



Weekly Precious Metals News Articles: November 20, 2020

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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 climbs as focus returns to loose monetary policy**
 - Prices slumped as much as 5.2% on Monday after U.S. drug maker Pfizer Inc said its experimental Covid-19 vaccine was more than 90% effective based on initial trial results.
 - Central banks are unlikely to change their accommodative stance in the near to medium term as it will take time for a vaccine deployment and a pick-up in growth, inflation and labor market.
<https://www.cnbc.com/2020/11/10/gold-markets-coronavirus.html>
- **A 'sober' 2021 gold price target; say goodbye to 'phenomenal' drivers - HSBC's Jim Steel**
 - Jim Steel, chief precious metals analyst at HSBC, said that gold will average a price of \$1,965 an ounce in 2021, owing to competing macroeconomic forces; accommodative monetary policy will continue to provide tailwinds, but an unwinding of geopolitical risk from a Biden Administration will ease the appetite for gold.
<https://www.kitco.com/news/2020-11-16/A-sober-2021-gold-price-target-say-goodbye-to-phenomenal-drivers-HSBC-s-Jim-Steel.html>
- **Russia seeks to allow National Wealth Fund to invest in precious metals**
 - Russia's finance ministry has proposed allowing part of its National Wealth Fund (NWF) to be invested in precious metals, according to draft legislation published on Friday.
<https://uk.reuters.com/article/russia-wealthfund-gold/russia-seeks-to-allow-national-wealth-fund-to-invest-in-precious-metals-idUKL8N2HZ41>

Semiconductor Related Articles (impacting Precious Metals electronics):

- **IC industry output to grow more than 20 percent: TSIA**
 - The production value of Taiwan's integrated circuit industry is expected to grow +20.7% y/y on the back of a booming stay-at-home economy and emerging technologies.
 - The association had earlier estimated growth of 12.6%. Production value of the IC industry is forecast to reach NT\$3.21 trillion (US\$111.28 billion) this year, TSIA said.
<https://www.taipeitimes.com/News/biz/archives/2020/11/16/2003746979>
- **Taiwan top-3 foundries to see combined revenue surge 30% in 2020, says Digitimes Research**

- Combined revenue of TSMC, United Microelectronics (UMC) and Vanguard International Semiconductor (VIS) are expected to grow over +3% sequentially in Q4'2020 after registering a +14.9% rise in the Q3'2020. The top-3 Taiwan-based foundries will see their combined revenue for all of 2020 surge 30.2% on year to US\$52.5 billion.
<https://www.digitimes.com/news/a20201113PD211.html>
- **IC shortages to last till demand eases for notebooks, gaming gears, says Foxconn chair**
 - Shortages of components, especially those ICs fabricated at 8-inch fabs, will not ease until terminal market demand slows down for notebooks, gaming machines and other devices supporting stay-at-home economy, according to Foxconn Technology chairman Young Liu.
 - IC components have been in short supply due partly to insufficient wafer capacity support for chips vendors and strong pandemic-driven demand for stay-at-home applications.
<https://www.digitimes.com/news/a20201116PD201.html>

Silver

- **REC identifies location for 4 GW solar module factory in France**
 - Matt: Another 4GW to ~120GW installed Solar Module global capacity is a +3.3% add globally.
<https://www.pv-magazine.com/2020/11/18/rec-identifies-location-for-4-gw-solar-module-factory-in-france/>
- **Silver Market Interim Report and New Uses for Silver**
 - LBMA: Playback video of Tuesday morning event with Philip Newman of Metals Focus.
<http://www.lbma.org.uk/webinar-library/silver-market-interim-report-and-new-uses-for-silver?>
- **China could add 48 GW of solar next year – AECEA**
 - China will add 34-38 GW of solar generation capacity this year and 42-48 GW next year as officials prepare to ramp up renewables targets with president Xi Jinping's 2060 carbon-neutral pledge.
 - Matt: Incremental 10 GW addition next year adds estimated 8.2 Moz of incremental silver demand over this year for China's Solar PV.
<https://www.pv-magazine.com/2020/11/16/china-could-add-48-gw-of-solar-next-year-aecea/>
- **Silver Institute/Metals Focus: Key Components of Silver Market Affected by Pandemic in 2020**
 - Global Demand and Mine Supply Impacted, While Physical Silver Investment Expected to Surge to a 5-year High
<https://www.silverinstitute.org/wp-content/uploads/2020/11/SilverInstitute2020InterimPR.pdf>

