

PMC-EF2a

(20402)

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



RECIPIENT: MA Department of Energy Resources

STATE: MA

PROJECT TITLE : Town of Fairhaven 500 kW PV System

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-EE0000737		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 Town of Fairhaven, Massachusetts is proposing to use EECBG ARRA funding to install a 500kW ground mounted solar PV array at the Fairhaven Municipal Landfill. The solar installation will provide power to the nearby Hastings Middle School. The solar installation will produce an estimated 569,400 kWh of electricity per year, avoiding the emission of 571,678 pounds of CO₂ annually.

The Fairhaven Municipal Landfill was capped and closed in 1997. The landfill surface is vegetated with grass, which is mowed each year, and the site is not currently used for any other purpose. The surface construction of the landfill consists of an impermeable geomembrane liner covered with two feet of sand/soil. A venting system of pipes beneath the liner collects landfill gas and flares it to the atmosphere.

The solar installation site occupies a 5 acre (217,800 square feet) portion of the 27 acre landfill property. The approximately 2,200 solar PV panels will rise, at the highest, 9 feet above the landfill surface and will be attached to a mounting system. The mounting system consists of concrete ballast blocks with an attached aluminum frame. The concrete ballast blocks will sit on gravel that is spread on the surface of the landfill. None of the installed equipment will penetrate the landfill liner. All actions involved with the proposed project will occur within the boundary of the landfill property which is regularly maintained. The area surrounding the landfill is comprised of commercial, town-owned and residential. Fifty percent of the landfill boundary consists of wooded areas. Adverse visual effects are not expected as a result of the proposed project.

The interconnection point will be at a distribution line that runs along the eastern boundary of the property, approximately 400 feet from the ground mounted inverter. An overhead transmission line will run from the top of the ground mounted inverter to the interconnection point. The line will be suspended from up to three poles that will be installed along the edge of the landfill beyond the subsurface liner. At the interconnection point, the transformer and protective switchgear will follow the design requirements set by the utility (NSTAR). Discussions have been held with the interconnection engineer for NSTAR regarding the project and the forthcoming interconnection application.

The solar installation will be subject to review and approval by the Massachusetts Department of Environmental Protection under Fairhaven's existing post-closure use permit. An application will be submitted in the summer of 2010 to the Mass. DEP to request modification of the existing post-closure use permit that governs maintenance and monitoring of the landfill that is held by the town of Fairhaven. Construction will begin only after the modified post-closure use permit and other required permits have been approved.

After a thorough review of the information submitted for the proposed project, it has been determined that the actions involved will not have a significant impact to human health and /or the environment. The proposed project will result in

a reduction in the use of conventional fossil fuels; therefore it is hereby Categorically Excluded B5.1 "actions to conserve energy," from further NEPA review.

NEPA PROVISION

Note to Specialist :

EF-2a prepared by Logan Sholar.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Date: 9/22/10
NEPA Compliance Officer

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: _____ Date: _____
Field Office Manager