

PMC-EF2a

(3.04.02)

**U.S. DEPARTMENT OF ENERGY  
EERE PROJECT MANAGEMENT CENTER  
NEPA DETERMINATION**



RECIPIENT: ALLETE (dba Minnesota Power)

STATE: MN

PROJECT TITLE : Fond du Lac Hydroelectric Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000120	EE0004039	GFO-10-572	0

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

**CX, EA, EIS APPENDIX AND NUMBER:**

## Description:

**B5.1** Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

## Rational for determination:

ALLETE (DBA Minnesota Power) is proposing to use American Recovery and Reinvestment Act (ARRA) funding through DOE to refurbish and upgrade generator components of the Fond du Lac Hydro Facility in Minnesota.

Project activities would include an overhaul of the turbine and generator including smoothing out rough spots on the turbine runner, replacing worn items such as bushings, painting the turbine with epoxy paint and rewinding the generator. In addition, the original runner will be replaced with a state-of-the-art runner and wicket gates and a crack in the head cover will be repaired.

## Project tasks include:

- Task 1.0 - Project Approval
- Task 2.0 - Specification Design
- Task 3.0 - Bidding Process
- Task 4.0 - Order Turbine Parts
- Task 5.0 - Order Generator Rewind and Parts
- Task 6.0 - Make and Ship Turbine Parts
- Task 7.0 - Make and Ship Generator Parts
- Task 8.0 - Start of Outage
- Task 9.0 - Disassemble Machine
- Task 10.0 - Install New Parts
- Task 11.0 - Start-up & Testing
- Task 12.0 - Project Management and Reporting

The Fond Du Lac Facility is within the St. Louis River Hydroelectric Federal Energy Regulatory Commission (FERC) Project No. 2360. A Final Signed FERC license was issued to the Minnesota Power and Light Corporation in February 1995. The licensing process included Sec 106 and Sec 7 consultation with the State Historic Preservation Office and the US Fish and Wildlife Service; concurrence was given by each agency.

The proposed project activities are considered operations and maintenance actions that include a non-capacity upgrade that will not result in alteration of flows passing through the turbine. FERC has been contact by the recipient regarding this DOE action and has provided concurrence that the proposed activities are actions included in the existing FERC license and that an amendment will not be required.

There may be asbestos present in certain materials (i.e., electrical insulation, brake pads, and gaskets). These will be assessed during the project and abated as necessary according to federal, state and local regulations.



Minnesota Power has prepared emergency actions plans (EAPs) for the Fond du Lac Hydro Facility as is required by FERC. The EAPs contain instructions for notification during an emergency and procedures for controlling flow of water. In addition, operating personnel receive training to ensure that established FERC procedures are followed during emergency operations. Minnesota Power also has a safety program including monthly safety meetings, formal safety rules, special training sessions, adoption of applicable OSHA rules, and a safety recognition program.

Under the FERC approved Cultural Resource Management Plan for the Hydro Project, the upgrades of hydroelectric facility components (such as this runner replacement) are part of ongoing, pre-approved management actions. To conclude the obligation for the protection of historic properties under this project, Minnesota Power will provide the Minnesota State Historic Preservation Office with a post-project documentation report with black and white photos.

This project comprises action to conserve energy through improvements in generator efficiency; therefore a CX B5.1 applies.

#### NEPA PROVISION

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Any activities outside the scope and approvals of the FERC Project No. 2360 license.

This restriction does not preclude you from:

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Insert the following language in the award:

You are required to:

Comply with all conditions, provisions, mitigation commitments, and Management Plans as established by the FERC license. This includes all Articles as established by the 1975 license and all additional Articles, #201-501, established in the 1995 renewal license applicable to the Fond du Lac facility.

Note to Specialist :

None Given.

#### SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

  
NEPA Compliance Officer

Date:

8/17/10

#### FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

#### NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :