



NOTICE OF PREPARATION OF A SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

Xcel Energy's Proposed Change in Spent Fuel Storage Technology at the Prairie Island Nuclear Generating Plant

Issued: December 7, 2021

Docket Number: E002/CN-08-510

PLEASE TAKE NOTICE that the Minnesota Department of Commerce (Department) is preparing a supplemental environmental impact statement (SEIS) for Xcel's Energy's proposed change in spent fuel storage technology at the Prairie Island nuclear generating plant (PINGP). The SEIS will supplement the July 31, 2009, Prairie Island final environmental impact statement for Xcel Energy's proposed power uprate and request for additional draft cask storage at the PINGP (2009 Prairie Island EIS).

On April 30, 2021, Xcel Energy requested that the Minnesota Public Utilities Commission (Commission) authorize a change in spent fuel storage technology at the PINGP. Xcel Energy requested that it be authorized to use any spent fuel storage technology approved by the Nuclear Regulatory Commission (NRC), rather than being limited solely to the TN-40HT cask that was approved by the Commission in 2009.

After reviewing Xcel Energy's request, and as the responsible governmental unit, the Department concluded that the request represented substantial new information that affects the potential environmental effects at the PINGP such that the 2009 Prairie Island EIS must be supplemented. The Department found that the request affected potential radiological and non-radiological impacts at the PINGP. Further, the Department found that potential impacts raised environmental justice concerns with respect to the Prairie Island Indian Community.

The SEIS will be prepared in accordance with the attached scoping decision. A draft SEIS is anticipated to be completed and available in February 2022. Public meetings and a comment period on the draft SEIS will follow. Timely and substantive comments on the draft SEIS will be responded to in a final SEIS. The final SEIS is anticipated to be available in April 2022. The Commission will use the final SEIS in making a decision on Xcel Energy's request.

How to Learn More

Full Case Record. See all documents filed in this matter via the Commission's website at mn.gov/puc, select *eDockets*, enter the year (08) and the docket number (510), and select *Search*.

Subscribe to the Docket. To receive email notification when new documents are filed in this matter visit: <https://www.edockets.state.mn.us/EFiling>, select *Subscribe to Dockets* and follow the prompts.

Project Mailing List. Sign up to receive notices about project milestones and opportunities to participate or to change your mailing preference. Email docketing.puc@state.mn.us or call Leesa Norton at 651-201-2246 with the docket number (08-510), your name, mailing address, and email address.

Department of Commerce Website. Visit mn.gov/commerce/energyfacilities, select *Power Plants*, and then scroll down to select *Prairie Island Nuclear Plant Spent Fuel Storage*.

Project Contacts

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In the Matter of the Petition of Northern
States Power Company D/B/A Xcel Energy
for a Certificate of Need for Additional Dry
Cask Storage at Prairie Island Nuclear
Generating Plant

**SUPPLEMENTAL ENVIRONMENTAL
IMPACT STATEMENT
SCOPING DECISION**

DOCKET NO. E002/CN-08-510

The above matter has come before the Commissioner of the Department of Commerce (Department) for a decision on the scope of the supplemental environmental impact statement (SEIS) that will be prepared for Xcel Energy's proposed change in spent fuel storage technology at the Prairie Island nuclear generating plant in the city of Red Wing, Minnesota.

Introduction and Background

The Prairie Island nuclear generating plant (PINGP) is a 1,100 megawatt (MW), two-unit, electric generating plant in Red Wing, Minnesota. Unit 1 has been in operation since 1973; Unit 2 since 1974. Spent nuclear fuel from the plant is stored on-site in an independent spent fuel storage installation (ISFSI).

On May 16, 2008, Xcel Energy applied to the Minnesota Public Utilities Commission (Commission) for a certificate of need (CN) to expand the Prairie Island ISFSI by 35 casks, to accommodate a total of 64 spent fuel storage casks. Department of Commerce, Energy Environmental Review and Analysis (EERA) staff prepared an EIS that analyzed the proposed ISFSI expansion (2009 Prairie Island EIS). On December 18, 2009, the Commission issued a CN authorizing Xcel Energy to expand the Prairie Island ISFSI by 35 casks. At that time, Xcel Energy proposed that these casks be Transnuclear TN-40HT casks.

