

- February 3, 2011—Mitchell Pauole Community Center, 90 Ainoa Street, Kaunakakai, Moloka'i, HI 96748, from 5:30 p.m. to 9 p.m.
- February 5, 2011—Lāna'i High & Elementary School Cafeteria, 555 Fraser Avenue, Lāna'i City, HI 96763, from 9:30 a.m. to 3 p.m.

Each scoping meeting will be conducted in two parts: An informal "workshop" discussion period that will not be recorded, and a formal commenting session that will be transcribed by a court stenographer. Meeting participants may also have their comments entered into the record during the informal portion of the meetings, on request. Those who do not arrange in advance to speak may register at a meeting (preferably at the beginning of the meeting) and may speak after previously scheduled speakers. The presiding officer will establish procedures to ensure that everyone who wishes to speak has an opportunity to do so. Depending on the number of speakers, the presiding officer may limit all speakers to a set amount of time initially and provide additional opportunities to speak as time permits. Speakers may also provide written materials to supplement their presentations, and such additional information may be submitted in writing by the date listed in the **DATES** section. Both oral and written comments will be considered and given equal weight by DOE and DBEDT.

The formal commenting session will begin with an overview of the proposed Wind Phase of the Hawai'i Interisland Renewable Energy Program and a description of the State and Federal environmental review processes. The presiding officer will establish the order of speakers and provide any additional procedures necessary to conduct the formal commenting session. Speakers may be asked questions to help ensure that DOE and DBEDT fully understand all suggestions and comments.

Issued in Washington, DC, on January 7, 2011.

**Patricia A. Hoffman,**

*Assistant Secretary, Office of Electricity Delivery and Energy Reliability.*

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## DEPARTMENT OF ENERGY

### Record of Decision for the Environmental Impact Statement for the Proposed Abengoa Biorefinery Project Near Hugoton, Stevens County, KS (DOE/EIS-0407)

**AGENCY:** Department of Energy, Office of Energy Efficiency and Renewable Energy.

**ACTION:** Record of Decision.

**SUMMARY:** The U.S. Department of Energy (DOE or the Department) prepared an environmental impact statement (EIS) (DOE/EIS-0407) to assess the potential environmental impacts associated with the proposed action of providing Federal financial assistance to Abengoa Bioenergy Biomass of Kansas, LLC (Abengoa Bioenergy) to support the design, construction, and startup of a commercial-scale integrated biorefinery to be located near the city of Hugoton in Stevens County, southwestern Kansas (the Project). The integrated biorefinery would use a combination of biomass feedstocks, such as corn stover and wheat straw, to produce ethanol and to generate sufficient electricity to power the facility and supply excess electricity to the regional power grid. The Project site comprises approximately 810 acres of row-cropped agricultural land. The biorefinery facilities would be developed on 385 acres of the Project site, and the remaining 425 acres would remain agricultural and act as a buffer between the biorefinery and the city of Hugoton.

After careful consideration of the potential environmental impacts and other factors such as program goals and objectives, DOE has decided that it will provide Federal funding under Section 932 of the *Energy Policy Act of 2005* (EPA 2005) of up to \$71 million (2009 dollars), subject to annual appropriations, to Abengoa Bioenergy for the Project. A separate decision will be made regarding a potential loan guarantee; and if DOE decides to proceed to consider the loan guarantee, DOE would consider using the Final Abengoa Biorefinery EIS to comply with NEPA review requirements for the loan guarantee. If DOE determines that the Final Biorefinery EIS sufficiently addresses all activities covered by the loan guarantee, DOE could either issue a Record of Decision (ROD) deciding to issue a loan guarantee, or amend this ROD.

**ADDRESSES:** The Final EIS is available on the DOE *National Environmental Policy Act* (NEPA) Web site at: <http://nepa.energy.gov/> and on the Abengoa

Biorefinery Project Web site at: <http://www.biorefineryprojecteis-abengoa.com>. This ROD also is available on these Web sites. Copies of the Final EIS and this ROD may be obtained from Ms. Kristin Kerwin, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy, Golden Field Office, 1617 Cole Blvd., Golden, CO 80401; telephone: 720-356-1564; or fax: 720-356-1650.

**FOR FURTHER INFORMATION CONTACT:** To obtain additional information about this Project, the EIS or the ROD, contact Ms. Kristin Kerwin by the means specified above under **ADDRESSES**. For general information on the DOE NEPA process, contact Ms. Carol M. 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; fax: 202-586-7031; or leave a toll-free message at: 1-800-472-2756.

**SUPPLEMENTARY INFORMATION:** DOE prepared this ROD pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA [40 *Code of Federal Regulations* (CFR) Parts 1500-1508] and the DOE NEPA regulations (10 CFR Part 1021). This ROD is based in part on DOE's Final EIS for the Proposed Abengoa Biorefinery Project (DOE/EIS-0407, August 2010).

### Background

Under EPA 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. Federal funding for cellulosic ethanol production facilities is intended to further the government's goal of rendering ethanol cost-competitive with gasoline by 2012, and along with increased automobile fuel efficiency, reducing gasoline consumption in the United States by 20 percent within 10 years.

To implement its responsibilities under EPA 2005, DOE issued a funding opportunity announcement in February 2006 for the design, construction, and startup of commercial-scale integrated biorefineries. In February 2007, the Department selected Abengoa Bioenergy and five other applicants for negotiation of award. Abengoa Bioenergy proposed an innovative approach to biorefinery operations that would involve production of biofuel and energy in the form of steam that could be used to meet energy needs and displace fossil fuels, such as coal and natural gas. The

proposal also included an integrated grain-to-ethanol facility.

In January 2009, Abengoa Bioenergy modified its proposal by omitting the integrated grain-to-ethanol facility and including a steam-driven turbine that would generate sufficient electricity to power the production facility and supply excess electricity to the regional power grid. In addition, Abengoa applied for a loan guarantee from the Department's Loan Guarantee Program pursuant to Title XVII of EAct 2005, and from the U.S. Department of Agriculture Rural Development Biorefinery Assistance Program pursuant to Section 9003 of the *Food, Conservation, and Energy Act of 2008*. The Department of Agriculture Rural Development was a cooperating agency in the preparation of the EIS.

DOE considered Abengoa Bioenergy's proposed project changes and concluded that the Project remained eligible for Federal funding under Section 932 of EAct 2005. On August 28, 2009, the Department determined, however, that it would not proceed with Abengoa's request for a DOE loan guarantee.

On December 22, 2009, after publication of the Draft Abengoa Biorefinery Project EIS on September 23, 2009, Abengoa Bioenergy filed a revised loan guarantee application, and in March 2010, the Department determined that the proposed biorefinery was eligible for consideration under Title XVII, Section 1703 of EAct 2005, and requested that Abengoa submit the Part II portion of its loan guarantee application. Abengoa submitted the Part II application on May 14, 2010.

At this time, DOE is not proposing to issue a loan guarantee for the construction and startup of the biorefinery. DOE is reviewing the Part II submission and, pending the results of the Part II review, will decide whether to initiate the due diligence, underwriting, and negotiation phase of the loan guarantee process. If DOE initiates that process with Abengoa, DOE's proposed action (that is, to issue a loan guarantee) would be subject to NEPA review. If DOE decides to proceed to consider the loan guarantee, DOE would consider using the Final Biorefinery EIS to comply with NEPA review requirements for the loan guarantee. If DOE determines that the Final Biorefinery EIS sufficiently addresses all activities covered by the loan guarantee, DOE could either issue a Record of Decision deciding to issue a loan guarantee, or amend this Record of Decision.

The U.S. Department of Agriculture Rural Development also considered Abengoa's application for a loan guarantee and did not approve it for funding in Fiscal Year 2009. Should Abengoa submit an application for a loan guarantee in the future, Rural Development will use DOE's Final Biorefinery EIS as part of its evaluation of project eligibility and sufficiency.

#### **Purpose and Need for Agency Action**

EAct 2005, Section 932, directs the Secretary of Energy to conduct a program of research, development, demonstration, and commercial application for bioenergy, including integrated biorefineries that can produce biopower, biofuels, and bioproducts. In carrying out a program to demonstrate the commercial application of integrated biorefineries, EAct 2005 authorizes the Secretary to provide funds to biorefinery demonstration projects to encourage (1) the demonstration of a wide variety of lignocellulosic feedstocks; (2) the commercial application of biomass technologies for a variety of uses, including liquid transportation fuels, high-value bio-based chemicals, substitutes for petroleum-based feedstocks and products, and energy in the form of electricity or useful heat; and (3) the demonstration of the collection and treatment of a variety of biomass feedstocks. Accordingly, DOE needs to implement Section 932 of EAct 2005 and support advanced biofuel production pursuant to the Renewable Fuel Standard established by the *Energy Independence and Security Act of 2007* (EISA 2007). EISA 2007's Renewable Fuel Standard requires the U.S. Environmental Protection Agency (EPA) to ensure that transportation fuel sold or introduced in the United States contain at least 36 billion gallons per year of biofuels by 2022, and includes specific provisions for advanced biofuels, such as cellulosic ethanol and biomass-based diesel fuels. Thus, DOE's purpose is to demonstrate that commercial-scale integrated biorefineries that use a wide variety of lignocellulosic (second-generation) feedstocks to produce biofuels, bio-based chemicals, and biopower can operate without direct Federal subsidy after construction costs are paid, and that these biorefineries can be easily replicated.

#### **EIS Process**

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. The Department conducted a 30-day public scoping period and held a second public scoping meeting in Hugoton, Kansas. During these scoping periods, the Department received oral and written comments of the following three types: Expressions of support for the Project, statements of no negative environmental impacts, and requests for additional information from Federal and state agencies and members of the public.

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). DOE's Notice of Availability invited the public to comment on the Draft EIS during a 45-day public comment period, and described how the public could submit oral and written comments on the Draft EIS. DOE's Notice also announced a public hearing, which DOE conducted in Hugoton, Kansas on October 21, 2009. On September 25, 2009, EPA listed the Draft Abengoa Biorefinery Project EIS in its weekly notice of availability (74 FR 48951).

The Department received approximately 40 comments from six commenters during the public comment period. DOE prepared a comment-response chapter for the Final Biorefinery EIS (Chapter 10), which provides each comment and DOE's response. One commenter reiterated comments submitted during public scoping, and another commenter submitted suggestions regarding region-specific studies for corn stover removal and runoff index scores for agricultural lands. One commenter recommended that the proposed transmission line be designed to protect migratory birds and raptors. A few commenters expressed concern about landfill management of refinery waste. A couple of commenters expressed support for the Project. One commenter submitted a number of comments regarding the impacts of biomass harvest on soil sustainability, potential impacts to groundwater, the timeframe for construction of the grain-to-ethanol facility, the use of the latest

biorefinery design for the air quality analysis, the site selection process, and the reliance on irrigated corn crops.

DOE issued the Final EIS and on August 20, 2010, EPA listed the Final Abengoa Biorefinery Project EIS in its weekly notice of availability (75 FR 51458). The Final EIS reflects changes resulting from public comments, and, accordingly, the responses in the comment-response chapter identify sections of the Final EIS to which changes have been made. The Final EIS also reflects changes based on new and updated information. Substantive changes in the Final EIS are indicated by vertical change bars shown in the margins. DOE received one comment on the Final EIS from EPA, Region VII. EPA stated that DOE had adequately addressed the concerns expressed in EPA's comments on the Draft EIS.

### Proposed Action and Project Description

DOE's Proposed Action is to provide Federal funding of up to \$71 million (2009 dollars), subject to annual appropriations, to Abengoa Bioenergy to support the design, construction, and startup of the biorefinery, whose total anticipated cost is approximately \$685 million (2009 dollars).

The biorefinery would be constructed on a 385-acre parcel near Hugoton, Kansas. Abengoa Bioenergy 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 optioned parcel would continue to be used as agricultural land, and might be used to test production of biomass feedstocks.

The biomass-to-ethanol and -energy facility proposed by Abengoa Bioenergy would use lignocellulosic biomass (biomass) as feedstock to produce biofuels. 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.

The biorefinery would also produce biopower, or bioenergy, in the form of electricity. The bioenergy generation facilities co-located at the site would use direct-firing (that is, using the biomass as a solid fuel in a boiler) to produce steam. Steam produced in the biomass boilers would be used for facility processes and to produce electricity.

Under the Proposed Action, the biorefinery would process approximately 2,500 dry short tons per day of feedstock, which would be

obtained from producers within 50 miles of the Biorefinery Project site. The biorefinery would produce up to 19 million gallons of denatured ethanol per year and 125 megawatts of electricity. Seventy-five megawatts of electricity would be sold commercially.

Construction of the biorefinery would take approximately 18 months and would require infrastructure improvements, such as construction of site roads that would tie to Rural Road P, a 1.5-mile-long electrical transmission line, and an approximately 0.5-mile railroad spur on the Biorefinery Project site that would tie into the Cimarron Valley Railroad. Temporary connections to utilities would include electricity, cable, telephone, and a nonpotable water line. Temporary potable water and sanitary facilities would be provided onsite until construction of permanent, onsite facilities.

Harvested bales of biomass would be transported to a 10-acre onsite storage yard or to one of seven offsite storage sites to be located within 30 miles of the Biorefinery Project site. Each offsite storage location would be about 160 acres and would have no permanent structures. Combined, these sites would store enough biomass to support biorefinery operations for up to 1 year. Bales of corn stover and other biomass ready to be processed at the biorefinery would be transported to a bale barn and sent by conveyor for grinding and cleaning. The ground feedstock would then enter the production process or be stored temporarily in silos onsite. In addition, wood waste would be used as boiler fuel to generate electricity. Up to 1,000 tons per day would be brought from various sources by rail and truck to the biorefinery.

