TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone 978-929-7744
Fax 978-929-6346

Municipal Properties Department

Green Community Grant Progress and Financial Quarterly Report

Reporting Period: 10/1/14 – 12/31/14 2nd Quarter

Brief Project Summary: The Acton Memorial Library Lighting Control Project aims to save electricity at the building that uses the most energy in our municipal building stock by ratcheting down our electricity consumption via high end tuning, daylight harvesting and occupancy sensing controls for all fixtures in the library. This project will create a whole-building approach to lighting, allowing us to save energy while still maintaining a pleasant and useful reading and working environment for our patrons and staff. We are expecting this project to save nearly 40,000 kWh per year in electricity (7.5% of the building's annual electricity use), representing $7,100 savings per year.

This project is in our building that is most used by the public and therefore represents an excellent opportunity to educate our citizens about what lighting control means, how it works, and the energy savings we are generating. We are expecting this outreach effort to have ripple effects beyond our municipal buildings. The education component of this project will help our townspeople become aware of the energy saving potential of lighting control and to think more carefully about how they use lights in their homes and work spaces. Outreach will include signs explaining the lighting control system to patrons inside the main entrance doors, smaller signs throughout the building, and single sheet explanations for library patrons to take home with them. Articles will be included in the Council on Aging newsletter and in the Municipal Quarterly, which is sent to all residents along with their property tax mailings. In addition, we will have updates on our town website showing energy savings due to the library's lighting control system.

Name of Project: Acton Memorial Library Lighting Control Project

Schedule:

- □ √ 4/18/2014 Procurement issued / completed
- □ √ 7/14/2014 Contract Award
- □ √ 10/28/2014 Completion of Design
- □ x 1/14/2015 Secure System Equipment and Assets
- □ x 1/20/2015 Installation Begun
- □ x 1/30/2015 Substantial Completion
- □ x 2/4/2015 Final Completion

Descriptive narrative of activities, tasks, bids, and/or procurements and report on progress

- □ Progress towards meeting contingencies (per Scope of Grant Award section in contract): Please see the attached email exchange with NSTAR, rebate application form, and rebate approval letter from NSTAR demonstrating that both contingencies have been met.
- □ Progress since last quarterly report and goals for next quarterly report:

- 10/29/2014 – NSTAR $9,847 rebate application submitted
- 11/10/2014 – Final Guardian Energy proposal signed by Town Manager
- 11/14/2014 – NSTAR $9,847 rebate approved
- 12/1/2014 – $56,011 Purchase Order issued for project
- 1/13/2015 – Pre-Construction Meeting scheduled
- 1/20/2015 – Construction scheduled to begin
- 2/4/2015 – Construction expected to be complete

- Description of any delays or problems encountered:
  - The unique configuration of the AML electric control panel requires extra labor to bypass it, adding to project costs. Guardian Energy has decided to use Lutron wireless fixture controls to get around this issue.
- Percentage of project/tasks completed:
  - Project is 10% complete

Project Budget:
Projected Cost: $68,858
NSTAR Incentive: $9,847
Town of Acton Green Advisory Board Budget Funds: $21,500
Green Communities Grant Funds: $37,511

all expenditures to date: $0
- Copies of invoices: N/A
- documentation of invoices paid from the grant award funds: N/A

Web links to or copies of any press stories regarding the grant or project: We have not yet begun our outreach component of this project. We plan to do so when the installation is completed.

Name and Title of Person Submitting Quarterly Report:
Pamela Cady, Energy Conservation Analyst, Town of Acton

Date: 1/7/15

Purchase Order

Fiscal Year 2015 Page 1

THIS NUMBER MUST APPEAR ON ALL INVOICES, PACKAGES AND SHIPPING PAPERS

Purchase Order # 20151642-00

Sales Tax Exempt Number 04-6001062

Town of Acton
472 Main Street
Acton, Massachusetts 01720

Vendor:
GUARDIAN ENERGY MANAGEMENT SOLUTIONS LLC
420 NORTHBORO ROAD CENTRAL
MARLBOROUGH, MA 01752

Ship to:
MUNICIPAL PROPERTIES
TOWN OF ACTON
472 MAIN STREET
ACTON, MA 01720

See reverse side for our Terms & Conditions of purchase.

