



Weekly Precious Metals News Articles: July 29, 2022

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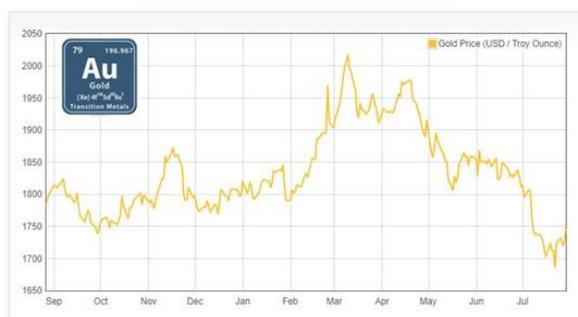
Below is a cross section of relevant news article to the world of Precious Metals:

Markets, Supply & Demand, Investment, and Industrial Applications.

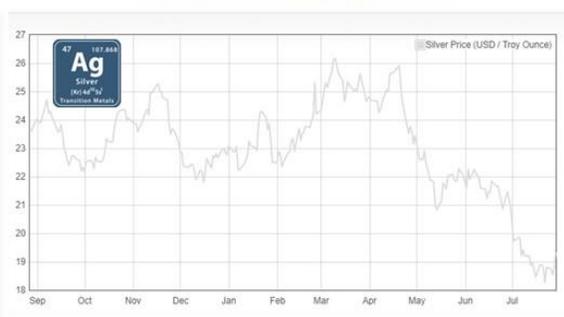
Printable PDF version attached. Enjoy-

Gold

Gold Prices for the Last Year



Silver Prices for the Last Year



Friday LBMA: Gold \$1,753.50/toz Silver \$19.33/toz

- [Gold accelerates on gloomy U.S. economic readings](#)
 - Gold rose over 1% on Thursday as a contraction in the U.S. economy boosted its safe-haven allure and helped to extend gains driven by a less aggressive tone from the Federal Reserve chairman.
 - Spot gold extended gains on the data, and was last up 1.1% to \$1,752.94 per ounce by 10:50 a.m. EDT., helped along by a subsequent slide in U.S. Treasury yields. U.S. gold futures rose 1.8% to \$1,749.10.
- [Fed raises rates by 0.75 points for second month in a row](#)
 - Markets rally after chair Jay Powell says it could be 'appropriate to slow' pace of increases
 - The Federal Reserve raised its benchmark policy rate by 0.75% for the 2nd month in a row on Wednesday as it doubled down on its aggressive approach to taming soaring inflation despite early signs the US economy is starting to lose steam.
 - The rate rise means the central bank is in the throes of the most aggressive cycle of monetary tightening since 1981. It follows a half-point rise in May, and a 0.75% rise last month, the first of that magnitude since 1994.
- [PM Modi to launch international bullion exchange on July 29](#)
 - The prime minister, during his visit, will launch the India International Bullion Exchange (IIBX), which will facilitate efficient price discovery with the assurance of responsible sourcing and quality, apart from giving impetus to the financialization of gold in India, according to a statement by IFSC Authority.