The ethanol production process would involve the following steps: (1) Enzymatic hydrolysis and fermentation, (2) distillation and dehydration, and (3) ethanol denaturation and storage. During hydrolysis and fermentation, the feedstock would be treated with enzymes and genetically modified organisms (enzymatic hydrolysis) to simultaneously break down the cellulose and ferment the recovered sugars. The resulting "beer," which would be 4 to 5 percent ethanol at that point, would then be distilled and dehydrated to remove water and residual solids. Distillation would also destroy genetically modified and other organisms.

The facility design incorporates two 45,200-gallon-capacity shift tanks to hold the anhydrous ethanol produced during each 8-hour shift. The storage tanks would be enclosed in a bermed

area to contain spills. Gasoline would be added to denature the ethanol and make it unfit for human consumption prior to temporary storage and loading of the product into tanker railcars for shipment.

Solids would be recovered from the distillation process. Approximately 120,000 dry short tons of solids, referred to as lignin-rich stillage cake, would be produced per year. The stillage cake would be transferred by conveyor to an onsite third-party lignin producer. After extracting the lignin, the lignin producer would return the lignin-poor stillage cake to the biorefinery and Abengoa Bioenergy would use it as fuel for the solid biomass boilers. Until a lignin extraction facility is built, Abengoa would burn the lignin-rich stillage cake as solid fuel in the biomass boilers. As an option, Abengoa could use lignin-rich stillage cake as fuel for the solid biomass boiler during the life of the biorefinery.

The biomass receiving, grinding, and storage operations would be an enclosed system with a high-velocity, positive pressure collection system to transfer airborne particles to a dirt loadout tank. The loadout tank, grinding activities, and associated transfer points would have fabric filter dust collectors (baghouses). Volatile organic matter released during processing would be captured in a vent scrubber.

Approximately 1,900 dry short tons per day of biomass feedstock would be supplied to the boilers. The biomass boilers would also burn much of the waste resulting from ethanol production, including fines collected during milling, stillage cake, and syrup from the distillation process. These processes would produce approximately 127,000 tons of ash annually. This ash would contain potassium and phosphorus and would be marketed to the contracted feedstock producers as a soil amendment. If there is no market for the ash, it would be sent to landfills.

### Alternatives

In addition to the Proposed Action, the EIS analyzes an Action Alternative and the No Action Alternative.

#### Action Alternative

Under the Action Alternative, DOE would provide Federal funding to support the design, construction and startup of a biorefinery that would use a two-stage process to produce fermentable sugars for bioethanol production and that would produce syngas using a gasification system. A syngas boiler as well as the biomass boilers would produce steam. Steam would be used for ethanol production

processes and electricity production. Under the Action Alternative, the biomass boilers and the turbines would be used to generate electricity solely to operate the plant and would be smaller than those for the Proposed Action.

The biorefinery would produce approximately 12 million gallons per year of denatured ethanol, 19,000 short tons per year of lignin-rich stillage cake, and 20 megawatts of electricity for use at the facility.

The milling process for the Proposed Action and Action Alternative is the same. Once milled, the feedstock would be pretreated with dilute acid to remove hemicellulose and pectin (the Proposed Action is a one stage process and does not include two pretreatment stages as does the Action Alternative). It is this pretreatment step and the subsequent processing of the fractionated biomass where the two-stage process differs from the one-stage process described in the Proposed Action. After this pretreatment, two types of hydrolysate or pretreated biomass would be processed in two separate steps. One type contains a hydrolysate primarily consisting of hemicellulose and pectin, which would be further saccharified to fermentable sugars; these simple sugars would then be fermented to ethanol. The second type includes the cellulose-rich, lignin-rich fiber hydrolysate, which would be further processed with enzymes to produce simple sugars that would be simultaneously fermented to ethanol. Each separate step produces beers containing between 4 and 5 percent ethanol and both beers would be conveyed to distillation operations for purification. Volatile organic matter released during both of these processes would be captured in a vent scrubber.

Approximately 71,000 dry short tons per year of soluble and insoluble solids would be recovered from the bottom of the distillation column. The soluble solids would be concentrated to a thin stillage syrup in an evaporator and would be combusted in the biomass boilers. About 130 dry short tons per day of insoluble, lignin-rich stillage cake would be transferred to an onsite processing facility for extraction of lignin. After the lignin was extracted, the lignin producer would return the lignin-poor stillage cake to the biorefinery, and Abengoa Bioenergy would use it as fuel for the solid biomass boiler. Until a lignin extraction facility is built, Abengoa would burn the lignin-rich stillage cake as solid fuel in the biomass boiler. If recovery of lignin is not economically feasible, the lignin-rich stillage cake would be used as fuel in the biomass boiler. Denaturing the produced ethanol and loadout for the

Proposed Action and Action Alternative would be the same.

Syngas produced in the gasification plant under the Action Alternative would be used to operate a fire-tube boiler to produce steam. A small biomass solids boiler would also produce steam to power the biorefinery process operations only. Steam would be used to operate a small turbine that would produce 20 megawatts of power.

#### *No-Action Alternative*

Under the No-Action Alternative, DOE would not provide Federal funding to Abengoa Bioenergy to support the design, construction, and startup of a biorefinery. Abengoa would not build a biorefinery and the biorefinery parcel would remain agricultural land. The Department recognizes, however, that Abengoa could pursue alternative sources of capital for development of the biorefinery.

#### **Potential Environmental Impacts of the Proposed Action**

In making its decision, DOE considered the environmental impacts of the Proposed Action, Action Alternative, and the No-Action Alternative on potentially affected resource areas. These include: land use; air quality; hydrology; biological resources; utilities, energy, and materials; wastes, byproducts, and hazardous materials; transportation; aesthetics; socioeconomics; cultural resources; health and safety; and environmental justice. DOE also considered potential impacts on these resources from accidents and acts of sabotage. No wetlands would be filled and no floodplains would be affected. The EIS also considered cumulative impacts, that is, impacts from the Project combined with those from other past, present, and reasonably foreseeable future actions. The following sections discuss the potential impacts.

#### *Land Use*

Operation of the biorefinery would require approximately 880,000 dry short tons of lignocellulosic feedstock per year. Abengoa Bioenergy anticipates that, at the start of operations, the primary feedstock would be corn stover, with secondary feedstocks consisting of grain sorghum stover, wheat straw, and mixed warm season grasses. Approximately 20 percent of the total feedstock demand would consist of corn stover for cellulosic ethanol production, with the remaining 80 percent consisting of any combination of feedstocks for bioenergy production.

DOE conservatively estimates that the total annual demand for crop residue by the biorefinery would equal about 60 percent of the targeted crop residues that could be sustainably removed from the 50-mile region surrounding the Biorefinery Project site. The demand for corn residue for ethanol production would be about 20 percent of the amount that could be sustainably removed from irrigated corn acreage. Thus, production of targeted crop residues exceeds biorefinery demand and Abengoa would have flexibility in feedstock procurement. DOE anticipates the demand for crop residue by the biorefinery would have a negligible impact on changes in land use type, including use of lands in the Conservation Reserve Program, because there would be no incentive to alter land use type for the purpose of meeting demand.

