



# URANIUM PRODUCERS OF AMERICA

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**STATEMENT OF WILLIAM PAUL GORANSON; PRESIDENT, URANIUM  
PRODUCERS OF AMERICA; CHIEF OPERATING OFFICER, ENERGY FUELS  
RESOURCES (USA) INC.**

**August 5, 2020**

**BEFORE THE**

**U.S. SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS**

**FOR A FULL COMMITTEE HEARING TO EXAMINE A DISCUSSION DRAFT BILL,  
*AMERICAN NUCLEAR INFRASTRUCTURE ACT OF 2020***

## I. INTRODUCTION

My name is William Paul Goranson, and I am the Chief Operating Officer of Energy Fuels Resources (USA) Inc., with offices in Casper, Wyoming. I am also the President of the Uranium Producers of America (UPA). On behalf of Energy Fuels Resources (USA) Inc. and the UPA, I am pleased to offer testimony in support of the draft of the *American Nuclear Infrastructure Act of 2020* released by Senate Environment and Public Works Committee Chairman John Barrasso (R-WY).

The UPA is the national trade association representing the domestic uranium mining and conversion industries. UPA's mission is to promote the viability of the nation's uranium industry, while being good stewards of the environments in which we work and live. UPA members conduct uranium exploration, development and mining operations in Arizona, Colorado, Nebraska, New Mexico, Texas, Utah and Wyoming. Our conversion member represents the lone remaining conversion facility in the United States in Illinois. The UPA strongly supports the draft legislation, which will help revitalize domestic uranium mining and conversion capabilities and reclaim United States' global leadership in nuclear energy.

## II. STATE OF THE DOMESTIC URANIUM MINING AND CONVERSION INDUSTRY

The U.S. Department of the Interior defines uranium as a critical mineral **“essential to the economic and national security of the United States, the supply chain of which is vulnerable to disruption, and that serves an essential function in the manufacturing of a product, the absence of which would have significant consequences for the economy or national security.”** Uranium is a critical component to ensuring a global nuclear deterrent, powering the ships and submarines of the world's largest nuclear navy, and providing the fuel for the world's largest

nuclear power program. Nuclear energy provides 20 percent of our electricity and 55 percent of our carbon-free power, bolstering clean air initiatives across the country.

The U.S. was once a global leader in uranium production, producing more than 40 million pounds annually in the early 1980s at a time when the domestic industry employed more than 21,000 Americans. Despite the existence of vast uranium resources in the United States, the lack of commercial purchasing of domestic uranium has driven production and employment to historic lows not seen since the dawn of the industry. U.S. uranium production in 2019 fell to 174,000 pounds, the lowest amount since the U.S. Energy Information Administration (EIA) began collecting this data in 1949. This is only a fraction of the material needed to power even one of the United States' 95 commercial nuclear reactors. In the first quarter of 2020, the EIA reports just over 8,000 pounds of uranium production, and all of that from four production facilities in Wyoming. In November 2017, the sole uranium conversion facility in the U.S. suspended its operations.

As the domestic industry has been forced to downsize its staffing, we have lost considerable talent and expertise that will become increasingly difficult to replace. Operating these facilities requires trained, experienced, and skilled engineers, geologists, scientists, technicians and operators. Several of these facilities are located in economically challenged regions. However, EIA reports that the total employment in the uranium mining and milling industry contracted by 29% in 2019 from 2018, and total employment fell by over 83% between 2008 and 2019.<sup>1</sup>

### **III. STATE-OWNED ENTITIES THREATEN U.S. NUCLEAR FUEL CYCLE CAPABILITIES**

The uranium mining and conversion industry is on the verge of disappearing largely due to price-insensitive material from state-owned entities (SOEs). Left unchecked, we are placing