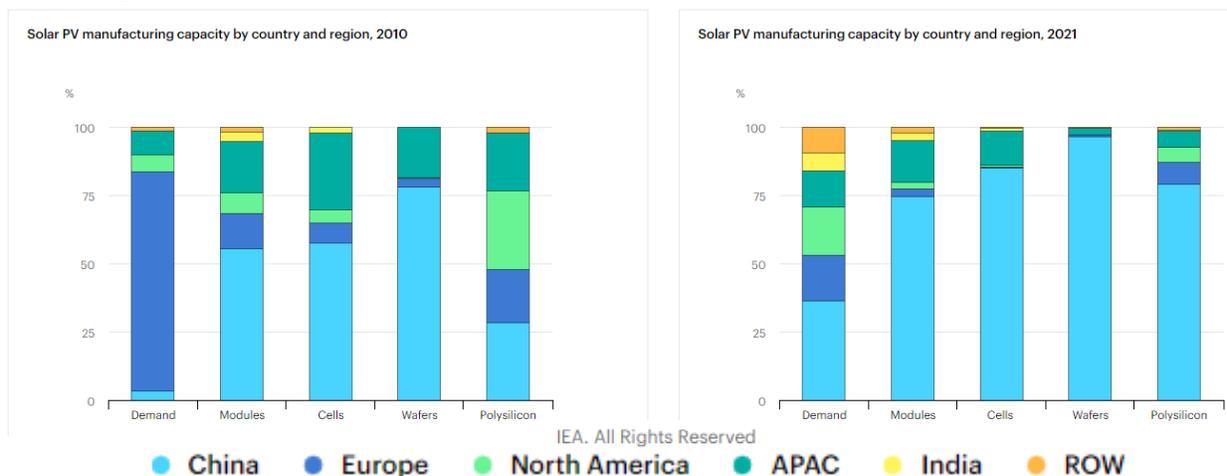
- [Euro-Dollar Parity, Death Cross for Gold](#)
 - In addition, gold has signaled a "death cross," which occurs when the 50-day moving average dips below the 200-day moving average. Some investors and traders see this move as a bearish sign. I see it as a buying opportunity. If you believe that the Dollar is overextended relative to other currencies, and that a reversal could happen in the coming weeks and months, now may be a good time to accumulate, especially if you think we're in the midst of a recession.
- [Despite Manipulating Precious Metals Prices, JPMorgan Is Still At The Heart Of The LBMA, SBMA, & COMEX](#)
 - With a group of former JP Morgan precious metals traders currently on criminal trial in front of a federal jury in Chicago, accused of engaging in a racketeering conspiracy involving precious metals price manipulation, commodities fraud and trade spoofing, while another group of their colleagues have already pleaded guilty, now is a good time to ask how the bank JP Morgan is still considered fit and proper to not only continue to trade in the precious metals markets, but to continue to literally dominate the entire precious metals industry in London, Singapore and New York, with the support of the London Bullion Market Association (LBMA), the Singapore Bullion Market Association (SBMA) and the CME Group (operator of the COMEX and NYMEX).

Semiconductor Related Articles (impacting Precious Metals electronics):

- [Global manufacturers see chip shortage easing](#)
 - Hyundai to boost production at plants
 - ABB CEO: chipmaker supply commitments improve
 - ABB CEO: commodity prices coming down
 - Electrolux CEO: supply situation returning to normal
 - Nokia expects supply shortage to ease
- [SiC Semiconductors and the Future of the Industry](#)
 - But what makes SiC such an effective semiconductor? As a wide-bandgap semiconductor material, it has a wider energy difference than other semiconductor materials (such as traditional silicon), which gives it higher thermal and electronic properties. This makes the material a star in high-power, high-temperature, and high-frequency applications. In fact, when compared with silicon semiconductors, SiC offers 10× higher dielectric breakdown strength, 3× higher energy bandgap, and 3× higher thermal conductivity.
- [Global smartphone shipments fall in second quarter](#)
 - Demand for smartphones is starting to decline, with research finding worldwide smartphone shipments fell 9% in the second quarter of 2022, compared to the same period last year.
 - "Vendors were forced to review their tactics in Q2 as the outlook for the smartphone market became more cautious," said Runar Bjørhovde, Canalys research analyst, in a statement. "Economic headwinds, sluggish demand and inventory pileup have resulted in vendors rapidly reassessing their portfolio strategies for the rest of 2022."
- [Gartner Forecasts Worldwide Semiconductor Revenue Growth to Slow to 7% in 2022](#)
 - Global semiconductor revenue is projected to grow 7.4% in 2022, down from 2021 growth of 26.3%, according to the latest forecast from Gartner, Inc. This is down from the previous quarter's forecast of 13.6% growth in 2022.
 - "Although chip shortages are abating, the global semiconductor market is entering a period of weakness, which will persist through 2023 when semiconductor revenue is projected to decline 2.5%," said Richard Gordon, Practice VP at Gartner.