Over time, it is anticipated that mixed warm season grasses (such as switchgrass) would replace corn residue as the primary feedstock for producing ethanol resulting in (1) beneficial environmental impacts where marginal cropland was converted, and (2) minimal environmental changes where land use types such as nonharvested cropland, former Conservation Reserve Program acreage, and pasture were converted. The beneficial environmental impacts of converting marginal cropland to mixed warm season grasses are related to establishment of a crop that is resistant to many pests and plant diseases; uses relatively less water, fertilizer, and pesticides; and establishes deep roots that store carbon in the soil. Increased mixed warm season grasses production would not be expected to result in an adverse impact to land enrolled in the Conservation Reserve Program.

Contracts between Abengoa Bioenergy and producers of biomass would include a requirement that crop residues would be harvested in accordance with U.S. Department of Agriculture guidelines for minimizing wind erosion. DOE concludes that, on a regional basis, removing crop residue following these guidelines would have a negligible adverse impact on soil organic matter content. On a field-by-field basis, crop residue removal would have a negligible to minor adverse impact on soil organic matter content. Any adverse impact to soil organic matter content would be limited to land for which the producer was compensated for residue removal.

Development of the biorefinery would result in the irreversible conversion of 385 acres from agricultural to industrial use. The Proposed Action is consistent with existing land use and zoning at the

Project site. The reduction in irrigated farmland associated with the water rights Abengoa Bioenergy would transfer to industrial use at the biorefinery would be a negligible change in regional irrigated cropland.

#### *Air Quality*

Construction of the biorefinery would cause emissions from various activities including use of heavy diesel-operated equipment, disturbance of the soil, grading activities, material transport, and material handling. These activities would be short term or intermittent in nature and would only occur during the 18-month construction phase. Best management practices would be employed to minimize these emissions.

Concentrations of criteria pollutants estimated to be released during operation of the biorefinery would be well below the National Ambient Air Quality Standards. The estimated concentrations from the biorefinery, combined with ambient background concentrations of pollutants in the region, are about 67 percent of the National Ambient Air Quality Standard for 24-hour PM<sub>10</sub>, 12 percent for nitrogen dioxide, and less than 10 percent of the standard for other pollutants. DOE concludes that air emissions would not harm human health and the environment.

The biorefinery also would be a source of greenhouse gases, with carbon dioxide the most abundant. The boilers would be the main source of the greenhouse gases carbon dioxide, methane, and nitrous oxide. Biomass fermentation and distillation processes also would emit carbon dioxide. The total emissions of carbon dioxide equivalents (used to represent the contribution of all gases) from operation would be 3.61 million tons per year. According to the DOE Energy Information Administration, the total U.S. greenhouse gas emissions in 2008 was 7,775 million tons of carbon dioxide equivalents, with 6,409 million tons of the total from energy-related carbon dioxide. The projected greenhouse gas emissions from the biorefinery would be 0.046 percent of the total U.S. carbon dioxide equivalent value.

Although the biorefinery would be a source of greenhouse gas emissions, operation of the biorefinery would provide a net reduction in greenhouse gas emissions when considering the emissions produced during the lifecycle of ethanol production and use relative to the lifecycle of gasoline production and use. To determine the level of greenhouse gas reduction from the Proposed Action, DOE used the

Greenhouse gases, Regulated Emissions, and Energy use in Transportation (GREET) Model, developed by DOE's Argonne National Laboratory. The GREET Model examines "well-to-wheel" fuel lifecycles by considering factors such as producing raw materials for fuels, refining the raw materials into fuels, and using the fuel in vehicles.

The Abengoa Biorefinery Project would reduce greenhouse gas emissions not only by producing a fuel that displaces gasoline, but also by producing power that displaces electricity from other electricity generating sources. The GREET Model combines these reductions and other factors into a single metric to express the net effect on lifecycle greenhouse gas emissions relative to a baseline scenario in which the biorefinery is not built. Because the majority of the electricity the biorefinery would produce would be exported rather than used for biorefinery operations, the greenhouse gases displaced by the biorefinery would be larger than the greenhouse gases emitted by biorefinery operations, thus causing a decrease in greenhouse gas emissions that exceeds 100 percent. As a comparison, if only enough electricity was produced to run the biorefinery (none would be sold to the grid), the percent reduction under the Proposed Action would be 69 percent as compared with the baseline where the biorefinery is not built and passenger vehicles use 100 percent conventional or reformulated gasoline.

#### *Hydrology*

Wastewater, petroleum products, and hazardous chemicals would be generated by the biorefinery. Planned releases of wastewater would be limited to the non-contact wastewater that would be used for irrigation of the buffer area. Petroleum products and hazardous chemicals used during construction and operations would be managed within secondary containment on the site, and there are no surface waters in the nearby area that would be affected by accidental releases.

Disturbed and built-up land areas would result in increased runoff; this runoff would be directed to natural low areas within the biorefinery parcel. Changes in infiltration would be minor and likely would be limited to small changes in the exact locations where infiltration would occur. Alterations to surface water drainage would be limited to minor changes within the 385-acre parcel and possibly within the buffer area. Natural low areas where runoff accumulates would not be altered. The Department concludes the potential for

adverse impacts to surface waters from the Proposed Action is negligible.

Construction of the biorefinery would require approximately 220 acre-feet of water, and operations would require about 2,900 acre-feet of water per year. DOE estimates that an additional 46 acre-feet of groundwater would be withdrawn per year by the city of Hugoton to meet the domestic needs of biorefinery workers, bringing the total annual estimated demand to support the biorefinery to approximately 2,950 acre-feet per year.

Abengoa Bioenergy has optioned existing irrigation water rights from eight wells to meet the water demand for construction and operation of the biorefinery under the Proposed Action. The maximum permitted withdrawal associated with those water rights is about 7,240 acre-feet per year, and the total volume discharged from those wells in 2008 was about 4,380 acre-feet. Thus, use of those water rights for operation of the biorefinery would result in a reduction of more than 4,290 acre-feet compared with the permitted annual volume, and a reduction of more than 1,430 acre-feet compared with withdrawals during 2008. DOE concludes that operation of the biorefinery would result in a beneficial decrease in groundwater withdrawals from the High Plains aquifer.

Changes in cropping practices as a result of the Proposed Action are not expected to occur. Further, increases in water withdrawals for agricultural purposes in Kansas are limited by State water appropriation regulations, although increases in Oklahoma and Colorado may be allowed. Thus, DOE concludes that changes in water use in the region resulting from changes in land use to meet the demand of the biorefinery for biomass are not expected to occur.

Any spills of hazardous materials would be handled in accordance with a spill prevention, control, and countermeasures plan, which would minimize or eliminate potential impacts to the groundwater quality from construction and operation of the biorefinery.

