

PMC-ND
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U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION



RECIPIENT: Placer County

STATE: CA

PROJECT TITLE : Placer County Biomass Utilization Pilot Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
N/A	DE-FG36-05GO88026	GFO-GO88026-003	GO88026

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

B5.20 Biomass power plants The installation, modification, operation, and removal of small-scale biomass power plants (generally less than 10 megawatts), using commercially available technology (1) intended primarily to support operations in single facilities (such as a school and community center) or contiguous facilities (such as an office complex); (2) that would not affect the air quality attainment status of the area and would not have the potential to cause a significant increase in the quantity or rate of air emissions and would not have the potential to cause significant impacts to water resources; and (3) would be located within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

Rationale for determination:

The US Department of Energy (DOE) is proposing to provide federal funding to Placer County, California to construct and operate a two-megawatt (MW) wood-to-energy biomass facility. DOE has previously authorized the expenditure of federal funds for preliminary design and planning activities for this project, however, authorization of expenditure of federal funds for the construction and operation of the facility is dependent on the completion of this NEPA review.

Proposed Project:

Placer County is proposing to construct the Cabin Creek Biomass Facility (the proposed project) at the Eastern Regional Materials Recovery Facility (MRF) and Transfer Station within the unincorporated portion of Placer County, CA. The entire Eastern Regional MRF and Transfer Station site is approximately 292 acres and includes four county-owned parcels. The proposed project would be located on a 3.7-acre site in the southernmost area of the property. The proposed project would generate electricity for distribution in eastern Placer County via existing power line infrastructure. It would also provide a demonstration of heat for the facility and to melt snow on the roof, road, and sidewalks of the site.

The proposed project would include construction of an approximately 11,000 square-foot, two-story structure to house the power generating and emissions control equipment, an approximately one-acre material storage area including a 7,000 square-foot open air pole barn structure, and additional onsite improvements to support operations at the facility. The proposed biomass facility would use commercially available gasification technology to produce electricity. Gasification systems generate electricity through transformation of the solid woody biomass into a "syngas" (i.e. synthetic gas) and combustion of the syngas in an internal combustion engine or turbine. The syngas formed by gasification is composed primarily of hydrogen (H₂), methane (CH₄), and carbon monoxide (CO), and has a heating value that ranges typically from one-fourth to one-half that of natural gas. Gasification also produces a solid carbon char (also known as biochar). The biochar would either be disposed of in a landfill or, more likely, it would be reused in one of several non-disposal options (fertilizer, soil amendment, road sub-base material).

Biomass feedstock would be processed at the locations from which it is removed (such as US Forest Service [USFS] fuels reduction sites) and delivered via truck to the project site. Biomass harvesting would generally occur within an approximate 20- to 30-mile radius of the proposed site. The fuel supply for the proposed project would be solely woody biomass derived from a variety of sources including hazardous fuels residuals, forest thinning and harvest residuals, and clean Wildland Urban Interface (WUI) sourced waste materials from residential and commercial property which would include brush and yard clippings, tree trimmings, and pine needles. The facility would be certified as a renewable energy facility by the California Energy Commission (CEC) based on the proposed use of renewable woody biomass as its only fuel source.

Review of Potential Environmental Impacts:

Pursuant to the California Environmental Quality Act (CEQA), Section 15132, Placer County prepared an Environmental Impact Report (EIR) to examine the environmental impacts of the implementation of the proposed project (citation). The EIR was prepared for use in the local planning and decision-making process. In accordance with the California CEQA Guidelines, the EIR examined the environmental effects of all phases of the project, including construction and operation. The EIR also considered that DOE may provide federal funding to the proposed project.

Initially, DOE determined that an environmental assessment would be required prior to authorizing the expenditure of federal funds for final design, construction and operation of the proposed project. However, rather than duplicating the analysis provided in the EIR, DOE has independently reviewed the EIR and determined that the analysis and documentation supports this DOE categorical exclusion determination.

The Final EIR contains mitigation measures that would reduce all potential impacts from the project to less-than-significant levels. All of the mitigation measures will be conditions of federal funding enforced by DOE through the cooperative agreement with Placer County.

The EIR can be accessed online:

<http://www.placer.ca.gov/departments/communitydevelopment/planning/biomasstoenergyfacility>

The closest residences to the project site include two temporary caretaker's residences located in the southern portion of the Eastern Regional MRF and Transfer Station site. These residences are provided by Placer County for Eastern Regional Sanitary Landfill, Inc. staff. One residence is located within the project site and would be removed.

The proposed gasification technology has a relatively low water demand, compared to direct combustion systems. For the purposes of the environmental analysis it will be assumed that the maximum continuous flow required by the gasification system would be up to 10 gallons per minute (gpm), and up to 14,400 gallons per day (gpd). The project would also include a restroom and fire suppression equipment. The proposed project would receive water from three existing aboveground water tanks (with capacities of 60,000 gallons, 150,000 gallons, and 250,000 gallons) that serve the existing operations at the proposed site. Water is supplied to the County-owned tanks by an onsite, groundwater well located near the MRF building. The proposed project includes installation of a second, redundant well that would provide back-up water pumping capabilities in the event that the existing well was out of service. Only one well would be used at any given time.

