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# Nuclear Exports to European Allies: A Strategic Win-Win

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## KEY TAKEAWAYS

American companies lead the world in cutting-edge nuclear energy research, but the global commercial market is dominated by Russia, and China is rising fast.

However, the Trump Administration's improved regulatory environment and Russia's aggression in Ukraine have created opportunities for American companies.

Now is the time to capitalize on nuclear innovation's role as America's competitive advantage by expanding nuclear exports to Central and Eastern European allies.

American nuclear energy is on the verge of a generational opportunity for growth. The first new U.S. nuclear plant in over 30 years recently began to produce energy in Georgia, previously closed nuclear plants are restarting to power data centers,[1] and agreements for new projects are being announced seemingly every week.[2] Possibilities abound. Recognizing this, the Trump Administration moved aggressively in May 2025 to restore American nuclear leadership by setting the stage to modernize the regulation of U.S. nuclear power and nuclear energy exports.[3]

Now is the time to capitalize on nuclear innovation's role as America's competitive advantage by expanding nuclear exports to Central and Eastern European allies. These exports will reap economic benefits by cementing long-term commercial

relationships between American companies and foreign partners and help to safeguard our national security by reducing adversaries' influence.

## The Current Civilian Nuclear Export Market

American companies lead the world in cutting-edge nuclear energy research, from advanced and small modular reactors (SMRs)[4] to moving toward commercial nuclear fusion,[5] but the global commercial market is dominated by Russia, and China is rising fast.[6] Historically, Russian dominance of civilian nuclear energy was particularly acute in Central and Eastern Europe. This was due not only to Russia's expertise in commercial nuclear power, but also to the Soviet Union's dominance of its sphere of influence throughout the Cold War, which resulted in the construction of more than 60 reactors across the region.[7]

Although the service lives of the two main Soviet reactor designs are running out even with extensions,[8] Russia remains well positioned to dominate regional markets. Russia offers a variety of quality reactors in the commercial marketplace, dominates the nuclear fuel supply market with a roughly 38 percent share of global uranium enrichment capacity, and has a nuclear fuel industrial base that can provide affordable finished fuel for its reactors.[9]

Capitalizing on Russia's historic civilian nuclear business ties, the state nuclear energy company Rosatom is building a two-unit expansion of Hungary's Paks Nuclear Power Plant (Paks II). Paks II already includes several pre-existing Russian reactors, and the next step in contract fulfillment is completion of the expansion's reactor vessels with construction taking place in Russia.[10] Rosatom is also currently building Turkey's first nuclear power plant, located in Akkuyu.[11]

Both steps lock in dependence on Russia, but the Turkish operation is particularly concerning because the Akkuyu nuclear plant is the first buy-own-operate (BOO) contract with Russia. This contract, signed in 2010, dictates full Russian control of the plant for its entire lifespan, which could be as many as 80 years from construction to decommissioning.[12] Moreover, Russia has already demonstrated its willingness to use energy exports as a weapon. In February 2016, for example, Gazprom unilaterally hiked its gas export price to Turkey by 10.25 percent in violation of its supply contract.[13]

## A Window of Opportunity

Despite Russia's present leadership position in the civilian nuclear energy market, however, an improved regulatory environment under the

Trump Administration and Russia's aggression in Ukraine have opened a window of regulatory and commercial opportunity for American companies.

The legal foundation for American civilian nuclear cooperation is found in Section 123 of the U.S. Atomic Energy Act, which sets forth the requirement for agreements between the United States and receiving states (known as 123 Agreements) for peaceful nuclear cooperation.[14] In addition, the Nuclear Regulatory Commission's Part 110 process regulates "licensing, enforcement, and rulemaking procedures and criteria, under the Atomic Energy Act, for the export of nuclear equipment and material... and the import of nuclear equipment and material,"[15] and U.S. Department of Energy regulations dictate the process to control, review, and authorize U.S. companies' applications to provide unclassified nuclear technology to foreign countries.[16] The amalgam of these regulatory approvals for nuclear export has resulted in slow review and approval of applications for nuclear export by American companies.