Silver

- [Nanomaterials Cross the Brain Side of the Blood-Brain Barrier Model](#)
 - Researchers discovered that metal-based nanomaterials like zinc and silver oxide can cross an in vitro model of the “blood-brain barrier” (BBB) as both dissolved ions and particles — thus adversely influencing the health of astrocyte cells, which help regulate the neurological responses.
 - However, the scientists also consider that their breakthrough will help design safer nanomaterials and could pave the way to target hard-to-reach locations while treating brain disease.
- [What's Happening to Silver & Gold Right Now?! With Peter Krauth, author 'The Great Silver Bull'](#)
 - Joining SmallCapSteve for the first time is Peter Krauth, author of The Great Silver Bull. Peter sits with us to share his expertise in silver prices and where he thinks this is heading. The author also shares his thoughts on Bank of Canada's decision to raise interest rates by 100 basis points, the JPMorgan spoofing, and the global macro-environment.
 - Peter Krauth is a former portfolio adviser and a 20-year veteran of the resource market, with special expertise in precious metals, mining and energy stocks.
- [Gold/platinum/silver: Is the bottom in?](#)
 - One of the most popular precious metals questions I fielded this week was, "at what levels will the "bearish trend" shift to "bullish/neutral"? Those levels are \$1787 for August Gold, \$3.82 for September Copper, \$903.1 for October Platinum, and \$20.20 for September Silver. If we see closes above these levels, you can expect the short covering to accelerate into outright longs. Any new positioning should be in December 2022 or into 2023 on futures contract purchases.
- [Solar PV Global Supply Chains](#)
 - An IEA Special Report — July 2022
 - Global Solar PV manufacturing capacity has increasingly moved from the EU, Japan and the USA to China over the last decade. China has invested over USD \$50 billion in new PV supply capacity, ten times more than Europe, and created more than 300 000 manufacturing jobs across the solar PV value chain since 2011. Today, China's share in all the manufacturing stages of solar panels exceeds 80%. This is more than double China's share of global PV demand. In addition, the country is home to the world's 10 top suppliers of solar PV manufacturing equipment. China has been instrumental in bringing down costs worldwide for solar PV, with multiple benefits for clean energy transitions. At the same time, the level of geographical concentration in global supply chains also creates potential challenges that governments need to address.



Precious Metals Mining:

- [**Amplats' 2022 production target "at risk" if Eskom resumes loadshedding, Viljoen says**](#)
 - "It is definitely a concern for us in the second half," said Viljoen. "We have the Polokwane smelter down in the 2nd half which means when we have an Eskom abatement, we do it from a lower baseload".
 - Viljoen's comments come just as Eskom, South Africa's state-owned power company, warned it could resume 'load-shedding' following the loss of generating capacity at its Kriel coal-fired power station.
 - On July 22, Eskom ended almost five weeks of continual load-shedding which reached its worst levels in over two years. Viljoen told Miningmx previously that if loadshedding reached 6,000MW at any one time it would have to shut mining and concentrator activities at its mines.
- [**Drop in Amplats profit suggests we may have hit peak platinum**](#)
 - The fact that Anglo Platinum's share price has dropped more by more than 50% since its peak in March this year tells us how radically the fundamentals for platinum group metals (PGMs) have changed in just a few months. Weaker PGM prices, 10% mine inflation and a 4% drop in production pushed profits down 43% for the half year to June 2022.
- [**MMC Norilsk Nickel: Nornickel announces consolidated production results for 1H 2022**](#)
 - In 2Q22, palladium production remained largely unchanged q/q at 709 koz, while platinum production decreased 3% q/q to 158 koz. All PGMs were produced from the Company's own Russian feed. The decline of platinum output in the reported quarter owed to the high base of the 1Q22, when the accumulated inventory of work-in-progress in transit materials was processed.
 - In 1H2022, palladium and platinum output amounted to 1,416 koz (up 8% y/y) and 321 koz (up 1% y/y), respectively.

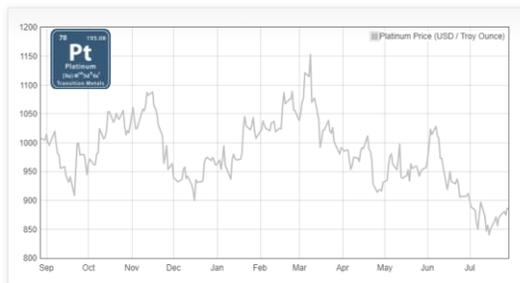
E-Waste & Precious Metals Recycle Related:

- [**Umicore Reports Strong Performance in the First Half of 2022**](#)
 - Revenues in **Catalysis** were stable, reflecting another outstanding performance in Automotive Catalysts, with volumes down less than the global car market driven by further market share gains in the light-duty gasoline market.
 - Revenues and earnings in **Energy & Surface Technologies** increased. Cobalt & Specialty Materials continued to benefit from exceptionally strong market demand combined with a favorable cobalt and nickel price environment. Sales volumes of cathode materials were subdued.
 - Revenues and earnings in **Recycling** decreased (from their peak), reflecting primarily the impact of a lower precious metal price environment in Precious Metals Refining and Precious Metals Management, which was only partially offset by a strong performance in Jewelry & Industrial Metals.
- [**Industrial process for 'mobile' solar module recycling**](#)
 - German company Flaxres has developed an industrial process to recycle PV modules, and has begun operating a pilot facility at its new site where 10 tons of solar modules can be recycled daily. Flaxres plans to make equipment based on this facility available to international customers.
 - The basis for the breakthrough was a successfully completed mass test with the recycling of 7.5 tons of solar modules in the "Flaxthor" production plant, it added. According to Flaxres, more than 200 kg (6.27%) of silicon and 4 kg of silver (0.05%) were recovered, as well as 4.9 tons (65%) of glass of the highest quality. The site in Dresden has a potential recycling capacity of more than 1,000 tons per year.
- [**Maxeon partners with Reclaim PV to save panels from landfill in Australia**](#)
 - Reclaim PV, which launched its first recycling facility in Adelaide last year and expects to collect more than 90,000 panels or the equivalent of 3,000 tonnes of PV modules in 2022, is among a suite of Australian companies looking to re-use or recycle solar panel materials.
- [**Tanaka To Establish New Building At Hukou Plant, Expanding Its Precious Metal Recycling Business In Taiwan**](#)

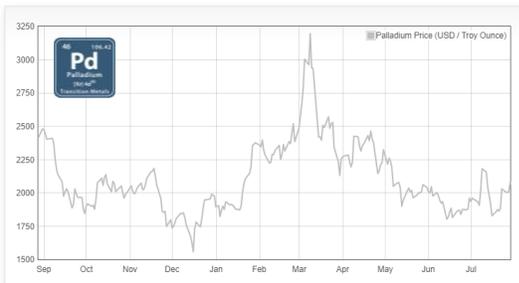
- The new building will be constructed with an investment of approximately 3.5 billion yen to create a "one-stop service" for precious metal recycling and further expand business in Taiwan. It is planned to have eight floors above ground and one basement floor, making the total floor area of the Hukou Plant approximately six times larger after completion. The plant is scheduled to begin operation in the first half of 2025.
- [Aurubis signs renewable power deal with green energy producer Eneco and lives up to industry leadership in sustainability](#)
 - Aurubis signs renewable power deal with green energy producer Eneco and lives up to industry leadership in sustainability. 10-year Power Purchase Agreement with Eneco for 12 MW or 105 GWhpa
- [Call2Recycle: Federal action on battery labeling is step forward](#)
 - Congress directed the U.S. EPA to develop voluntary battery recycling labeling guidelines instead of mandatory regulations, but the head of an industry group believes they'll still have a significant impact on the industry.
- [NSVRP Catalytic NSVRP Converter White Paper 7-25-2022 for general distribution \(Secured\)](#)
 - Catalytic converter theft is a current concern. NSVRP as a leading law enforcement not-for-profit produced a white paper on this topic which is presently one of the primary resources available for understanding the problem & potential solutions. Catalytic converter 39-page white paper.

Platinum

Platinum Prices for the Last Year



Palladium Prices for the Last Year



Friday active trading noon EST: Platinum \$908/toz Palladium \$2,208/toz

- [Amplats sees pick up in switch to platinum from palladium](#)
 - Amplats last year estimated 75 koz were substituted, and expects 200 koz to be switched this year.
 - Amplats is getting calls from prospective platinum group metals (PGM) buyers looking to find alternatives to Russian metal, CEO Natascha Viljoen said, adding many of its supply contracts run on a yearly basis and will be reviewed at the end of this year.
- [WPIC: Fertile Ground](#)
 - Platinum's role in fertiliser production is long established – and it is now working to help the industry decarbonize. PEM electrolyser stack to be used at the Yara ammonia production
 - plant to generate green hydrogen.