#### *Biological Resources*

There are no Federal- or state-endangered and/or threatened species, candidate species, or state species in need of conservation present or within 1 mile of the Biorefinery Project site. DOE concludes that construction and operation of the biorefinery would have no impacts on threatened or endangered species or their designated critical habitat.

To construct the biorefinery, the biorefinery parcel, which is currently used for dry-land farming, would be converted to industrial use. There would be some minor, short-term adverse impacts to biological resources from the construction and some minor, long-term adverse impacts from the operation of the biorefinery, but these impacts would affect only common species on or within 1 mile of the Biorefinery Project site. The analysis of potential changes in land use resulting from the Proposed Action indicated that conversion of Conservation Reserve Program lands to tilled cropland from the Proposed Action is not expected, and other changes in land use would be minimal. Thus, DOE does not expect the Proposed Action to impact biological resources within the region surrounding the Project site.

#### *Utilities, Energy, and Materials*

Biorefinery workers and their families would rely on the city of Hugoton water system, the city of Hugoton sewage system, and the Stevens County landfill. The Hugoton water system also would supply potable water for the biorefinery facilities. Anticipated demands are well below the excess capacity of the City water system. The sewage collection system in Hugoton has sufficient capacity to accommodate use of the system by construction and operations workers and their families. In addition, the Stevens County landfill has enough capacity to handle the increase in solid waste during construction and operations due to the influx of workers and their families living in Hugoton.

The biorefinery would require no electric power from the regional grid during operations. Rather, the biorefinery would supply 75 megawatts of electricity to the grid during normal operations, which equals 5.8 percent of the production capacity in the western-central region of Kansas, but only about 0.2 percent of current summer demand in the Southwest Power Pool. The amount of natural gas and diesel fuel required for normal operation of the biorefinery is approximately 0.1 and 0.05 percent, respectively, of the amounts of these fuels used in Kansas and would not adversely impact their supply and distribution in the region.

The Proposed Action would involve a commitment of building materials. With the possible exception of stainless steel, these materials would be available and their procurement would not decrease availability to other users in regional markets. Components used in stainless steel production (such as chromium and nickel) are in high demand and, at times, affect availability of stainless

steel. However, the amount of stainless steel required for construction of the biorefinery is a very small portion of the amount that moves through the U.S. market annually.

#### *Wastes, Byproducts, and Hazardous Materials*

The wastes and byproducts the biorefinery would produce include construction wastes, wastewater, solid biomass boiler ash, distiller's residual biomass solids (stillage cake), stillage syrup, wastewater treatment facility sludge, lignin, genetically modified organisms, dirt and fines resulting from biomass processing, municipal solid waste, and hazardous waste.

Solid biomass boiler ash and lignin are byproducts that could be sold to consumers within the 50-mile region of influence. Abengoa Bioenergy would burn stillage cake, dirt and fines from biomass processing, and genetically modified organisms in the solid biomass boilers as part of the Proposed Action. Domestic and process wastewater would be treated in the onsite wastewater treatment facilities, and treated process wastewater would be recycled in the ethanol production process. Wastewater treatment facility sludge would be used in the boiler fly ash pelletization process or burned in the solid biomass boilers. Abengoa would use non-contact wastewater for crop irrigation on the buffer area, and would treat, recycle, and/or dispose of boiler bottom ash, municipal solid waste, hazardous waste, and construction debris at permitted facilities within the region of influence.

The Stevens County landfill would not have adequate capacity to receive the construction wastes generated and maintain its small arid landfill exempt permit status (limited to 20 tons per day); revising that permit would be expensive. The non-recycled construction waste streams would be split among other permitted landfills and transfer stations within 35 miles of the biorefinery without significantly affecting their capacity. Less than 1 ton per day of municipal solid waste would be generated during the expected 30-year operating life of the biorefinery and would be sent to the Stevens County landfill. This waste stream would be about a 3 percent increase to the landfill's current waste stream and would reduce the life of the landfill by less than 1 year.

The onsite wastewater treatment facility would treat all process wastewater generated at the Biorefinery Project site and would not discharge any to the Hugoton wastewater system. Wastewater treated onsite would be reused in the ethanol production

process. Wastewater that would not be recycled and reused in the production process or treated onsite (non-contact wastewater) would be produced at a rate of 370 gallons per minute and would be used to irrigate biomass crops on the buffer area. This water would be conveyed to two 11.5-acre storage ponds prior to application to the buffer area. Wastewater treatment facility sludge would be used in the boiler fly ash pelletization process or burned in the solid biomass boilers. Based on an agronomy study, the chemical composition of the wastewater and the anticipated stipulations of a required discharge permit, DOE does not anticipate adverse impacts from the land application of wastewater, including odor or aesthetic impacts. Abengoa Bioenergy would have to modify the facility water balance and wastewater treatment facility design if lignin was extracted from the stillage cake, thereby generating additional wastewater.

Chemicals required for operation of the biorefinery would be received by truck or rail and off-loaded and transferred by an enclosed chemical delivery system to storage tanks, silos, or other chemical storage facilities. Chemicals would have to be obtained from outside the region. The demand for chemicals for the biorefinery would be an insignificant percentage of the production in the United States.

The Project would generate 2,000 pounds per year of hazardous waste (for example, spent solvents, waste ethanol, and caustics). Those wastes would be collected and treated/disposed of by licensed hazardous waste facilities. DOE does not anticipate adverse impacts from the handling and disposal of hazardous wastes generated at the biorefinery because Abengoa Bioenergy's proposed hazardous waste management practices will be implemented.

Genetically modified organisms used in the enzymatic hydrolysis process would be killed by a heat sterilization process and would be contained in the beer column bottoms. The bottoms stream would be dewatered and the residual solids sent to the solid biomass boiler for burning.

The solid biomass boilers would generate up to 16 tons of bottom ash per day. The bottom ash would be sent to the Seward County landfill. Disposal of the bottom ash at this landfill over the life of the biorefinery would reduce the life of permitted landfill space by about 2.2 years. In addition, the solid biomass boilers would generate up to 350 tons of fly ash per day. Abengoa Bioenergy plans to sell the fly ash as a nutrient

replacement co-product to biomass producers in the region. If the ash could not be sold or otherwise used in a beneficial manner, it would require disposal at permitted solid waste disposal facilities. The Stevens County landfill does not have adequate capacity to receive this amount of ash without a permit modification, so this waste stream would be split among permitted landfills and transfer stations within 35 miles of the biorefinery. However, impacts on existing permitted solid waste disposal facilities could be problematic if a significant percentage of the boiler fly ash was not marketable as a soil amendment byproduct. The loss of land used for landfill disposal of solid wastes generated during construction and operation of the biorefinery would be an irreversible and irretrievable loss of resources.

#### *Transportation*

There would be approximately 32,000 truck shipments of materials during construction, and about 80,000 to 116,000 truck and 1,300 to 6,600 rail shipments per year during the 30-year operating period of the biorefinery. DOE estimates there would be 35 to 41 traffic fatalities during the 30-year operations period due to these shipments and the commuting of workers, the majority (32 to 38) of which would be due to shipments of biomass, chemicals, denatured ethanol product, and waste. For perspective, over the 30-year operations period, there would be an estimated 13,400 traffic fatalities in Kansas and 820 traffic fatalities in the nine counties surrounding the Project site.