Vendor Phone Number	Vendor Fax Number	Requisition Number	Delivery Reference
		20151774	

Date Ordered	Vendor Number	Date Required	Freight Method/Terms	Department/Location
12/01/14	017226			MUNICIPAL PROPERTIES

Item #	Description/Part Number	Un/Qty	Cost Each	Extended Price
001	AML LIGHTING CONTROLS - GREEN COMM GRANT - FURNISH & INSTALL LIGHTING CONTROLS AS PER GRANT - MGL 25A - BID EXEMPT 01124-521900 18,500.00 339415-521900 37,511.00	1.00 Each	56011.00000	56,011.00
			PO Total	56,011.00

I certify that the expenditure contemplated by this document is within the purpose of the budget accounts to which it is to be charged, and that there is an unencumbered balance of available funds, in said budget, to pay therefore.

Vendor Copy

Approved _____ Department Manager

Approved Stephen A Barrett CPA Finance Director

Approved _____ Town Manager

NSTAR ELECTRIC GAS
One NSTAR Way, SW360
Westwood, Massachusetts 02090

TO: DEAN CHARTER
ACTON MEMORIAL LIBARY
472 MAIN ST, ACTON, MA 01720

FROM: **Steven Grattan, Program Manager, NSTAR**
Steven.Grattan@nu.com
781-441-8243

DATE: 11/14/2014

SUBJECT: Retrofit Program Customer Pre-Approval for **Project# NR141289**

Congratulations! NSTAR has pre-approved your Retrofit Program application for **ACTON MEMORIAL LIBARY**. If the energy efficiency measures are installed as proposed, your project will qualify for an incentive payment from NSTAR in the amount of **$9,847.00**. The payment will be **in the form of a check paid to the order of GUARDIAN ENERGY MGMT SOLUTIONS**. For additional project details, please refer to the enclosed customer report.

NSTAR's rebate payment for this project is subject to the Terms and Conditions a copy of which is provided with this pre-approval letter. In the event that a custom application is submitted, minimum equipment and operation requirements of the proposed measures, as detailed in the enclosed Minimum Requirements Document, must be addressed and satisfied.

Project completion Date- Our records indicate that this project is expected to be completed by **DECEMBER 07, 2014**. If at any time the project's completion date is delayed beyond the original expected completion date indicated on your application, please contact the Program Manager listed in the body of this letter so that a revised project expected completion date is communicated. Informing NSTAR ensures that the pre-approved incentive remains in good standing.

Pre-Approval Expiration Date - This pre-approval letter expires 180 days from the date of pre-approval.

Completed Application - The application form must be complete, and paid invoices (with both material and labor costs) as well as other documentation for all installed measures must be attached.

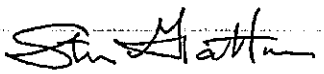
At Project Completion:

1. Contact the Program Manager at the email or phone number above.
2. Sign the original Application in the Post Installation section and send it to the Program Manager.
3. Send the Program Manager all Paid Invoices associated with the project, including both labor and materials.

Post-Installation Verification - An NSTAR representative will conduct a post-installation verification of the newly installed equipment to ensure that the installation is consistent with sound engineering practices and the pre-approved application.

Please contact NSTAR as soon as the project has been completed to ensure that a post-inspection of the installed measures is scheduled in a timely manner. The incentive payment will be issued once the application is complete, the equipment is installed and operating, and proof of purchase is submitted to NSTAR at the above address.

At NSTAR, we're committed to delivering great service. Please contact me should you have any questions or if I may be of any further assistance. Thank you and have a great day.



Your Energy Efficiency application has been received - NR141289.txt

From: NSTAREnergyEfficiencyServices@nstar.com
Sent: Monday, November 10, 2014 8:00 PM
To: Dean Charter
Cc: Mark.Rooney@nu.com; CEHL@GUARDIAN-ENERGY.COM
Subject: Your Energy Efficiency application has been received - NR141289

Dear DEAN,

Thank you for submitting your Energy Efficiency application. We are in the process of reviewing it now for consideration under the Retrofit Program. The NSTAR Program Manager handling this project for you is Steven Grattan, who can be reached by calling 781-441-8243 or via email at Steven.Grattan@nu.com.

