



**American Recovery and Reinvestment Act
(ARRA): Energy Efficiency and Conservation
Block Grant (EECBG)
Competitive Municipal Sub-Grants 2009**

NOTES:

1. This Sub-Grant Program is available to municipalities with populations less than 35,000.
2. All projects must be on, in, or servicing municipal buildings only, including schools.
3. For Regional Applications, each individual municipality must complete this page. For example, a region of communities may choose to apply for funds for its regional school district.
4. Building(s) must be owned by the municipality/public entity with no current or contemplated plans to sell the building(s).
5. The maximum amount of funds available to a municipality is \$150,000.
6. The total amount of funds available for this program is \$12,252,100.
7. Municipalities can apply to fund more than one project, but must submit only one (1) application.
8. Regardless of the number of projects, the maximum amount of available funds is \$150,000.
9. Funds cannot be used for projects that have already begun construction.
10. ***The receipt and use of funds are subjected to unprecedented levels of transparency and reporting requirements including, but not limited to: reporting, tracking and segregation of incurred costs, job creating and preservation, access to records and ensuring wage rates. Please refer to Appendix E for some of the reporting that will be required as a recipient of this grant.***
11. ***Included with this application must be a plan for addressing the disposal of any waste generated as a result of this project. This information can be provided in Appendix G.***
12. ***For any projects involving a building more than 50 years old, the municipality must attach documentation that it has received approval from the State Historical Commission to proceed with this project***

A. APPLICANT INFORMATION

Municipality Town of Eastham	Contact Sarah Raposa
Street Address 2500 State Highway	Title Town Planner
City/Town Eastham	State MA
Zip Code 02642	Telephone (508) 240-5900 x 228
Amount of funds requested \$150,000	Email sraposa@eastham-ma.gov
	Total project Budget \$150,000

AUTHORIZATION

I Ryan Christenberry hereby confirm that I am duly authorized to submit this application on behalf of the city / town of Eastham and that all information contained in this application is true and accurate.

Name: **Ryan Christenberry**
Title: **Planner, Cape Cod Commission**

Date: **12/7/09**

B. Please check the type of technology (or technologies) for this application:

1. Solar PV Please provide building (if applicable) and address for where the system will be located:

Building (eg town hall, middle school, etc): **Eastham Police Station (15.75 KW) & Eastham Fire Station (7.68 KW)**

Age of building(s): (If older than 50 years, evidence of approval from the state historical commission must be attached:) **The police station was built in 1989, and the fire station was built in 1968. It underwent a major renovation in 2000.**

Street Address: **The Police Station is located at 2550 State Highway, and the Fire Station is located at 2500 State Highway**

City/Town: **Eastham, MA 02642**

C. ELIGIBILITY REQUIREMENTS: Please complete answers in the spaces provided. Please provide documentation as indicated below or other evidence to demonstrate that each requirement is met. If no evidence is provided, DOER cannot allocate EECBG funds. DOER may request additional information at its discretion.

1. The project is shovel-ready

For Solar PV check all that apply and please attach document(s):

- Completed Site assessment that includes (check all that apply):
- Solar window shading analysis
 - Roof assessment demonstrating a life span of 20 years and strength to support PV system per building code:
 - Space for inverter:
 - Estimated system size: **15.75 KW (police) and 7.68 KW (fire)**
 - Economic analysis: **The combined PV array will generate approximately 24,288 kWh annually, or 10% of the energy consumption of the combined facilities, at a cost of \$150,000.**
- Estimated project cost: **\$150,000**
- Procurement bid documents prepared, which could include
- RFP for Power Purchase Agreement (PPA) with potential sites identified with potential system sizes:
 - Site drawings, including roof drawings

- Scope of Work
- Site Assessment (as an exhibit)
- Estimated project cost
- Project Schedule

Project has been advertised but NOT initiated (provide date the bid was filed): **Project was advertised December 7, 2009.**

For all projects – Please complete the following eligibility requirements

2. Number of Jobs created (*Please see Attachment B for instructions on how to determine*):

\$150,000 / \$92,000 = 1.63 (or 1 – 2 jobs created)

3. Projected reductions in greenhouse gases/fossil fuel energy : (*see Attachment C for instructions on how to determine*):

24,387.16 lbs of CO2 will be offset with this PV installation (see attachment D)

4. Committed leveraged funds: (*e.g: Source: MRET Amount: \$100,000 Date committed: 05/24/09*)
N/A

5. All other sources of leveraged funds, pending and projected: (For each, provide the amounts, the sources, whether or not it is an outstanding request or a request yet to be made, and the likelihood of receiving, including when you expect to hear on any pending sources of requested funds).

N/A

6. For Solar PV and Clean Energy Technologies, please describe and provide evidence of energy efficiency and conservation measures that have been implemented in the connected building in the last five (5) years: (*ie: lighting retrofits, Energy Management System*).

The fire station underwent a substantial renovation in 2000 that included a lighting upgrade to fluorescent lighting, and the installation of a Sarnafil roof, which provides insulation so that the attic does not require insulation.

7. As previously noted, unprecedented levels of reporting are required with the use of ARRA funds. Appendix E contains sample requirements that will be included with these grant awards. In **Appendix F**, please provide a summary of a Program Management Plan for managing your project, including making certain that all reporting requirements are met.

Sarah Raposa, Eastham Town Planner, will be the Program Manager for this project and will ensure that ARRA reporting requirements are met.

8. As previously noted, included with this application must be a plan for addressing the disposal of any waste produced as a result of this project. This information can be provided in **Appendix G**. **The Town does not anticipate the generation of hazardous waste from this project and construction related waste will be minimal. The Town will provide free disposal of all construction debris from this project at the Eastham Transfer Station in accordance with Transfer Station rules and regulations.**

9. As previously noted, for any projects involving a building more than 50 years old, the municipality must attached documentation that it has received approval from the State Historical Commission to proceed with this project.

N/A

SUBMISSION INFORMATION:

APPLICATIONS ARE DUE December 7th, 5:00PM.

Please provide an **electronic copy via e-mail AND 5 unbound hard copies (including attachments)** to the addresses below:

Email submittal: diane.gray@state.ma.us

5 Hard Copies: Department of Energy Resources
 100 Cambridge Street, 10th Floor
 Boston, MA 02114
 ATTN: Diane Gray

Attachment A

PLEASE ATTACH A REASONABLY DETAILED SUMMARY OF THE PROJECT.

Please address each of the following:

- Estimated annual clean energy benefits (e.g. kwh saved, MMBTU saved, clean energy kwh or MMBTU generated).
- For a Performance Contract, a list of the buildings that will be included.
- Any town approvals received to date and any town approvals yet required.
- A description of the opportunities for public education on energy efficiency and conservation or clean energy as a result of implementation of this project.
- Why this project is important to your community.

Please limit your response to the space provided.

- **The combined PV array will generate approximately 24,288 kWh annually, or 10% of the energy consumption of the combined facilities. This provides an offset of 24,387.16 lbs of CO₂ annually, or the equivalent of planting 1,092.96 trees per year.**
- **The Board of Selectmen have informally endorsed the project.**
- **The Eastham police and fire stations are located prominently along Route 6, State Highway, near Town Hall and other municipal buildings in the heart of Eastham. This location is ideal for public education about the benefits of clean, renewable energy. As Program Manager for the PV facility, the Town Planner will coordinate public outreach and awareness that showcases the power generated by the PV installation and it's annual cost savings to the Town.**
- **As a coastal community it is important that we take responsibility for our energy choices and help lead the way toward a more sustainable energy future.**

Attachment B Jobs Created Description

According to the US DOE, jobs created/retained are to be determined by taking the amount of funds received (or in this case, requested) and divide them by \$92,000

Ex: \$150,000 EECBG funds received / \$92,000 = 1.63 or 1-2 jobs created

If funds are less than \$92,000 than the *actual* number of jobs that will be created to manage and maintain the project can be listed, or a fraction if the applicant deems this appropriate.

It is also acceptable to provide estimated jobs created based on local income, if data is available. (ie: If the normal annual income is \$45,000. double the amount of jobs could be created than if \$92,000 was used for the estimate)

Created jobs are jobs that did not exist previously. Jobs retained are jobs that are “in-house” or taking jobs from other departments of the municipality and moving them to this project. The ARRA of 2009 is mostly concerned with jobs *created*.

\$150,000/\$92,000 = 1.63 or 1 – 2 jobs created.

Attachment C

Greenhouse Gas reductions can be projected using the following CO₂ emissions factors for the reduction in the applicable fuel type.

Fuel	Emission Coefficients		
	Pounds CO ₂ per Unit Volume or Mass		Pounds CO ₂ per Unit Energy
Petroleum Products			
Distillate Fuel (No. 1, No. 2, No. 4 Fuel Oil and Diesel)	22.384	per gallon	161.386 per MMBtu
Motor Gasoline	19.564	per gallon	156.425 per MMBtu
Natural Gas and Other Gaseous Fuels			
Natural Gas (Pipeline)	120.593	per 1000 ft ³	117.08 per MMBtu
Propane	12.669	per gallon	139.178 per MMBtu
	532.085	per barrel	
Source for all of the above emission factors: http://www.eia.doe.gov/oiaf/l605/coefficients.htm1 .			
GRID ELECTRICITY			1004 per MWh

Source for the Grid Electricity emissions factors:
ISO-NE 2007 Marginal Emissions Draft Report, March 31, 2009

For example, if you install a PV system that is projected to produce 1,000 kwh/year (=1 MWh), then the projected greenhouse gas emissions reductions would be:

$$1 \text{ MWh/yr} \times 1004 \text{ lbs CO}_2/\text{MWh} = 1004 \text{ lbs of CO}_2$$

If you increased the insulation in your building and projected to reduce your consumption of Natural Gas heating by 1,000,000 Btu/year (= 1 MMBtu), then the projected greenhouse gas emissions reductions would be :

$$1 \text{ MMBtu/hr} \times 117.08 \text{ lbs CO}_2/\text{MMBtu} = 117.08 \text{ lbs of CO}_2$$

Attachment D

Please provide your calculations for GHG and fossil fuel energy reductions here.

The 23.43 KW system is projected to generate 24,288KWhrs/year. Therefore,

$$24.29 \text{ MWh/yr} \times 1004 \text{ lbs CO}_2/\text{MWh} = 24,387.16 \text{ lbs of CO}_2$$

Appendix E

Sample of ARRA Reporting Requirements for Grant Recipients

TERMS FOR ALL ARRA CONTRACTORS:

This Contract Attachment is being provided to all Contract recipients of ARRA funds as either a vendor or sub-recipient as notice of certain requirements upon which the receipt of ARRA funding is conditioned. These terms are already incorporated by reference as applicable terms through the federal grant or contract award from your grantor agency. This Attachment is being provided to ensure that you have notice of the specific requirements under ARRA that you will be required to meet as a recipient of ARRA funds. These terms are in addition to any performance, reporting or other terms already provided under your award and contract. DOCUMENTATION OF ACTUAL RECEIPT OF THIS ATTACHMENT BY THE CONTRACTOR CONTRACT MANAGER OR AN AUTHORIZED SIGNATORY SHALL BE SUFFICIENT TO BIND THE CONTRACTOR TO THE TERMS OF THIS ATTACHMENT.

As a Contractor, you shall maintain records, books, files and other data as specified in a Contract and in such detail as shall properly substantiate claims for payment under the Contract, for a minimum retention period of seven (7) years beginning on the first day after the final payment under a Contract (after the federal grant close out), or such longer period as is necessary for the resolution of any litigation, claim, negotiation, audit or other inquiry involving the Contract. The Department shall have access, as well as any parties identified under Executive Order 195, during the Contractor's regular business hours and upon reasonable prior notice, to such records, including on-site reviews and reproduction of such records at a reasonable expense.

Please note that due to transparency requirements under state and federal law, records "sufficient to substantiate payment" shall be interpreted to mean that the Contractor is required to maintain records and proactively document compliance with contract terms, attainment of performance success criteria or performance measurements and successful completion of all contract performance requirements. **All Contractors, whether deemed sub-recipients or vendors, must be prepared to provide any documents, records, data or other proof of performance or related to their business activities that are paid for with ARRA funds.**

SUB-RECIPIENT TERMS:

A sub-recipient is a non-Federal entity that expends Federal awards received from another entity to carry out a Federal program but does not include an individual who is a beneficiary of such a program. Specifically, sub-recipients are non-Federal entities that are awarded Recovery funding through a legal instrument from the prime recipient to support the performance of any portion of the substantive project or program for which the prime recipient received the Recovery funding. Additionally, the terms and conditions of the Federal award are carried forward to the sub-recipient.

Sub-recipient activities will be monitored as necessary to ensure that Federal awards are used for authorized purposes in compliance with laws, regulations, and the provisions of contracts or grant agreements and that performance goals are achieved.

Sub-recipients receiving in the aggregate, \$500,000 or more in Federal awards during the sub-recipient's fiscal year must meet the audit requirements for that fiscal year, and are subject to the Single Audit.

In addition to all of the OMB A-133 requirements, sub-awards made from the federal stimulus funds (ARRA) are subject to Buy-American and compliance with the Davis-Bacon Act of 1931. Under ARRA, these requirements pass through to sub-recipients who may have previously been exempt from compliance.

ADDITIONAL SUB-RECIPIENT REPORTING REQUIREMENTS.

In addition to general performance reporting under the Contract, OMB requirements for ARRA transparency and reporting are also passed down to sub-recipients. The Commonwealth as prime must assure that the following is provided and subsequently recorded in the state's account system, MMARS:

- The DUNS# of the sub-recipient, their legal name, address and type (Prime will obtain from VCUST)
- The sub-award number (Prime will obtain from encumbrance document ID)
- The total value of the sub-award/contract (Prime will obtain from contract document recorded on the encumbrance)

- The sub-award date (Prime will obtain from date on the encumbrance)
- The sub-award grant period (Prime will obtain from service begin and end dates on the encumbrance)
- The primary performance location/area of benefit (Prime will obtain from the Location Code recorded on the encumbrance and/or payment request transactions)
- Sub-recipients will be required to report all vendor payments they make with ARRA funds. Detail for these payments must include either the payee vendor DUNS number OR the vendor name and the zip code of the vendor headquarters (**Sub-recipient will be notified by Prime on how to report**)
- Sub-recipients may be also required to report the names and total compensation for the five most highly compensated officers in their organization if:

(1) the recipient in its preceding fiscal year received— (a) 80 percent or more of its annual gross revenues in Federal awards; and (b) \$25,000,000 or more in annual gross revenues from Federal awards; and

(2) the public does not have access to information about the compensation of the senior executives of the entity through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986 [26 USC § 6104].

“Total compensation” means the cash and noncash dollar value earned by the executives during the sub-recipient’s past fiscal year of the following (for more information see 17 CFR 229.402(c)(2)):

- (i). Salary and bonus.
- (ii). Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with FAS 123R.
- (iii). Earnings for services under non-equity incentive plans. Does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
- (iv). Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.
- (v). Above-market earnings on deferred compensation which are not tax qualified.
- (vi). Other compensation. For example, severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property if the value for the executive exceeds \$10,000.

