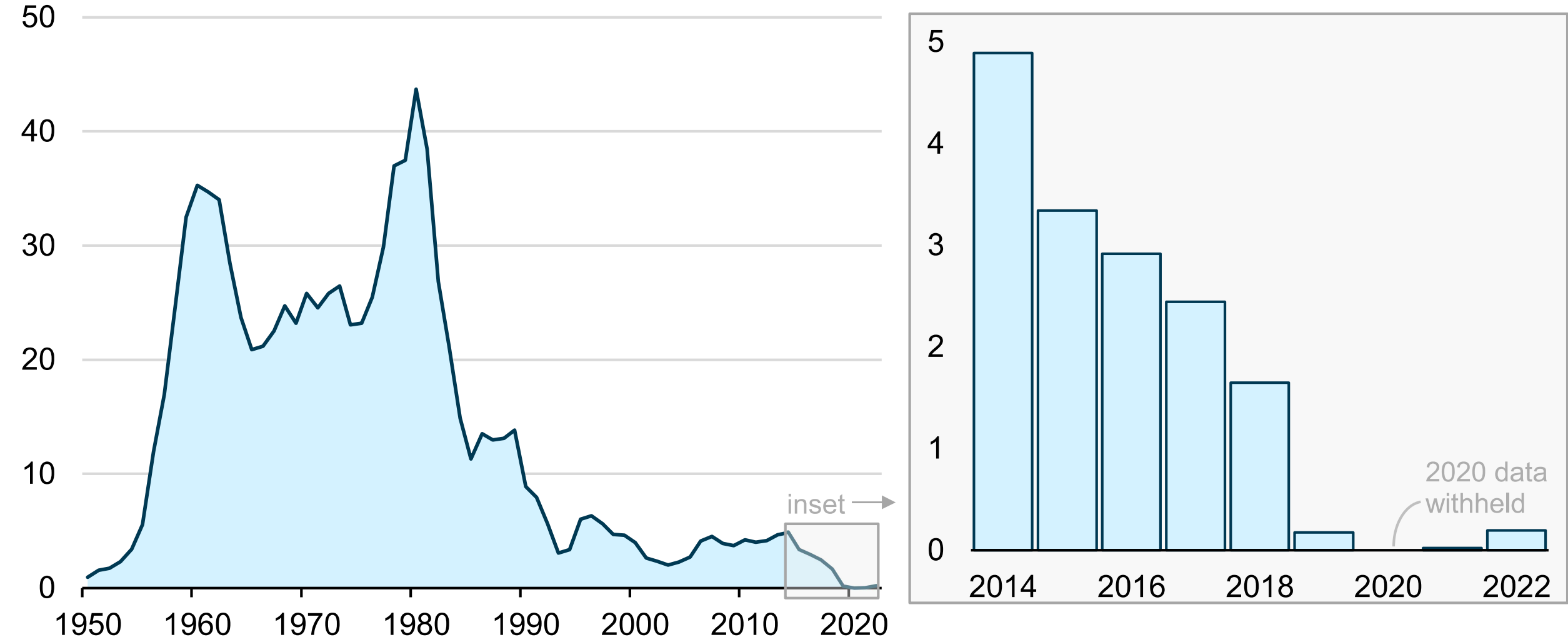


August 17, 2023

U.S. uranium production up in 2022 after reaching record lows in 2021

U.S. annual uranium concentrate (U₃O₈) production (1950–2022)

million pounds U₃O₈



Data source: U.S. Energy Information Administration, [Monthly Energy Review](#) and [Domestic Uranium Production Report](#)
Note: Data for 2020 withheld to avoid disclosure of individual company data.

Uranium concentrate (U₃O₈) [production](#) in the United States was nearly 10 times higher than the previous year in 2022, partly as a result of higher [uranium prices](#). U.S. U₃O₈ production remained near historic lows despite operations resuming at the [White Mesa Mill](#), the United States' only operating conventional uranium mill.

Using different processes, [five facilities](#) in the United States produced U₃O₈ in 2022. Despite only reporting production in the last three months of 2022, White Mesa accounted for [84% of the U₃O₈ produced](#) last year. The rest was produced at four [in situ recovery](#) facilities. White Mesa operates on a campaign basis; it only produces U₃O₈ as when mill feed, contract requirements, or market conditions warrant. It can also process other minerals, including rare earths. In 2021, White Mesa focused on ramping up rare earth carbonate production and didn't produce any U₃O₈.

Producing U₃O₈—often called [yellowcake](#) for its powdered, yellow appearance—is one of the first steps in [making fuel for nuclear reactors](#). After uranium ore is mined, it goes through a milling process where uranium is extracted from the ore, producing U₃O₈, which is then processed at [conversion](#) and [enrichment](#) facilities. The enriched uranium is made into fuel pellets that are [assembled into fuel rods](#) for nuclear reactors.

In the 1940s and 1950s, the United States [introduced financial incentives](#), procurement programs, and [trade policies](#) to help spur domestic uranium production. Domestic U₃O₈ production significantly declined in the 1980s as production incentives and subsidies ended, trade barriers were removed, and uranium prices fell. Since then, most of the uranium material supplied to U.S. nuclear plants [has been imported](#).

The uranium material used in U.S. nuclear power reactors is largely imported because it's more abundant and cheaper to produce in other countries. In 2022, [95% of the uranium purchased](#) by U.S. nuclear power plant operators originated in other countries. Canada, which has large, high-quality uranium reserves, was the [largest source](#) of uranium purchased by U.S. nuclear power plants in 2022 at 27%. Kazakhstan was the second-largest source at 25%, followed by Russia at 12%.

Although the United States [banned imports of oil, natural gas, and coal](#) from Russia following Russia's full-scale invasion of Ukraine in February 2022, uranium was not sanctioned.

The U.S. Department of Energy has announced its [aim to increase domestic uranium production](#) to reduce reliance on uranium imports. In 2020, Congress established a [strategic uranium reserve](#), a stockpile of domestically produced uranium that serves as backup supply for U.S. nuclear power plants and incentivizes domestic uranium production. At the end of 2022, the U.S. Department of Energy [awarded the first U₃O₈ supply contracts](#) for the reserve, including one to White Mesa's operator, Energy Fuels.

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