



**X Energy, LLC**  
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23 February 2024  
Project No. 99902071

2024-XE-NRC-005

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

**Submittal of X Energy, LLC (X-energy), Xe-100 U.S. Regulatory Engagement Plan (REP) 2024**

The purpose of this letter is to submit the U.S. Regulatory Engagement Plan (REP) 2024 for the Xe-100 reactor technology to the U.S. Nuclear Regulatory Commission (NRC) on behalf of X Energy, LLC (“X-energy”). This submission describes the regulatory engagements and submittals X-energy proposes to commence or continue in 2024 under docket 99902071. This submittal supersedes any remaining activities in the Xe-100 Graphite Qualification REP (2023-XE-NRC-024) because the graphite structural analysis and qualification methodologies development has transitioned over to a Licensing Topical Report (LTR) activity.

The REP for the U.S. market has been developed utilizing the guidance in Nuclear Energy Institute (NEI) 18-06, Rev. 0, Technical Report, “Guidelines for Development of a Regulatory Engagement Plan.” The intent of the REP is to reduce regulatory uncertainty by establishing clear and timely expectations on deliverables, schedules, and resources. X-energy recognizes that the REP is a tool to help minimize programmatic risk leading up to the submittal of a Construction Permit Application and Operating License Application. In addition, the REP is also a formal communication mechanism to aid the NRC staff in resource and schedule planning in conjunction with Regulatory Issue Summary (RIS) responses and letters of intent. This REP is provided for NRC review and planning purposes.

The REP contains business sensitive information related to proposed scheduled activities. We request that portions of the REP be withheld from public disclosure in accordance with 10 CFR 2.390, "Public inspections, exemptions, request for withholding," paragraph (a)(4). An affidavit providing the basis for this request is provided in Enclosure 1. Enclosure 2 is the public version of the REP. Enclosure 3 is the non-public version of the REP which contains non-redacted business sensitive information.

This letter contains no commitments. Should you have any questions or require additional information, please contact Licensing Project Managers Maggie Staiger at [mstaiger@x-energy.com](mailto:mstaiger@x-energy.com) or Jessica Maddocks at [jmaddocks@x-energy.com](mailto:jmaddocks@x-energy.com).

Sincerely,

A handwritten signature in black ink that reads 'S. Vaughn'.

Stephen Vaughn  
Director, Reactor Licensing (Acting)  
X Energy, LLC



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Enclosures:

- 1) Affidavit Supporting Request for Withholding from Public Disclosure (10 CFR 2.390)
- 2) Xe-100 U.S. Regulatory Engagement Plan (REP) 2024 – Non-Proprietary (Public)
- 3) Xe-100 U.S. Regulatory Engagement Plan (REP) 2024 – Proprietary (Non-Public)

cc:

X Energy, LLC:

David Bannister  
Steve Miller  
Martin van Staden  
Milton Gorden

U.S. Nuclear Regulatory Commission:

Michael Wentzel  
Adrian Muñiz  
Jorge Hernández Muñoz  
Ondra Dukes

Department of Energy – Office of Clean Energy Demonstrations:

David Yarwood  
Jeff Ciocco

**Enclosure 1: Affidavit Supporting Request for Withholding from Public Disclosure (10 CFR 2.390)**

I, Stephen Vaughn, Director, Reactor Licensing (Acting), of X Energy, LLC (X-energy) do hereby affirm and state:

1. I am authorized to execute this affidavit on behalf of X-energy. I am further authorized to review information submitted to or discussed with the U.S. Nuclear Regulatory Commission (NRC) and apply for the withholding of information from disclosure. The purpose of this affidavit is to provide the information required by 10 CFR 2.390(b) in support of X-energy and the project's request for proprietary treatment of certain commercial information submitted in Enclosure 3 to X-energy's letter 2024-XE-NRC-005 from myself to the NRC which provides "Xe-100 U.S. Regulatory Engagement Plan (REP) 2024."
2. I have knowledge of the criteria used by X-energy and the Project in designating information as sensitive, proprietary, confidential, and export-controlled.
3. Pursuant to the provision of paragraph (b)(4) of 10 CFR 2.390, the following is furnished for consideration by the NRC in determining whether the information sought to be withheld from public disclosure should be withheld.
  - a. The information sought to be withheld from public disclosure in Enclosure 3 is owned by X-energy and the Project. This information was prepared with the explicit understanding that the information itself would be treated as proprietary and confidential and has been held in confidence by X-energy and other Project participants.
  - b. The information sought to be protected in Enclosure 3 is not available to the public.
  - c. The information contained in Enclosure 3 is of the type that is customarily held in confidence by X-energy and the Project, and there is a rational basis for doing so. The information X-energy is requesting to be withheld from public disclosure includes Project development and schedule-related information related to Project stakeholder's planning and commercialization efforts, including certain details that may be Predecisional in nature. X-energy limits access to this proprietary and confidential information in order to maintain confidentiality.
  - d. The Proprietary Information contained in Enclosure 3 is transmitted to the NRC in confidence and under the provisions of 10 CFR 2.390; it is to be received in confidence by the NRC. The information is properly marked using [[ ]]<sup>P</sup>.



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I declare under the penalty of perjury that the foregoing is true and correct. Executed on this 23<sup>rd</sup> day of February 2024.

Sincerely,

A handwritten signature in black ink that reads 'S. Vaughn'.

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Stephen Vaughn  
Director, Reactor Licensing (Acting)  
X Energy, LLC