



Weekly Precious Metals News Articles: January 1, 2021

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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 on course for best year in a decade**
 - Spot gold was almost flat at \$1,893.84 per ounce, but was up more than 24% for the year, its best since 2010. U.S. gold futures were up 0.3% to \$1,898.70. “We look for a move towards \$1,950 in the first quarter of 2021, with the expansionary monetary and fiscal policy
https://www.cnbc.com/2020/12/31/gold-markets-dollar.html?_source=sharebar|linkedin&par=sharebar
- **Gold rises as dollar dips on prospect of higher U.S. aid**
 - “We are entering 2021 with some nervousness as we got stock markets at elevated levels and (on) prospects of additional stimulus against the prospect of vaccine starting to improve the economic outlook... but overall it hasn’t reduced the appetite for safe-haven metals.”
<https://www.cnbc.com/2020/12/29/gold-markets-dollar.html?>
- **Here’s where to invest your money before traders start ‘rotating, if not stampeding’ out of stocks, according to one Warren Buffett disciple**
 - Earlier this year, Berkshire Hathaway threw its heavyweight name behind Barrick Gold GOLD, 0.35% with an investment that flew in the face of Warren Buffett’s longtime aversion to gold. The news was “earth-shaking in the gold market,” one strategist said at the time.
 - Now, Kevin Smith, Crescat Capital’s CIO, says others following suit by adding exposure to gold and taking profits from some of those highfliers will be richly rewarded when the bull market turns.
<https://www.marketwatch.com/story/heres-where-to-put-your-money-before-traders-start-rotating-if-not-stampeding-out-of-stocks-according-to-one-warren-buffett-disciple-11609104803?mod=home-page>

Semiconductor Related Articles (impacting Precious Metals electronics):

- **China’s Record 5G Blueprint for 2021 Electrifies Telecom Stocks**
 - China unveiled plans to almost double its fifth-generation wireless capacity next year, sending ZTE Corp. and other network gear makers soaring.
<https://www.bloomberg.com/news/articles/2020-12-29/china-s-record-5g-blueprint-for-2021-electrifies-telecom-stocks>
- **Global semiconductor shortage is contributing to tech inventory woes**
 - We’ve discussed ad nauseam how it’s virtually impossible to buy new tech products at retail this holiday season. There are plenty of theories as to what’s driving the scarcity of certain electronics, including the pandemic and retailers moving all sales online, but perhaps there’s more to it.

<https://www.techspot.com/news/88066-global-semiconductor-shortage-contributing-tech-inventory-woes.html>

Silver

- **After golden year for precious metals, silver set to shine in 2021**
 - After a spectacular year, precious metals are set for further gains in 2021, with silver tipped to outperform, but analysts are growing more cautious about the prospects for gold as the global economy recovers from the impact of the coronavirus.
<https://www.reuters.com/article/uk-global-precious-graphic-idUKKBN2951NS>
- **Combatting COVID-19: Gold, Silver and Platinum**
 - Researchers have developed drugs and tests that use silver to detect and protect against the virus. Serological assays, a type of blood test, employ silver and gold nanoparticles¹ to quickly determine if antigens exist in a patient's bloodstream.² These are critical in determining if the person is infectious and to ensure that donated plasma used to treat ill patients is safe.
 - Treatments for certain cancers employ gold and platinum. This role has the potential to grow, accelerated by recent breakthroughs.
<https://www.kitco.com/commentaries/2020-12-29/Precious-metals-and-the-fight-against-covid.html>
- **Silver ETFs Gain On Stimulus Package Signing**
 - The price of silver futures and silver ETFs surged once again in the domestic market on Monday after President Trump signed a spending and pandemic aid bill, clearing the possibility for a veto from last week.
<https://www.nasdaq.com/articles/silver-etfs-gain-on-stimulus-package-signing-2020-12-29>
- **About 9.7 GW of large-scale PV set for 2021 delivery in US market**
 - Across the United States, more than three dozen solar projects with nameplate capacities of at least 100 MW are set to enter service in 2021. The Texas oil patch is on track to host the largest of them.
<https://www.pv-magazine.com/2020/12/29/about-9-7-gw-of-large-scale-pv-set-for-2021-delivery-in-us-market/>
- **Technical: PV trends of 2020: Part 4**
 - PV Trend Article Parts 1 through 4 below.
<https://www.pv-magazine.com/2020/12/24/pv-trends-of-2020-part-1/>
<https://www.pv-magazine.com/2020/12/25/pv-trends-of-2020-part-2/>
<https://www.pv-magazine.com/2020/12/28/pv-trends-of-2020-part-3/>
<https://www.pv-magazine.com/2020/12/29/pv-trends-of-2020-part-4/>

Precious Metals Mining:

- **Gold Miners Set for Another Banner Year With Focus on Discipline**
 - The good times for gold miners are expected to continue next year, especially for those that are able to tighten spending and increase returns to investors.
<https://www.bloomberg.com/news/articles/2020-12-28/gold-miners-set-for-another-banner-year-with-focus-on-discipline>
- **15 Biggest Mining Companies In The World**
 - 15. Franco Nevada (Gold and Streaming) - \$25.1B Market Capitalization
 - 14. Polyus (Gold) \$21.8B
 - 13. Zijin Mining (China Gold, Copper and Zinc. various) - \$10.5B
 - 12. Southern Copper (Copper) \$49.1B
 - 11. Fortescue Metals Group (Iron Ore) - \$24.1B
 - 10. Freeport-McMoRan (Copper, Gold and Molybdenum) \$35.8B
 - 9. Nutrien (Fertilizer) - \$20.4B

- 8. Newmont Mining (**Gold**) - \$48.2B
- 7. Barrick Gold (**Gold**) - \$48.9B
- 6. Anglo American (**Platinum**, Diamonds, other) \$22.0B
- 5. Vale (Iron Ore) - \$42.5B
- 4. Norilsk Nickel (**Palladium**, Nickel, Copper, other) \$43.8B
- 3. Glencore International (various) \$25.4B
- 2. Rio Tinto (Bauxite, Alumina, Iron Ore, **Gold**, Diamonds, Titanium Dioxide, Salt and Copper) \$75.5B
- 1. BHP Group (Iron Ore, Petroleum, Coal, Nickel, Uranium, Natural Gas and Copper) \$107.1B
<https://www.insidermonkey.com/blog/15-biggest-mining-companies-in-the-world-911898/?singlepage=1>
- **Franco-Nevada: This Gold Streamer Poised To Profit From Stimulus Spending**
 - Franco-Nevada is the largest gold and precious metals streaming company in the world. This is a business model that offers investors exposure to precious metals prices without the risks of actually owning and operating the mines.
 - The company will likely see the production that it receives from its streaming contracts grow along with gold prices, providing two sources of growth. The price of gold is likely to increase going forward due to incredibly high Federal spending and growth of the money supply.
<https://seekingalpha.com/article/4396169-franco-nevada-this-gold-streamer-poised-to-profit-from-stimulus-spending>

E-Waste & Precious Metals Recycle Related:

- **Battery Recycling - Building a sustainable battery materials value chain**
 - YouTube Promotional Video - BASF
<https://youtu.be/Put2XA4x2Us>
- **Study shows residential electronic scrap generation is declining**
 - The idea behind this research was how the collection of devices people use daily is needed to see the bigger picture; just looking at smartphones or laptops isn't enough. Babbitt says research has to take more devices into account to see any trends. "While we might have more products coming out in the waste stream, they're smaller and lighter than some of the products we saw a decade ago," she adds.
<https://www.recyclingtoday.com/article/electronic-residential-scrap-volumes-declining-study/>
- **Tech companies aren't doing enough to keep their devices out of landfills, and neither are we**
 - In 2019, nearly 153 million smartphones were sold according to Gartner, and in 2018, users were keeping their phones for about 2 years, but that time period is likely to drop as folks upgrade to 5G-capable phones.
<https://www.msn.com/en-us/news/technology/tech-companies-aren-e2-80-99t-doing-enough-to-keep-their-devices-out-of-landfills-and-neither-are-we/ar-BB1cfx4>

Platinum

- **Exhaust and aftertreatment on the Achates ULNOx heavy-duty opposed-piston diesel**
 - Achates Power announced that its innovative 3-cylinder, 10.6L opposed-piston (OP) heavy-duty diesel engine achieved Ultralow NOx (ULNOx) performance results. (Earlier post.) A key element of the achievement is the low engine-out NOx from the opposed-piston engine, which reduced the requirements for the aftertreatment system (ATS).
<https://www.greencarcongress.com/2020/12/20201228-achates.html>
- **New N.J. rules would crack down on pollution from power plants, trucks, industrial boilers**
 - Another new rule proposal would clamp down on emissions of nitrogen oxide from some medium- and all heavy-duty vehicles. The pollutant is one of the primary ingredients in smog, or ground-level

ozone, during summer days throughout New Jersey, but particularly in urban areas among people with respiratory ailments.

