



NRC Completes Landmark Safety Review of X-energy's Xe-100 SMR

October 30, 2026

- *Final Safety Evaluation Report formally completes NRC safety review*
- *Marks completion of both primary reviews required for Construction Permit approval*
- *Establishes regulatory precedent to support more efficient licensing of future Xe-100 projects*

ROCKVILLE, Md., Oct. 30, 2026 (GLOBE NEWSWIRE) -- [X-Energy, Inc.](#) (Nasdaq: XE) ("X-energy" or "the Company"), a leading developer of advanced nuclear reactors and fuel technology, today announced the completion of the U.S. Nuclear Regulatory Commission's ("NRC") safety review for the initial deployment of X-energy's Xe-100 high-temperature gas-cooled reactor ("HTGR"). The proposed Long Mott Generating Station would be the first grid-scale advanced nuclear reactor at an industrial facility in U.S. history, advancing in partnership with Dow (NYSE: DOW) under the U.S. Department of Energy's Advanced Reactor Demonstration Program ("ARDP").

The NRC's Final Safety Evaluation Report ("FSER") follows a comprehensive review of the Xe-100 plant's principal design criteria, preliminary design, safety analyses, probabilistic risk assessment, and research and development programs, documenting the NRC staff's conclusion that the proposed plant and site provide the safety basis to begin construction under 10 CFR Part 50. The Advisory Committee on Reactor Safeguards, an independent body that advises the Commission, separately reviewed the NRC staff's evaluation and supports issuance of the construction permit.

The Xe-100's safety case leverages the passive physics of its TRISO-X coated particle fuel and pebble-bed core design, as well as traditional defense-in-depth systems to enable a new, broader range of applications for nuclear technology. The design's safety profile enables applicants to pursue a compact site footprint with a 400-meter emergency planning zone compared to 10 miles for conventional light-water reactors. This allows new generation to be sited closer to the point of need, including inside the perimeter of a large industrial facility, or closer to populated areas. While future applications will be reviewed individually, the NRC's review establishes regulatory precedents for every Xe-100 project that follows, creating replicable pathways for increased efficiency in commercial nuclear licensing.

"Licensing a new reactor is earned through the quality of the application and the rigor of the regulator's review," said Dragan Popovic, Chief Global Operating Officer at X-energy. "The NRC's completion of its safety review reflects years of disciplined work by our team and the NRC staff, establishing the foundations to support every Xe-100 application that follows on the path to scale."

Commercial licensing for X-energy's technology is supported by both extensive pre-application engagement with the NRC dating to 2018, as well as decades of U.S. Department of Energy research on HTGR technology. The Xe-100 is the first HTGR construction permit application to use the NRC's technology-inclusive, risk-informed, and performance-based licensing framework, building on licensing modernization proposals first developed for the DOE's Next Generation Nuclear Plant program in 2008. TRISO-X fuel is based on TRISO fuel designs pioneered by the DOE through the Advanced Gas Reactor Program, providing both irradiation data and production specifications over 20 years of testing that are central to the fuel's design today.

In May 2026, the NRC completed its environmental review with an Environmental Assessment and Finding of No Significant Impact. With both primary reviews complete, the project moves to the final stages of the NRC's construction permit review. In the United Kingdom, the Xe-100 was recently accepted into Generic Design Assessment, initiating a critical step in the licensing process for U.K. deployment. Together, these regulatory milestones advance the Company's vision of transformative energy technology to fuel the future of humanity.

About X-energy

X-energy, Inc. is a leading developer of advanced small modular nuclear reactors and fuel technology designed to establish a new standard in clean, safe, reliable energy. X-energy's intrinsically safe Xe-100 high-temperature gas reactor and TRISO-X particle fuel expand applications for nuclear technology, with commercial projects underway with Dow, Amazon, and Centrica across grid, industrial, and AI applications. Together, X-energy's technology drives enhanced safety, lower cost, faster construction timelines, and scalable deployment when compared with other SMRs and conventional nuclear.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, which X-energy intends to be covered by the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Words such as "assume," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "will," "seek," the negative of these words, or similar terms may identify forward-looking statements, but their absence does not mean a statement is not forward-looking. These include, but are not limited to, statements regarding the NRC's construction permit review, including the expected timing and outcome; the expectation that the proposed plant will be the first of its kind in U.S. history; the regulatory precedent established by the NRC's review and its expected effect on the efficiency of licensing future projects; the expected safety profile, features and

siting benefits of the Xe-100; the Xe-100's Generic Design Assessment in the United Kingdom; the status and timing of X-energy's commercial projects; and X-energy's vision and strategy.

You should not rely on these forward-looking statements as predictions of future events. Actual results may differ materially due to a number of factors, including, but not limited to: the risk that the NRC's review does not result in more efficient licensing of future Xe-100 projects, which will be reviewed individually, or that future sites do not qualify for a comparable emergency planning zone or environmental review pathway; design changes following the construction permit that require additional NRC review; the failure to obtain, or delays in obtaining, required licenses, permits and regulatory approvals, including issuance of the NRC Construction permit; site suitability and characterization risks; the decision of X-energy's customers, including Dow, whether to proceed with construction; the ability of the parties to obtain project financing and achieve acceptable project economics; delays, cost increases or setbacks in the licensing, construction or deployment of X-energy's projects; supply chain and supplier constraints; changes in government policy, funding or support for advanced nuclear energy, including under the ARDP; public or stakeholder opposition; and first-of-a-kind risks and X-energy's limited operating experience at intended scale, including latent design or operational issues. More information about potential risks is detailed under "Risk Factors" in X-energy's Quarterly Report on Form 10-Q for the quarter ended June 30, 2026 filed with the Securities and Exchange Commission (the "SEC"), and in subsequent SEC filings, available on X-energy's Investor Relations website at <https://investors.x-energy.com/> and on the SEC website at www.sec.gov. Any forward-looking statements herein are based on assumptions believed reasonable as of, and speak only as of, the date of this press release. Except as required by law, X-energy undertakes no obligation to update these statements as a result of new information or future events.

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