Dow and X-energy Submit Construction Permit Application to the U.S. Nuclear Regulatory Commission for Proposed Advanced Nuclear Project in Texas

March 31, 2025

- *Project supported by U.S. DOE's Advanced Reactor Demonstration Program*
- *Represents a key milestone toward bringing advanced nuclear energy to fruition in the U.S.*

MIDLAND, Michigan and ROCKVILLE, Maryland – March 31, 2025 – Dow (NYSE: DOW) and X-Energy Reactor Company, LLC ("X-energy") announced the submission of a construction permit application to the Nuclear Regulatory Commission ("NRC") for a proposed advanced nuclear project in Seadrift, Texas.

Dow's proposed advanced small modular reactor ("SMR") project is being developed by its wholly-owned subsidiary, Long Mott Energy LLC. The project is focused on providing Dow's UCC Seadrift Operations manufacturing site ("Seadrift" or the "site") with safe, reliable, and clean power and industrial steam replacing existing energy and steam assets that are near end-of-life. The project is supported by the U.S. Department of Energy's (DOE) Advanced Reactor Demonstration Program ("ARDP") which is designed to accelerate the deployment of advanced reactors through cost-shared partnerships with U.S. industry.

Since 2018, X-energy, and subsequently Dow, have worked with the NRC through extensive pre-application engagements to demonstrate the unparalleled safety profile of the Xe-100 advanced SMR through its advanced fuel design, passive safety features, and state-of-the-art analysis techniques. This has culminated in a comprehensive application submittal that exceeds NRC regulations for the protection of public health and safety, as well as the environment, with substantial safety features.

Approval of the construction permit is an important step forward that could take up to 30 months. Once the permit is received and upon Dow confirming the ability to deliver the project while achieving its financial return targets, construction could begin. Dow expects the cost of energy - net of all subsidies - to be competitive with other alternatives for firm, clean energy.

> This is an important next step in expanding access to safe, clean, reliable, cost-competitive nuclear energy in the U.S. We look forward to engaging with the NRC, DOE, our business partners and the community throughout the application process.
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> *Edward Stones, business vice president, Energy & Climate, Dow*
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> The construction permit application is a critical step to deliver on the vision of Congress and DOE to position the U.S. at the forefront of commercializing advanced reactor technology. Together with our world-class partner, Dow, we will demonstrate how the technology deployed at Seadrift, Texas, can be quickly and efficiently replicated to meet incredible power demand growth across America.
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> *J. Clay Sell, CEO of X-energy*

The proposed project could begin construction later this decade and start up early next decade. The nuclear power and steam assets would eliminate most Scope 1 and 2 emissions at the site and ensure the site remains competitively advantaged for the life of the facility.

X-energy was selected by the DOE in 2020 to develop, license, and build an operational Xe-100 advanced SMR and TRISO-X fuel fabrication facility. Since that award, X-energy has completed the engineering and preliminary design of the nuclear reactor, has begun development and licensing of a fuel fabrication facility in Oak Ridge, Tennessee, and has secured approximately $1.1 billion in private capital to commercialize its technology. Once complete, Long Mott Generating Station is expected to be the first grid-scale advanced nuclear reactor deployed to serve an industrial site in North America.

Dow's Seadrift site covers 4,700 acres and manufactures more than 4 billion pounds of materials per year used across a wide variety of applications including food packaging and preservation, footwear, wire and cable insulation, solar cell membranes, and packaging for medical and pharmaceutical products.

Available pictures for download:

XE-100 reactor

Plant rendering

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Dow

Dow (NYSE: DOW) is one of the world's leading materials science companies, serving customers in high-growth markets such as packaging, infrastructure, mobility and consumer applications. Our global breadth, asset integration and scale, focused innovation,

leading business positions and commitment to sustainability enable us to achieve profitable growth and help deliver a sustainable future. We operate manufacturing sites in 30 countries and employ approximately 36,000 people. Dow delivered sales of approximately $43 billion in 2024. References to Dow or the Company mean Dow Inc. and its subsidiaries. Learn more about and our ambition to be the most innovative, customer-centric, inclusive and sustainable materials science company in the world by visiting www.dow.com.

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 Twitter or LinkedIn.

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