This application will be reviewed by NSTAR to verify all required information is included for the project pre-approval process. We anticipate a decision about this project's eligibility for pre-approval within 15 business days.

The project's timeline is contingent on the receipt of an accurate and complete application, including all necessary supporting documentation. If this project is selected for pre-inspection, you will be contacted by an NSTAR representative to schedule an on-site visit to your facility.

Please ensure sufficient site availability to complete this critical step in the pre-approval process and to support the estimated pre-approval timeline. If additional information is required during this process, you will be contacted by Steven Grattan.

PROJECT DETAILS

Project Number:	NR141289
Project Name:	ACTON MEMORIAL LIBARY
Project Address:	486 MAIN ST , ACTON
Application(s):	Custom Application
Vendor Name:	GUARDIAN ENERGY MGMT SOLUTIONS
Vendor Email:	CEHL@GUARDIAN-ENERGY.COM
Date Initiated:	11/10/2014
Expected Completion Date:	12/07/2014

At anytime, you may check the status of your project by visiting [https://www.nstar.com/secure/nstarsecure3/business/energy_efficiency/project_status/project_status_form.asp]. If you have any questions, please contact your Program Manager.

Please note this document does not serve as a project Pre-Approval Letter and is simply notification your project has been received and is under review for energy efficiency program participation.

Thank you and have a great day.

NSTAR C&I Energy Efficiency Department

Please do not respond to this email. This message was generated automatically by an unmonitored email address. All inquiries should be referred to your project's Program Manager.

November 10, 2014

GUARDIAN
ENERGY MANAGEMENT SOLUTIONS

Pamela Cady
Acton, Town of
472 Main St
Acton, MA 01720

Re: Memorial Library Lighting Control System Competitive Grant Round

Dear Pamela,

We are pleased to provide you with the following proposal for consideration. In reviewing the opportunity to improve the energy efficiency and reduce operational costs for the building listed below, we are proposing the attached measure for your consideration.

As a NStar Municipal Vendor, Guardian is projecting utility incentives based upon current incentive amounts available through NStar's energy efficiency program.

If you have any questions, or if you would like to discuss specifics, please contact me directly at **(781)640-9017** Thank you again for the opportunity to provide this proposal to you. We will look forward to working with you on this project.

Sincerely,

Charlie Ehl
Energy Efficiency Specialist

Email: cehl@guardian-energy.com
Direct: (781) 629-0106

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Energy Efficiency Project Proposal

GUARDIAN
ENERGY MANAGEMENT SOLUTIONS

Date: November 10, 2014

Pamela Cady
Acton, Town of
472 Main Street
Acton, MA 01720

Energy Conservation Measure #1

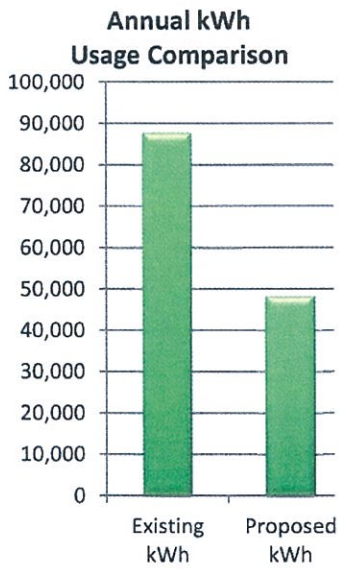
Project Location: Acton Memorial Library
Project Type: Lutron Lighting Control System

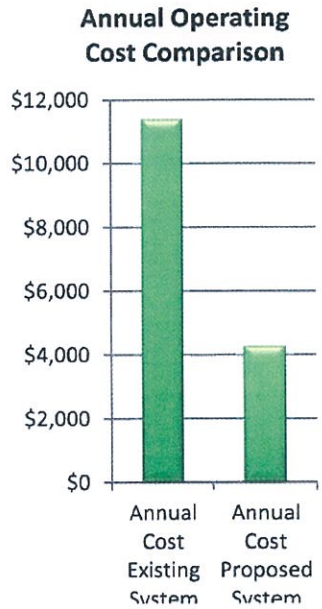
Project Summary: The Acton Memorial Library is an expansive and well lit facility where existing lamps and luminaires are up to date and energy efficient. However, lighting control is limited to but a few occupancy sensors. We are proposing to retrofit the library with Lutron occupancy, daylight sensors, dimming ballasts and associated controls to gain further savings through high end trimming, daylight harvesting, and straight occupancy sensing.

