PMC-EF2a

(2.04.02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION

RECIPIENT: American Samoa Energy Office **STATE:** AS

PROJECT TITLE: Activity 4- Energy Distribution: Increase Energy Efficiency

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-EE0000834.001		0

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:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

The American Samoan Government (ASG) proposes to use $950,000 of EECBG Funding for their increased energy efficiency activity. EECBG funds will primarily be used for the stringing of an additional 13.2 kV feeder line from the Tafuna Power Station, purchase and installation of low loss transformers, infrared scanning on hot spots to repair line/cable connection from high resistance connections, and construction costs associated with conversion of a 1-mile segment of overhead lines to underground.

The additional 13.2kV feeder line will placed on an existing 12-mile transmission line route. Existing lines will occupy the top circuit of the transmission circuit trim trees, and the additional line will be placed on secondary, bottom circuits. The additional feeder is required because the current feeder supplied by the American Samoa Power Authority (ASPA) to the town of Fagamalo is approximately 85 to 90% loaded resulting in high levels of energy distribution losses. Previous engineering studies have recommended the addition of a new 13.2 kV feeder at the Tafuna Power Station as soon as possible to reduce average thermal loadings to about 60% of cable rating and, therefore, reduce distribution losses, improve power quality and lessen the impact of power outages to customers due to line faults.

The purpose of this activity is to reduce energy distribution losses, improve power quality, and lessen the impact of power outages to customers do to line faults. Engineering estimates suggest savings of at least 3.5GW/H can be attained with an annual reduction in carbon emissions by approximately 760 metric tons.

Potential environmental impacts of the project and associated actions include:

• Land Use -- The overhead to underground cable conversion will occur within commercial, residential, industrial, and urban land locations; however, all locations of projected ground disturbance will remain within the existing roadway ROW and not result in land use impacts and nor would it be a cause for any public controversy.

• Air Quality -- The project is located within a non-attainment area. No known increases in air emissions are anticipated as a result of project implementation. Carbon emissions are anticipated to be reduced by 760 metric tons.

• Vegetation and Wildlife Resources-- Approximately 1-mile (5,280 linear feet) of trenching will be done within the road ROW in order to convert overhead cables to underground. Since the trenching location is proposed within a developed urban area, no impacts to wildlife species or habitat are anticipated. Additionally, areas with the roadway ROW have been kept clear of vegetation due to ROW maintenance performed by the Department of Public Works.

• Solid wastes-- General construction-related wastes associated with project activities are expected to be produced which will be collected and disposed of at either a designated Utility Waste Compound or other Class III Solid Waste Discharge Facility.

• Wastewater – The project would produce negligible amounts of wastewater during construction activities which would be captured by the local sewage system and treated at the ASPA treatment facility.

There would be no or negligible impacts to threatened or endangered species, cultural resources, wetlands, prime

farmland or other sensitive resources.

Primary Project Activity:
The segment of overhead power line proposed for conversion to underground cable was selected based on its location within a popular tourist commercial sector. ASPA does not want to double circuit existing overhead feeder with the new line, and therefore chose the proposed route underground which will reduce visual impacts while improving energy efficiency. There were insufficient funds to convert the entire feeder line to an underground location and additional funding is being sought outside of EECBG to eventually pay for the conversion of more areas.

The overhead cable conversion is approximately 1-mile in length and is contained within an ASG Department of Public Works (DPW) roadway ROW. Excavators and backhoes will be used to dig the trench for underground cable placement. The depth of the trench will be 3 feet 5 inches with a width of 1 foot 5 inches. The cables will be placed inside PVC schedule 40 conduits and placed in the trench on 10 of inches clean sand bedding. Once the conduits are placed, the conduits are covered by fine sand, cinders or clean soil to depth of 10 inches.

No impacts to trees, shrubs, or wildlife habitat are anticipated as the existing transmission line route operates under an aggressive preventative maintenance program. This preventative program is maintained by ASPA which includes a regular trimming rotation schedule determined by the vegetation growth pattern and service area terrain. The minimum clearance between the power line and closest edge of tree is 10 ft.

Waste Stream Requirements:

Prior to the expenditure of Federal funds to implement any of the above-mentioned activities, the American Samoa Government has the affirmative responsibility to ensure that it has a waste management plan addressing waste generated by their proposed actions. The plan will describe the plan to dispose of any sanitary or hazardous waste, e.g. construction and demolition debris, old light bulbs, lead ballasts, piping, roofing materials, discarded equipment, debris, asbestos, etc. generated as a result of the proposed project. The recipient must ensure that it will comply with all federal, state and local regulations for waste disposal.

NHPA Requirements

Prior to the expenditure of Federal funds, American Samoa Government has the affirmative responsibility to ensure compliance with Sec. 106 of the National Historic Preservation Act (NHPA). Supporting document will be reviewed by the DOE as part of its post-award monitoring.

Based on the suggested energy savings of at least 3.5GW/H, reduction of carbon emissions by approximately 760 metric tons, and above information, this project is categorically excluded under CX number B5.1, Actions to Conserve Energy.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Insert the following language in the award:

You are required to:
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 :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 6/2/10

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION