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Window Narrows on Russian Nuclear Fuel Ban

US lawmakers face a rapidly closing window to secure a ban on Russian nuclear fuel imports and up to $3.5 billion to fund a domestic nuclear fuel procurement effort. While this effort is supported by moderate Republicans, incoming party extremists to the House of Representatives will likely fight the effort in January when the party as a whole takes control of the chamber.

The midterm elections ceded control of the House to Republicans but only by a tiny majority so it's unclear what impact extremist party members aligned with former President Donald Trump will have. But they oppose further spending in support of Ukraine's war against Russia, and would likely work against efforts to block Russian nuclear fuel imports and federal spending on nuclear fuel procurement. Before that happens, Energy Intelligence understands that Sens. Joe Manchin, a centrist Democratic senator from West Virginia, and long-time domestic nuclear fuel industry advocate John Barrasso, a Wyoming Republican, are working to incorporate a ban on Russian nuclear fuel imports into a $38 billion supplemental spending bill to support Ukraine in its defense from Russian forces.

The ban — which is likely to include waivers that expire at the end of 2025 — would be accompanied by at least some level of the original $3.5 billion request for the US Department of Energy (DOE) to revive the American Assured Fuel Supply program, a federal reserve for low-enriched uranium and its components. Lawmakers had sought to incorporate the measures in the fiscal 2023 Defense budget but Energy Intelligence understands that the language was omitted on procedural grounds.

So far this year, 57 House and 11 Senate Republicans have opposed spending on Ukraine, and in the House following the recent midterm elections, that number is poised to grow. Returning House majority leader, Rep. Kevin McCarthy, of California, said in October he will not support a "blank check" to Ukraine, although he supported $40 billion to Ukraine earlier this year and walked back his October statement after the November elections, which were seen as a major repudiation of Trump Republicans, saying that "there has to be accountability going forward." Even though extremist Republicans were weakened by the midterm results, incoming high-profile members such as Rep. Marjorie Taylor Green of Arizona, a vocal critic of US aid to Ukraine who is calling for an audit of those funds, could make trouble for advocates of a ban on Russian nuclear fuel imports.

Rallying Cries

On the other hand, calls for a ban or sanctions against Rosatom intensified as air strikes in Ukraine forced a second nuclear power plant off the grid last week, following the illegal expropriation by the Russian government on Oct. 5 of the six-unit Zaporizhzhia plant. Since the Russian invasion of the country began in late February, all four Ukrainian power plants have been impacted by the conflict.

In a Nov. 14 article in *The Hill*, a conservative publication widely read in Congress, Henry Sokolski, executive director of the Nonproliferation Policy Education Center, attacked the Biden administration for allegedly succumbing to industry lobbying by omitting nuclear fuel from the US ban on Russian energy imports, and said that EU and US utilities buying Russian fuel were effectively subsidizing Russia's nuclear weapons by shoveling "hundreds of millions of dollars to Rosatom — a Russian nuclear firm that maintains Moscow's nuclear weapons complex and just filched a $60-billion Ukrainian nuclear plant."

Ukraine for its part continues to apply pressure on Western governments to act. Stanford University's International Sanctions Working Group, supported by Economists for Ukraine, published a Nov. 14 white paper calling for sanctions on Russia's Rosatom. "As the Russian government's agent in nuclear power, Rosatom bears particular responsibility for" Russia's "flagrant disregard for nuclear safety" both in the invasion and occupation of Ukraine's Zaporizhzhia nuclear plant and Chernobyl. The white paper proposes a nuclear fuel import ban and an effort to reduce "dependence upon Rosatom to a low-risk level."

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Weighing Risk

Energy Intelligence understands the leading proposal to penalize Rosatom would amend the latest version of the Russian Suspension Agreement (RSA) to zero out imports of Russian nuclear fuel by the end of 2025. Until then, utilities unable to source alternative supplies could apply for waivers. That is, however, being weighed against a more extreme proposal, as first introduced by Sen. Barrasso in March, to immediately ban Russian nuclear fuel imports.

But there are risks and uncertainties. That's part of the reason the effort has received pushback from nuclear fuel buyers in the US and why for them a ban is preferable to full-on sanctions, which could force many nuclear power plant operators outside the US to stop buying Russian material, further limiting the availability of enrichment from the West's two commercial enrichers, the European consortium Urenco and France's Orano.

Energy Intelligence understands that if Urenco fully reversed underfeeding to go into overfeeding, it could produce an additional 3 million SWU per year, offsetting Russian supply at about 20% of annual US demand. But there is also concern that a US government effort to revive the American Assured Fuel Supply program — even if its intention is to only procure new capacity — would only increase nuclear fuel prices and create unnecessary confusion by adding the US government as a competitor to nuclear power operators.

In outlining its case for the US and Europe to turn away from Russian nuclear fuel supply, the Bulletin of Atomic Scientists (BAS) acknowledges the potential for "increasing uranium and enrichment costs to US and EU utilities" but says "these costs are small in comparison to other nuclear costs," adding that the "cost of ending dependence on Russia's nuclear services pales in comparison to the costs Putin's war has already inflicted on the US and EU economies." The article provides rough calculations that suggest that OECD suppliers — through overfeeding and some Western enrichment capacity expansion — could offset Russian supply to the US and the EU. But the group doesn't fully explain how Western fabricators can easily or quickly replace Rosatom when it comes to the company's eastern European clients long reliant on the Russians for nuclear fuel assemblies, notwithstanding the probable expansion of Westinghouse VVER fuel fabrication.

Nuclear advocacy group Third Way contends there is also a need to support new enrichment and conversion capacity, not just for the US. "If we are talking about ensuring our energy security vis-a-vis Russia, then this is going to be very helpful not only for the United States but allies in Central and Eastern Europe — they're all obviously very eager to wean themselves off of Russian fossil fuels as well as Russian nuclear technology and Russian fuel services," Senior Resident Fellow for Third Way's Climate and Energy Program, Alan Ahn, told Energy Intelligence. "This all boils down to the assumption that the Russians prosecuted this war with the belief that their energy ties would weaken Western resolve to respond to the conflict."

Jessica Sondgeroth, Washington