Project Pricing	
Project Cost:	$68,858
(minus) Utility Incentive:	-$9,847
Final Cost:	**$56,011**

Annual Estimated Electrical Savings	
Existing kWh	87,696
Proposed kWh	48,308
Saved kWh	**39,388**
Annual Electric Savings	$5,908
Annual Maintenance Savings	$1,215
Total Annual Savings	**$7,123**

Return on Investment Estimates	
Return on Investment Rate	13%
Payback Timeframe (years)	7.86
Ten Year Payback Scenario	$15,216
Annual Cost Existing System	$11,400
Annual Cost Proposed System	$4,277
Estimated Annual Savings	$7,123
Average Monthly Savings	$594





Energy Efficiency Specialist: Charlie Ehl, (781) 640-9017

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Terms & Conditions

Payment Terms: Guardian will submit an invoice for 50% of the Final Project Cost upon receipt of the signed Project Agreement. The remaining balance will be invoiced upon project completion. All invoices are payable with Net30 payment terms unless otherwise noted. Late fees of 1.5% monthly are assessed after Net30 days.

Project Terms & Conditions

- We are proposing a turn-key project with fixed project costs. Guardian will provide all labor (licensed trades people paid at Prevailing Wage Rates), material, equipment, etc.
- Guardian will pay for and obtain any required permits.
- Any existing equipment recycling will be handled & paid for by Guardian.
- Guardian assumes that all work can be completed during normal working hours (8am-6pm), Monday through Friday.
- Guardian is not responsible for the repair or alteration of equipment above and beyond the scope of work stated. Should Guardian identify any existing code violations, maintenance related issues to existing equipment or hazardous material (i.e. asbestos, faulty wiring, existing code violations, etc.) during the installation phase, we will alert the customer immediately and it will be the customer's responsibility to rectify the issue. Please keep in mind that we are proposing a basic lighting retrofit project and are not responsible for existing conditions that were unknown to Guardian that may incur additional costs.
- Guardian will provide a Certificate of Insurance prior to the start of any work.
- Guardian will be responsible for the design, engineering and project management of this project.
- Customer will provide Guardian with a tax exempt form (if applicable).
- All pricing is valid for 30 days. Equipment costs may increase or decrease based on market trends. We are happy to present an update proposal should you not make a decision in the 30 day period. This proposal will expire 30 calendar days from 11/10/2014.

Proposal Acceptance

By signing below, you are agreeing to contract with Guardian Energy Management Solutions on this project. All utility incentives must be approved in writing by your utility company. Changes in incetnive funding maychange information provided in this proposal.

Steven L Ledoux — Printed Name

Town Manager — Title

[signature] — Signature

11/10/14 — Date

Please return this signed document via fax to Charlie Ehl at (508) 597-1335, or email a scanned copy to: cehl@guardian-energy.com

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Invoicing: Please provide the invoicing details for this project below.

Bill to: ACTON MUNICIPAL PROPERTIES DEPT.

Address: 472 MAIN STREET

City, State & Zip: ACTON, MA. 01720

Invoicing Contact: DEAN A. CHARTER

Phone: 978-929-7744 Email: DCHARTER@ACTON-MA.GOV

Purchase Order # (If applicable): _____

Are you Tax Exempt? If so, please remember to include your Tax Exempt Certificate with this order form.

Guardian Energy Management Solutions™
420 Northboro Rd. Central, Marlborough, MA 01752 www.guardian-energy.com

Stop Wasting Energy. Start Saving Money.™

Scope of Work Detail

GUARDIAN
ENERGY MANAGEMENT SOLUTIONS

Proposed System Description

Today virtually all lighting in the Acton Memorial Library is controlled in the traditional fashion. That is lights are turned on and off by manually flipping switches. Switches in office spaces are traditional toggle switches and for the common areas the switches are turned off from a master control panel.