Precious Metals Mining:

- **Mining Companies Leverage Position as Record Number of Investors Turn to Precious Metals**
<https://markets.businessinsider.com/news/stocks/mining-companies-leverage-position-as-record-number-of-investors-turn-to-precious-metals-1029815977>
- **Streaming: Wheaton Precious Metals Stock Doubles, But Stay Invested For 20% More Gains**
 - WPM's stock was able to beat the broader market due to a sharp rise in gold prices during the current pandemic, which benefited the company, as over 60% of its revenue is contributed by gold. The remaining portion comes from silver and palladium which have also seen an increase in prices
<https://www.nasdaq.com/articles/wheaton-precious-metals-stock-doubles-but-stay-invested-for-20-more-gains-2020-11-19>
- **Green hydrogen, exploration offer best opportunities for South Africa's mining sector**
 - Anglo American Platinum CEO Natascha Viljoen emphasised that in terms of the country's just energy transition, there were opportunities in batteries & hydrogen. She noted that platinum played an important role in this, with 70% of the world's PGM resources in South Africa. This is a big opportunity to be further developed in South Africa, especially in terms of green mobility.
<https://www.miningweekly.com/article/green-hydrogen-exploration-offer-best-opportunities-for-south-africas-mining-sector-2020-11-18>

- **Permafrost melting did not trigger oil spill catastrophe, says Russian control authority**
 - A report from federal technical inspection authority Rostekhnadzor concludes that construction faults and maintenance negligence were main reasons for the spill of 21,000 tons of diesel oil in the far northern Taymyr tundra.
<https://www.rcinet.ca/eye-on-the-arctic/2020/11/17/permafrost-melting-did-not-trigger-oil-spill-catastrophe-says-russian-control-authority/>
- **Anglo American extends SA five-year investment commitment to R100bn**
 - Anglo American expected to exceed its five-year investment target in South Africa in which it would spend some R100bn by 2022, R15bn more than previously forecast.
 - The additional expenditure was part of the roll-out of new technologies such as its green hydrogen haul fleet and bulk ore sorting, both of which had environmental benefits.
<https://www.miningmx.com/trending/44439-anglo-american-extends-sa-five-year-investment-commitment-to-r100bn/>

E-Waste & Precious Metals Recycle Related:

- **Gold industry's reform efforts marked by fears and finger-pointing**
 - Swiss refiners, which process 70% of the world's gold, have been dogged by accusations of sourcing from countries where mining has involved environmental devastation and human rights abuses.
 - Artisanal and small-scale mining (ASM) employs 15-20 million workers globally, and has been of concern as poor miners are often unable to invest in clean technology and work methods to extract the precious metal. Although ASM-sourced gold constitutes about 1% global supply, in some countries more. In Peru, 20-30% is estimated to come from smaller, independent miners.
<https://www.swissinfo.ch/eng/business/gold-industry-s-reforms-marked-by-fears-and-finger-pointing/46164798>
- **'Silicon Mountain' Advocates For More Tech Re-Use**
 - Planned obsolescence has resulted in billions of pounds of e-waste, but it doesn't have to be that way.
<https://www.sfweekly.com/film/silicon-mountain-advocates-for-more-tech-re-use/>

Platinum

- **WPIC: Platinum Quarterly Q3 2020, 18th November 2020**
 - 30-page detailed report on the Platinum Market
 - 2021 Mined supply -21%, recycle -10%, total demand -5%
https://platinuminvestment.com/files/786933/WPIC_Platinum_Quarterly_Q3_2020.pdf
- **Platinum market to see more than 1-million-ounce deficit in 2020 – World Platinum Council**
 - In its latest Q3 market report, the WPIC said that platinum is facing a supply deficit of more than 1 Moz this year as mine supply cannot keep up with growing demand. Looking at next year, the platinum market could see a supply deficit of more than 200 koz.
 - Despite the strong q/q recovery in mine and recycle supply, the rebound in automotive demand and sustained investment demand for precious metals, including platinum, lifted Q3'20 Pt demand well above supply.
<https://www.kitco.com/news/2020-11-17/Platinum-market-to-see-more-than-1-million-ounce-deficit-in-2020-World-Platinum-Council.html>
- **Platinum investment demand rockets on risk and hydrogen – WPIC**
 - Platinum investment demand rocketed 291% in the three months to September 30, WPIC reported, when it forecast a Q3'2020 annual platinum deficit next year on an initial projected 2021 deficit of 224 000 oz.
https://www.miningweekly.com/article/platinum-investment-demand-rockets-on-risk-and-hydrogen-wpic-2020-11-17/rep_id:3650

