



Department of Energy

Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

DOE/EA-1704

MITIGATED FINDING OF NO SIGNIFICANT IMPACT

BlueFire Fulton Renewable Energy, LLC Cellulosic Biorefinery Project

AGENCY: Department of Energy, Golden Field Office

ACTION: Mitigated Finding of No Significant Impact

SUMMARY: The United States Department of Energy (DOE) completed an Environmental Assessment and Notice of Wetland Involvement (DOE.EA-1704 or EA) that analyzed the potential environmental impacts associated with the design, construction and operation of the BlueFire Fulton Renewable Energy, LLC Cellulosic Biorefinery near the city of Fulton, Mississippi (the Fulton Project). All discussion, analysis, and findings related to the potential impacts of construction and operations of the Fulton Project, including the applicant-committed mitigation measures, are contained in the Final EA and the associated Mitigation Action Plan (MAP). The Final EA and MAP are hereby incorporated by reference.

The Fulton Project would include the following:

- Final design and construction of a commercial scale biorefinery that utilizes advanced cellulose-to ethanol conversion technologies; the cellulosic feedstock would be primarily biomass.
- Implementation of a sustainable biomass collection, storage, and delivery system to provide feedstock to the biorefinery.
- Operation of the biorefinery systems to:
 - Validate the technology at commercial scale.
 - Validate the economics at commercial scale.
 - Enable replication of the technology at new cellulose to ethanol facilities.

This Mitigated Finding of No Significant Impact (Mitigated FONSI) was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality Regulations for Implementing NEPA, as amended, 40 CFR 1500-1508, and Department of Energy NEPA Regulations 10 CFR 1021.322.

This Mitigated FONSI supports DOE's cost-shared funding of the construction and operation of the BlueFire Fulton Renewable Energy, LLC Cellulosic Biorefinery Project near Fulton, Mississippi.

ENVIRONMENTAL IMPACTS ANALYSIS: In compliance with the NEPA (42 U.S.C. 4321) and with DOE's NEPA implementing regulations (10 CFR section 1021.330) and procedures, EA examines the potential environmental impacts of DOE's decision to provide funding for the proposed project and also examines a No Action Alternative. Under the No



Action Alternative, DOE would not fund the project and the Fulton Project would not be constructed or operated.

Occupational safety and health issues would include standard industrial hazards common to manufacturing operations and would be addressed through appropriate work controls as well as safety and emergency response procedures, including an Emergency Response Plan. Operations at the proposed ethanol production plant would not cause or contribute any exceedance of the National Ambient Air Quality Standards (NAAQS) for any pollutant or result in odor-related issues in any existing residential area. The offset of greenhouse gas emissions would result in a decrease in CO₂ emissions of 107,612 tons per year based on the replacement of gasoline with ethanol produced at the facility. The project would involve development of approximately 38 acres of currently vacant land; BlueFire would develop an Erosion Control Plan; a Spill Prevention, Control, and Countermeasures Plan; a Storm Water Pollution Prevention Plan to prevent excess erosion and adverse impacts to surface and groundwater. Areas not paved or occupied by structures would be revegetated. Wetland disturbance resulting from the project would be offset by mitigation involving 7.5 acres of restored bottomland hardwood forested wetlands located in Monroe County, Mississippi. The project would not impact state or federally listed threatened, endangered, or special concern plant or animal species. The project would not adversely affect groundwater or surface water resources. Approximately 144,000 gallons of wastewater would be discharged to the City of Fulton wastewater treatment lagoon via a tie-in to an existing line and would not adversely affect the wastewater treatment system.

The Fulton Project would generate approximately 98 tons of boiler ash per day and 25 tons per week of other nonhazardous waste, which would not substantially impact existing waste management facilities in the area. The facility would be a small quantity generator of hazardous waste, primarily flammable liquids and laboratory chemicals. The facility would also generate universal wastes including used oil, fluorescent and high-intensity discharge light bulbs, and batteries. All such wastes would be removed by a licensed transportation and disposal company, and no substantial impacts are anticipated.