Fuel Cells/Hydrogen Economy Related Articles:

- [Johnson Matthey adds fuel cell capacity](#)
 - Johnson Matthey plans to build a fuel-cell factory at its site in Royston, England. The plant, to cost almost \$100 million, will initially have capacity to produce 3 GW of proton-exchange membrane fuel cell components for hydrogen vehicles. JM plans to open the plant in the first half of 2024. Capacity at the site could be subsequently tripled by repurposing a decommissioned catalytic converter facility, the company says.

- [Unigel installs the first industrial-scale \(alkaline\) green hydrogen production site in Brazil using thyssenkrupp Nucera technology](#)
 - Installation of three 20 MW standard electrolyzers from thyssenkrupp nucera with a total capacity of 60 MW in the first phase, to be expanded in second phase to multi-hundred MW
 - Unigel is first mover in this key market for industrial green hydrogen projects with an overall investment of US\$ 120 million
 - thyssenkrupp nucera offers world-leading technologies for high-efficiency electrolysis plants. The company, a JV with Industrie De Nora, has extensive in-depth knowledge in the engineering, procurement, & construction of electrochemical plants & a strong track record of more than 600 projects with a total rating of over 10 gigawatts already successfully installed.
- [On hydrogen requirements for long haul trucking in the US](#)
 - To convert 25% of the long-haul truck* fleet in the US to hydrogen fuel cell will require:
 - Doubling of the total H₂ demand in the US today
 - Doubling of the renewable electricity generation today (for green H₂)
 - A very small increase in the water usage
 - *Assumed to cover ~ 350 miles per truck per da
- [Goodbye E-cars: BMW Wants to Mass-Produce Hydrogen Cars](#)
 - To this end, the BMW Group is launching “the everyday testing of near-series vehicles with a hydrogen fuel cell drive on European roads,” according to a statement from the company. The first small series of BMW hydrogen cars is to be presented before the end of 2022.
 - BMW has been working on fuel cell technology together with the Japanese car manufacturer Toyota since 2013. Just recently, a Chinese automaker announced the first mass production of hydrogen cars. In Germany, researchers at the Aerospace Center announced a hydrogen car at a low price.
- [New Bloom Energy fuel cell factory expected to produce over 1 GW a year amid rising reliability threats](#)
 - Bloom Energy opened a fuel cell factory near San Francisco last week that is expected to produce 1 GW of fuel cells powered by natural gas or biogas by the end of next year, and more subsequently, according to a company spokesperson.
- [The effect of supporting carbons on the gas phase synthesis of octahedral Pt₃Ni electrocatalysts with various H₂:CO ratios](#)
 - At a 1:3 H₂:CO ratio, the Pt₃Ni/Ketjen black exhibited the highest ORR activity for both mass activity (1.02 A mgPt⁻¹) and specific activity (5.09 mA cm⁻²) that were 16.5 and 66.1 times larger than commercial Pt/C catalysts, respectively (0.062 A mgPt⁻¹ and 0.077 mA cm⁻²). The best ORR activity of Pt₃Ni onto Graphene and Vulcan XC-72R was exhibited with a 1:1 H₂:CO mixture. The catalysts were tested using a 4000-voltage-cycle accelerated durability test, and the Pt₃Ni/Ketjen catalyst fared the best in terms of ORR stability and durability.
- [Air Liquide Welcomes Support from European Innovation Fund for its 200 MW Electrolyzer Project in the Netherlands](#)
 - ELYgator to be located in the industrial basin of Terneuzen, in the Netherlands, with the objective to produce 15.5 kilotonnes of renewable H₂ per year. The electrolyzer will be fully sourced with renewable energy and integrated into the cross-border industrial basin between Netherlands and Belgium.
 - Connection to Air Liquide’s cross-border pipeline network will allow for an optimized combination of flexibility and efficiency, best leveraging the output of renewable power production and taking into account its intermittency.
- [Premier Spruiks NSW Hydrogen in Seoul Trip](#)

- Premier Dominic Perrottet has met with executives from South Korean automotive giant Hyundai to promote green hydrogen manufactured in NSW.
- The NSW leader visited Seoul to sell his government's strategy involving \$3 billion in incentives to commercialise supply chains for the energy source.