DOE estimates that 1,075 rail carloads of denatured ethanol and waste and 211 to 5,554 rail carloads of biomass and chemicals would be shipped to and from the biorefinery per year of operation, which is equivalent to about 49 to 241 additional trains per year. This would result in an increase in the approximately 600 trains per year that travel on the Cimarron Valley Railroad, but is less than the capacity of 40 to 60 trains per day on that line. Thus, the additional rail traffic for the Proposed Action would not adversely affect the operations of the Cimarron Valley Railroad.

Increased truck traffic would result in increased pavement deterioration. For biomass, chemical, and waste shipments associated with the Proposed Action, DOE estimated the annual cost of this pavement damage to range from \$580,000 to \$840,000.

#### *Aesthetics*

DOE considered the potential impacts of the Abengoa Biorefinery Project on views in the area surrounding the Biorefinery Project site and evaluated how noise and odor from the biorefinery could affect residents in the area.

**Visual Resources**—The tallest structure at the biorefinery considered under the Proposed Action would be approximately 115 feet, but many of the other structures would be 40 feet tall or less. The biorefinery would be visually similar to the grain storage silos and elevators, chemical tanks, and other structures located adjacent to the Biorefinery Project site and would be visible from surrounding vantage points, such as the city of Hugoton and the Forewinds Golf Course. The Proposed Action would require a new 1.5-mile-long transmission line that would be visible from Road P and Road 11 near the Biorefinery Project site, but would result in minimal visual impacts to viewers from a distance.

The biorefinery would operate 24 hours a day, 350 days a year, and thus would be a source of night lighting.

**Noise**—Workers would be exposed to noise during construction from construction equipment and trucks traveling to and from the biorefinery construction site. Workers would also be exposed to noise from equipment and biorefinery processes during operations. Best management practices would be employed to limit noise, and a hearing conservation program would be implemented; therefore, permissible noise exposure levels are not expected to be exceeded.

The nearest residence to the Biorefinery Project site, approximately 0.6 mile away, may experience some annoyance from construction noise. The noise level at that distance would be approximately 56 decibels which is approximately the same noise level as a normal conversation.

In addition to being temporary, EPA states that this noise level should not interfere with daily activities such as conversation, working, or recreation. As such, the impact would be small. At 0.6 mile, noise from wood hog operations could be distinguishable from other background sources of noise. Noise from biorefinery operations would attenuate to below background levels beyond 0.6 mile. Therefore, except for the residence at the northwest property boundary, DOE does not anticipate impacts to members of the public from construction or operation of the biorefinery due to noise.

During construction, there would be about 70 truck shipments to the

biorefinery site per day, or about one truck arriving every 12 minutes (assuming all traffic occurs from 7 a.m. to 9 p.m.). During operations, 202 trucks per day are expected (one truck every 4 minutes). The routes taken by those trucks through and around Hugoton would vary, but it is anticipated that at least 50 percent of the traffic (one truck every 8 minutes during operations) would use the truck bypass and affect two residences along Road Q. Along a route that passes the Stevens County Hospital, several schools, and places of worship, trucks are anticipated to pass at a rate of one every 21 minutes during operations. Noise from these passing trucks would frequently interfere with outdoor conversations and cause annoyance indoors. Rail traffic would increase by about 255 trains per year. Most of the rail shipments would carry wood waste and are expected to occur on weekdays during normal working daylight hours.

**Odor**—Odors may result from emissions of volatile organic compounds, including ethanol, and hazardous air pollutants, and from nitrogen dioxide and sulfur dioxide. Engineered controls implemented to minimize these emissions would reduce odors from the biorefinery. Air dispersion modeling indicates that no odorous compounds would be detected at the biorefinery parcel fence line or offsite locations where the public would commonly be located. Therefore, DOE anticipates no impacts to the public from the release of odorous compounds.

#### *Socioeconomics*

DOE evaluated the potential impacts of construction and operation of the biorefinery on socioeconomic variables, including population and housing, employment and income, taxes, and public services, in Stevens County and the three surrounding counties; that is, Morton and Seward counties in Kansas and Texas County in Oklahoma.

The Proposed Action would require 256 workers at the peak of construction. About 190 of those positions likely would be filled by people who would migrate into the four-county region, which would result in a temporary increase in the population in the region of less than 1 percent and would have little impact on the availability or cost of housing or on public services. In addition to the jobs directly associated with the construction of the biorefinery, 88 indirect jobs are expected to be created during the peak period of construction. DOE estimates that during construction, there would be about 110 additional students enrolled in local school districts. This represents a 1.0

percent increase in enrollment in the region. During the 12-month period of the most-intense construction activity, the region could experience an approximately \$17-million infusion of earnings, which equals about 1 percent of the 2006 per capita income in the region.

The anticipated life of the biorefinery is 30 years, during which it would employ 43 people. This would result in a regional increase in the local population of less than 0.1 percent, and would have little or no impact on housing, public services, or educational services. During operations, the region would experience an annual \$4.4 million infusion in earnings. In addition, 23 indirect jobs are expected to be created during the operations phase.

#### *Cultural Resources*

No properties listed on the National Register of Historic Places are within or on properties adjoining the Biorefinery Project site. Based on DOE review of published information, coordination with the State Historic Preservation Officer, and the results of a Phase I/II investigation of a 160-acre portion (areas investigated were coordinated with the State Historic Preservation Officer) of the Project site, construction and operation of the biorefinery would not result in adverse impacts to State-preserved or National Historic Register sites, sites of prehistoric or early historic occupation, or historic resources of local significance. When selected, offsite biomass storage locations will be evaluated for cultural resources in coordination with the Kansas State Historical Preservation Office to ensure no adverse impacts.

#### *Health and Safety*

DOE estimated health and safety impacts to workers from industrial hazards using incidence rates for 2007 for both nonfatal occupational injuries and occupational fatalities from the U.S. Department of Labor, Bureau of Labor Statistics. Members of the public would not be located within the Biorefinery Project site and would not be affected by industrial hazards at the biorefinery.

The potential for adverse impacts to health and safety from the Proposed Action would be very minor. During construction, the industrial health and safety impacts to workers are estimated to be 14 total recordable cases (that is, work-related deaths, illnesses, or injuries that result in the loss of consciousness, days away from work restricted work activity or job transfer, or required medical treatment beyond first aid), 7 days away from work, and

0.026 fatality. During operations, the total annual industrial health and safety impacts to workers from all operations at the biorefinery (such as, ethanol manufacturing, milling and grinding operations, and electric power generation) are estimated to be 2.7 total recordable cases, 0.94 day away from work, and 0.0014 fatality. Based on these results, DOE concludes that a fatality would be unlikely. No adverse health impacts to members of the public from air emissions under normal operations are anticipated.

#### *Facility Accidents and Sabotage*

Based on the operational history of existing ethanol plants, DOE concludes that the hazards of ethanol production to members of the public are minor, and that accidents during biorefinery operations are not likely to result in permanent health effects to offsite members of the public. In some accident scenarios, such as the failure of an ethanol or gasoline storage tank, workers could be injured or killed depending on the location of the worker at the time of the event.

DOE considered the most hazardous intentional destructive act to be the deliberate destruction of a toxic chemical storage tank. The consequences of such an act would be similar to the accidental failure of a toxic chemical tank and would be limited to injury and, in unlikely circumstances, death to nearby workers.

#### *Environmental Justice*

No impacts to communities with high percentages of minority or low-income populations were identified that would exceed those identified for the general population. In addition, during the scoping process, DOE identified no unique exposure pathways, sensitivities, or cultural practices that would result in different impacts on minority or low-income populations. Disproportionately high and adverse impacts would be unlikely as a result of the Proposed Action.

#### **Potential Impacts of the Action Alternative**

Under the Action Alternative, the environmental impacts would be similar to those of the Proposed Action. For most resource and subject areas, there are no or minor differences between those alternatives. Differences exist between the alternatives for the following resource and subject areas.

**Air Quality**—The Proposed Action would result in a greater reduction in greenhouse gas emissions (340 percent) than the Action Alternative (39 percent) by producing more fuel with biomass-

derived ethanol and producing more electricity from biomass.

**Utilities**—The Proposed Action would produce and sell electricity in excess of that required to operate the biorefinery equal to about 5 percent of the production capacity in west-central Kansas. The Action Alternative would produce less electricity and would require electrical power from the regional grid to operate the biorefinery equal to about 1 percent of the combined production capacity of two suppliers in the region.

**Transportation**—The Proposed Action would require substantially more truck shipments than the Action Alternative during operations; thus, the number of traffic accidents and amount of road damage would be proportionally greater under the Proposed Action.

**Noise**—For operations, because there would be more truck shipments for the Proposed Action, local residents would experience noise from truck shipments more frequently under the Proposed Action than under the Action Alternative.

**Socioeconomics**—Approximately 10 percent more workers would be employed at the biorefinery under the Proposed Action, and more earnings would be infused in the local economy.

Under the Action Alternative, the biorefinery would produce 33 percent less ethanol [12 million gallons (45 million liters)] and 80 percent less biopower (20 megawatts) than under the Proposed Action. In addition, less salable byproducts, such as lignin and lignin-rich stillage cake, would be produced under the Action Alternative.

#### **Potential Impacts of the No-Action Alternative**

Under the No-Action Alternative, none of the adverse impacts identified above for the two action alternatives (for example, emissions of air pollutants, use of land for disposal of solid wastes, increase in truck traffic, and associated increase in accidents and noise) or beneficial impacts (for example, increased employment, decrease in groundwater use, and increase in the electrical production capacity for the region) would occur. Further, 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 development of a renewable energy system that would reduce air pollutants and sequester emissions of greenhouse gases. For example, the reductions in greenhouse gas emissions estimated to occur if the Proposed



Action were implemented would not be realized with the continued use of gasoline instead of biofuel and no generation of biopower.

#### **Environmentally Preferred Alternative**

The Proposed Action and Action Alternative would result in both beneficial and adverse potential environmental impacts (summarized above and in Table 2–2 of the EIS). 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**

DOE has decided to implement the Proposed Action to provide Federal funding of up to \$71 million (2009 dollars), subject to annual appropriations, to Abengoa Bioenergy Biomass of Kansas, LLC (Abengoa Bioenergy) to support the design, construction, and startup of the Abengoa Biorefinery Project. DOE has also decided to adopt the mitigation measures discussed in the Final Abengoa Biorefinery EIS and summarized below under “Mitigation”.

#### **Basis of Decision**

DOE’s decision is based on the importance of achieving the objectives of the EAct 2005 and careful review of the potential environmental impacts presented in the Final Biorefinery EIS. This Project will support advanced biofuel production pursuant to the Renewable Fuel Standard established by EISA 2007, which requires EPA to ensure that transportation fuel sold or introduced into commerce in the United States contain at least 36 billion gallons per year of biofuels by 2022. It provides an opportunity to demonstrate that commercial-scale integrated biorefineries that use a wide variety of lignocellulosic (second-generation) feedstocks to produce biofuels and biopower can operate without direct Federal subsidy after construction costs are paid, and that these biorefineries can be easily replicated.

The Project would reduce greenhouse gas emissions not only by producing a fuel that displaces gasoline, but also by producing power that displaces electricity from other electricity generating sources. In addition, this Project would have economic benefits in

the region. The Project would require 256 workers at the peak of construction and during the 12-month period of the most-intense construction activity, the region could experience an approximately \$17-million infusion of earnings. Over the anticipated life of the biorefinery of 30 years, it would employ 43 people and the region would experience an annual \$4.4 million infusion in earnings.

To meet the mandates of the EAct 2005 and other governing policies, it is in the best interest of DOE to select and fund the most technologically and economically viable alternative. Production of more ethanol and production of biopower would make the Proposed Action a more economically viable alternative than the Action Alternative. The Proposed Action, therefore, better meets the direction of Section 932(d)(2) of EAct 2005, which directs the Secretary of Energy to select only proposals that “demonstrate that the project will be able to operate profitably without direct Federal subsidy after initial construction costs are paid.” In addition, the Proposed Action more fully supports the intent of the Section 932(d)(1) of EAct 2005 to encourage the commercial application of biomass technologies for a variety of uses, including high-value bio-based chemicals and energy in the form of electricity and useful heat. For these reasons, DOE determined the Proposed Action more fully meets its purpose and need, and has decided to implement the Proposed Action.

This decision incorporates all practicable means to avoid or minimize environmental impacts. DOE plans to review annual monitoring reports to assess the environmental impacts predicted in the EIS and the implementation of appropriate avoidance and mitigation measures.

#### **Mitigation**

DOE’s decision incorporates best management practices and additional measures to avoid or minimize adverse environmental impacts during the design, construction, and operation of the Project. DOE will require Abengoa Biorefinery to implement the best management practices outlined in Chapter 6, Section 6.1, of the Final Biorefinery EIS, for the following resource areas: land use; air quality; geology and soils; surface water; groundwater; biological resources; utilities, energy, and materials; wastes and hazardous materials; visual resources; noise; odor; cultural resources; and health and safety.

DOE regards mitigation measures as activities or actions that would be above

and beyond (in addition to) best management practices. DOE requires that the participants comply with all applicable Federal, state, and local environmental laws, orders, and regulations. 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 will explain how the mitigation measures will be planned, implemented, and monitored and is an adaptive management tool. Mitigation conditions in it will be removed if equivalent conditions are otherwise established by permit, license, or law, as compliance with permit, license or regulatory requirements are not considered mitigation activities subject to DOE control and are therefore not included in MAPs.