The United States has 123 Agreements in force covering more than 50 countries, but several of the agreements with European allies are set to lapse in the coming years or move into a cycle of shorter extensions. Recognizing the likely adverse effect on business stability, President Donald Trump has directed the Secretary of State to "aggressively renegotiate 123 Agreements set to expire within the next decade"[17] Further recognizing that long-term 123 Agreement stability was not the only regulatory problem, President Trump has directed the Secretary of Energy, in coordination with other relevant agencies and government bodies, to expedite reviews relating to nuclear export and retransfer requests, to occur within 30 days of a complete application submission with certain exclusions.[18]

Though some may argue that tight controls of commercial nuclear technology exports are critical for effective nuclear nonproliferation policy, three counter-arguments deserve serious consideration.

*First,* commercial nuclear technology has been around for well over half a century and is well understood almost universally. The United States does not have a monopoly on nuclear technology. Even if it once made sense, limiting widely available commercial nuclear exports to peaceful nations on nonproliferation grounds is irrational in today's world.

*Second,* approximately 440 commercial reactors are operating safely today in 31 countries around the world. Commercial operation of a commercial nuclear power plant is not inherently dangerous from a nuclear proliferation perspective. The fuel used is nowhere close to what is needed to build a nuclear weapon, and additional facilities are necessary to extract weapons-grade material from spent nuclear fuel.

*Third,* more important than the technology being exported is the country to which the materials are being sent. Even though there is little overlap between a modern commercial nuclear industry and a military one, the United States should refrain from exporting nuclear technology to countries that are deemed to be proliferation threats. At the same time, exporting to allies and peaceful nations should be as seamless as possible. In the unlikely event that a peaceful nation did divert its commercial nuclear technology to military use, America would be in a far stronger position to restrict nuclear access if it were fully engaged with that country's commercial nuclear program.

Beyond the regulatory challenges, the United States faces a significant commercial nuclear capability challenge. Russia today (and soon China) can offer full nuclear fuel management services along with its reactors. The United States, on the other hand, lacks the capacity to fuel its own reactors much less offer fuel services for exports.

Here again, however, opportunity abounds. In May of 2024, Congress passed and the President signed Public Law 118-62, the Prohibiting Russian Uranium Imports Act, in response to Russia's invasion of Ukraine. This law encourages expanded investment in the enriched uranium supply chain and prohibits imports of Russian-produced unirradiated low-enriched uranium into America.[19] America's dependence on Russian nuclear fuel is partly why President Trump ordered the Secretary of Energy to make sure that America had domestic sources of enriched uranium by shifting to domestic production and supply chains. Growing demand in the commercial power sector, the import ban, President Trump's Executive Order 14299, and expanding global nuclear demand all present commercial opportunities for American nuclear enrichment.

For example, on May 20, Urenco USA announced that the first phase of its New Mexico enrichment facility expansion was operational as it moves toward a 15 percent increase in capacity by 2027.[20] And on August 5, the U.S. Department of Energy announced the lease of federal land at the former Paducah Gaseous Diffusion Plant to enrichment startup General Matter to build a new domestic uranium enrichment facility.[21] If nuclear export agreements are signed and construction begins, producers will have a strengthened market incentive to expand enrichment to meet growing demand.

## Exporting to Central and Eastern Europe

A good model for realizing exports of American civilian nuclear energy to Central and Eastern European partners is the current agreement with

Poland to build three AP-1000 nuclear power units in Choczewo.[22] Moving beyond the framework 123 Agreement, Washington and Warsaw should continue to communicate closely both to facilitate connections to private American companies for construction and life-cycle management and to learn policy lessons that can help America to realize a nuclear revolution at home.[23] Similarly, Westinghouse has partnered with Bulgaria to build two AP-1000 reactors at the Kozloduy Nuclear Power Plant by 2035.[24]

But opportunities do not stop there. Countries throughout Central and Eastern Europe are clamoring for reliable, safe, and secure energy and are looking to nuclear technology to provide it. For example:

- In 2024, the United States and Lithuania signed an agreement for U.S.–Lithuanian cooperation to implement a civilian nuclear program targeting 1.5 gigawatts (GW) of nuclear energy by 2040.[25]

- In April 2022, Latvia signed an agreement with the U.S. to expand strategic ties and collaboration around the development and deployment of small modular reactor technology.[26]

- In 2021, Romania signed an agreement with an American SMR company to build six small modular reactors that could make Romania the first European nation to deploy the technology.[27]

- The Czech Republic's 2023 "SMR Roadmap" targets initial operation in the 2030s.[28] Given the contemporary preference for Western nuclear suppliers in the nuclear fuel and nuclear plant construction markets,[29] the Czech Republic is a potential growth market for American nuclear companies' exports.