Palladium

- [China's palladium imports from Russia rise to a record high](#)
 - China's palladium imports from Russia rose to a record high in June.
 - The world's biggest miner of the precious metal is rerouting shipments as many of its usual customers shun its goods following the invasion of Ukraine.
 - China's imports surpassed 75,733 ounces last month, up 186% compared to May.
- [Will Palladium Hit New Highs, And Will Russia Squeeze Supply?](#)
 - Palladium headed for first positive month in three, rising 14% from June lows
 - Up 14% from June lows but still about 40% below March record highs
 - Russia can squeeze palladium supply but likely won't
- [Everything You Need to Know About Palladium Before Investing](#)
 - In this article, we will be telling you everything you need to know about palladium before investing, as well as going through a few of the most notable points as to why you might want to give this

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



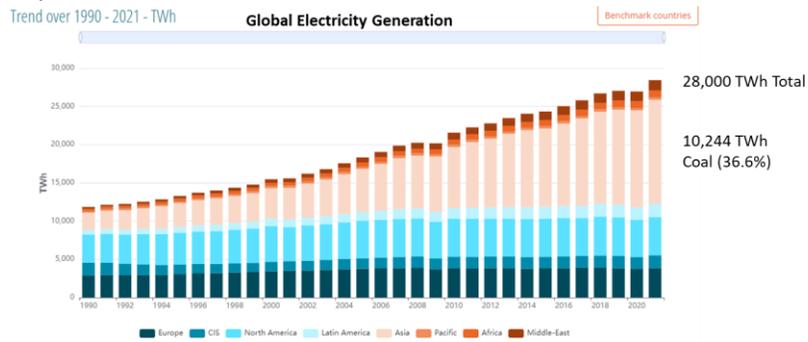
Friday: Rhodium \$15,300/toz Iridium \$4,750/toz Ruthenium \$585/toz

- **Ruthenium Catalyst:** [BASF readies more ammonia production cuts in gas supply crunch](#)
 - "We are reducing production at facilities that require large volumes of natural gas, such as ammonia plants," BASF Chief Executive said in a media call after the release of quarterly results, confirming an earlier Reuters report.
 - He added BASF would purchase some ammonia from external suppliers to fill gaps but warned farmers would face soaring fertiliser costs next year.

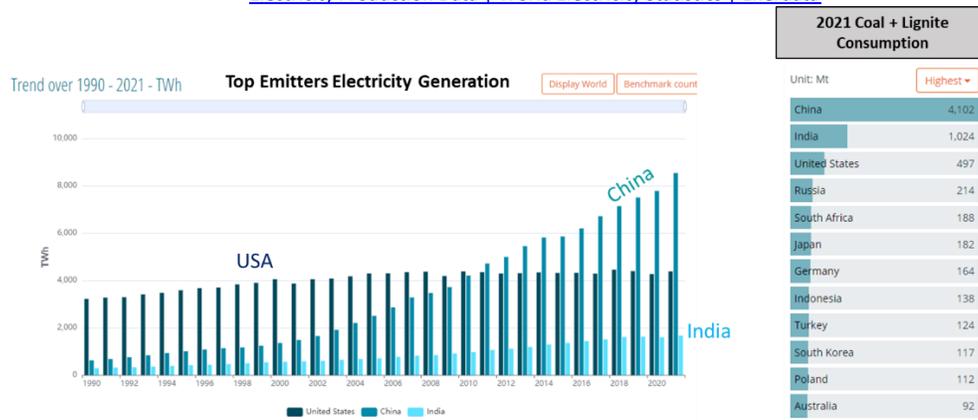
Clean Energy General News

- [Rare Earth Products Prices Likely to Drop More Quickly in Second Half](#)
 - In June, the downstream demand was still weak with less orders from magnetic material enterprises, and the orders of some small and medium-sized magnetic material factories were reduced by 30%-40%. Rare earth prices declined amid sluggish demand.
- [ESG and the future for Lead smelting](#)
 - The lead smelting industry is split clearly into two areas:
 1. a primary sector whose feed is predominantly lead concentrates, typically a by-product from the production of zinc concentrates, and as such a key source of precious metals.
 2. a secondary sector whose raison d'être is to recycle used lead acid batteries.
 - But as is the case in many smelting industries, primary smelters have stepped onto the turf of the secondary ones and many primary lead smelters also process used lead-acid batteries.

- Having said this, outside of China <20 primary smelters are still in operation, but with a potential capacity of ~2.2Mt of lead. A typical primary lead smelter has a capacity of between 100 to 200kt.
- *Matt: Secondary lead production now >50% of all lead produced throughout the world. In the US more than 80% of lead comes from secondary production, with Europe reporting over 60%.*
- **Carbon Emissions On Track To Reach An All-Time High**
 - As the world recovered from the first Covid-19 wave, global carbon dioxide emissions increased by 5.6% from 2020 to 2021. That was the fastest growth rate in nearly 50 years. Emissions were only 0.8% short of the all-time high set in 2018. They are on a trajectory to reach a new all-time high this year unless a recession curbs global energy demand in the second half of the year.
- **Anglo American’s new boss sounds warning on future copper supply**
 - The world is headed for a severe shortage of copper crucial to the green-energy transition as new mines become increasingly difficult to build, according to the new head of Anglo American.
 - I genuinely don’t see where all of this copper is going to come from at this point in time,” Anglo CEO Duncan Wanblad said in an interview in London on Thursday.
- **Global 2021 coal-fired electricity generation surges to record high**
 - Global coal-fired electricity generators are producing more power than ever before in response to booming electricity demand and the surging price of gas.
 - The world’s coal-fired generators produced a record 10,244 terawatt-hours (TWh) in 2021 surpassing the previous record of 10,098 TWh set in 2018 (“Statistical review of world energy”, BP, July 2022).
 - Coal-fuelled generation is on course to set an even higher record in 2022 as generators in Europe and Asia minimise the use of expensive gas following Russia’s invasion of Ukraine and U.S. and EU sanctions imposed in response.



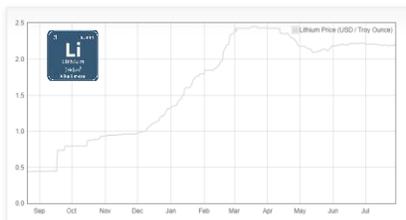
[Global Electricity Generation](#)
[Electricity Production Data](#) | [World Electricity Statistics](#) | [Enerdata](#)



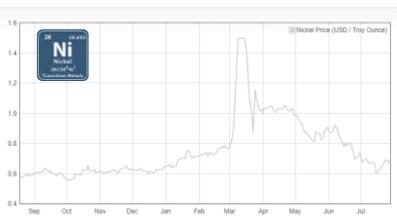
[Consumption of Coal and lignite](#) | [World Coal consumption](#) | [Enerdata](#)

