

**FINDING OF NO SIGNIFICANT IMPACT
FOR
PROPOSED DEVELOPMENT AND DEMONSTRATION OF A
BIOMASS ENERGY CENTER FOR FOOD PROCESSING APPLICATIONS
TOPEKA, KANSAS**

RESPONSIBLE AGENCY: U.S. Department of Energy (DOE)

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: DOE completed the *Final Environmental Assessment for Proposed Development and Demonstration of a Biomass Energy Center for Food Processing Applications, Topeka, Kansas*, (DOE/EA-1658). Based on the analyses in the Environmental Assessment (EA), DOE determined that its proposed action - awarding federal funding to Burns & McDonnell Engineering for the development and demonstration of a biomass energy center - would result in no significant adverse impacts. DOE further determined that there could be beneficial impacts such as offsetting 100% of the natural gas used to produce steam at the manufacturing plant.

BACKGROUND: DOE's National Energy Technology Laboratory, on behalf of the Office of Energy Efficiency and Renewable Energy's Office of Industrial Technologies, is providing up to \$10,000,000 in federal funding to support its mission of developing technologies that enable utilization of opportunity fuels and non-traditional feedstocks in industrial processes, as well as enabling use of combined heat and power in under-utilized applications.

The federal action of providing funding for these projects, known as the Fuel/Feedstock Flexibility and Combined Heat and Power Funding Opportunity Announcement, requires compliance with the *National Environmental Policy Act of 1969* (NEPA; 42 U.S.C. 4321 et seq.), the Council on Environmental Quality regulations (40 CFR Parts 1500 to 1508) and DOE's NEPA implementing procedures (10 CFR Part 1021). DOE prepared an EA to evaluate the potential environmental consequences of providing a grant for this proposed project under the initiative.

PURPOSE AND NEED: The overall purpose and need for DOE action pursuant to the Industrial Technologies Program (ITP) is to fund cost-shared R&D projects to develop innovative technologies that, when deployed commercially, will enable industry to reduce natural gas requirements for chemical feedstocks, increase use of opportunity fuels, and expand combined heat and power applications. The technologies contribute toward the following ITP programmatic objectives of (1) achieving a 25% reduction in U.S. industrial energy intensity by 2017 in support of EPACT 2005; and (2) contributing to an 18% reduction in U.S. carbon intensity by 2012 as established by the Administration's "National Goal to Reduce Emissions Intensity." The proposed project would use biomass (wood waste) as the primary fuel source. It would support the ITP mission by using opportunity fuels and non-traditional feedstocks. The increased use of biofuels would result in a variety of benefits to the nation, such as improved energy security, increased economic growth, and broad-based environmental benefits.

DESCRIPTION OF THE PROPOSED ACTION: DOE's proposed action is to provide funding through a cooperative agreement with Burns & McDonnell Engineering to partially fund a bioenergy center at the Frito-Lay manufacturing plant in Topeka, Kansas. The proposed biomass energy center would consist of a fuel storage area, a boiler building, and a pipe rack to connect the center to existing plant utilities. The center would use a traditional stoker fired (saturated steam) boiler, which would burn a combination of dried wood waste (scrap pallets), green wood waste, and less than 7% of tire derived fuel (IDF). The boiler would have an output of up to 78.3 Million British Thermal Units (MMBtu) per hour. DOE would provide \$1,655,945 for the project. The total cost of the project is estimated at \$13,010,587. Private industry partners would provide the remaining funds. The project would be considered a permanent installation, and would have a minimum 30-year operating life.

ALTERNATIVES CONSIDERED: In addition to the proposed project, DOE considered the No-Action Alternative as required under NEPA. Under the No-Action Alternative, DOE would not provide funds for the proposed project. For the purposes of the EA, DOE assumed that the project would not proceed without DOE funding. This assumption establishes a baseline against which the potential environmental impacts of the proposed project are compared.

ENVIRONMENTAL CONSEQUENCES: DOE evaluated the potential environmental consequences of the proposed project and the No-Action Alternative. It considered 17 environmental resource areas in the EA. However, not all areas were evaluated at the same level of detail. DOE focused more detailed analysis on areas that would require new or modified permits, have the potential for significant adverse environmental impacts, or have the potential for controversy. The areas DOE evaluated in more detail included: land use, soil, water resources, air quality, noise, vegetation, wildlife, threatened or endangered species, hazardous materials, utilities, and socioeconomic resources. For these areas, DOE determined there would be minimal potential environmental impacts.

The proposed biomass energy center would be integrated into Frito-Lay's manufacturing plant. All air emissions from the development and operation activities of the proposed biomass energy center would be below the applicability threshold for all criteria pollutants, and would not be regionally significant. The plant's existing air emissions permit would be revised and resubmitted to include the energy center. No other permit changes are anticipated to be needed.

The other environmental areas DOE evaluated for potential impacts were: wild and scenic rivers, environmental justice, recreation, cultural resources, traffic and transportation, and human health and safety. DOE determined that there would be no potential for adverse impacts for these resource areas, or that the impacts would be negligible, temporary, or both. The EA gives the reasons DOE did not conduct more detailed evaluations of these areas.

Under the No-Action Alternative, the project would either be delayed, as Burns & McDonnell Engineering sought other funding sources, or abandoned altogether. If abandoned, the potential environmental consequences and benefits would not occur.

PUBLIC AVAILABILITY: Comments were invited on the Draft EA for a period of 30 days following publication of the Public Notice in two local newspapers; *The Topeka Capital-Journal* and the *Topeka Metro News*. The Public Notice was published for 3 consecutive days on January 17-19, 2010. Copies of the Draft EA were made available to the public at the DOE NEPA website, the Topeka and Shawnee Public Library System, and Frito-Lay's plant in Topeka.

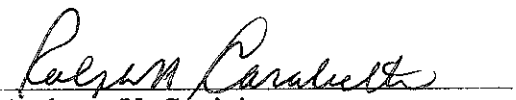
The Draft EA was distributed to various federal, state, and local agencies with jurisdiction or special expertise. DOE conducted formal consultations by mail with the responsible U.S. Fish and Wildlife Service office, the Kansas Field Office, and with the Kansas State Historical Society's Cultural Resources Division. In both cases, DOE received correspondence supporting a determination of no potential impacts to threatened or endangered species and critical habitat, and no potential impacts to properties listed or eligible for inclusion on the *National Register of Historic Places*.

Copies of the Final EA and this FONSI will be sent to stakeholders that provided comments or consultation, and will be available at DOE's National Energy Technology Laboratory website at <http://www.netl.doe.gov/publications/others/nepa/ea.html>.

COMMENTS: One comment was received during the public comment period. This comment came from the U.S. Fish and Wildlife Service and stated that the Service's previous comments had been addressed and incorporated into the EA, and that the Service appreciated the coordination efforts between DOE and the Service.

DETERMINATION: On the basis of the evaluations in the Final EA, DOE determined that its proposed action - to provide a \$1,655,945 federal grant - and Burns & McDonnell Engineering's proposed project - development and demonstration of a biomass energy center at the Frito-Lay manufacturing plant in Topeka, Kansas - would have no significant impact on the human environment. Although the project would require revisions to existing air emissions permit, no other permit changes are anticipated to be needed. All other potential environmental impacts identified and analyzed in the EA would be negligible. Therefore, preparation of an environmental impact statement is not required, and DOE is issuing this FONSI.

Issued in Pittsburgh, PA, this 6th day of May 2010.



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