6450-10-P

U.S. DEPARTMENT OF ENERGY

Issuance of a Loan Guarantee to Abengoa Bioenergy Biomass of Kansas, LLC for the Abengoa Biorefinery Project near Hugoton, Stevens County, Kansas

AGENCY: U.S. Department of Energy, Loan Programs Office

ACTION: Record of Decision

SUMMARY: The U.S. Department of Energy (DOE) announces its decision to issue a $134 million loan guarantee under Title XVII of the Energy Policy Act of 2005 (EPAct 2005) to Abengoa Bioenergy Biomass of Kansas, LLC (Abengoa) for construction and start-up of a cellulosic ethanol plant near Hugoton, Kansas (Project). The integrated biorefinery will use a combination of biomass feedstocks, such as corn stover and wheat straw, to produce cellulosic ethanol and to generate sufficient electricity to power the facility. The Project site comprises approximately 810 acres of row-cropped agricultural land. The biorefinery facilities will be developed on 385 acres and the remaining 425 acres will continue in agricultural use and act as a buffer area between the biorefinery and the Hugoton city limits. The environmental impacts of the construction and operation of this project were analyzed pursuant to the National Environmental Policy Act (NEPA) in the *Final Environmental Impact Statement for the Proposed Abengoa Biorefinery Project near Hugoton, Stevens County, Kansas (DOE/EIS-*

0407F) (Final EIS) (August 2010) and in an associated Supplement Analysis (DOE/EIS-0407/SA-1; July 2011), prepared by the DOE Office of Energy Efficiency and Renewable Energy (EERE) Golden Field Office. DOE published a Record of Decision (ROD) on January 12, 2011 (76 FR 2096) to provide Federal funding under Section 932 of EPAct 2005 to Abengoa for the Project. The project for which DOE earlier provided funding under Section 932, with some modifications, is the same project for which DOE is now making a decision to issue a loan guarantee under Title XVII of EPAct 2005. DOE Loan Programs Office determined that the project analyzed in the Final EIS and Supplement Analysis encompasses all activities covered by the loan guarantee.

ADDRESSES:

Copies of this ROD and the Final EIS may be obtained by contacting Sharon Thomas, NEPA Document Manager, Environmental Compliance Division, Loan Programs Office (LP-10), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC, 20585; telephone 202-586-5335; or e-mail Sharon.R.Thomas@hq.doe.gov, or by accessing these documents on the DOE NEPA Website at http://energy.gov/nepa and on the Loan Programs website at www.loanprograms.energy.gov.

FOR FURTHER INFORMATION CONTACT: For further information about this ROD, contact Sharon Thomas, as indicated in the **ADDRESSES** section above. For general information about the DOE NEPA process, contact Carol Borgstrom, Director, Office of NEPA Policy and Compliance (GC-54), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC, 20585; telephone 202-586-4600; leave a message at 800-472-2756; or e-mail askNEPA@hq.doe.gov. Information about DOE NEPA activities and access to DOE NEPA documents are available through the DOE NEPA Website at http://energy.gov/nepa.

SUPPLEMENTARY INFORMATION:

Background

The Abengoa Project will be constructed on a 385-acre parcel near Hugoton, Kansas. Abengoa has optioned an additional 425 acres immediately east of the biorefinery parcel, between the biorefinery and the Hugoton city limits, as a buffer area. The planned usage of the optioned parcel would be to continue its use as irrigated agricultural land, to test production of biomass feedstocks, and for biomass storage. The biomass-to-ethanol and cogeneration facility proposed by Abengoa would use lignocellulosic biomass (biomass) as feedstock to produce biofuels and electricity. Biomass, including corn stover, wheat straw, milo stubble, mixed warm season grasses (such as switchgrass), and other available materials, would be harvested as feedstock and fermented to produce ethanol and potentially lignin. The biorefinery's cogeneration facility would also produce biopower, or bioenergy, in the form of electricity. The cogeneration facility co-located at the site would use direct-firing (that is, using the biomass as a solid fuel in a biomass boiler) to produce steam. Steam produced in the biomass boiler would be used for facility processes and to produce electricity.

Under Section 932 of EPAct 2005, Congress directed DOE to carry out a program to demonstrate the commercial application of integrated biorefineries for the production of biofuels, in particular ethanol, from lignocellulosic feedstocks. To implement its responsibilities under Section 932, DOE issued a funding opportunity announcement in February 2006 for the design, construction, and startup of commercial-scale integrated biorefineries. In February 2007, DOE EERE selected Abengoa and five other applicants for negotiation of award. In December 2009, Abengoa applied for a loan guarantee from the Department's Loan Programs Office pursuant to Title XVII of EPAct 2005.