Fuel Cells/Hydrogen Economy Related Articles:

- **Fuel cell truck development partnership forms between Navistar and Cummins**
 - Navistar International Corp. and Cummins Inc. have announced that they have partnered on a hydrogen fuel cell truck development goal. The companies are working together to develop a Class 8 truck that will run on hydrogen.
https://www.hydrogenfuelnews.com/emec-produces-green-hydrogen-through-flow-batteries-and-tidal-power/8541030/?mc_cid=fb666ab45e&mc_eid=70c1246d58
- **New steelmaking technology employs hydrogen fuel**
 - This new process was developed by the industry in Sweden to reduce the dependency on fossil fuels.
 - The Swedish steel industry has developed a new steelmaking technology that could provide a competitive and viable way to use hydrogen fuel to reduce the need for fossil fuel.
 - The goal is to swap out coal that burn dirty at about 1.8 tons of CO₂ for every 1 ton of steel produced. This new method would knock the CO₂ emissions down to 25 kilograms (-98.5%).
https://www.hydrogenfuelnews.com/new-steelmaking-technology-employs-hydrogen-fuel/8540993/?mc_cid=84e17eec4d&mc_eid=70c1246d58
- **Canada needs to build pipelines for oil and gas, but for hydrogen, too, clean energy advocates say**
 - Pipes will be needed to move hydrogen, CO₂, and other materials, say experts.
 - Matt: Recall that H₂ mixed in existing natural gas pipelines can actually have corrosive and embrittlement effect on existing pipes depending on material type. Accelerated degradation of pipeline materials is a risk under further engineering review by numerous institutes. Meanwhile larger scale trials at 4-6% composition continue in the US, and Australia is talking about as high as 20% composition. Dedicated stainless steel H₂ pipelines for short distance distribution around Blue hydrogen SMR refining (with carbon capture) would help enable numerous heavy industries and power plants use of hydrogen as a energy feedstock, and enable lower cost distribution of H₂ for refueling stations.
<https://www.cbc.ca/news/business/hydrogen-pipelines-clean-energy-1.5723541>
- **The BMW-Toyota Partnership Is Just Getting Started**
 - The partnership also encompasses hydrogen fuel cell propulsion.
 - BMW showed off its own i Hydrogen NEXT crossover concept at the 2019 Frankfurt Motor Show, but the automaker isn't aiming to have a series-production H₂ vehicle on the market until 2025 or later.
<https://carbuzz.com/news/the-bmw-toyota-partnership-is-just-getting-started>
- **Cummins to build railway fuel cell factory (in Germany)**
 - Cummins' hydrogen (PEM) business Hydrogenics is to open a factory at Herten for the volume production of PEM fuel cells for apps including Alstom's Coradia iLint multiple-units.
 - Opens July 2021 and will initially manufacture 1 MW of fuel cell systems a month for the iLints.
<https://www.railwaygazette.com/business/cummins-to-build-railway-fuel-cell-factory/57781.article>
- **Kitco News Video: Platinum group metals demand to soar in face of biggest dilemma in history**
 - The shift towards clean energy production will put stress on the demand for rare-earth metals such as vanadium, lithium, iridium, platinum, and palladium, said Matt Watson, founder of Precious Metals Commodity Management.
 - "The prices on these metals will indeed climb. This will be the century of clean energy and mineral constraints like we've never experienced in our history. We're just going to simply hit some limits on the periodic table and really be challenged to do more and more extraction to meet clean energy demands, it's that simple," Watson told Kitco News.
<https://youtu.be/zgb6oy00JMO>