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<sup>1</sup> 2019 Domestic Uranium Production Report, EIA May 2020, Table 6

our clean energy future in the hands of countries not aligned with the United States or our economic interests. Of immediate concern for the U.S. domestic industry is uranium imported from the countries of the Former Soviet Union (FSU) – Russia, Kazakhstan and Uzbekistan. In response to adverse market conditions, U.S. mine production of uranium dropped more than 95 percent between 2010 and 2019. This was not the case from SOEs; they ignored the market, increased their total supply, and further suppressed prices. In addition, the SOEs engage in predatory pricing designed to drive competition out of a market. SOEs take advantage of free market systems and are more concerned about increasing market share than profitability. U.S. companies are not competing with free market companies in the FSU; we are competing with their governments. Displacing U.S. supply, imports from SOEs in Russia, Kazakhstan and Uzbekistan have averaged over 40 percent of U.S. commercial reactor requirements since 2010. As of 2019, uranium imports from the FSU climbed to over 47 percent of U.S. reactor demand, the highest percentage over the last decade.<sup>2</sup>

Unfortunately, the expiration of the Russian Suspension Agreement (RSA) at the end of 2020 will exacerbate an already untenable situation. The RSA has imposed modest limits on Russian uranium imports since 1992, but its expiration altogether will open the floodgates for Russian uranium product. Russia has announced plans to significantly increase its U.S. market share after the agreement expires, hastening the demise of the domestic uranium industry. Depending on Russia for the uranium needed to power U.S. nuclear reactors is not a prudent strategy for U.S. security or energy interests given Russia's track record of using energy resources as an economic and political weapon. It is naïve to believe that Russia would not use its uranium supply and that of its allies to employ the same tactics against the U.S. The UPA supports the

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<sup>2</sup> EIA Uranium Marketing Annual Reports - Tables 3 and 18

Department of Commerce's efforts to renegotiate the RSA to reduce our reliance on Russian uranium products and provide additional protections for the domestic industry. The UPA also supports the bipartisan effort underway to enact a statutory backstop should Russia fail to agree to acceptable terms.

Chinese SOEs have also announced plans to expand their presence in the U.S. nuclear market. Chinese entities own large inventories and subsidize large uranium mines that are expanding production, despite having costs that are far above the current market price of uranium. China is also dramatically expanding its uranium enrichment capabilities, despite a glut in that market. Expanding enriched uranium imports, which contain natural uranium, would be a further displacement of the U.S. uranium supply.

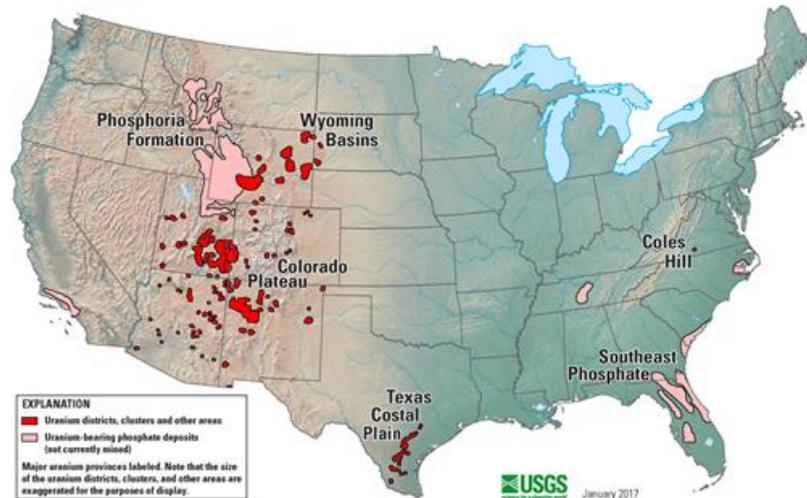
The good news is that given a level global playing field, the domestic uranium industry has the capacity to produce significant quantities of uranium on a cost-competitive basis. According to the EIA, currently licensed/partially licensed operating and standby in situ recovery production capacity is about 22 million pounds of uranium concentrate production per year. Licensed conventional mill capacity equates to approximately 24 million pounds of uranium concentrate production per year. This annual capacity of 46 million pounds is almost the same amount of the average amount of uranium loaded into U.S. reactors from 2010-2019 (46.6 million pounds).<sup>3</sup> There are also significant uranium resources for the future. The U.S. Geological Survey reports that the U.S. holds approximately 1.2 billion pounds known, reasonably assured, and inferred resources, and that it has more than three times that amount in prognosticated undiscovered resources.<sup>4</sup>

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<sup>3</sup> EIA Uranium Marketing Annual Reports – Table 18

