



In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy Request for a Certificate of Need for Additional Dry Cask Storage at the Prairie Island Nuclear Generating Plant Independent Spent Fuel Storage Installation

**ENVIRONMENTAL IMPACT STATEMENT
SCOPING DECISION**

DOCKET NO. E002/CN-24-68

The above matter has come before the Commissioner of the Department of Commerce (Department) for a decision on the scope of the environmental impact statement (EIS) that will be prepared for Xcel Energy's proposed additional storage of spent nuclear fuel in the independent spent fuel storage installation (ISFSI) at the Prairie Island Nuclear Generating Plant (PINGP) in the city of Red Wing, Minnesota.

Introduction

The PINGP is a 1,168 megawatt (MW) electric generating plant powered by two pressurized nuclear water reactors (Units 1 and 2). The plant has been in operation since 1973. Spent nuclear fuel from the plant is stored on site in the PINGP ISFSI.

The plant is currently licensed by the Nuclear Regulatory Commission (NRC) for operation through 2033/2034 for Units 1 and 2 respectively. The Minnesota Public Utilities Commission (Commission) has authorized storage of spent nuclear fuel in the PINGP ISFSI sufficient to allow operation of the PINGP through 2033/2034.

Project Description

Xcel Energy proposes to extend the operating life of the PINGP to 2053/2054.¹ To accommodate the additional spent nuclear fuel associated with this extension, Xcel Energy proposes to expand storage within the PINGP ISFSI. This additional storage requires installation of up to two additional concrete storage pads within the existing 5.5 acre ISFSI footprint.² Xcel Energy has selected Orano TN Americas LLC (Orano) as its spent fuel storage technology vendor.³ Xcel Energy indicates that it will use the Orano NUHOMS EOS 37PTH dry fuel storage system for the storage of spent nuclear fuel in the PINGP ISFSI. This system is approved by the NRC for both storage and transportation of spent nuclear fuel.⁴ The system stores the spent fuel in welded metal fuel storage canisters, which would then be placed in concrete overpacks on the ISFSI pad.

¹ Certificate of Need Application for Additional Dry Cask Storage at the Prairie Island Nuclear Generating Plant Independent Spent Fuel Storage Installation, Xcel Energy, February 7, 2024, eDockets No. [20242-203185-01](#) (through -10) and [20242-203189-01](#) (through -10), hereinafter the CN Application.

² CN Application, Executive Summary.

³ *Ibid.*

⁴ Title 10 Code of Federal Regulations (10 CFR) § 72 and 71.

Currently, the PINGP ISFSI is authorized to store up to 2,560 spent fuel assemblies.⁵ The ISFSI is expected to reach this 2,560 spent fuel assembly limit by 2034.⁶ Xcel Energy indicates that operation of Units 1 and 2 for 20 more years (through 2053/2054) would require additional storage capacity in the PINGP ISFSI for approximately 1,200 spent fuel assemblies, or 34 of the NUHOMS EOS 37PTH dry fuel storage canisters.⁷

Project Purpose

The PINGP will exhaust its current nuclear spent fuel storage capacity in 2033.⁸ Xcel Energy indicates that additional storage at the PINGP ISFSI is necessary to support operation of the PINGP through 2054. Xcel Energy states that this extended operation is vital to its ability to provide enough reliable and cost-effective baseload and firm dispatchable generation to meet Minnesota's 100 percent carbon-free energy by 2040 goal.^{9, 10}

Regulatory Background

Additional storage of spent nuclear fuel in the PINGP ISFSI requires a certificate of need (CN) from the Commission.¹¹ Xcel Energy applied to the Commission for a CN on February 7, 2024. Additionally, an EIS must be prepared by the Department, as the responsible governmental unit (RGU), prior to the Commission's decision on a CN.¹²

Concurrent with Xcel Energy's application to the Commission for a CN, Xcel Energy submitted its 2024-2040 integrated resource plan (IRP) to the Commission on February 1, 2024.¹³ The IRP examines Xcel Energy's needs for electricity over a 15-year planning period and how these needs are best met. Xcel Energy's IRP recommends extending the operating life of the PINGP to 2054. The Commission may accept, modify, or reject Xcel Energy's IRP.

Extending the operating life of Units 1 and 2 at the PINGP to 2053/2054 requires the approval of the NRC.¹⁴ Xcel Energy anticipates filing a request with the NRC for a license extension – a subsequent license renewal (SLR) – in 2026.¹⁵ If additional storage capacity is needed for spent nuclear fuel past 2053/2054, Xcel Energy would need to file another CN application with the Commission. Should the PINGP need to decommission in 2053/2054 and if no offsite storage options are available, Xcel Energy indicates that it could store all of the spent fuel associated with decommissioning the PINGP in the existing ISFSI.

⁵ Public Utility Commission, December 18, 2009, *Order Accepting Environmental Impact Statement, and Granting Certificates of Need and Site Permit with Conditions* (Docket Nos. E002/CN-08-509, E002/CN-08-510, and E002/GS-08-690).

⁶ CN Application, Chapter 1.1.

⁷ CN Application, Chapter 1.3.2.

⁸ CN Application, Chapter 9.3.

⁹ Minn. Stat. 216B.1691 Subd. 2, G.

¹⁰ CN Application, Executive Summary.

¹¹ Minnesota Statute 116C.83, Subd. 2.

¹² Minnesota Statute 116C.83, Subd. 6(b).

¹³ eDockets No. E002/RP-24-67. Xcel Energy, *Integrated Resource Plan*, February 1, 2024, document IDs [20242-203027-01](#) (through -08).

¹⁴ Title 10 of the Code of Federal Regulations (10 CFR) Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants."

¹⁵ CN Application, Executive Summary.

Scoping Process

Scoping is the first step in the development of the EIS. The scoping process has two primary purposes: (1) to gather public input as to the impacts and mitigation measures to study in the EIS and (2) to focus the EIS on those impacts and mitigation measures that will aid in the Commission's decision on Xcel Energy's proposed additional storage in the PINGP ISFSI.¹⁶

A scoping EAW has been prepared for the project.¹⁷ The EAW is the basis for the scoping process and serves as an aid for commenters to initiate discussion on the scope of the EIS.¹⁸

EERA staff gathered input on the scope of the EIS through public meetings and an associated comment period.¹⁹ This scoping decision identifies the impacts and mitigation measures that will be analyzed in the EIS.

Public Scoping Meetings

EERA staff issued a notice of scoping meetings regarding Xcel Energy's proposed additional spent fuel storage in the PINGP ISFSI on April 9, 2024.²⁰ The notice appeared in the EQB Monitor on April 9, 2024,²¹ and in the Red Wing Republican Eagle on April 20, 2024.²²

EERA staff held a public scoping meeting regarding Xcel Energy's proposed additional spent fuel storage in the PINGP ISFSI on April 25, 2024, in Red Wing, Minnesota. Approximately seven people attended this meeting; three people provided public comment.²³ Carol Overland submitted articles and papers at this meeting that highlight plant safety, the feasibility of converting the PINGP to natural gas, legal decisions regarding the uncertainty of long-term nuclear waste storage in Texas and New Mexico, and an Xcel Energy presentation to the Red Wing City Council.²⁴

The preceding evening, April 24, 2024, EERA staff held a virtual public meeting. Approximately four people attended this meeting; one person provided public comment.²⁵ Comments addressed the scope of potential impacts that will be analyzed in the EIS and the possible reprocessing of spent nuclear fuel in the United States. Comments also addressed safety, Xcel Energy's emergency plan, the certificate of need application and its scheduling, radiation exposure studies, natural gas plant alternatives, costs, decommissioning, utility lobbying, NRC regulations, radon, uranium mining, and long-term storage.

Written Public Comments

Following the public scoping meetings, written comments were received from the Minnesota Pollution Control Agency (MPCA), Goodhue County, and two public members.²⁶ The MPCA stated they had no

¹⁶ Minnesota Rule 4410.2100.