- **Toyota steps up to support Mirai fuel-cell car with 7 more hydrogen stations in California.**
 - Toyota North America confirmed that the second-generation version of its Mirai hydrogen fuel-cell car is arriving at some California dealers later this year. Toyota also announced a partnership with Iwatani that will boost the number of retail public H₂ fueling stations by 7 in Southern California. https://www.greencarreports.com/news/1130286_toyota-steps-up-to-support-mirai-fuel-cell-car-with-7-more-hydrogen-stations-in-california
- **Danish fund backs 5 GW Australian renewable hydrogen project (Wind, Solar & Green H₂)**
 - Hydrogen Renewables Australia is already planning the 5 GW Murchison Renewable Hydrogen Project (MRHP), near Kalbarri in Western Australia. And the early-stage initiative is now partnering with global fund manager Copenhagen Infrastructure Partners.
 - MRHP is located on Murchison House Station. The hybrid wind & solar system will energize desalinated waste and produce hydrogen fuel for export to markets such as Japan and South Korea.
 - The project already has Siemens on board as its technology partner to utilize its Silyzer PEM electrolyzer, is a step closer to reality, thanks to the new partnership with Danish investment firm. <https://www.pv-magazine.com/2020/11/17/danish-investment-fund-backs-5-gw-australian-renewable-hydrogen-project/>
- **UCLA-Led Research Shows Efficient and Inexpensive Fuel-Cells in Sight (Reversible PEM's)**
 - A major issue is that the chemical reaction of reducing oxygen to form water is very sluggish, requiring a huge amount of expensive platinum to kick start the reaction and keep it going. While the produced water vapor is far better than carbon emissions, its presence at the reaction site would stop the reaction and therefore must be transported away quickly for the reaction to continue.
 - The research group dramatically accelerated the chemical reaction, greatly reducing the amount of costly Pt. Researchers found a way to quickly expel excess water from the reaction site. <https://samueli.ucla.edu/ucla-led-research-shows-efficient-and-inexpensive-fuel-cells-in-sight/>

Palladium

- **UK ICE Ban now starting 2030: UK PM backs hydrogen in his 10-point green plan**
 - The Prime Minister has also brought forward the ban on new petrol and diesel cars by ten years to 2030. This means that only zero emission vehicles, like hydrogen-powered fuel cell electric vehicles (FCEVs), will be sold in the UK after that year.
 - A government statement said the sale of hybrid cars and vans that can drive a significant distance with no carbon coming out of the tailpipe will be allowed until 2035. <https://www.h2-view.com/story/uk-pm-backs-hydrogen-in-his-10-point-green-plan/>
- **Jack Lifton on how the Tesla effect is driving platinum, palladium, and rhodium around the bend**
 - The principal Platinum Group Metals (PGMs), the platinum, palladium, and rhodium are among the most critical of the critical metals that support our health and well-being <https://investorintel.com/markets/technology-metals/technology-metals-intel/jack-lifton-on-how-the-tesla-effect-is-driving-platinum-palladium-and-rhodium-around-the-bend/>
- **Palladium, meet copper: Researchers use machine learning to improve catalysts**
 - Researchers from Skoltech, Germany, and US have studied the properties of a palladium-copper alloy under changing temperatures and H₂ concentrations, with relevant implications for catalyst design.
 - The team found that hydrogen adsorption indeed has a strong effect on the concentration of Pd atoms in the top layer of Cu surface. "While at low H₂ pressures & higher temperatures Pd prefers to stay at the surface, at higher pressures and lower temperatures H₂ adsorption drives Pd away from the surface <https://phys.org/news/2020-11-palladium-copper-machine-catalysts.html>

PGM Minor Metals (Rhodium, Iridium, Ruthenium)