DOE will ensure that commitments in the ROD are incorporated into DOE’s Cooperative Agreement with Abengoa Bioenergy. The MAP and annual monitoring reports will be available on the DOE NEPA Web site (<http://www.nepa.energy.gov>) and the DOE Golden Field Office Web site ([http://www.eere.energy.gov/golden/Reading\\_Room.aspx](http://www.eere.energy.gov/golden/Reading_Room.aspx)). DOE will make copies of the MAP available for inspection in appropriate locations (e.g., local library or DOE reading rooms) for a reasonable time. The Department also will provide copies of the MAP and annual reports upon request.

In the Final EIS, DOE stated that mitigation measures for the following resource areas were being considered: air quality, biological resources, visual resources, odor, socioeconomic, wastes and hazardous materials, and transportation. Upon consideration of the findings presented in the Final EIS, DOE has determined that no mitigation is required for air quality, odor, or socioeconomic impacts. The required implementation of air quality best management practices presented in Section 6.1 will adequately minimize impacts and therefore no additional mitigation is required. While the EIS concludes that odor may result from emissions of volatile organic compounds, it also concludes, based on air dispersion modeling, that there are no anticipated impacts to the public from the release of odorous compounds and therefore no mitigation is required. The EIS concludes that the impacts to community services would be temporary and not likely to place an undue demand on community services, and therefore no mitigation is required.

Biological Resources Mitigation. While the EIS concludes that DOE does not expect the Proposed Action to

impact biological resources (including threatened and endangered species) within the region or the Project site, DOE acknowledges that the new transmission line should be designed to minimize impacts to raptors and migratory birds. At this time it is uncertain whether Abengoa or Pioneer Electric Cooperative, Inc. (Pioneer Electric) will be responsible for the design and construction of the new transmission line, or if an existing transmission line will be upgraded by Pioneer Electric to serve the biorefinery. If Abengoa is responsible for the design and construction of the transmission line, DOE will require that the line be designed and constructed to minimize the risk of electrocution to raptors and migratory birds. If Pioneer Electric is responsible for the design and construction of the new transmission line or the upgrade of the existing line, DOE will have no authority to impose mitigation measures. However, a transmission line constructed or upgraded by Pioneer Electric would be subject to additional NEPA review by the U.S. Department of Agriculture Rural Utilities Service (RUS). Further, Pioneer Electric would follow RUS standards for design and construction of transmission lines, which include consideration of raptors and migratory birds.

**Visual Resources Mitigation.** The buffer area will only be used for agricultural activities, thereby maintaining the current visual status of this area. To minimize visual impacts from nighttime light, the biorefinery will have the minimum amount of downward-facing or directional lighting necessary for safe operation.

**Wastes and Hazardous Materials Mitigation.** Abengoa will develop and implement a waste management plan for construction and operation of the biorefinery. Abengoa will also develop and implement a contingency plan for alternative beneficial uses of the solid biomass boiler fly ash in the event that the waste management plan is not effective.

**Transportation Mitigation.** To the extent practicable, Abengoa will stagger workforce schedules to minimize traffic delays and congestion. Abengoa will develop safety-based criteria to be used, in part, to select carriers, including elements of the Federal Motor Carrier Safety Administration regulations, as well as provisions for drivers to be paid hourly and receive bonuses for accident-free driving, mandatory safety training, and avoidance of teen-age drivers and drivers having less than 5-years experience. Abengoa will require carriers and drivers to meet the Federal

Motor Carrier Safety Administration regulations. In addition, to the extent practicable, Abengoa will maximize the use of rail shipments to and from the Project site and will ensure the onsite rail system does not block railroad crossings near the site.

Issued in Washington, DC, on the 15th day of December 2010.

**Cathy Zoi,**

*Assistant Secretary, Energy Efficiency and Renewable Energy, Department of Energy.*

[FR Doc. 2011-480 Filed 1-11-11; 8:45 am]

**BILLING CODE 6450-01-P**

## ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-SFUND-2010-0437; FRL-9251-3]

### Agency Information Collection Activities; Submission to OMB for Review and Approval; Comment Request; Notification of Episodic Releases of Oil and Hazardous Substances (Renewal); EPA ICR No. 1049.12, OMB Control No. 2050-0046

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), this document announces that an Information Collection Request (ICR) has been forwarded to the Office of Management and Budget (OMB) for review and approval. This is a request to renew an existing approved collection. The ICR, which is abstracted below, describes the nature of the information collection and its estimated burden and cost.

**DATES:** Additional comments may be submitted on or before February 11, 2011.

**ADDRESSES:** Submit your comments, referencing Docket ID No. EPA-HQ-SFUND-2010-0437, to (1) EPA online using <http://www.regulations.gov> (our preferred method), by e-mail to [superfund.docket@epa.gov](mailto:superfund.docket@epa.gov), or by mail to: EPA Docket Center, Environmental Protection Agency, Superfund Docket, Mailcode 28221T, 1200 Pennsylvania Ave., NW., Washington, DC 20460, and (2) OMB by mail to: Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attention: Desk Officer for EPA, 725 17th Street, NW., Washington, DC 20503.

**FOR FURTHER INFORMATION CONTACT:** Lynn Beasley, Office of Emergency Management, Mailcode 5104A, Environmental Protection Agency, 1200

Pennsylvania Ave., NW., Washington, DC 20460; *telephone number:* 202-564-1965; *fax number:* 202-564-8444; *e-mail address:* [beasley.lynn@epa.gov](mailto:beasley.lynn@epa.gov).

**SUPPLEMENTARY INFORMATION:** EPA has submitted the following ICR to OMB for review and approval according to the procedures prescribed in 5 CFR 1320.12. On June 28, 2010 (75 FR 36653), EPA sought comments on this ICR pursuant to 5 CFR 1320.8(d). EPA received no comments. Any additional comments on this ICR should be submitted to EPA and OMB within 30 days of this notice.

EPA has established a public docket for this ICR under Docket ID No. EPA-HQ-SFUND-2010-0437, which is available for online viewing at <http://www.regulations.gov>, or in person viewing at the Superfund Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is 202-566-1744, and the telephone number for the Superfund Docket is 202-566-0276.

Use EPA's electronic docket and comment system at [www.regulations.gov](http://www.regulations.gov), to submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the docket that are available electronically. Once in the system, select "docket search," then key in the docket ID number identified above. Please note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing at [www.regulations.gov](http://www.regulations.gov) as EPA receives them and without change, unless the comment contains copyrighted material, confidential business information (CBI), or other information whose public disclosure is restricted by statute. For further information about the electronic docket, go to <http://www.regulations.gov>.

*Title:* Notification of Episodic Releases of Oil and Hazardous Substances (Renewal).

*ICR numbers:* EPA ICR No. 1049.12, OMB Control No. 2050-0046.

*ICR Status:* This ICR is scheduled to expire on January 31, 2011. Under OMB regulations, the Agency may continue to conduct or sponsor the collection of information while this submission is pending at OMB. An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information, unless it displays a currently valid OMB control number. The OMB control numbers for EPA's