¹⁷ *Ibid.*

¹⁸ *Ibid.*

¹⁹ *Ibid.*

²⁰ EERA, Notice of Environmental Impact Statement Scoping Meeting and Availability of Scoping Environmental Assessment Worksheet, April 9, 2024, eDockets No. [20244-205145-04](#).

²¹ EERA, Notice of Environmental Impact Statement Scoping Meeting and Availability of Scoping Environmental Assessment Worksheet, in EQB Monitor, April 9, 2024, eDockets Number [20244-205173-01](#).

²² EERA, Affidavit of Publication, April 29, 2024, eDocket No. [20244-206088-01](#)

²³ Public Comments Submitted at EIS Scoping Meeting, eDockets Nos. [20245-206548-01](#) and [20245-206576-02](#).

²⁴ Written Public Comments on EIS Scope, eDockets No. [20245-206576-02](#)

²⁵ *Ibid.*

²⁶ Written Public Comments on EIS Scope, eDockets Nos. [20245-206576-01](#) and [20245-206662-01](#).

comments on the project at that time. Goodhue County noted its good relationship with Xcel Energy and its effect on the local economy while also asking that the EIS consider the impact of additional tax revenue on socioeconomics due to the project. The County's primary concern was that the Minnesota Department of Revenue's assessment of the utility property may diminish the tax revenue received by local communities over the extended period of the storage. The two public members commented on creating a scoping task force, resubmitted comments from a 2009 task force,²⁷ noted a concern for safety and the lack of permanent storage solutions, and commented on the emergency plan, the impact of climate change over the life of the project, and the PINGP as a safe asset for the community.

Having reviewed the matter, consulted with Department staff, and in accordance with Minnesota Rule 4410.2100, I hereby make the following scoping decision:

MATTERS TO BE ADDRESSED

The issues outlined below will be analyzed in the EIS for Xcel Energy's proposed additional storage of spent nuclear fuel in the PINGP ISFSI.

I. GENERAL DESCRIPTION OF THE PROJECT

- A. Description
- B. Purpose
- C. Costs
- D. Schedule

II. REGULATORY FRAMEWORK

- A. Federal Approvals
- B. State Approvals
- C. Local Approvals
- D. Other Permits and Approvals Required

III. ENGINEERING, DESIGN, AND CONSTRUCTION

- A. Canister Systems for Spent Fuel Storage
- B. Canister Handling and Transportation
- C. Canister Monitoring
- D. PINGP ISFSI

IV. POTENTIAL IMPACTS AND MITIGATIVE MEASURES: NON-RADIOLOGICAL

The EIS will include a discussion of human and environmental resources potentially impacted by the project. The EIS will discuss potential non-radiological impacts related to the proposed additional storage in the PINGP ISFSI.

- A. Environmental Setting
- B. Human Settlements

²⁷ See eDockets CN-08-510.

1. Noise, traffic, aesthetics, socioeconomics, land use, public health and safety, archaeological and historic resources
- C. Natural Environment
 1. Water resources, flora, fauna, geology and soils, rare and unique natural resources
 2. Climate change and greenhouse gases
- D. Cumulative Impacts
 1. Potential human and environmental impacts of operation of the PINGP through 2054.
 2. Potential human and environmental impacts of using the PINGP ISFSI to facilitate decommissioning of the PINGP.

V. POTENTIAL IMPACTS AND MITIGATION MEASURES: RADIOLOGICAL

The EIS will discuss potential radiological impacts related to the proposed additional storage in the PINGP ISFSI.

- A. Natural Background Radiation and Radiation Exposure
- B. Radiological Monitoring at the PINGP and PINGP ISFSI
- C. Potential Impacts to the Public
 1. Normal conditions
 2. Incident (non-normal) conditions
- D. Potential Impacts to Workers
 1. Normal conditions
 2. Incident (non-normal) conditions
- E. Environmental Justice
- F. Cumulative Impacts
 1. Potential human and environmental impacts of operation of the PINGP through 2054.
 - a) Normal conditions
 - b) Incident (non-normal) conditions
 2. Potential human and environmental impacts of using the PINGP ISFSI to facilitate decommissioning of the PINGP.
 - a) Normal conditions
 - b) Incident (non-normal) conditions

VI. TRANSPORTATION OF SPENT NUCLEAR FUEL

The EIS will discuss the regulatory framework for transportation of spent nuclear fuel in the United States. Potential impacts associated with the transportation of spent nuclear fuel will be discussed through reference to existing studies.