(Sub-recipient will be notified by Prime on how to report on top five highly compensated officers.)

VENDOR TERMS:

A Vendor is defined as a dealer, distributor, merchant or other seller providing goods or services that are required for the conduct of a Federal program. Prime recipients or sub-recipients may purchase goods or services needed to carry out the project or program from vendors. Vendors are not awarded funds by the same means as sub-recipients and are not subject to the terms and conditions of the Federal financial assistance award. As outlined under the Instructions above, Vendor payments will be reported with the vendor DUNS number OR the vendor name and the zip code of the vendor headquarters. Vendors must permit the Department and auditors to have access to all records related to contract performance paid for with ARRA funding for contract compliance purposes. In addition to any other requirements, sub-awards made to vendors from the federal stimulus funds (ARRA) are subject to Buy-American and compliance with the Davis-Bacon Act of 1931. Under ARRA, these requirements pass through to vendors and their sub-contractors, if any, who may have previously been exempt from compliance.

Please contact your Commonwealth Department agency with any questions related to performance or compliance.

The Town acknowledges receipt of these terms.

Quarterly Report – Recipient Stimulus Job Information

Program / Project #			
Program / Project name	Name 1	Name 2	Name 3
Department			
MMARS Encumbrance code			

Jobs information	Hours Worked	Derived FTEs	Hours Worked	Derived FTEs	Hours Worked	Derived FTEs
-------------------------	--------------	--------------	--------------	--------------	--------------	--------------

Hours of full-time employee	40	1	35	1	40	1
Total hours worked, including overtime	6,000	11.54	2,000	4.40		-
Created jobs	1,200	2.31	1,200	2.64		-
Retained jobs*	4,800	9.23	800	1.76	-	-
Jobs Narrative						
MA Resident	5,000	9.62	2,000	4.40		-
Zipcode 1	3,000	5.77	1,500	3.30		-
Zipcode 2	2,000	3.85	2,000	4.40		-
Zipcode 3	1,000	1.92	2,500	5.49		-
Male	2,000	3.85	2,000	4.40		-
Female*	4,000	7.69	-	-	-	-
> 55	1,400	2.69	1,400	3.08		-
31-54	4,300	8.27	600	1.32		-
< 30*	300	0.58	-	-	-	-
White alone	3,000	5.77	3,000	6.59		-
Black or African American alone	700	1.35	700	1.54		-
Hispanic (any race)		-		-		-
American Indian and Alaska Native alone	200	0.38	200	0.44		-
Asian alone	1,000	1.92	1,000	2.20		-
Native Hawaiian and Other Pacific Islander alone	-	-	-	-		-
Some other race	500	0.96	500	1.10		-
Two or more races*	600	1.15	(3,400)	(7.47)	-	-
Disability	500	0.96	-	-		-

Appendix F

Please provide a Program Management Plan in the space below for managing this project, in particular, including the information tracking and reporting that will be required under ARRA funding. Please identify the specific personnel that will be assigned.

NOTE: All project awardees will be required to obtain a DUNS number. If you already have a DUNS number, please note it here. _____

The Program Manager for this project will be Sarah Raposa, Town Planner. She will serve as the point of contact for management of the PV installation, and the coordinator of on-going facility management needs.

Contact Information:

**Sarah Raposa
Town Planner
2500 State Highway
Eastham, MA 02642-2544
(508) 240-5900 x 228
(508) 240-5918 fax**

Appendix G

Please describe in the space below the municipality's plan to dispose of any sanitary or hazardous waste e.g. construction and demolition debris, lead ballasts, asbestos, etc generated as a result of this project. The municipality must ensure that it will comply with all federal, state and local regulations for waste disposal.

There is minimal construction related waste anticipated for this project, however contractors will be required to remove all construction and demolition debris from the site, and to make all legally required arrangements for disposal of any sanitary or hazardous waste generated. (see '9. Cleanup and Disposal' in attached Bid document)