On April 30, 2021, Xcel Energy requested that the Commission authorize a change in the spent fuel storage technology at Prairie Island.¹ Xcel Energy requested that it be authorized to use any spent fuel storage technology approved by the Nuclear Regulatory Commission (NRC), rather than being limited solely to the TN-40HT cask. On May 14, 2021, the Commission issued a notice soliciting comments on Xcel Energy's proposed change in fuel storage technology and on the appropriate processes for considering Xcel Energy's request.²

After reviewing Xcel Energy's request, EERA staff concluded that the request represented substantial new information that affects the potential environmental effects at the Prairie Island ISFSI such that the 2009 Prairie Island EIS must be supplemented.³ EERA staff recommended that the Commission take no action on Xcel Energy's request until EERA staff

¹ Request for Change in Spent-Fuel Storage Technology, Prairie Island Fuel Storage, April 30, 2021, eDockets Number [20214-173680-01](#) [hereinafter Xcel Energy Request].

² Notice of Comment Period, May 14, 2021, eDockets Number [20215-174178-01](#).

³ Minnesota Rule 4410.3000.

could supplement the 2009 Prairie Island EIS in accordance with Minnesota Statutes section 116D.04 and Minnesota Rule 4410.3000.⁴ On October 1, 2021, the Commission concurred with EERA staff's recommendation.⁵

Project Description

Xcel Energy proposes to use any NRC-approved fuel storage cask for the ISFSI, rather than being limited to the TN-40HT casks approved by the Commission in 2009. Xcel Energy indicates that they would select from NRC-approved cask designs based on considerations including price and compatibility with future offsite storage facilities. Xcel Energy envisions that the cask designs would be similar to the welded, canister design used at the Monticello nuclear generating plant ISFSI.

Xcel Energy indicates that it is not seeking to store more spent fuel than was approved by the Commission in 2009. Xcel Energy notes that it still seeks to store the 2,560 spent-fuel assemblies anticipated by the Commission's 2009 certificate of need. Xcel Energy's request is that it not be limited to storing these assemblies in 64 TN-40HT casks, but rather storing them in any NRC-approved spent fuel storage casks.

Project Purpose

Xcel Energy indicates that its proposed change in spent fuel storage technology would likely result in lower customer costs. Further, Xcel Energy indicates that a change in technology could potentially facilitate earlier shipments of spent nuclear fuel from Prairie Island to offsite storage facilities.

Regulatory Background

An EIS for a project must be supplemented if the responsible governmental unit determines that any of the following situations exist:

- A. Whenever after a final EIS has been determined adequate, but before the project becomes exempt under part 4410.4600, subpart 2, item B or D, the RGU determines that either:
 - (1) substantial changes have been made in the proposed project that affect the potential significant adverse environmental effects of the project; or
 - (2) there is substantial new information or new circumstances that significantly affect the potential environmental effects from the proposed project that have not been considered in the final EIS or that significantly affect the availability of prudent and feasible alternatives with lesser environmental effects;

⁴ EERA Comments and Recommendations, May 27, 2021, eDockets Number [20215-174578-01](#).

⁵ Commission Order, October 1, 2021, eDockets Number [202110-178440-01](#).

- B. Whenever an EIS has been prepared for an ongoing governmental action and the RGU determines that the conditions of item A, subitem (1) or (2), are met with respect to the action; or
- C. Whenever an EIS has been prepared for one or more phases of a phased action or one or more components of a connected action and a later phase or another component is proposed for approval or implementation that was not evaluated in the initial EIS.⁶

EERA staff has concluded that Xcel Energy's request represents substantial new information that significantly affects the potential environmental effects at the Prairie Island ISFSI such that the 2009 Prairie Island EIS must be supplemented.⁷ EERA staff believes that the request affects potential radiological and non-radiological impacts at the PINGP. Further, staff believes that potential impacts raise environmental justice concerns with respect to the Prairie Island Indian Community (PIIC).