The proposed system from Guardian fully employs Maestro controls and Radio Powr Savr™ from Lutron, the leading manufacture of lighting controls. There are four principal elements to the system to be installed.

Maestro Wireless – Maestro controls deliver impressive lighting control functionality and convenience that fit almost any commercial or residential application. The Radio Powr Savr™ sensors give the system even greater flexibility, plus the added benefit of improved energy savings. The system is easy to install and operate, allowing you to control lighting levels with any combination of up to 10 dimmers, switches, sensors and wireless controls.

Radio Powr Savr™ - Lutron wireless sensors automate the switching and dimming of those lights, saving energy and money. Radio Powr Savr™ sensors communicate with the Maestro Wireless controls using reliable Clear Connect™ RF Technology, which ensures smooth, consistent performance. A combination of occupancy/vacancy and daylight sensors will be used to switch on and off and/or dim lighting in the library.

FC-1 Fixture Controller are digitally addressable individual fixture controllers that connect directly to sensors and controls.

The PowPak™ Dimming Module with EcoSystem® is a radio frequency (RF) control that operates up to 32 EcoSystem® ballasts based on input from Radio Powr Savr™ sensors. Configurable for multiple zones in a single area, the Dimming Module with EcoSystem® is ideal for this application. Communication with the Radio Powr Savr™ sensors, is accomplished using Lutron Clear Connect® RF Technology.

Specific to the library application, Maestro wireless controllers at the various switch locations throughout the facility. The controls switch on and off the circuitry. Occupancy is sensed with several different models of Radio Powr Savr™ sensors which communicate with the Maestro controllers. Guardian will be installing dimming ballasts wherever high end trimming and daylight harvesting is to be employed. They enable dimming as sensed by the Radio Powr Savr™ daylight sensors. The Radio Powr Savr™ sensors communicate wirelessly with the PowPak™ dimming modules or FC-1 fixture controllers that are wired to the dimming ballasts in the various luminaires. These lights will be dimmed based upon occupancy and the amount of daylight.

Existing Lighting Fixture Count

GUARDIAN
ENERGY MANAGEMENT SOLUTIONS

EXISTING LIGHTING SYSTEM							
Measure #	Location	Qty.	Existing Fixture Description	Lamp/ Ballast Type	Existing Lamp/ Ballast Wattage	Annual Operating Hours	EXISTING Total kWh
1	Childrens Room	22	2 x 2 parabolic	2L2' 17W T8/ELIG	37	3,500	2,849
2	Childrens Room	18	stack lights	2L4' T8/ELIG LOW POWER	52	3,500	3,276
3	Childrens Room	20	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	3,780
4	Childrens Room	21	soffit lights	2L4' T8/ELIG LOW POWER	52	3,500	3,822
5	Childrens Room, Rotunda	12	soffit lights	2L4' T8/ELIG LOW POWER	52	3,500	2,184
6	Childrens office	4	2 x 4 parabolic	2L4' T8/ELIG LOW POWER	52	3,500	728
7	Childrens office closet	1	2 x 4 parabolic	2L4' T8/ELIG LOW POWER	52	3,500	182
8	Solarium	9	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	1,701
9	lobby ground floor	10	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	1,890
10	tax forms	7	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	1,323
11	lobby in front of circulation	6	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	1,134
12	circulation desk, downstairs 1	6	2 x 2 parabolic	2L2' 17W T8/ELIG	37	3,500	777
13	circulation desk, downstairs 2	14	2 x 2 parabolic	2L2' 17W T8/ELIG	37	3,500	1,813
14	circulatin desk downstairs, front	8	2 lamp strip	2L4' T8/ELIG LOW POWER	52	3,500	1,456
15	grnd floor, men women room lobby	1	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	189
16	Meeting room A & B	6	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	1,134
17	Meeting room A & B	8	2 x 2 parabolic	2L2' 17W T8/ELIG	37	3,500	1,036
18	1st floor, mag. Multimedia, fictiion	40	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	7,280
19	1 st floor alcove 1, daylight	4	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	756
20	1 st floor alcove 2, daylight	1	hanging decorative	4/32W COMPACT HW ELIG	152	3,500	532
21	1 st floor alcove 3, daylight	4	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	756
22	1 st floor alcove 4, daylight	1	hanging decorative	4/32W COMPACT HW ELIG	152	3,500	532
23	1 st floor alcove 1, daylight	4	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	756
24	1 st floor alcove 2, daylight	1	hanging decorative	4/32W COMPACT HW ELIG	152	3,500	532
25	1 st floor alcove 3, daylight	4	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	756
26	1 st floor alcove 4, daylight	1	hanging decorative	4/32W COMPACT HW ELIG	152	3,500	532
27	#REF!	8	soffit lights	2L4' T8/ELIG LOW POWER	52	3,500	1,456
28	Non Fiction Stacks	8	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	1,456
29	Non Fiction Stacks	6	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	1,092
30	Non Fiction Stacks, long row 1	14	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	2,548
31	Non Fiction Stacks, long row 2	14	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	2,548
32	Non Fiction Stacks, long row 3	14	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	2,548
33	Non Fiction Stacks, long row 4	14	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	2,548
34	Non Fiction Stacks, long row 5	14	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	2,548
35	Non Fiction Stacks, long row 6	14	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	2,548
36	Paperback lighting	5	decorative uplight	2L4' T8/ELIG LOW POWER	52	3,500	910
37	1st floor lobby, soft ceiling	21	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	3,969
38	2nd floor lobby, hard ceiling	6	recessed 8'	2/26W COMPACT HW ELIG	54	3,500	1,134
39	reference, row 1	4	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	728
40	reference, row 2	4	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	728
41	reference, row 3	4	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	728
42	reference, row 4	4	aircraft cable suspended uplight	2L4' T8/ELIG LOW POWER	52	3,500	728
43	1st floor	18	uplights	150 WATT LED	150	3,500	9,450

