



X-energy, Doosan Enerbility Announce 16-Unit Reservation Agreement and Capacity Expansion to Support 11 GW Pipeline

December 18, 2025

ROCKVILLE, MD., December 18, 2025 – X-energy Reactor Company, LLC (“X-energy”) and [Doosan Enerbility Co., Ltd.](#) (“Doosan”) signed a binding Reservation Agreement for the manufacture of Main Power System steel components for 16 [Xe-100 small modular reactors](#) (“SMRs”). As part of the agreement, Doosan has committed to the construction of a new SMR fabrication facility to support the execution of X-energy’s 11 GW commercial pipeline, equivalent to 144 advanced reactors. The agreement secures production capacity for one of the most significant long-lead components of the Xe-100, and marks a major milestone in X-energy’s efforts to support a global industrial supply chain capable of deploying new nuclear at scale.

Under the agreement, X-energy has committed a significant financial investment that reserves production capacity at Doosan facilities within established timeframes for X-energy’s first two commercial projects. [Doosan will manufacture 16 sets of reactor pressure vessels, steam generator pressure vessels, and additional steel components](#) of the Main Power System. Together, these large, steel structures form the exterior and structural interior of the Xe-100, and are among the largest and most safety-critical elements of the design. By securing capacity early in the project lifecycle, X-energy’s investment is expected to enable greater cost and schedule certainty for a highly specialized long-lead component, helping to mitigate overall supply chain risk for its first projects.

As part of the agreement, Doosan has committed to construct a new, state-of-the-art SMR fabrication facility in Changwon, South Korea to support execution of X-energy’s 11 GW commercial pipeline and meet growing global demand for advanced nuclear components. The expansion is expected to produce new manufacturing capacity sufficient to support approximately 20 Xe-100 reactors annually at full production, with flexibility to scale based on market needs. The expansion of X-energy and Doosan’s partnership helps to support bilateral cooperation in critical infrastructure development between the United States and the Republic of Korea, reflecting X-energy and Doosan’s shared commitment to fleet-scale commercialization of new nuclear technologies.

We believe Doosan is among the premier nuclear suppliers in the world with unique capabilities and expertise that will help drive the Xe-100 to market. We are proud to partner with them in this work, and for their leadership in driving the action that this moment demands.

[J. Clay Sell](#), CEO of X-energy

The agreement represents a meaningful milestone, signaling that SMR manufacturing is entering a more advanced stage of preparation. Doosan intends to support X-energy’s program with rigorous quality standards and reliable delivery.

[Jongdoo Kim](#), CEO of Doosan Enerbility Nuclear Business Group

X-energy and Doosan’s agreement follows years of close collaboration, [beginning in 2021](#) with engineering work to optimize the manufacturability of Xe-100 components. The relationship was further formalized through an [August 2025 Memorandum of Understanding between X-energy, Doosan, KHNP, and Amazon signed during President Lee Jae Myung’s state visit to the United States](#). The companies’ reservation agreement builds on this longstanding relationship, establishing a repeatable pathway for future multi-unit orders to support execution of X-energy’s 11 GW orderbook, and the growing U.S.-Korea advanced nuclear supply chain.

Doosan is a key partner in X-energy’s global deployment strategy, offering specialized capabilities and expertise possessed by only a few select manufacturers worldwide. The agreement represents a critical step in executing X-energy’s comprehensive supply chain development strategy, building on recent partnerships with industry leaders and proven executioners such as [Toyo Tanso for graphite components](#). As this world-class portfolio of suppliers continues to grow, X-energy’s work reinforces U.S. leadership in SMR technology, while creating the foundation for a resilient industrial ecosystem capable of delivering clean, reliable energy at the scale demanded by the modern economy.

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About X-Energy Reactor Company, LLC

X-Energy Reactor Company, LLC, is a leading developer of advanced small modular nuclear reactors and fuel technology for clean energy generation that is redefining the nuclear energy industry through its development of safer and more efficient advanced small modular nuclear reactors and proprietary fuel to deliver reliable, zero-carbon and affordable energy to people around the world. X-energy’s simplified, modular, and intrinsically safe SMR design expands applications and markets for deployment of nuclear technology and drives enhanced safety, lower cost and faster construction timelines when compared with other SMRs and conventional nuclear. For more information, visit [X-energy.com](#) or connect with us on [X](#) or [LinkedIn](#).

About Doosan Enerbility Co., Ltd.

Doosan Enerbility Co., Ltd. (“Doosan”) is a global leader in power generation and energy solutions, based in South Korea.

Renowned as a world-class supplier of nuclear power plant equipment, Doosan has delivered 34 reactor vessels and 124 steam generators to countries worldwide. The company also plays a pivotal role in the manufacturing of Small Modular Reactors (SMRs), while driving innovation in next-generation technologies. Through its extensive global network of partners, Doosan contributes to major energy infrastructure projects across the globe. Committed to shaping a sustainable future, Doosan's mission is to provide reliable, safe, and innovative energy solutions for generations to come.