<https://whyy.org/articles/new-n-j-rules-would-crack-down-on-pollution-from-power-plants-trucks-industrial-boilers/>

Fuel Cells/Hydrogen Economy Related Articles:

- **Fuel cell industry surpasses the gigawatt milestone for the first time**
 - An E4tech report says that over 1 GW of global hydrogen fuel cell capacity was added in 2019. Last year was a big one for the fuel cell industry. According to a report from energy consultants E4tech, an estimated 1.1 gigawatts (GW) of fuel cell capacity was shipped globally in 2019. This is an impressive 40% increase on 2018 levels.
 - Matt: 2020 was projected to achieve 1.56 GW of globally hydrogen fuel cell capacity. https://www.hydrogenfuelnews.com/fuel-cell-industry-surpasses-the-gigawatt-milestone-for-the-first-time/8539192/?mc_cid=2c42219b83&mc_eid=70c1246d58
- **Renewable hydrogen will replace natural gas in millions of Australian households**
 - Under a new Australian government-backed initiative, millions of households across the country will be supplied with renewable hydrogen in the place of natural gas.
 - Engie & Neoen are working with the Australian government to develop the road to a “100% transition” in both South Australia and Victoria. These solar and wind energy companies have established the Australian Hydrogen Center (A.H.C.). Through the A.H.C., the companies will start the replacement process, sending renewable hydrogen into the natural gas distribution networks. This will be done in stages, beginning with a select few towns. https://www.hydrogenfuelnews.com/renewable-hydrogen-will-replace-natural-gas-in-millions-of-australian-households/8539476/?mc_cid=2c42219b83&mc_eid=70c1246d58
- **New Hydrogen Fuel Cell-Powered Fast Chargers Announced**
 - ABB has announced the launch of a strategic partnership with AFC Energy to create the next generation of high-power sustainable electric vehicle (EV) charging solutions for grid-constrained locations. The endeavor combines ABB’s energy storage solution and DC EV fast chargers with AFC Energy’s zero-emission, high-efficiency hydrogen fuel cell. <https://cleantechnica.com/2020/12/27/new-hydrogen-fuel-cell-powered-fast-chargers-announced/>
- **Why Hyperion’s CEO Is So Hyped About the New Hydrogen-Powered XP-1—and Its 1,000 Miles of Range**
 - Angelo Kafantaris discusses the hypercar’s purported otherworldly range and performance thanks to NASA-derived tech. <https://robbreport.com/motors/cars/hyperion-ceo-angelo-kafantaris-interview-xp-1-hypercar-1234588195-1234588195/>
- **Japan unveils green growth plan for 2050 carbon neutral goal**
 - Japan on Friday unveiled plans to boost renewable energy, phase out gasoline-powered cars and reduce battery costs as part of a bid to reach an ambitious 2050 carbon-neutral goal. On Friday, his government laid out for the first time what meeting that target will involve, including setting a provisional goal of generating more than half of the country's electricity from renewable sources by 2050. <https://techxplore.com/news/2020-12-japan-unveils-green-growth-carbon.html>

Palladium

- **(New Palladium-based) Metallic glass to improve performance of methanol fuel cells**
 - The new palladium-based metallic glass is the best material for methanol oxidation in fuel elements to this date and surpasses all existing developments and commercial solutions. According to the comparison with the most popular materials as an electrode for methanol oxidation, the new

solution has one of the best performance values and the highest resistance to carbon monoxide poisoning that usually causes the degradation of electrodes.

<https://www.greencarcongress.com/2020/12/20201226-sarac.html>

- **Palladium ETF Could Carry Its Momentum Into 2021**

- PALL (Pd ETF) increased +3.4% on Thursday and advanced +20.7% in 2020.
- Meanwhile, the Aberdeen Standard Physical Platinum Shares ETF (PPLT) dipped -0.5% but was still on pace to gain close to +11% for the year.

<https://www.nasdaq.com/articles/palladium-etf-could-carry-its-momentum-into-2021-2020-12-31>

- **Major Producer Nornickel Issues Its First Metal Contract-Backed Digital Coins**

- One of the world's biggest palladium producers, based in Russia, announced that it's starting the first stage of issuing blockchain-powered tokens to its industrial partners Traxys and Umicore.
- The tokens issued by the Global Palladium Fund on the Atomyze platform will allow it to deliver Nornickel's products to customers in a more efficient and transparent way. We are confident that it will provide the industry with the necessary tools to guarantee responsible sourcing

<https://news.bitcoin.com/major-producer-nornickel-issues-its-first-metal-contract-backed-digital-coins/>

PGM Minor Metals (Rhodium, Iridium, Ruthenium)

- **Iridium: Energy commodities trader CCI is backing Spanish green hydrogen project**

- The project consists of a 20 MW (PEM Electrolyzer) green hydrogen plant adjacent to the Amorebieta-Borua CCGT utilizing part of the existing infrastructure of the conventional power generation plant and gas distribution network. The plant is expected to generate 1,500 tones of green hydrogen per year from 100% renewable sources with offset the emission of more than 12,000 tons of CO2 into the atmosphere, the equivalent of taking 2,500 cars off the road each year.
- Matt: I would estimate the Iridium loadings on this 20 MW project to be between 13 to 33 koz

<https://investableuniverse.com/2020/12/22/cci-castleton-green-hydrogen-spain-ccgt-white-summit/>

- **Ru & Ir: Chlor-Alkali Plant Commissioned In Bangladesh**

- International Process Plants and Equipment Corp. (IPP) and Bluestar (Beijing) Chemical Machinery Co. Ltd. (BCMC, a unit of ChemChina), announced today that they have completed commissioning of SR Chemical Group's brand new chlor-alkali production complex, yielding 30,000 tons/yr of 32% caustic soda.