No cultural resources are present at the proposed facility location; therefore, no impact to cultural resources would result from the proposed project.

The site is located within an existing industrial park, with the nearest residence being approximately 0.5 miles away. No effect on use of surrounding land would result. Noise at the property boundary would be expected to be approximately 37.8 dBA, which would be consistent with normal background levels for wooded residential areas and would therefore not adversely affect surrounding industrial properties. Aesthetics would be similarly unaffected, due to the aesthetic similarity to commercial and industrial properties of the surrounding area. The existing roads are capable of handling the increased traffic load with no projected impacts on traffic congestion. Deliveries to the facility, may choose to go through town; however, this is expected to be a secondary route. Given the availability and potentially lower costs of rail and barge transportation, use of these alternative means of delivery routes would reduce the potential impacts from truck deliveries.

PUBLIC PARTICIPATION IN THE EA PROCESS: In accordance with the applicable regulations and policies, DOE sent scoping letters to potentially interested local, state, and Federal agencies, including the U.S. Fish and Wildlife Service, the Mississippi Department of Wildlife, Fisheries, and Parks, the Mississippi Department of Transportation, and the Mississippi Department of Archives and History. DOE also sent scoping letters to other potentially interested individuals and organizations to solicit public comment. DOE published the Scoping Letter online at the DOE Golden Reading Room. The scoping letter described the Proposed Action and requested assistance in identifying potential issues that could be evaluated in the EA. In response to the scoping letters, DOE did not receive any comments from individuals, organizations, or agencies raising any specific objections or concerns about the Proposed Action.

On April 7, 2010, the Draft EA for the Fulton Project was posted to the Golden Field Office online public reading room, Notice of Availability postcards were mailed to potentially interested parties announcing the availability of the draft EA and inviting comments on the draft. DOE received one comment on the draft EA which is summarized in Chapter 1 of the Final EA.

DETERMINATION: DOE determines that providing funding to support the construction and initial operation of the Fulton Project would not constitute major Federal actions significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act. The following applicant-committed mitigation measures identified in the MAP shall be incorporated and enforceable through DOE's financial assistance agreement with BlueFire Ethanol, Inc.

1. Complete appropriate state and local permitting required for construction and operation of the Biorefinery.
2. Prepare an Emergency Response Plan; Erosion Control Plan; a Spill Prevention, Control, and Countermeasures Plan; and a Storm Water Pollution Prevention Plan.
3. Purchase wetland credits from an existing wetland mitigation bank - Itawamba County completed Wetland Rapid Assessment Procedure (WRAP) to determine the amount of wetland mitigation that would be required. Based on the WRAP, Itawamba County has determined that a total of 7.5 acres of mitigation wetlands would be required. The mitigation wetlands would consist of restored former bottomland hardwood forested wetlands located in Monroe County, Mississippi.

Therefore, the preparation of an Environmental Impact Statement is not required, and DOE is issuing this Mitigated Finding of No Significant Impact.

Copies of the Final EA are available at the DOE Golden Field Office Public Reading Room website at http://www.go.doe.gov/Reading_Room.aspx or from:

Kristin Kerwin, NEPA Compliance Officer
DOE Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393
kristin.kerwin@go.doe.gov

For Further Information on the DOE NEPA process contact

Office of NEPA Policy and Compliance
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585
(202) 586-4600 or 1-800-472-2756

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Carol Battershell
Acting Executive Director of Field Operations

RTG. SYMBOL
GFO
INITIALS/SIG
Kerwin
NCO KPR
DATE 6/4/2010

RTG. SYMBOL
GFO
INITIALS/SIG
Petersen
PO SWP
DATE 6/4/2010

RTG. SYMBOL
GFO
INITIALS/SIG
Passarelli
General Counsel
DATE 6/4/2010

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