BEV / LiB Mineral & Battery Market News

Lithium Prices for the Last Year



Nickel Prices for the Last Year

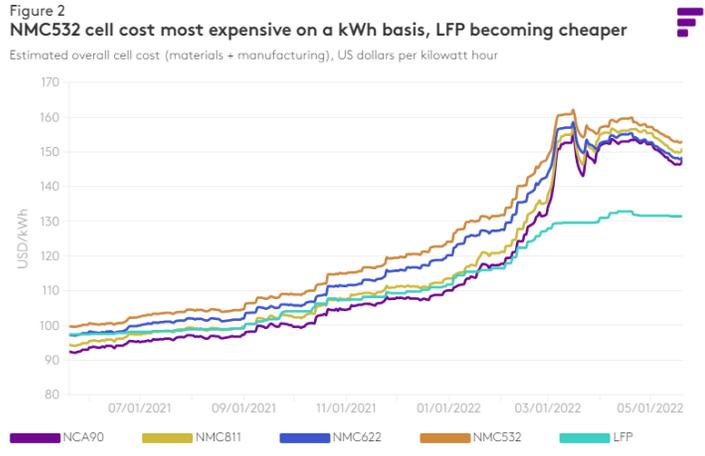


Cobalt Prices for the Last Year



Friday: Lithium \$70,700/mt Nickel \$21,965/mt Cobalt \$50,460/mt

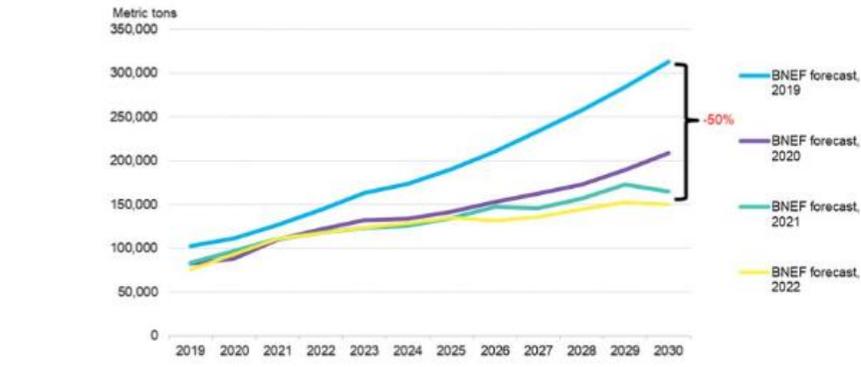
- [Chinese Lithium Giant Pulls EVs Deeper Into Forced Labor Glare](#)
 - A supplier that's crucial for Tesla and a host of automakers plans to explore for metals in a region of China tied to allegations of human rights abuses.
 - A lithium producer for carmakers including BMW AG and Tesla Inc. is beginning work to assess battery metals projects in Xinjiang, deepening links between electric vehicle supply chains and a region at the heart of human-rights allegations against China.
 - Ganfeng Lithium Co., China's top producer of the material, is partnering through a subsidiary with a state-backed entity to accelerate exploration for and potentially develop lithium, nickel and other critical metal assets in the region. Ganfeng's Chairman Li Liangbin earlier this year visited Xinjiang, where activists and Western governments say Uyghurs and other Muslim citizens have been subjected to forced labor, to discuss cooperating with the local government on the plans.
 - *Matt: ESG Anyone Or is that just another meaningless acronym?*
- [BASF and TODA to further expand their Japanese joint venture's capacity for high nickel cathode active materials](#)
 - Supply expansion to increase high nickel cathode active materials for up to 45 GWh cell capacity/year
 - Investment targets to meet growing market demand and strengthen the local supply chain in Japan
 - New capacity will start operation in second half of 2024
- [Environmental Groups Ask Tesla to Stop Nickel Plans in Indonesia](#)
 - Environmental groups urged Tesla to reconsider its plans for nickel investment in Indonesia, the world's top producer of the material, as ESG scrutiny mounts in an industry crucial to the electric vehicle revolution. In an open letter addressed to CEO Officer Elon Musk and shareholders, dozens of organizations asked the EV giant to terminate direct investment plans in Indonesia's nickel industry and bar nickel sourced and produced in the country from being used in Tesla's cars.
 - *Matt: Great to see some Environmentalists standing up and formally asking for real ESG pushback on China worst polluting Nickel mining materials streams. Elon has been the "Adult in the EV Room" to date. This will be interesting to watch this situation.*
- [SF Bay Area leads the way in new electric car sales](#)
 - If you see someone drive out of a new car dealership in the Bay Area, there's about a one-in-four chance they're in an electric vehicle. Nearly 27% of new cars registered in the nine-county Bay Area in the first half of 2022 were zero-emissions vehicles, according to county vehicle registration data from the California Energy Commission. The vast majority of those vehicles were fully electric, though some were plug-in hybrids and hydrogen fuel-cell vehicles.
- [The EV battery chemistry debate just got more complicated](#)
 - The increase in raw material prices further pushed the chemistries apart in terms of overall cell cost. In May 2021 the NCA90 cell cost was estimated to be \$93/kWh and NMC532 \$100/kWh, a difference of \$7/kWh. By Jan 2022, this difference had more than doubled to \$16/kWh.
 - *Matt: Recent LFP's costs over \$130/kWh driven by Lithium price increases – Wow.*



- **Cobalt Demand Forecast Declines Due to LFP Shift**

- BloombergNEF's battery metals historical cobalt demand outlook has declined y/y in line with industry demand due to chemistry switch to LFP and others. The drivers are the record prices in 2018 and ethics.

A comparison of BNEF forecasts for cobalt demand from batteries, 2019 – 2022



Regards –