<https://www.chemengonline.com/chlor-alkali-plant-commissioned-in-bangladesh/>

- **Turning Heat Down: Catalyzing Ammonia Formation at Lower Temperatures with Ruthenium**

- Scientists at Tokyo Tech report that the metal ruthenium, supported with lanthanide oxyhydrides, can efficiently catalyze the synthesis of ammonia at a much lower temperature than the traditional approach. In their new study, they highlight the advantages of the oxyhydride support and its potential in becoming a feasible catalyst for low-temperature ammonia synthesis in the future.

<https://www.miragenews.com/turning-heat-down-catalyzing-ammonia-formation-at-lower-temperatures-with-ruthenium/>

BEV / LiB Battery Market News

- **Elon Musk Hopeful Tesla Can Deliver 500,000 Vehicles By End Of Year, Encourages Employees To 'Make It Happen'**

- EV publication Electrek has obtained an email sent by Musk to Tesla's employees. In it, he encourages them to "go all out to make it happen," referring to reaching 500,000 deliveries this year.

<https://www.benzinga.com/node/18930587>

- **Now Toyota Has No Choice, But To Follow Tesla**

- Matt: Toyota has held that standout strategy focusing on Hybrid vehicles, but not PHEV's or BEV's. Now more and more countries want to ban ICE including PHEV's and Hybrids as well. I personally

think Toyota is correct, scaling large LiB based BEV's is going to be limited based on mined supply of LiB minerals, and FCEV's will be limited based on available Pt. Hybrids and PHEV's are the best chance to lower global transportation emissions.

- In recent months Toyota and Honda executives have questioned if the world is ready for electric cars, but now they have no choice, but to follow Tesla as the Japanese government just announced a plan to ban cars with internal combustion engines by 2030.
<https://www.torquenews.com/1/now-toyota-has-no-choice-follow-tesla>
- **EU proposes lithium-ion battery recycling targets**
 - European Commission's proposed regulations on lithium-ion sustainability include a requirement for the use of recycled-content lithium, cobalt and nickel in lithium-ion batteries sold in the EU.
<https://www.recyclingtoday.com/article/eu-lithium-ion-battery-recycling-idtechex/>
- **American Battery Metals to start operations Q4 2020**
 - According to a news release from American Battery Metals, the new Nevada facility will be designed to handle up to 20,000 metric tons of scrap materials and end-of-life batteries. With a global forecast of 11 million metric tons of end-of-life lithium-ion batteries expected by 2030, the company says it's positioned to address increasing needs for lithium-ion battery recycling.
<https://www.recyclingtoday.com/article/american-battery-metals-start-operations-lithium-recycling-q4-2020/>
- **Rising nickel prices to support project development – report**
 - Fitch Solutions forecasts nickel mine production to grow by 8.3% y-o-y in 2021, above the average growth of 5.9% y-o-y experienced over 2010-2019 but not fully replacing the 23.3% expected contraction in 2020's nickel output.
 - Growth in the near term will be driven by a recovery in output in the Philippines and Indonesia, Fitch says. In the Philippines, lockdowns and supply chain constraints over the first half of 2020 had reduced output by 27.7%.
<https://www.mining.com/rising-nickel-prices-to-support-project-development-report/>
- **Nikola Announces Another Troubling Setback**
 - The FCEV/EV truck start-up went from securing a \$2 billion investment deal with General Motors to suffering a 50% drop in value. The release of a short-seller report accusing Nikola of deception, fraud, and misleading investors led to the resignation of CEO and founder Trevor Milton. Nikola immediately began to reorganize, appointed a new CEO, and attempted to salvage the GM deal.
 - A completely new agreement was struck in late November that calls for GM supplying a fuel-cell system for Nikola's Class 7 and Class 8 commercial semi-trucks. The Badger pickup truck, a hopeful Tesla Cybertruck and Rivian R1T rival, is officially dead because GM refuses to build it, as per the old agreement. And now Nikola has announced another setback.
 - Nikola and Republic Services, a US-based waste disposal company, have terminated an agreement that would have seen the former supply electric garbage trucks. Matt: These were planned heavy duty EV's with 750 kW LiB's, enormous LiB's >5 mt each.
<https://carbuzz.com/news/nikola-announces-another-troubling-setback>

Regards –