPIC: Fueling The Future**](#)
 - Green hydrogen, often produced using platinum-based electrolyzers, is instrumental to the production of sustainable aviation fuels. Recent research by the WPIC highlights that supportive hydrogen policies could result in FCEV demand for platinum equalling current automotive demand by 2039, with broad-based commercial adoption of FCEVs bringing this forward to 2033, adding over three million ounces to annual automotive platinum demand in eleven years.
- [**Solid Oxide Fuel Cells Are Having A \(Big\) Moment**](#)
 - To cite just a couple of new developments, Shell has just inked a deal with the firm Ceres to test their solid oxide technology to produce green hydrogen in India, and the iconic auto maker Ferrari has hooked up with the US company Bloom Energy to decarbonize its Maranello factory in Italy.

Palladium

- **Market loses traction on critically low stockpiles; Toyota edges GM in Q1**
 - March U.S. auto sales: Volume declines at Toyota, GM, Ford, Honda, Stellantis, Nissan, Hyundai, Kia on weaker fleet, lean stockpiles. US Q1 2022 Sales volume on light duty 3,318,789 units (vs 2021Q1 3,937,403 units) representing a -15.7% Q1 y/y
- **Euro 7 (Emission Standards) Proposal Delayed**
 - Publication of the Euro 7 proposal was expected in July, but it has been delayed to later in the year. As per the latest information on this topic, it is now moved to a meeting held by the Commission on October 12th.
- **China's Auto Sales Are Booming. Can the Rebound Last?**
 - Overall retail car sales in China from June 20 to June 26 grew 28% compared with the same period in May, and 33% from the same period last year, according to data from the China Passenger Car Association. But it was the electric-vehicle sector that really swung back into booming sales.
- **What will Potanin sanctions mean for nickel, cobalt and PGMs?**
 - With the news only having broken late last week, it remains unclear as to whether the sanctions on Potanin will have any impact on the nickel, cobalt and PGM supply chains. Nor Nickel's vice-president, Vladimir Zhukov, noted that the UK sanctions do not apply to the company but also confirmed that "...the issue is currently being studied by [its] lawyers". Meanwhile, the LME announced that it is "examining sanctions" and their impact on Norilsk brands.
- **China suddenly started exporting palladium**
 - China, which does not have its own production of palladium, suddenly began to export it against the backdrop of anti-Russian sanctions. According to the country's customs, in January-May, China sent 5.2 thousand troy ounces of this metal to Italy, Canada and Hong Kong, while in 2021 exports were only 55 troy ounces.

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

- **HKUST builds world's most durable hydrogen fuel cell to date**
 - Researchers designed a hybrid electrocatalyst that consists of atomically dispersed platinum (Pt) and Iron (Fe) single atoms and Pt-Fe alloy nanoparticles. The new formula could cut down the proportion of platinum used by 80% and set a record in terms of the cell's durability level.
 - The new hybrid catalyst developed by the team managed to maintain the platinum catalytic activity at 97% after 100,000 cycles of accelerated stress test, compared to the current catalyst, which normally sees a drop of over 50% in performance after 30,000 cycles. In another test, the new fuel cell showed no performance degradation even after 200 hours of operations.
- Ruthenium & Platinum PVD: **ITRI joins forces with TSMC and NYCU to develop next-gen MRAM technologies**
 - Taiwan's Industrial Technology Research Institute (ITRI) announced two new MRAM collaborations.
 - The first one is with Taiwan's TSMC, for the development of SOT-MRAM array chips.
 - The second collaboration is with National Yang Ming Chiao Tung University to develop magnetic memory that can perform across an operating temperature range of nearly 400 degrees Celsius.

Clean Energy General News

- **Green Energy's Dirty Secret: Its Hunger for African Resources**
 - The scramble for battery metals threatens to replicate one of the most destructive dynamics in global economic history.
- **Many Winters Are Coming. Start Saving Energy Now.**