Gasification systems are non-consumptive, meaning the amount of water required to operate the system would be the same as the amount of water discharged to the wastewater system. Therefore, the maximum wastewater requirement for the gasification system could be up to 10 gpm, or 14,400 gpd. Wastewater service is provided to the southern part of the site by the Tahoe City Public Utility District. Existing sanitary sewer lines serve the existing Eastern Regional MRF and Transfer Station operations and Tahoe Area Regional Transportation and Department of Public Works facilities in the southern portion of the site. Existing water and wastewater mains are located within or adjacent to Cabin Creek Road and the access road leading to the TART and DPW facilities to the east. The proposed project would require new connections to these mains to bring water to the power generation building and three fire hydrants, and water to the power generation building.

Natural gas may be required for start-up purposes only, although some systems use electricity for startup. If the Placer County were to select a manufacturer that required natural gas for startup, natural gas service would be provided via extension of an existing natural gas pipeline located within Cabin Creek Road and the access road leading to the TART and DPW facilities to the east. Trenching would be required to make these connections, which would occur primarily within existing road alignments.

An existing overhead 14.4 kilovolt (kV) distribution line brings electricity to the Eastern Regional MRF and Transfer Station site to power the existing MRF and Transfer Station buildings, the TART and DPW facilities, and onsite temporary caretaker residences. The proposed project would include an extension of the existing electrical line across the site to bring electricity to the proposed biomass facility.

The proposed project may require the construction of a transformer and phase shifting pads and equipment that would be used to transfer power at the correct voltage to the grid, but no offsite electrical improvements (i.e., power line extensions) would be required. During latter phases of design, interconnection studies would be required to verify the adequacy of the capacity of the distribution line. If the interconnection studies determined that offsite improvements are indeed necessary, those improvements would be subject to separate and subsequent environmental review prior to construction of the biomass facility.

Construction activities would be initiated in 2014 and would be continuous, except during winter months when activities would cease due to weather conditions. Construction staging would occur on the project site in the area proposed for material storage. Project construction is anticipated to require approximately 15 months to complete, and would require a maximum of 23 construction personnel. Consistent with limitations set for in the Placer County Noise

Ordinance, construction activities would be limited to less noise-sensitive hours (e.g., daytime) between 6:00 A.M. and 8:00 P.M. Monday through Friday and 8:00 A.M. and 8:00 P.M. Saturday and Sunday. The need for nighttime work outside of these hours is not anticipated.

Construction equipment would be expected to include standard equipment such as haul trucks, backhoes, water trucks, and forklifts. Heavy equipment would be used primarily during initial phases of construction for site clearing and grading activities. Existing vegetation on the site would be removed and a minimum of 30 feet of vegetation clearance around proposed structures is proposed. No pile driving and/or blasting is proposed. The total area of ground disturbance is estimated to be about 3.7 acres of which approximately 1.1 acres would be covered with gravel, and 0.5 acres with asphalt/concrete for parking areas and access road. The proposed project would be operational in early 2015.

Public and Agency Involvement:

DOE conducted a public scoping period from March 5, 2013 through March 25, 2013. In the scoping letter, DOE provided a link to the CEQA EIR and discussed the intent to independently review the EIR and incorporate the analysis by reference. DOE received one response to the scoping letter. DOE considered the comments in the review of EIR and in preparation of this NEPA determination.

In a letter dated March 11, 2013, pursuant to the requirements under Section 7(a)(2) of the Endangered Species Act (ESA), DOE documented its determination that the proposed project does not have the potential to adversely affect any listed or candidate threatened and endangered (T&E) species or their habitat. DOE documented to the USFWS that, while it is possible for three T&E species (Tahoe yellow cress, North American wolverine and Giant garter snake) to be present at the project site, due the conditions at the site, there would be no adverse impact to any of these species or their habitat. DOE invited any additional comments from USFWS as well. The ESA does not require that USFWS respond to agency determinations when there is no potential for the action to adversely affect T&E species unless USFWS does not concur with the finding. DOE did not receive a response to the consultation letter.

Per Section 106 of the National Historic Preservation Act, DOE consulted with the State of California Office of Historic Preservation regarding potential impacts associated with the proposed action. DOE concluded that the project would not have the potential to adversely impact historic properties and requested concurrence from the State Historic Preservation Officer (SHPO). In a letter dated May 28, 2013, the SHPO concurred with DOE that a finding of no historic properties affected is appropriate.

In March 2013, DOE sent letters to five Indian tribes in California and Nevada that may have an interest in the project site. DOE's consultation and request for information was in compliance with Section 106 of the NHPA and the Native American Graves Protection and Repatriation Act of 1990. DOE received a response from the United Auburn Indian Community of the Auburn Rancheria of California requesting any additional data/documentation produced in support of the environmental review. The archaeological field reconnaissance presented in the EIR did not result in the discovery of any evidence of archeological resources. DOE has determined that no additional studies or documentation were required.

The EIR outlines the required steps that would occur if any archeological resources, paleontological, or human remains are discovered during construction.

Conclusion:

Based on an independent review of the Final EIR and the details of the proposed project (including the mitigation measures presented in the Final EIR), DOE has concluded that there will be no significant adverse impacts to floodplains, wetlands, prime farmland, air quality, water quality, cultural or historic resources, threatened or endangered species, natural resources, or minority or low-income populations. DOE has further determined that the proposed project is consistent with categorical exclusion "B5.20- Biomass power plants," and is categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

This NEPA determination requires a tailored NEPA provision.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: *Kumtrika*
NEPA Compliance Officer

Date: 3/11/2014

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____
Field Office Manager

Date: _____