VII. ISFSI ALTERNATIVES

- A. No Action
- B. Increased Spent Fuel Pool Capacity
 1. Fuel Rod Consolidation, Re-Racking Existing Storage, or a New Storage Pool
- C. Interim Off-Site Storage
 1. Proposed Holtec HI-STORE Consolidated Interim Storage Facility in southeastern New Mexico
 2. Proposed Interim Storage Partners Storage Facility in Andrews County, Texas
 3. Proposed Private Fuel Storage in West Central Utah reservation of the Skull Valley Band of Goshute Indians

- D. Federal Geologic Repository, Yucca Mountain
- E. Alternative Spent Fuel Storage Technologies
 - 1. Horizontal Canister Storage System
 - 2. Vertical Canister Storage Systems
 - 3. Non-Canister Storage Systems (Bolted Cask)
- F. Reprocessing and Recycling Spent Fuel

VIII. PINGP ALTERNATIVES

- A. Current PINGP Role in Minnesota Energy Supply
- B. Alternatives to Continued Operation of the PINGP
 - 1. No Action
 - 2. Replacement Generation (PINGP is shut down in 2033/2034 and MW capacity is replaced)
 - a) 2024 IRP Baseload Case Comparison Overview
 - b) Reliability

IX. DATA AND ANALYSIS

Data and analysis in the EIS will be commensurate with the importance of potential impacts and the relevance of the information to consideration of the need for mitigation measures.²⁸ EERA staff will consider the relationship between the cost of data and analyses and the relevance and importance of the information in determining the level of detail of information to be prepared for the EIS.

If relevant information cannot be obtained within timelines prescribed by statute and rule, or if the costs of obtaining such information is excessive, or the means to obtain it is not known, EERA staff will include in the EIS a statement that such information is incomplete or unavailable and the relevance of the information in evaluating potential impacts.²⁹

X. STUDIES TO BE UNDERTAKEN

No additional studies will be undertaken in preparation of the EIS.

ISSUES OUTSIDE THE SCOPE OF THE EIS

The EIS will not address the following topics:

- A. The appropriateness of NRC regulations for spent nuclear fuel storage technology.
- B. Potential impacts associated with the nuclear fuel cycle.
- C. ISFSI sites outside the PINGP plant boundary. The Commission's authority is limited to the storage of spent nuclear fuel generated by a Minnesota nuclear generation facility and stored on the site of that facility.³⁰
- D. Economic analysis of generation alternatives. Economic analysis in the EIS will be limited to information provided in Xcel Energy's CN application. Additional economic analysis will be

²⁸ Minnesota Rule 4410.2300.

²⁹ Minnesota Rule 4410.2500.

³⁰ Minnesota Statute 116C.83

provided during the Commission's CN proceedings by the Department of Commerce, Energy Regulation and Planning unit.

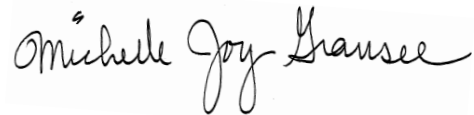
- E. The appropriateness of NRC regulations and standards for radiation exposure. The EIS may reference certain standards promulgated by the NRC; however, the EIS will not address the adequacy of these standards.

SCHEDULE

A draft EIS is anticipated to be completed and available in October 2024. A public meeting and comment period on the draft EIS will follow. Timely and substantive comments on the draft EIS will be responded to in a final EIS.³¹ The schedule for the draft and final EIS will be coordinated with the public hearings that will be held for Xcel Energy's CN application.

Signed this 11th day of July, 2024

STATE OF MINNESOTA
DEPARTMENT OF COMMERCE



Michelle Gransee, Deputy Commissioner

³¹ Minnesota Rule 4410.2700, subp. 10.