- **Rhodium: Record rhodium price not enough to increase output: Heraeus**
 - Some delayed projects, closed mines may possibly be restarted
 - Severe rhodium shortages projected next few years
 - Deficit to grow by 162,000 oz in 2021, 411,000 oz in 2024
<https://www.spglobal.com/platts/en/market-insights/latest-news/metals/111720-record-rhodium-price-not-enough-to-increase-output-heraeus>
- **Rhodium: You May Have Overlooked These “Sleeper” Precious Metals**
 - A metal we don’t often talk about traded up to an amazing record high earlier this week. The noble metal rhodium made palladium look dirt cheap by comparison, commanding as much as \$15,000 Toz.
<http://www.marketoracle.co.uk/Article67988.html>
- **Ruthenium Embedded MRAM Example: Ambiq's Apollo4 SoC with its onboard MRAM chosen as Best of Show at the 2020 Flash Memory Summit**
 - Matt: In my IPMI Ru and Ir presentation I talked about non-volatile memory MRAM taking off using Pt and Ru. This is a product announcement of an embedded design, or System-On-Chip with MRAM part of the big package next to the IC logic chip in same encased package.
<https://www.mram-info.com/ambiqs-apollo4-soc-its-onboard-mram-chosen-best-show-2020-flash-memory-summit>
- **Iridium breakthrough a boost for green hydrogen economy, PGMs mining**
 - Heraeus Precious Metals has achieved a material thrifting success with its new electrocatalyst that requires only a fraction of the iridium previously required by PEM electrolyser, which split water into hydrogen and oxygen. (Also watch attached Creamer Media video.)
<https://www.engineeringnews.co.za/article/iridium-breakthrough-a-boost-for-green-hydrogen-economy-pgm-mining-2020-11-16>
- **Iridium: Catalyzing a zero-carbon world by harvesting energy from living cells**
 - They focused on a powerful, versatile pre-catalyst called "phosphine-bipyridine-phosphine (PNNP)iridium (Ir)-bipyridyl complex." Prof Saito says, "Single-active-metal catalyst such as the (PNNP)Ir catalyst can facilitate the selective hydrogenation and dehydration of highly functionalized (highly oxidized and oxygenated) biomass feedstock like Krebs cycle metabolites."
<https://www.sciencedaily.com/releases/2020/11/201112093110.htm>
- **Iridium: Catalyzing a zero-carbon world by harvesting energy from living cells**
 - Recently, the idea of modifying highly functionalized PCAs into bio-renewable molecules has been explored, by restoring the carbon-hydrogen (C-H) bonds that were lost in their creation. This would need these biomolecules to undergo reactions called "dehydration" and "reduction," that is, the reversal of the Krebs cycle, a complicated process.
 - The research team focused on a powerful, versatile precatalyst called "phosphine-bipyridine-phosphine (PNNP)iridium (Ir)-bipyridyl complex." Prof Saito says, "Single-active-metal catalyst such as the (PNNP)Ir catalyst can facilitate the selective hydrogenation and dehydration of highly functionalized (highly oxidized and oxygenated) biomass feedstock like Krebs cycle metabolites."
<https://www.sciencedaily.com/releases/2020/11/201112093110.htm>

BEV / LiB Battery Market News

- **BEV Milestone: Tesla gets a spot on the S&P 500**
 - Tesla will be added to the S&P 500, a milestone that will expand its investor base and put the electric automaker in the same company as heavyweights like Apple, Berkshire Hathaway and Microsoft.
<https://techcrunch.com/2020/11/16/tesla-gets-a-spot-on-the-sp-500/>

- **A Roundup Of The Latest Electric Truck News**
 - **Hino Trucks** announced “Project Z,” outlining plans release several ZEV’s over the next few years.
 - **Kenworth** announced a BEV Class 8 T680 truck, now available for order, with lead production in 2021 and is designed for pickup and delivery applications.
 - **Mack Trucks** recently delivered a pre-production LR Electric model to Republic Services to begin in-service trials in real-world refuse routes.
 - **Peterbilt’s** Model 579EV available for customer order, with production Q2 of 2021.
 - **Volvo Trucks** announced orders for VNR Electric truck open Dec. 3, production early 2021.
<https://www.fleetequipmentmag.com/latest-electric-truck-news/>
- **3-Wheel EV: South African-made MellowVan ready for global rollout in 2021**
 - The electric three-wheeler, aimed at the last-mile delivery market, is currently the subject of a number of advanced large-scale proof-of-concept projects with retailers such as DHL, Takealot and Checkers, here and in Southern Africa.
<https://www.engineeringnews.co.za/article/south-african-made-mellowvan-ready-for-global-rollout-in-2021-2020-11-16>
- **Tesla (TSLA) starts hiring for its first full-scale battery cell factory**
 - At its ‘Battery Day’ earlier this year, Tesla unveiled its own battery cell, the Tesla 4680, and explained its plan to produce its own battery cells for the first time. Tesla is currently ramping up production at its pilot production line in Fremont.
 - Tesla has designed the entire production system called Roadrunner in-house and it is currently using the pilot line to improve on its machinery. Tesla is planning to deploy these full-scale battery cell factories at its current Gigafactory projects in Berlin, Texas, and China.
<https://electrek.co/2020/11/18/tesla-starts-hiring-first-full-scale-battery-cell-factory/>
- **COVID-19 disruptions to tech-metals supply are a wake-up call**
 - The pandemic has temporarily closed mines, factories and borders and destabilized flows of cobalt, lithium and other metals that are crucial for batteries, wind turbines and solar panels.
<https://www.nature.com/articles/d41586-020-03190-8>

Regards –