

PMC-EF2a

(3.04.02)

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



RECIPIENT: IL Dept. of Commerce &amp; Economic Opportunity

STATE: IL

PROJECT TITLE : BioFuels Development Market Title - Marquis Energy, LLC

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000052			EE119

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:

The State of Illinois will use \$431,525 of Recovery Act funds to support energy efficiency measures at the Marquis Energy, LLC ethanol production facility located at 11953 Esk Road in Hennepin, IL. Marquis will use the funds to perform a Beer/Mash Exchanger Retrofit, a Sieve Depressure Upgrade, and install a new Automated Process Control (APC) in their existing 100 million gallon per year ethanol production facility. All three of these projects are designed to increase efficiency and reduce energy cost associated with ethanol production at the plant. These operations will help optimize the process through automated adjustments made plantwide. DOE funding will be used in the implementation and installation of equipment that will be used in the three phases of this project.

The Beer/Mash Exchanger retrofit involves installing a pump after each of the mash coolers to act as a booster pump when filling the fermenters and as a circulation pump when cleaning in place. The Sieve Depressure upgrade is designed to recover ethanol in the molecular sieve system by minimizing the regeneration process. The upgrade involves depressuring the system by installation of additional piping, valves, and equipment around the existing sieve system.

The new APC system will allow for reduced natural gas usage of between 5 and 7 percent and improve plant efficiency and increase capacity by 8 to 12 percent.

In view of the information provided by the State and Applicant, I have determined that the nature of the work to be performed is classified as Categorical Exclusion B5.1.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

According to the Project Officer, funding for this project is set at \$431,525. Unless the scope of this effort changes significantly, a change in funding will not affect my determination.

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

NEPA Compliance Officer Signature: \_\_\_\_\_  
NEPA Compliance Officer

Date: 3/16/10

**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 :**

Field Office Manager's Signature: \_\_\_\_\_  
Field Office Manager

Date: \_\_\_\_\_

Rational for determination:

The State of Illinois will use INDC 227 of Renewable Act funds to support energy efficiency measures at the Mendota Energy, LLC ethanol production facility located at 17000 Oak Road in Hennepin, IL. Mendota will use the funds to perform a BestMatch Exchanger Retrofit, a Drive Depressure Upgrade, and install a new Automated Process Control (APC) in their existing 100 million gallon per year ethanol production facility. All three of these projects are designed to improve efficiency and reduce energy cost associated with ethanol production at the plant. These operations will help optimize the process through automated adjustment made whenever CO2 loading will be used in the rectification and installation of equipment that will be used in the three phases of the project.

The BestMatch Exchanger retrofit involves installing a pump after each of the reboiler coils to act as a booster pump when filling the fermenter and as a circulation pump when cleaning in place. The Drive Depressure upgrade is designed to reduce ethanol in the molecular sieve system by minimizing the reboiler process. The upgrade involves depressuring the system by replacement of additional reboiler valves and equipment around the existing reboiler system.

The new APC system will allow for reduced ethanol gas usage of between 5 and 7 percent and improve plant efficiency and increase capacity by 5 to 13 percent.

In view of the information provided by the State and Applicant, I have determined that the nature of the work to be performed is classified as Categorical Exclusion B5.1.

NEPA PROVISION

FOC has made a final NEPA determination for this project.

Insert the following language in the event:

Not to Proceed

According to the Project Officer, funding for the project is set at \$477,555. Unless the scope of the effort changes significantly, a change in funding will not affect my determination.