NEPA Review

In August 2008, DOE published in the *Federal Register* its *Notice of Intent to Prepare an Environmental Impact Statement and Notice of Wetlands Involvement for the Abengoa Biorefinery Project near Hugoton, KS* (73 FR 50001), starting a 45-day public scoping period during which DOE held a public scoping meeting in Hugoton, Kansas. In April 2009, DOE re-opened public scoping and published in the *Federal Register* its *Amended Notice of Intent to Modify the Scope of the Environmental Impact Statement for the Abengoa Biorefinery Project near Hugoton, KS* (74 FR 19543). The amended notice informed the public about changes in the Project relevant to the scope of the ongoing EIS. DOE conducted a 30-day public scoping period and held a second public scoping meeting in Hugoton, Kansas. On September 23, 2009, DOE published in the *Federal Register* its *Notice of Availability for the Draft Environmental Impact Statement for the Abengoa Biorefinery Project Near Hugoton, Stevens County, KS (DOE/EIS-0407D)* (74 FR 48525) (Draft EIS). On September 25, 2009, the U.S. Environmental Protection Agency (EPA) listed the Draft EIS in its weekly notice of availability (74 FR 48951).

DOE conducted a public hearing in Hugoton during the 45-day public comment period on the Draft EIS. DOE prepared a comment-response chapter for the Final EIS (Chapter 10) that includes each public comment received on the Draft EIS and DOE's response.
DOE issued the Final EIS, and EPA listed the Final EIS in its weekly notice of availability on August 20, 2010 (75 FR 51458). DOE issued a ROD, published on January 12, 2011 (76 FR 2096), to provide Federal funding under Section 932 of EPAct 2005 to Abengoa for the Project (identified in the Final EIS and ROD as the Proposed Action).

Since issuance of the ROD, Abengoa has proposed a modification to the Proposed Action. Under the original Proposed Action, the biorefinery would process approximately 2,500 dry short tons per day of feedstock and produce up to 19 million gallons of denatured ethanol per year and 125 megawatts of electricity, 75 of which would be sold commercially. Under the Modified Proposed Action, the biorefinery would process approximately 1,000 dry short tons per day of feedstock and produce up to 25 million gallons of denatured ethanol per year and 20 megawatts of electricity for use at the facility, none of which would be sold to the grid. In July 2011, pursuant to DOE NEPA regulations (10 CFR 1021.314), DOE issued a *Supplement Analysis for the Final Environmental Impact Statement for the Proposed Abengoa Biorefinery Project near Hugoton, Stevens County, Kansas (DOE/EIS-0407/SA-1)* that examined the potential environmental impacts of the Modified Proposed Action and addressed whether they were within the range of the potential environmental impacts analyzed in the Final EIS. Based on the Supplement Analysis, DOE determined on July 7, 2011, that the Modified Proposed Action would not constitute a substantial change in actions previously analyzed and would not present significant new circumstances or information relevant to the environmental concerns and bearing on the previously analyzed actions or impacts, within the meaning of 40 CFR 1502.9(c) and 10 CFR 1021.314. Accordingly, DOE determined that a supplement to the FEIS was not required. On August 19, 2011, DOE announced its decision to offer a conditional commitment to Abengoa to provide a $134 million loan guarantee to support the financing of the Project (Modified Proposed Action).

Alternatives Considered

In the Final EIS, DOE considered three alternatives, including the Project as identified in the Final EIS as the Proposed Action (selected by DOE in the January 2011 ROD), an Action Alternative, and the No Action Alternative. These alternatives were described in detail and fully analyzed in the Final EIS.

The DOE decision to select the Proposed Action (provide Federal funding under Section 932 of EPAct 2005 for the Project) includes best management practices and mitigation measures identified in Chapter 6 of the Final EIS, Best Management Practices and Mitigation, and summarized in the January 2011 ROD. These practices and mitigation measures, and additional mitigation measures identified in the Supplement Analysis for the Modified Proposed Action, will be implemented for the Project. Mitigation measures beyond those specified in permit conditions will be addressed in a mitigation action plan (MAP) that DOE will prepare pursuant to 10 CFR 1021.331. The MAP and annual monitoring reports will be available on the DOE

NEPA website (http://energy.gov/nepa) and the DOE Golden Field Office website (www.eere.energy.gov/golden/Reading_Room.aspx).

