

DRAFT SCOPING DECISION

**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**

**DRAFT 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 in Welch, Minnesota 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 chose Orano TN Americas LLC NUHOMS EOS 37PTH as their spent fuel storage technology vendor,³ an NRC certified dry fuel storage system for dual use as storage and transportation.⁴ This system transports spent fuel assemblies from the spent fuel pool and stores the spent fuel in welded metal dry fuel storage canisters. These canisters are then transported to the ISFSI to be stored on a concrete pad.

The current ISFSI is authorized to store 64 equivalents of its current storage technology systems on its three existing concrete pads.⁵ Each of these current storage technology systems have a spent fuel assembly capacity of 40 for a total of 2,560 spent fuel assemblies.⁶ The ISFSI is expected to reach this 2,560 spent fuel assembly capacity by 2034.⁷ Xcel Energy indicates that additional operation and storage of Units 1 and 2 for 20 years

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.

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 *Ibid.*

⁷ CN Application, Chapter 1.1.

through 2053/2054 would require 34 dry fuel storage systems of the new technology, or the equivalent of 1,200 spent fuel assemblies.⁸

Project Purpose

The PINGP will exhaust its current nuclear spent fuel storage capacity in 2033.⁹ 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 their ability to provide enough reliable and cost-effective baseload and firm dispatchable generation to meet Minnesota's 100 percent renewable energy by 2040 goal as their coal fleets retire.^{10,11}

Regulatory Background

Additional storage of spent nuclear fuel in the PINGP ISFSI requires a certificate of need (CN) from the Commission.¹² 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.¹³

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, for approval.¹⁴ 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.¹⁵ Xcel Energy anticipates filing a request with the NRC for a license extension – a subsequent license renewal (SLR) – in 2026.¹⁶ Though NRC license extensions are for a period of 20 years, Xcel Energy has not anticipated operating the PINGP past 2053/2054. If additional storage capacity is needed 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 could store all of the spent fuel associated with decommissioning the PINGP in the existing ISFSI without expansion.

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

⁸ CN Application, Chapter 1.3.2.

⁹ CN Application, Chapter 9.3.

¹⁰ Minn. Stat. 216B.1691 Subd. 2, G.

¹¹ CN Application, Executive Summary.

¹² Minnesota Statute 116C.83, Subd. 2.

¹³ Minnesota Statute 116C.83, Subd. 6(b).

¹⁴ eDockets No. E002/RP-24-67. Xcel Energy, *Integrated Resource Plan*, February 1, 2024, document IDs [20242-203027-01](#) (through -08).

¹⁵ Title 10 of the Code of Federal Regulations (10 CFR) Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants."

¹⁶ CN Application, Executive Summary.

those impacts and mitigation measures that will aid in the Commission’s decision on Xcel Energy’s proposed additional storage in the PINGP ISFSI.¹⁷

A scoping EAW has been prepared for the project.¹⁸ The EAW is the basis for the scoping process which serves as an aid for commenters to initiate discussion on the scope of the EIS.¹⁹

EERA staff gathered input on the scope of the EIS through public meetings and an associated comment period.²⁰ This scoping decision identifies the impacts and mitigation measures that will be analyzed in the EIS.

Public Scoping Meetings

Public Comments

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

¹⁷ Minnesota Rule 4410.2100.

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Ibid.

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
 - 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 gas
- 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. Climate Change and Greenhouse Gas
- F. Environmental Justice
- G. 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.²¹ 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.²²

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.

²¹ Minnesota Rule 4410.2300.

²² Minnesota Rule 4410.2500.

- 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.²³
- 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 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 September 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.²⁴

Signed this ____ day of _____, 2024

STATE OF MINNESOTA
DEPARTMENT OF COMMERCE

Michelle Gransee, Deputy Commissioner

²³ Minnesota Statute 116C.83

²⁴ Minnesota Rule 4410.2700, subp. 10.