Scoping Process

Scoping is the first step in the development of the SEIS. The scoping process has two primary purposes: (1) to gather public input as to the impacts and mitigation measures to study in the SEIS and (2) to focus the SEIS on those impacts and mitigation measures that will aid in the Commission's decision on Xcel Energy's request for a change in spent fuel storage technology.

EERA staff gathered input on the scope of the SEIS through public meetings and an associated comment period.⁸ Staff also gathered input through a community meeting with the PIIC.

This scoping decision identifies the impacts and mitigation measures that will be analyzed in the SEIS.

Public Scoping Meetings

EERA staff held a public meeting regarding Xcel Energy's proposed change in spent fuel storage technology on October 5, 2021, in Red Wing, Minnesota. Approximately 15 persons attended this meeting; six persons provided public comments.⁹ Comments addressed a range of topics including the type of technology that Xcel Energy might select for the project, licensing requirements, transportation of casks, and changes in spent nuclear fuel regulation since the 2009 Prairie Island EIS. The following evening, October 6, 2021, EERA staff held a virtual public meeting. Approximately 10 persons attended this meeting; two persons provided public comments.¹⁰ Comments addressed coordination with the PIIC regarding Xcel Energy's proposal and the potential relicensing of the PINGP.

⁶ Minnesota Rule 4410.3000, Subp. 3.

⁷ Minnesota Rule 4410.3000, Subp. 3.B.

⁸ Minnesota Rule 4410.3000, Subp. 5; Notice of Scoping Meetings for Supplemental Environmental Impact Statement, September 14, 2021, eDockets Number, [20219-177940-01](#).

⁹ Oral Public Meeting Comments on Scope of SEIS, eDockets Number [202110-179270-01](#).

¹⁰ *Id.*

Written Public Comments

Following the public scoping meetings, written comments were received from the PIIC, the city of Red Wing, and three citizens.¹¹ The PIIC noted that there is a regulatory framework in place for the transportation of spent nuclear fuel. The PIIC recommended that the SEIS discuss the potential impacts associated with the transportation of spent nuclear fuel. The PIIC also recommended that the SEIS discuss a 2019 table-top spent fuel transportation exercise that was conducted at Prairie Island.

The city of Red Wing requested additional detail on the types of spent fuel storage technology that might be selected by Xcel Energy for the PINGP ISFSI. The city also requested additional information regarding the possible repackaging of any spent nuclear fuel at the PINGP. The city noted that a potential change in casks could impact tax revenues and the city's emergency response plan for the PINGP. The city also raised concerns regarding the planning, inspection, and maintenance necessary for long-term storage of spent nuclear fuel at the PINGP.

Several citizens requested additional information regarding the types of spent fuel storage technology that could be selected by Xcel Energy. Citizens also commented on licensing requirements, environmental justice, climate change, and long-term storage of spent nuclear fuel at the PINGP.

Meeting with Prairie Island Indian Community

In coordination with the PIIC, EERA staff held a community meeting with PIIC members on November 10, 2021. Approximately 10 persons attended this meeting in person with a similar number joining on-line; five community members provided comments.¹² Comments addressed several topics including the sealing of casks, cask transportation, potential impacts due to earthquakes and low temperatures, and the integrity of spent fuel rods.

Following the community meeting, written comments could be submitted to EERA staff through November 22, 2021. No written comments were received.

Having reviewed the matter, consulted with EERA staff, and in accordance with Minnesota Rule 4410.3000, I hereby make the following scoping decision:

¹¹ Written Public Comments on Scope of SEIS, eDockets Number [202110-179270-02](#).

¹² Oral Comments on Scope of SEIS, Prairie Island Indian Community Meeting, eDockets Number [202111-180174-01](#).

MATTERS TO BE ADDRESSED

The issues outlined below will be analyzed in the SEIS for Xcel Energy's proposed change in spent fuel storage technology at the Prairie Island ISFSI. The analysis will be limited to impacts and mitigation measures related to Xcel Energy's proposed change that were not addressed in the 2009 Prairie Island EIS.