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44	1st floor	10	downlights	150W METAL HALIDE	190	3,500	6,650
45	computer room	2	2 x 4 parabolic	2L4' T8/ELIG LOW POWER	52	3,500	364
46	children's circulation	11	4" recwssed screw in	34W INC	34	3,500	1,309

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Proposed LIGHTING SYSTEM						
Measure #	Location	Fixture Description	Savings %	New kWh	Savings	Control Strategy
1	Childrens Room	2 x 2 parabolic	60.00%	1,140	1,709	occupancy & daylighting & high end tuning
2	Childrens Room	stack lights	60.00%	1,310	1,966	occupancy & daylighting & high end tuning
3	Childrens Room	recessed 8'	60.00%	1,512	2,268	occupancy & daylighting & high end tuning
4	Childrens Room	soffit lights	60.00%	1,529	2,293	occupancy & daylighting & high end tuning
5	Childrens Room, Rotunda	soffit lights	60.00%	874	1,310	occupancy & daylighting & high end tuning
6	Childrens office	2 x 4 parabolic	35.00%	473	255	Occupancy
7	Childrens office closet	2 x 4 parabolic	35.00%	118	64	Occupancy
8	Solarium	recessed 8'	60.00%	680	1,021	occupancy & daylighting & high end tuning
9	lobby ground floor	recessed 8'	60.00%	756	1,134	occupancy & daylighting & high end tuning
10	tax forms	recessed 8'	60.00%	529	794	occupancy & daylighting & high end tuning
11	lobby in front of circulation	recessed 8'	60.00%	454	680	occupancy & daylighting & high end tuning
12	circulation desk, downstairs 1	2 x 2 parabolic	60.00%	311	466	occupancy & daylighting & high end tuning
13	circulation desk, downstairs 2	2 x 2 parabolic	60.00%	725	1,088	occupancy & daylighting & high end tuning
14	circulatin desk downstairs, front	2 lamp strip	60.00%	582	874	occupancy & daylighting & high end tuning
15	grnd floor, men women room lobby	recessed 8'	35.00%	123	66	Occupancy
16	Meeting room A & B	recessed 8'	35.00%	737	397	Occupancy
17	Meeting room A & B	2 x 2 parabolic	35.00%	673	363	Occupancy
18	1st floor, mag. Multimedia, fictiion	aircraft cable suspended uplight	35.00%	4,732	2,548	Occupancy
19	1 st floor alcove 1, daylight	recessed 8'	60.00%	302	454	occupancy & daylighting & high end tuning
20	1 st floor alcove 1, daylight	hanging decorative	60.00%	213	319	occupancy & daylighting & high end tuning
21	1 st floor alcove 2, daylight	recessed 8'	60.00%	302	454	occupancy & daylighting & high end tuning
22	1 st floor alcove 2, daylight	hanging decorative	60.00%	213	319	occupancy & daylighting & high end tuning
23	1 st floor alcove 3, daylight	recessed 8'	60.00%	302	454	occupancy & daylighting & high end tuning
24	1 st floor alcove 3, daylight	hanging decorative	60.00%	213	319	occupancy & daylighting & high end tuning
25	1 st floor alcove 4, daylight	recessed 8'	60.00%	302	454	occupancy & daylighting & high end tuning
26	1 st floor alcove 4, daylight	hanging decorative	60.00%	213	319	occupancy & daylighting & high end tuning
27	learn , read, dream octagon	soffit lights	60.00%	582	874	occupancy & daylighting & high end tuning
