July 18, 2025

The Trump Administration is striving to reinforce the U.S. presence in the international nuclear market.

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The International Energy Agency (IEA) assessed that the international community's interest in nuclear energy is reaching the highest level since the oil crises of the 1970s in its *The Path to a New Era for Nuclear Energy*, published in January 2025, against the background that the growth rate of the world's electricity demand has doubled over the past decade and the world has entered a new age of electricity. In June of the same year, the World Bank signed a partnership agreement with the International Atomic Energy Agency (IAEA) on cooperation concerning nuclear energy development and lifted a ban on funding nuclear energy projects.

The Trump Administration, holding the banner of "Energy Dominance", is beginning to pick up the pace of government support for the nuclear industry. On May 23, President Trump signed four Executive Orders (hereinafter "EO") whose goal is to significantly increase domestic nuclear energy generation and to bolster the U.S. presence in the international nuclear energy market. One factor forming a backdrop to that is a significant increase in electricity demand accompanying the spread of artificial intelligence (AI) and rapid growth in the establishment of data centers. Another factor is mounting concern about maintaining the principle of peaceful use of nuclear energy (or nuclear non-proliferation) amid the rapidly expanding presence of Russia and China in the international nuclear energy market. The series of EOs does not confine its perspective to energy security. National security perspectives closely linked with the military sector are also factored in[1]

The U.S. Energy Information Administration's Annual Energy Outlook 2025 estimates that U.S. electricity demand will increase by 27% in 2040 and 46% in 2050 compared to 2025 (Reference Case). In the commercial sector, the electricity demand is forecast to increase rapidly, especially in the computer field, with its share of total commercial electricity consumption projected to rise from 8% in 2024 to 20% in 2050. EO 14300 "Ordering the Reform of the Nuclear Regulatory Commission"

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posited that it is critically important to secure abundant energy in order to enhance international competitiveness in energy-intensive, cutting-edge industries (including AI and quantum computing) as well as to protect national- and economic-security interests, and it set a target of expanding nuclear energy capacity in the United States to 400 GW by 2050 (a fourfold increase compared to 2024). Also, the EO orders that the Nuclear Regulatory Commission's licensing process be simplified and expedited in order to promote the deployment of nuclear reactors, including advanced reactors, and to rebuild the U.S. leadership in the global nuclear energy market.

EO 14301 "Reforming Nuclear Reactor Testing at the Department of Energy" directs the Department of Energy (DOE) to revise the necessary regulations, guidance, and procedures in order to expedite the review, approval, and deployment of advanced reactors under the Department's jurisdiction. The EO also clarified that the DOE's jurisdiction will be maximized with regard to next-generation reactors under development. Additionally, with a view to establishing AI-related data centers and boosting U.S. economic competitiveness, EO 14302 "Reinvigorating the Nuclear Industrial Base" attaches importance to facilitating 5GW of power uprates to existing nuclear reactors and having 10 new large reactors under construction by 2030, and emphasizes the need to strengthen the nuclear fuel supply chain (including through the expansion of domestically produced nuclear fuel) toward promoting the deployment of advanced reactors.

The stability of the domestic electricity system and maintaining international competitiveness are not the only dimensions that form a backdrop to the Trump Administration's efforts to substantially bolster the nuclear energy industry. The Administration is also aiming to restrain Russia and China from expanding geopolitical influence through the nuclear energy sector, and to maintain and strengthen the U.S. voice on non-proliferation issues in the international community.

Currently, China has 58 nuclear reactors in operation and 32 under construction, approaching the U.S., with 94 nuclear reactors—the world's largest number as of today. As the world is increasingly divided, China and Russia have national strategies to export their nuclear energy-related equipment and technology to the Global South. The two countries are beginning to dominate the global nuclear energy market. Of the 52 nuclear reactors whose construction began in 2017, 25 were built by China and 23 by Russia (as of the end of 2024).

EO 14299 "Deploying Advanced Nuclear Reactor Technologies for National Security" positioned the accelerated development, verification, and deployment of advanced nuclear energy technologies not simply as an issue of expanding energy supply capacity but as an urgent challenge from the standpoint of national security. The EO raises the alarm that unless the U.S. actively deploys advanced reactors (including Generation III+ reactors, small modular reactors (SMRs), and microreactors) domestically and exports them, the international energy market will be overwhelmed by the United States' adversaries rushing to export these technologies.[2] This, in turn, could pose a threat to U.S.

national security. The EO also indicates a policy of undertaking new negotiations for Agreements for Peaceful Nuclear Cooperation (known as 123 Agreements) with at least 20 countries, and that of actively renegotiating with countries whose 123 Agreements are set to expire within the next decade.[3] The EO also places an emphasis on the need to strengthen the domestic nuclear fuel (uranium and plutonium) supply chains by way of reducing reliance on foreign sources of fuel and boosting fuel fabrication and reprocessing capabilities.

Article IV of the Treaty on the Non-Proliferation of Nuclear Weapons states explicitly that the use of nuclear energy for peaceful purposes is an inalienable right of all the Parties to the Treaty, but the controversy over the scope of peaceful use between developed nations and developing nations is continuing. A large amount of nuclear energy-related equipment and technology is dual use (meaning it has both military and civilian uses). When participating countries in the Nuclear Suppliers Group (NSG) (currently 48 countries belong to the NSG, including the U.S., China, and Russia) export nuclear energy-related equipment and technology, they are required to follow the NSG Guidelines (which stipulate the applicable items and conditions on their peaceful transfer).

However, in recent years, disagreements between the West, including the U.S., and China and Russia, which are seeking to secure the support of developing countries in return for those guidelines to be eased, have grown. In response to developing countries' assertions that export restrictions on dual-use technology by developed countries impede developing countries' right to economic development, China and Russia are seeking to gain influence in the Global South via the nuclear energy sector by keeping such restrictions to a minimum. The NSG Guidelines are essentially nothing more than a "gentlemen's agreement," and in effect, they are already being reduced to a shell.

The issue of whether or not the U.S. can once again strengthen and continue to maintain its presence in the global nuclear energy market will undoubtedly have a major influence on the future of nuclear non-proliferation and nuclear security. Given that the U.S.-Japan alliance has an inseparable relationship in the nuclear industry, it is worth recalling once again the role and duty that Japan can perform in defending the principle of the peaceful use of nuclear energy in the international community.

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[1] Energy Policy under the Trump Administration: Enhanced linkage with national security, by the author.
[2] These "adversaries" are not named in the document, but it is clear that this refers to Russia and China.
[3] A 123 Agreement refers to section 123 of the Atomic Energy Act of 1954, which makes it mandatory to conclude a bilateral agreement on non-proliferation as a general principle when building frameworks for nuclear energy cooperation with other countries.