

III. ATTACHMENT A – SCOPE OF GRANT AWARD

COMMONWEALTH OF MASSACHUSETTS SCOPE OF GRANT AWARD AGREEMENT

By and Between
Massachusetts Department of Energy Resources (DOER)
and
City of SOMERVILLE

SCOPE OF GRANT AWARD

1. Overview:

To fund an assessment of solar PV rooftop suitability on multiple municipal buildings; installation of a new Energy Management System in the high school; streetlight replacements with LED technology in Union and Davis Square areas; Hybrid Retrofits for 2 vehicles; and installation of Electric Vehicle Charging Stations in 2 municipal parking lots.

2. Contingencies

Grantee must provide to DOER's satisfaction, certain information detailed below, and as applicable to the project, as soon as it becomes available.

(#1) Confirmation that all necessary city approvals have been obtained for the project(s) to proceed. Attachment C provides a template letter for providing this confirmation and must be returned as part of execution of this Grant Agreement.

(#2) Documentation that all utility rebates have been applied for including the date on which the application was submitted. Grantee is required to have documentation from utilities regarding approved rebates before selection and installation of products. When utility eligible energy efficient measures are installed that do not meet performance qualifications for utility rebates, then the grantee may be at risk for being responsible for the costs associated with the measure.

3. Program Schedule:

The following are milestones to ensure timely completion of the project. If the Grantee cannot meet these milestones, they will contact DOER immediately.

- (1) Complete any vendor selection required for project(s) – December 31, 2012
- (2) Complete installation of project – October 31, 2013
- (3) End of grant period – December 30, 2013

4. Disbursement of Funds:

Initial Disbursement: Fifty percent (50%) of the award, One hundred eighty-one thousand eighty-seven and 50/100 dollars (\$181,087.50), will be disbursed by DOER only after (1) the execution of this Grant Agreement and (2) DOER is satisfied that Contingency #1 and #2 have been met.

Second Disbursement: Twenty-five percent (25%) of the award, Ninety thousand five hundred forty-three and 75/100 dollars (\$90,543.75), shall be disbursed upon verification by DOER that seventy-five percent (75%) of the grant funds have been expended and that all reporting requirements have been met. This will include submittal by Grantee to DOER of detailed dated invoices for costs incurred after receipt of this grant.

Third and Final Disbursement: Twenty-five percent (25%) of the award, , Ninety thousand five hundred forty-three and 75/100 dollars (\$90,543.75), shall be disbursed after upon verification by DOER, after a site visit and review of detailed invoices and any other requested documentation, that the project is complete, that 100% of grant funds have been

expended, and that all reporting requirements and requests have been met, including submittal of the Final Report with finalized utility rebate documentation.

Funds cannot be used for reimbursement of any work related to this project performed before the date of execution of this Agreement.

5. Unused funds:

Any funds undisbursed or uncommitted by the Grantee after April 30, 2014 shall be returned to the DOER within 60 days.

6. Administrative Costs:

Administrative costs cannot exceed 10% of the award amount.

7. Publicity

The municipality will coordinate with DOER on all publicity regarding this project.

8. Reporting and Other Required Documentation:

- A. Should Grantee engage a third party to manage administrative functions of the program and rely on the internal controls of that third party, the third party shall provide the results of an internal controls audit annually according to the provisions Statements of Auditing Standards No. 70 to DOER and Grantee.
- B. Grantee shall have a program to combat fraud, waste and abuse of funds and shall incorporate into its program guidance provided by the Office of the State Comptroller.
- C. **Electric Vehicle Charging Stations:** Data collected by the units on usage shall be submitted to DOER every 6 months for 2 years.
- D. **Final report:** The final report shall be submitted within 2 months after completion of the final project receiving funding, and shall include a summary of the projects completed, including project locations and capacity. All quarterly and final reports above shall be submitted to:

Massachusetts Department of Energy Resources
ATTN: Green Communities Grant Coordinator
100 Cambridge Street, Suite 1020
Boston, MA 02114

NOTE: If the services funded by this Agreement are solicited pursuant to M.G.L. ch. 25A § 11C or § 11I, then the Grantee shall also comply with the monitoring and reporting requirements set forth in DOER's regulations at 225 C.M.R. 10.00 or other applicable regulations.

E. Ownership of Reports and Other Required Documentation:

The deliverables shall be owned by the Commonwealth of Massachusetts and treated as public documents. Following the completion of the contract both the Commonwealth and the Grantee retain the right to make further use of the deliverables.

Somerville Grant Application Appendix A

1) Street Light Replacement:

The City of Somerville is aggressively moving forward to upgrade the street lights in the city to LED technology. Somerville is proposing to use \$194,995 of grant funds to implement phase one of this project. In phase one, Somerville would replace the lighting in three high visibility areas of the City: Union Square, Davis Square and along the Somerville Community Path. In addition, the City will replace another 40 so-called “decorative” or post top streetlights lights throughout the city in high traffic commercial areas.

Total lighting to be replaced

Style	Number	Original wattage	Replacement wattage	Cost per unit
Pathway lights	58	90	45	\$983
Post tops	83	175	65	\$1289
Cobraheads	38	250	130	\$818

Somerville has recently acquired approximately 4000 streetlights from NSTAR. Under this project, the City owns all of the lights on the Community Path as well as the Post top lights located in the squares. Once these lights have been replaced, we will develop plans to replace the remaining streetlights with LEDs.

Energy and savings calculations were based on average information for all city streetlights. The NSTAR tariff on city-owned lights differs from those owned by the utility but will become standard after we acquire ownership. To calculate energy use and savings, we used total energy use to calculate an average usage for each light, then assumed a 50% savings. To calculate cost savings we used a projection of the future cost of operating the NSTAR lights. We then used an average per unit cost and assumed a 50% cost savings for the LED lights.

The total cost of the project of \$197,935 is based on price estimates received from the lighting supplier that has assisted the City with several open space lighting projects. This project represents the first phase of one of major projects listed in the City five year energy reduction plan.

2) Plug-in Hybrid retrofit

The City of Somerville currently owns 7 Toyota Priuses, which are used by the Fire Department. The city is proposing to two of these vehicles with a plug-in hybrid add-on unit, which would extend the vehicles range to operate using electricity, increasing it from approximately 40 mph to 100 mph. The vehicles average approximately 12,000 miles per year, so the retrofitted units would save approximately 180 gallons per vehicle or 4410 gallons.

The City has priced the Hymotion Plug-in battery unit at \$10,995, installed. The City would have to release a formal Invitation for Bids to contract with a qualified company to complete this project. We anticipate this project being completed by February 2013.

The total cost of this project would be \$21,990. The project supports our five year goal by increasing the fuel mileage of a portion of our current fleet and reducing our use of gasoline.

3) Somerville High School Energy Management system

The City of Somerville is proposing to implement a Direct Digital Control (DDC) system at the Somerville High School, which is the single largest municipally-owned consumer of power in the city. The DDC system will allow for more effective management and scheduling of the energy use in the building, saving a significant amount of both oil and electricity. This project was part of the original Honeywell Investment Grade Audit done for the City in 2007 as part of an ESCO project. Details of that IGA and the Points List Proposal are attached.

This project would be undertaken by Honeywell Inc. under an energy services contract the City currently has with them. Honeywell has quoted a price of \$113,500 for procurement and installation of the DDC unit. This project would be completed by November 2012.

The project supports our five year goal of improving the energy efficiency of city-owned building and represents a significant savings in what is the city's largest and most expensive building to operate.

4) Rooftop Engineering Survey

The City of Somerville intends to use \$15,000 of grant funds to seek a qualified contractor to conduct a rooftop survey and assessment of up to 25 city-owned and operated buildings. Not all of these would receive a full assessment since there is limited potential for PV generation given their location and size.

The purpose of the survey would be to provide the city with a detailed analysis of the potential of each rooftop to support solar photovoltaic installations. This would include usable square footage, load-bearing capacity, potential for solar generating capacity and location of electrical connections. The city is exploring entering into a Power Purchase Agreement and understands that including a detailed analysis will result in better responses to any solicitation that City undertakes.

The City would like to complete the project by March, 2013 to allow for a Power Purchase Agreement Request to be released in Spring, 2013.

This project supports the City's long term goal of expanding its generation of renewable power. Given Somerville's density and limited available open space, the City believes that its rooftops represent the best available option for solar power generation.

5) Solar Parking Meter Charger.

The City proposes to add two Electric Vehicle Charging stations to two municipal parking lots. The purpose of this is to make local charging stations available to current EV owners and to provide an incentive to potential EV owners to purchase the vehicles. The City will purchase one unit with two Level 2 charging points and one unit with one Level 2 charge points. The City intends to use \$17,190 to purchase and install these units.

IV. ATTACHMENT B - BUDGET

Check one: Initial Budget

Budget/Account Amendment. Maximum Obligation before this Amendment: \$

PRIOR MMARS DOCUMENT ID: _____ (for reference - if applicable)

CURRENT DOC ID: _____

[See Instructions for Additional Guidance on completion. Insert as many additional lines as necessary.]

A Budget Fiscal Year	B Account	C Object Class	D Description	E Initial Amount / or Amount Prior to Amendment	F Indicate Add or Reduce +/-	G Amend ment Amount	H Enter "YES" if Amount is a prior FY budget reduction or a current FY "Carry-in" authorization for Federal Funds	I New Amount After Amendment
2013	2000-0113	P01		\$271,631.25		\$		\$
2014	2000-0113	P01		\$90,543.75		\$		\$
						\$		\$
				\$		\$		\$
				\$		\$		\$

FISCAL YEAR SUBTOTALS AND TOTAL MAXIMUM OBLIGATION FOR DURATION OF Contract	
FISCAL YEAR: <u>2013</u> SUBTOTAL (or New Subtotal if Fiscal Year Subtotal being amended)	\$271,631.25
FISCAL YEAR: <u>2014</u> SUBTOTAL (or New Subtotal if Fiscal Year Subtotal being amended)	\$90,543.75
FISCAL YEAR: _____ SUBTOTAL (or New Subtotal if Fiscal Year Subtotal being amended)	\$
FISCAL YEAR: _____ SUBTOTAL (or New Subtotal if Fiscal Year Subtotal being amended)	\$
TOTAL MAXIMUM OBLIGATION FOR DURATION OF Contract (or New Total Maximum Obligation if amended)	\$ 362,175.00