28	Non Fiction Stacks	aircraft cable suspended uplight	60.00%	582	874	occupancy & daylighting & high end tuning
29	Non Fiction Stacks	aircraft cable suspended uplight	60.00%	437	655	occupancy & daylighting & high end tuning
30	Non Fiction Stacks, long row 1	aircraft cable suspended uplight	35.00%	1,656	892	Occupancy
31	Non Fiction Stacks, long row 2	aircraft cable suspended uplight	35.00%	1,656	892	Occupancy
32	Non Fiction Stacks, long row 3	aircraft cable suspended uplight	35.00%	1,656	892	Occupancy
33	Non Fiction Stacks, long row 4	aircraft cable suspended uplight	35.00%	1,656	892	Occupancy
34	Non Fiction Stacks, long row 5	aircraft cable suspended uplight	35.00%	1,656	892	Occupancy
35	Non Fiction Stacks, long row 6	aircraft cable suspended uplight	35.00%	1,656	892	Occupancy
36	Paperback lighting	decorative uplight	60.00%	364	546	occupancy & daylighting & high end tuning
37	1st floor lobby, soft ceiling	recessed 8'	60.00%	1,588	2,381	occupancy & daylighting & high end tuning
38	2nd floor lobby, hard ceiling	recessed 8'	60.00%	454	680	occupancy & daylighting & high end tuning
39	reference, row 1	aircraft cable suspended uplight	60.00%	291	437	occupancy & daylighting & high end tuning
40	reference, row 2	aircraft cable suspended uplight	60.00%	291	437	occupancy & daylighting & high end tuning
41	reference, row 3	aircraft cable suspended uplight	60.00%	291	437	occupancy & daylighting & high end tuning
42	reference, row 4	aircraft cable suspended uplight	60.00%	291	437	occupancy & daylighting & high end tuning
43	1st floor	uplights	35.00%	6,143	3,308	Occupancy
44	1st floor	downlights		6,650	0	
45	computer room	2 x 4 parabolic	35.00%	237	127	Occupancy
46	children's circulation	4" recwssed screw in	35.00%	851	458	Occupancy

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About Guardian Energy Management Solutions

Guardian Energy Management Solutions is a Massachusetts based company that provides comprehensive energy efficiency solutions for non-residential buildings throughout New England. Guardian's offers a turn-key solution for the analysis, design, engineering and implementation of energy conservation measures.

Our energy reduction solutions include:

- ASHRAE Level 1, ASHRAE Level 2 and ASHRAE Level 3 Energy Audits.
- Energy Data Logging Services and Solutions.
- Energy Metering & Sub Metering to Track and Report Energy Usage.
- Lighting Retrofits for Indoor Lighting and Outdoor Lighting.
- LED Streetlight Retrofits Solutions.
- Energy Conservation Solutions for a wide variety of HVAC (Heating, Ventilation and Air Conditioning) Equipment.
- Steam Trap Studies and Replacement Services.
- Energy Management Systems and Building Automation Software.
- Building Envelope & Weatherization Solutions.
- Low E (Emissivity) Ceiling Installations.
- Installation of Energy Efficient Motors.
- Variable Frequency Drives or Variable Speed Drives.
- Freezer and Refrigeration Controls.
- Utility Incentive Funding Services.