DOE's decision in this ROD is whether or not to issue a $134 million loan guarantee to Abengoa to support construction and start-up of the Project. Accordingly, DOE's alternatives are (1) to issue a loan guarantee to Abengoa for the Proposed Action alternative selected in the January 2011 ROD and subsequently modified (the Modified Proposed Action described in the Supplement Analysis), and (2) No Action Alternative, i.e., no loan guarantee.

Environmentally Preferred Alternative

Issuance of a loan guarantee for the Project would result in both beneficial and adverse potential environmental impacts. Potential beneficial impacts include those associated with reductions in greenhouse gas emissions and a decrease in water withdrawals; adverse impacts include those associated with a substantial increase in transportation activity and minor impacts from air emissions. On balance, DOE regards the No Action Alternative, which would result in no change in existing environmental conditions, as the environmentally preferred alternative.

Decision

On January 12, 2011, DOE announced the issuance of a ROD to provide Federal funding under Section 932 of EPAct 2005 to Abengoa for the Project. DOE's decision in this ROD is to select alternative (1) identified above: to issue a loan guarantee for construction and start-up of the Project (the Modified Proposed Action as described in the Supplement Analysis). Under alternative (2), the No Action Alternative, DOE would not issue a loan guarantee for the Project, and it is unlikely that Abengoa would implement the Project as currently planned. While the direct and indirect environmental impacts of the Project would be avoided under the No Action Alternative, the benefits that would be gained from the development, demonstration, and commercial operation of an integrated biorefinery that uses lignocellulosic feedstocks would not be realized. In addition, no benefits would be realized from the reduction of air pollutants and emissions of greenhouse gases by displacing gasoline with biofuel.

Approval of the loan guarantee for the Project meets DOE's purpose and need pursuant to Title XVII of EPAct 2005 (42 U.S.C. 16511–16514) for eligible projects under Section 1703 of Title XVII, which authorizes the Secretary of Energy to make loan guarantees for projects that (1) avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases and (2) employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued. Issuance of loan guarantees for projects under Section 1703 of Title XVII of EPAct 2005 facilitates the acceleration of the commercialization of innovative, environmentally-friendly technologies that will have an impact on ensuring clean, affordable, and reliable supplies of energy. The purpose and need for DOE's loan guarantee action is to comply with DOE's mandate under Title XVII of EPAct 2005 by selecting projects that meet the goals of the Act.

In addition, the Project is also eligible for a loan guarantee under Section 1705 of Title XVII (implemented pursuant to Section 406 of the American Recovery and Reinvestment Act of 2009

(ARRA)). Eligible Section 1705 projects include renewable energy projects and related manufacturing facilities, electric power transmission projects, and leading edge biofuels projects. The primary purposes of ARRA are job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and state and local fiscal stabilization. Issuances of loan guarantees for eligible projects under Section 1705 are designed to address the current economic conditions facing the nation. To qualify under Section 1705, projects must commence construction by September 30, 2011.

Mitigation

This ROD incorporates all practicable means to avoid or minimize environmental harm. The Project that will be supported by issuance of the DOE loan guarantee includes all mitigation conditions applied by DOE for this Project in its Final EIS, January 2011 ROD, and Supplement Analysis. In the Supplement Analysis, DOE concluded that additional mitigation measures are warranted to reduce potential impacts from accidental releases of anhydrous ammonia. Mitigation measures beyond those specified in permit conditions will be addressed in a MAP that DOE will prepare pursuant to 10 CFR 1021.331. The MAP will explain how the mitigation measures will be planned, implemented, and monitored. DOE will ensure that commitments in the ROD are incorporated into DOE's loan guarantee agreement with Abengoa. The MAP and annual monitoring reports will be available on the DOE NEPA Website (http://energy.gov/nepa) and the DOE Golden Field Office website (www.eere.energy.gov/golden/Reading_Room.aspx).

DOE's loan guarantee agreements require the applicant to comply with all applicable laws and the MAP, including mitigation measures contained therein. An applicant's failure to comply with applicable laws and the MAP would constitute a default. Upon the continuance of a default, DOE would have the right under the loan guarantee agreement between it and the applicant to exercise usual and customary remedies. To ensure that the applicant so performs, the DOE Loan Programs Office proactively monitors all operative loan guarantee transactions.

Issued in Washington, D.C. on SEPT. 20, 2011.

Jonathan M. Silver
Executive Director
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