<sup>4</sup> Critical Analysis of World Uranium Resources, U.S. Dept. of Interior, U.S. Geological Survey, Susan Hall and Margaret Coleman, 2012

## Uranium Resources of the United States



### IV. THE NEED FOR THE STRATEGIC URANIUM RESERVE: STRENGTHENING THE U.S. NUCLEAR FUEL SUPPLY CHAIN

In response to the Department of Commerce’s finding that uranium imports from SOEs are a threat to national security, in July 2019 the White House established the Nuclear Fuel Working Group (“NFWG”).<sup>5</sup> The NFWG determined that “America is on the brink of losing its ability to provide U.S.-origin nuclear fuel, threatening our national interest and national security.”<sup>6</sup> The NFWG further stated that “[t]his reality threatens American energy security, narrows or eliminates foreign policy options and erodes American international influence to set strong non-proliferation, safety and security standards ... Russia – a nation that has ‘weaponized’ its energy supply as an instrument of coercion – dominates nuclear markets.”<sup>7</sup> As noted in a recent op-ed by U.S. Secretary of Energy Dan Brouillette:

[a]fter decades of neglect, the commercial nuclear sector is at risk of insolvency. Meanwhile, other nations, notably Russia and China, are

<sup>5</sup> The White House Memorandum on the Effect of Uranium Imports on the National Security and Establishment of the United States Nuclear Fuel Work Group (July 12, 2019).

<sup>6</sup> Restoring America’s Competitive Nuclear Energy Advantage: A strategy to assure U.S. National Security at 6 (Department of Energy, April 23, 2020).

<sup>7</sup> Ibid at 6.

moving to advance their nuclear capabilities and export their technology to gain increased geopolitical influence. If we are able to regain our place as a world leader in nuclear technology, we must start at the beginning of the nuclear fuel cycle and start mining and converting uranium on a wide scale again.<sup>8</sup>

In order to counter the threat of uranium SOEs and provide immediate support to the domestic mining and conversion industries identified by the NFWG as at immediate risk, the NFWG proposes to establish a Uranium Reserve.<sup>9</sup> The UPA supports Section 402 of the *American Nuclear Infrastructure Act of 2020* (“ANIA”), which would codify the Uranium Reserve and ensure availability of uranium in the event of a market disruption and support strategic U.S. fuel cycle capabilities. Grounded in the Secretary of Energy’s existing authority under sections 53, 63, and 161(g) of the Atomic Energy Act of 1954 to procure uranium product, Section 402 would require the Secretary of Energy to issue a Request for Information on the design of the program and account for its funding in the annual budgeting process. This is consistent with the NFWG’s recommendations and the Department of Energy’s existing authority and plans for formation of the Uranium Reserve.

## **V. PRESERVING NUCLEAR ENERGY GENERATION AND SUPPORTING A CLEAN ENERGY FUTURE**

The UPA strongly supports the preservation of the U.S. commercial reactor fleet, a vital source of carbon-free, baseload power for the electrical grid. Section 301 of ANIA would provide incentives to prevent the premature shutdown of nuclear power facilities and associated increases in carbon emissions. We appreciate that Section 301 would require the Environmental Protection Agency to, in the course of certifying eligible facilities, prioritize those that use nuclear fuel mined, converted, enriched, and fabricated in the United States. Given the imminent risks facing the

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<sup>8</sup> See Dan Brouillette, “A Safe, Prosperous Nation Requires Secure Supply Chains,” The Hill, July 27, 2020.

<sup>9</sup> Restoring America’s Competitive Nuclear Energy Advantage at 15-16.

domestic mining and conversion industries, we urge the committee to consider strengthening this requirement to ensure that facilities receiving taxpayer funds procure U.S.-mined and -converted material to the maximum extent practicable. This will ensure that Section 301 supports both the viability of the domestic fleet and a stable domestic supply chain for nuclear fuel that will be needed now and into the future.

We applaud the comprehensive framework laid out by ANIA to preserve today's nuclear infrastructure and supply chain, while also advancing a clean, reliable, and safe energy future for the U.S. in the form of advanced nuclear energy technologies. We look forward to working with Committee to improve and advance ANIA through the legislative process.