I. GENERAL DESCRIPTION OF THE PROJECT

- A. Project Description
- B. Project Purpose
- C. Project Costs

II. REGULATORY FRAMEWORK

- A. Federal Approvals
 - 1. Licensing of spent fuel storage technology
 - 2. Licensing for spent fuel transportation
- B. State Approvals
 - 1. Requirement for casks to facilitate storage and transportation, Minnesota Statutes § 116C.776.
- C. Local Approvals

III. ENGINEERING, DESIGN, AND CONSTRUCTION

- A. Cask and Canister Systems for Spent Fuel Storage
 - 1. The types of spent fuel storage technology that could be selected by Xcel Energy for the project.
- B. Cask and Canister Handling
- C. Cask and Canister Monitoring
- D. Readiness of Casks and Canisters for Transportation
- E. Prairie Island Independent Spent Fuel Storage Installation

IV. POTENTIAL IMPACTS AND MITIGATIVE MEASURES – NON-RADIOLOGICAL

The SEIS will include a discussion of human and environmental resources potentially impacted by the project. The SEIS will discuss potential non-radiological impacts related to the proposed change in spent fuel storage technology.

- A. Environmental Setting
- B. Human Environment
 - 1. Tax revenues
- C. Natural Environment

V. POTENTIAL IMPACTS AND MITIGATION MEASURES – RADIOLOGICAL

The SEIS will discuss potential radiological impacts related to the proposed change in spent fuel storage technology.

- A. Natural Background Radiation and Radiation Exposure

- B. Potential Impacts to the Public
 - 1. Emergency response plan
 - 2. Climate change impacts on casks
- C. Potential Impacts to Workers
- D. Environmental Justice

VI. TRANSPORTATION OF SPENT NUCLEAR FUEL

The SEIS 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.

- A. 2019 Table-Top Transportation Exercise at Prairie Island

VII. LONG-TERM STORAGE OF SPENT NUCLEAR FUEL

- A. Changes in Spent Fuel Storage Regulation Since the 2009 Prairie Island EIS
- B. Funding for Long-Term Storage of Spent Nuclear Fuel at the PINGP

VIII. DATA AND ANALYSIS

Data and analysis in the SEIS will be commensurate with the importance of potential impacts and the relevance of the information to consideration of the need for mitigation measures.¹³ 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 SEIS.

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 SEIS a statement that such information is incomplete or unavailable and the relevance of the information in evaluating potential impacts.¹⁴

IX. ALTERNATIVE SITES TO BE EVALUATED

The SEIS will evaluate the storage of spent nuclear fuel at the PINGP ISFSI. No other sites will be evaluated in the SEIS.

X. STUDIES TO BE UNDERTAKEN

No studies will be undertaken in preparation of the SEIS.

¹³ Minnesota Rule 4410.2300.

¹⁴ Minnesota Rule 4410.2500.

ISSUES OUTSIDE THE SCOPE OF THE SEIS

The SEIS will not address the following topics:

- A. Potential Impacts and mitigation measures that are addressed in the 2009 Prairie Island EIS.
- B. Potential impacts associated with operation of the PINGP.
- C. The appropriateness of NRC regulations for spent nuclear fuel storage technology.
- D. Potential impacts associated with the nuclear fuel cycle.
- A. The appropriateness of NRC regulations and standards for radiation exposure. The SEIS may reference certain standards promulgated by the NRC; however, the SEIS will not address the adequacy of these standards.

SCHEDULE

A draft SEIS is anticipated to be completed and available in February 2022. A public meeting and comment period on the draft SEIS will follow. Timely and substantive comments on the draft SEIS will be responded to in a final SEIS. The final SEIS is anticipated to be available in April 2022.

Signed this 7th day of December, 2021

STATE OF MINNESOTA
DEPARTMENT OF COMMERCE



Katherine Blauvelt, Assistant Commissioner

CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce
Notice of Preparation of a Supplemental Environmental Impact Statement**

Docket No. E002/CN-08-510

Dated this 7th day of December 2021

/s/Sharon Ferguson

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Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_8-510_Official Service List
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Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_8-510_Official Service List
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