# X-energy, Amazon, Korea Hydro & Nuclear Power, and Doosan Enerbility Announce Partnership to Scale Advanced Nuclear Energy for AI Infrastructure

August 25, 2025

- X-energy, Amazon, Korea Hydro & Nuclear Power, and Doosan Enerbility sign strategic collaboration agreement to accelerate the deployment of new Xe-100 advanced nuclear reactors in the United States to meet increasing power demands by data centers, advanced manufacturing, and electrification.
- KHNP, Doosan, and additional Korean industrial partners have agreed to support Amazon and X-energy's plans to deploy more than five gigawatts of new nuclear energy across the United States by 2039, while also exploring global regions.
- The parties aim to mobilize up to $50 billion in public and private investments for Xe-100 projects and the expansion of associated supply chain capacity to support the future of American energy dominance and artificial intelligence growth.

**WASHINGTON, August 25, 2025** – X-energy Reactor Company, LLC ("X-energy"), Amazon, Korea Hydro & Nuclear Power Corporation ("KHNP"), and Doosan Enerbility today announced a strategic partnership to accelerate the deployment of Xe-100 fourth generation advanced small modular reactors (SMRs) and TRISO-X fuel in the United States to meet growing power demands from data centers and artificial intelligence ("AI").

This partnership combines the world's leading innovators in nuclear technology, energy project delivery, and cloud infrastructure to collaborate on the development and cost-effective deployment of X-energy's advanced fourth generation reactor, delivering on the Trump administration's goal to deploy advanced nuclear reactor technologies.

The agreement outlines collaboration across reactor engineering design, supply chain development, construction planning, investment strategies, long-term operations, and global opportunities for joint AI-nuclear deployment. Aligned with the recent $350 billion trade deal between the United States and the Republic of Korea, the companies also aim to mobilize up to $50 billion in public and private investment to support the future of nuclear energy in the U.S.

> This partnership brings together proven nuclear leadership and experience from Korean industry and X-energy's advanced reactor and fuel technology to meet a historic energy challenge. By combining our expertise, we are ensuring that we are best positioned to accelerate the Xe-100 SMR into the marketplace with the unique knowledge and skills developed throughout the South Korea industrial supply chain. Collaboration between the United States and South Korea in this critical sector is vital to preserving American leadership in the AI race and surpassing China as the leader in nuclear development.
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> *J. Clay Sell, CEO of X-energy*

KHNP president and CEO Dr. Joo-ho Whang added, "As more countries seek to introduce SMRs in response to the climate crisis and to strengthen energy security, global competition for SMR development is becoming increasingly fierce. By strengthening cooperation with the United States, I expect that the technological and business capabilities of both countries will generate strong synergies in the global SMR market. This partnership positions us to meet the needs of a 21st century economy with the safest, most secure, and most proliferation-resistant fuel and reactor technology today."

> Data centers are the critical infrastructure needed to support AI leadership, and their power needs continue to accelerate to meet the growing needs of our customers. By forming this partnership with KHNP and Doosan along with X-energy, we're continuing to pursue innovative carbon-free solutions and technology to help meet the increasing energy demand, and we're excited that this will help us enable over five gigawatts of new nuclear energy in the U.S.
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> *Vibhu Kaushik, stated Amazon Web Services ("AWS") Head of Worldwide Energy*

Chairman Park Ji-won of Doosan Enerbility remarked, "We are honored to seize this opportunity to accelerate the commercialization of Xe-100 technology, made possible through the support and interest of both governments." He further stated, "Doosan will faithfully fulfill its role, leveraging its proven manufacturing expertise, to ensure that this MOU becomes a model example of bilateral cooperation in the energy industry.

The agreement builds on X-energy's existing relationships with strategic Korean partners, including DL E&C, a leading engineering and construction services company with whom X-energy has partnered since 2023. X-energy and Amazon are seeking to build a world-leading ecosystem of partners that will support delivery of X-energy reactors to its customers. In line with this, Doosan has agreed to secure the manufacturing capabilities required for the successful deployment of Xe-100 modules.

X-energy is advancing its initial Xe-100 deployment with Dow Inc. at its UCC Seadrift Operations manufacturing site as part of the U.S. Department of Energy's Advanced Research Demonstration Program established under the first Trump administration. In May 2025, the proposed four-reactor project reached a critical milestone with its Construction Permit Application accepted for an 18-month review by the U.S. Nuclear Regulatory Commission. X-energy is also advancing its second Xe-100 deployment with Energy Northwest in Washington state in collaboration with Amazon. The Energy Northwest site is expected to initially host four

Xe-100 reactors with plans to expand to 12.

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**About Amazon**

Amazon is guided by four principles: customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking. Amazon strives to be Earth's Most Customer-Centric Company, Earth's Best Employer, and Earth's Safest Place to Work. Customer reviews, 1-Click shopping, personalized recommendations, Prime, Fulfillment by Amazon, AWS, Kindle Direct Publishing, Kindle, Career Choice, Fire tablets, Fire TV, Amazon Echo, Alexa, Just Walk Out technology, Amazon Studios, and The Climate Pledge are some of the things pioneered by Amazon. For more information, visit Amazon.com/about and follow @AmazonNews.

**About KHNP**

KHNP is a leading provider of carbon-free energy and has a proven track record of technological innovations, construction expertise, and operational excellence. Since 1971, KHNP has successfully constructed and operated 36 nuclear power plants – 32 in South Korea and four in the United Arab Emirates (UAE). As of 2023, KHNP operates 26 nuclear power plants with a total capacity of 24,050 MW, in addition to 37 hydroelectric power plants and 67 solar power plants. Responsible for 33% of the total electric power generated in South Korea and 25% of the power in the UAE, KHNP has been playing an essential role in expediting the transition to eco-friendly energy sources both domestically and globally.

**About Doosan Enerbility Co., Ltd. ("Doosan")**

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.

**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.

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