## Strategic Benefit of Civilian Nuclear Exports to Central and Eastern European Allies

American civilian nuclear energy exports and cooperation with Central and Eastern European allies have obvious commercial benefits for involved companies, but they also have substantial strategic benefits: improved allied energy security, reduced foreign influence, and economies of scale feeding lessons learned and market incentives back to American companies.

Russia's demonstrated willingness to use energy as a weapon has led America's European allies to reduce their reliance on Russia across their energy mix. By exporting American nuclear know-how and reactors to

allied nations, we can help those nations to expand their base-load power generation. This will provide grid stability while ensconcing allies within a dependable American energy ecosystem.

Such exports would build on the sustained growth in exports of U.S. liquefied natural gas to European allies since the beginning of the war in Ukraine in 2022. This strengthened energy security would also strengthen allied economies by reliably providing energy to business while making it harder for adversarial actors like Russian hackers to derail it.[30] Further, diversification into nuclear power reduces reliance on vulnerable pipelines and cables.[31] Taken together, this strengthening of allied energy security reduces the potential costs and raises the potential benefits of alignment with the United States against malign Chinese and Russian influence.

Successful American civilian nuclear energy exports also directly reduce adversary influence. When American firms win construction and fuel contracts issued by their Central and Eastern European allies, Russia necessarily has lost an opportunity to cement its influence through Rosatom's servicing of the contract. This represents a generational degradation of adversary influence as modern nuclear power plant contracts can lock the contracting country into arrangements for decades. Therefore, expending extra effort at the front end to secure these contracts and remove regulatory barriers will pay massive dividends in the long run.

President Trump's Executive Order 14302 on "Reinvigorating the Nuclear Industrial Base" noted an unacceptable trend: Since 2017, Russia and China have designed almost 90 percent of the world's reactors.[32] Expanding the pool of nuclear energy construction and fuel cycle opportunities can create economies of scale to generate lessons learned and increased market incentives. The proof for the lessons learned is shown by the recent nuclear plant construction completed in the U.S. at the Vogtle nuclear plant in Georgia, which revealed numerous areas for improvement.[33]

## What the Administration Should Do

Based on the foregoing facts, there are several courses of action that the Administration should pursue. Specifically:

- **Update and extend relevant 123 Agreements.** The last major 123 Agreement between the U.S. and Euratom (the European Union's nuclear agency) was concluded in May 1996 for a period of 30 years, ending in May 2026, with shorter renewal periods to follow.[34] America is also in the middle of the first rolling five-year extension of the 123

Agreement with Turkey, and Ukraine's 123 Agreement is set to expire in May 2029.[35] The Trump Administration should update and extend 123 Agreements with European allies with a minimum duration of a decade each to maximize regulatory stability.

- **Further streamline the export licensing review process.** The Secretary of Energy is obliged to consult with multiple federal departments while reviewing applications for export licenses, and the fully discretionary time-outs for different actors to review relevant portions of license applications create a risk of continued delays. Further streamlining this process, perhaps by carving out exceptions for American treaty allies, could improve the regulatory environment for American nuclear companies that compete for nuclear construction and fuel contracts.

- **Reach out proactively to Central and Eastern European allies to encourage increased nuclear cooperation.** Given the substantial interest among European allies in decreasing energy prices and increasing energy security, now is the time for American diplomats in Central and Eastern Europe to engage proactively with foreign governments that are creating and updating nuclear energy policies and planning nuclear energy project bids. This early engagement will enable American companies to be at the front of the queue as projects arise.

## Conclusion

There is great enthusiasm for American nuclear energy in Central and Eastern Europe, and there should be: Nuclear energy is safe, secure, and clean. But enthusiasm alone will not translate into new reactors. For that to occur, the United States government needs to ensure that a modern and simple framework for peaceful nuclear exports to navigate is in place, and America's private nuclear firms need to move from development to deployment.

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