Utility Incentives
Guardian Energy Management Solutions works closely with local utility companies throughout New England to identify and implement energy reduction solutions. Guardian's process is designed to save energy while driving down energy costs. We combine energy conservation solutions with available utility incentive funding to reduce project costs for our clients. By offering a wide variety of energy reduction solutions, Guardian ensures that all of your bases are covered when it comes to developing cost reduction strategies. Guardian is an approved vendor with National Grid and NStar.

Guardian's Green Community Roadmap Program
Guardian also partners with communities that are working to become or have been designated a Massachusetts Green Community through the Massachusetts Department of Energy Resources (DOER). A key element under this program is to design a roadmap to identify energy reduction solutions and save energy across all municipal buildings - with a commitment in energy reduction by 20% over a 5 year period. Guardian provides comprehensive energy efficiency solutions to help Massachusetts cities and towns design, develop and implement energy conservation solutions to help meet these goals.

Massachusett's Accelerated Energy Program (AEP)
Guardian is an approved vendor under the Massachusetts Accelerated Energy Program and provides enrgy audits and implementation services for energy efficiency projects under DCAM (Division of Capital Asset Management) for a variety of state owned and/or operated facilities. Guardian supports the State of Massachusetts goals to reduce energy usage at state facilities over the next several years.

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NSTAR ELECTRIC
One NSTAR Way - SW360
Westwood, MA 02090
Tel:781-441-8592/Fax:781-441-8721
www.nstar.com

Municipal Program
2014

Customer Information

Facility Name: Acton Memorial Library
Phone: 9789297744
Contact Person: Dean Charter
Fax:
Facility Address: 486 Main St
City: Acton Zip 01720
Mailing Address (if different): 472 Main st
City: Acton Zip 01720
Account Number (or copy of NSTAR bill): 2567.747.1002
Federal ID#: 04-6001062
Contact Email Address: dcharter@acton-ma.gov
Square Footage of Facility: 48,259

Primary Use

☒Elementary School ☐Middle School ☐High School ☐University/College ☐Health Facility ☐Warehouse ☐Multi-family
☐Office ☒Other: Library

End Use

☒Lighting ☐HVAC ☐Motor ☐Process ☐Refrigeration ☐Compressed Air
☐Drives on HVAC ☐Comprehensive Design ☐Comprehensive Chiller ☐Energy Management System ☐Other

Payment Method

☐Check (Please circle one: Incorporated, Not Incorporated, Exempt) ☐Account Credit
☒Check to installer (Must be registered with NSTAR) *Company name*: Guardian Energy Management Solutions, LLC.

Vendor Information

Vendor: Guardian Energy Management Soluti Contact: Charlie Ehl Phone: 781-640-9017
Address: 420 Northboro Rd., Central, Marlboro, MA 01752 Email Address: cehl@guardian-energy.com

Financing Option

Total Cost: $ NSTAR Contribution: $ Customer Contribution: $

Would you like to finance your portion of the project cost? If so, please note that you will receive a separate monthly bill for your financed portion in addition to your regular monthly electric bill.

☐No, I will pay the Contractor directly in full.

☐Yes, I would like to finance my portion of the project cost.

- ☐ 12 months at $_____ per month
- ☐ _____ months* at $_____ per month

Bill to: ☐Electric bill address ☐Mailing address above

*NSTAR will finance projects up to 24 months, based on project eligibility.

Project Description

Retrofit the library with Lutron occupancy, daylight sensors, dimming ballasts and associated controls to gain further savings through high end trimming, daylight harvesting, and occupancy sensing.

Customer Acknowledgement

Expected completion date: December 5, 2014

Pre-Installation - I certify that all statements made in this application are correct to the best of my knowledge and that I have read and agree to the Terms and Conditions on the back of the form.

Signature: [signature] Name (print): Dean A. Charter Date: 10/29/14

Post-Installation - I certify that I have seen the ECMs that have been installed and I am satisfied with their installation.

Signature: _____ Name (print): _____ Date: _____