- Europe's energy-intensive industries range from aluminum to chicken farming. All will be under threat of closure.
- **[NWT mining future takes a critical turn](#)**
 - Home of Canada's first and only rare earths mine, Northwest Territories is rich in minerals critical to clean energy revolution North of 60 Mining News – July 1, 2022
 - "We have been a rare earth miner for more than 12 months and now we can commence production of rare earth carbonate," said Vital Metals Managing Director Geoff Atkins.
 - Mixed rare earth carbonates produced in Saskatchewan will be shipped to separate facilities for the final separation into the individual rare earth oxides needed for EV motors, wind turbine generators, speakers, computer hard drives, medical imaging devices, and a plethora of other high-tech devices.
- **[Recession fears drive metal prices to prospect of worst performance since 2008](#)**
 - Metal prices are heading for their worst performance since the 2008 crash, according to Bloomberg News which said recession fears were sitting heavily on commodities.
 - Copper has fallen into a bear market from a record four months ago, while tin declined 21% in its worst week since a 1980s crisis froze trading for four years, the newswire said.
- **[As Boeing avoids Russian titanium supply, a Japanese producer is stepping in](#)**
 - Japanese company Toho Titanium Co. is ramping up output of the metal used to make aircraft amid a shortfall caused by Boeing and Airbus avoiding purchases from Russia, the world's largest supplier.
 - Toho has won orders from U.S. aviation industry customers who are looking for alternatives to Russian supply, according to Hiromu Tomeba, manager of the corporate planning division. It's been asked to ship 2,000 to 3,000 tons of titanium sponge to them by the end of the year, he said.
- **[Airbus Calls on West to Avoid Sanctions on Russian Titanium](#)**
 - European plane maker has warned against restrictions on the key material while rival Boeing has stopped purchases
- **[EU parliament backs labelling gas and nuclear investments as green](#)**
 - The European Parliament on Wednesday backed EU rules labelling investments in gas and nuclear power plants as climate-friendly, throwing out an attempt to block the law that has exposed deep rifts between countries over how to fight climate change.
- **[IEA wants surplus nuclear energy to power hydrogen production, says IEA](#)**
 - The carbon emission-free energy could be used to produce 6 million tons per year of H₂ by 2030.
- **[News Release: NREL Analysis Highlights Strategies Beyond Recycling To Bolster Circular Economy for Solar and Battery Technologies](#)**
 - Recycling to recover the materials used in the technologies is preferable to discarding them in a landfill, he said, "but if we can think about designing a product to use less materials to begin with, or less hazardous materials, that should be the first strategy."
 - NREL is already leading efforts to improve PV reliability, extend PV life spans, reduce the use of hazardous materials, and decrease demand for starting materials. This includes leading the Durable Module Materials Consortium (DuraMAT), which is researching ways to extend the useful life of PV modules, and the Bio-Optimized Technologies to keep Thermoplastics out of Landfills and the Environment (BOTTLE) Consortium, which is developing ways to improve the recycling of plastics.
 - NREL is also a partner in the Argonne National Laboratory-led consortium ReCell, which works with industry, academia, and national laboratories to advance recycling technologies along the entire battery life cycle for current and future battery chemistries.
- **[A critical review of the circular economy for lithium-ion batteries and photovoltaic modules – status, challenges, and opportunities](#)**
 - With limited global experience, scholars and practitioners have begun to investigate circular economy pathways, focusing on applying novel technologies & analytical methods to fast-growing sectors like

renewable energy. This critical review aims to synthesize the growing literature to identify key insights, gaps, and opportunities for research and implementation of a circular economy for two of the leading technologies that enable the transition to a renewable energy economy: solar PV and lithium-ion batteries (LIBs).

BEV / LiB Mineral & Battery Market News



Friday Fix: Lithium \$70,992/mt Nickel \$21,661/mt Cobalt \$60,450/mt

- [**GAC unveils next-gen LFP battery**](#)
 - Chinese carmaker GAC has unveiled a next-generation LFP battery designed to improve energy density as well as low-temperature, fast-charging and durability indicators. It is expected as early as next year.
 - The new SmLFP technology adds a higher capacity microcrystalline active cathode material to conventional LFP chemistry. According to GAC, this increases the gravimetric energy density of the cell by 13%, the volumetric energy density by 20% and the capacity at low temperatures of -20 °C by about 10%. Thus, fast charging rates of 2C and more are possible. The service life is >1.5 million kilometers.
- [**Tesla Delivers 254,695 Cars In Q2 2022**](#)
 - 258,580 built and 254,695 global deliveries of the Model Y, Model 3, Model S and Model X combined, Tesla beat expectations, which was at around 257,000 to 270,000 units.
- [**Ford follows Tesla playbook with Lontown lithium deal**](#)
 - Ford has agreed to help fund and also buy lithium from a proposed mine in Australia, four months after a similar deal by Tesla, in a sign the auto industry is becoming increasingly concerned about supplies of the battery raw material. Ford said it would buy a total of 650,000 mt of spodumene concentrate over five years and also lend A\$300 million (\$207 million) to Australian-listed Lontown Resources
- [**As EVs drive off with Li-ion supply, the push to stationary storage alternatives accelerates**](#)
 - Once seen as synonymous with renewable batteries, stationary Li-ion faces strong headwinds due to rapidly accelerating demand from the automotive sector as EVs capture the mainstream.
- [**Mining Industry Warns Energy Transition Isn't Sustainable**](#)
 - Mining industry executives have been warning that there is not enough copper, lithium, cobalt, or nickel for all the EV batteries that the transition would require. And they have not been the only ones, either. Even so, the European Union just this month went ahead and effectively banned the sales of cars with internal combustion engines from 2035.
- [**Tycoon Behind Nickel Market Short Squeeze Walks Away a Billionaire**](#)
 - Xiang Guangda, founder of the multibillion-dollar mining and steelmaking empire, Tsingshan Holding Group Co., made a giant bet on a fall in nickel prices that threatened to trigger a Lehman Brothers-like shock through the entire metals industry.
- [**Iberdrola powers up 50MW Irish battery**](#)
 - Iberdrola has powered up its first commercial-scale grid battery in Ireland.
 - The 50MW Gorman battery energy storage system in County Meath will provide system services to EirGrid for six years. The BESS comprises over 4000 battery modules spread across 16 battery containers on a site the size of a football pitch and represents an investment of €28m.

- *Matt: Wow that's huge football field size bank of storage when you look at image. Yet 50MW is a very small storage amount for €28m = €0.56/kWh = USD \$0.58/kWh, even for an EU country.*

Regards –