



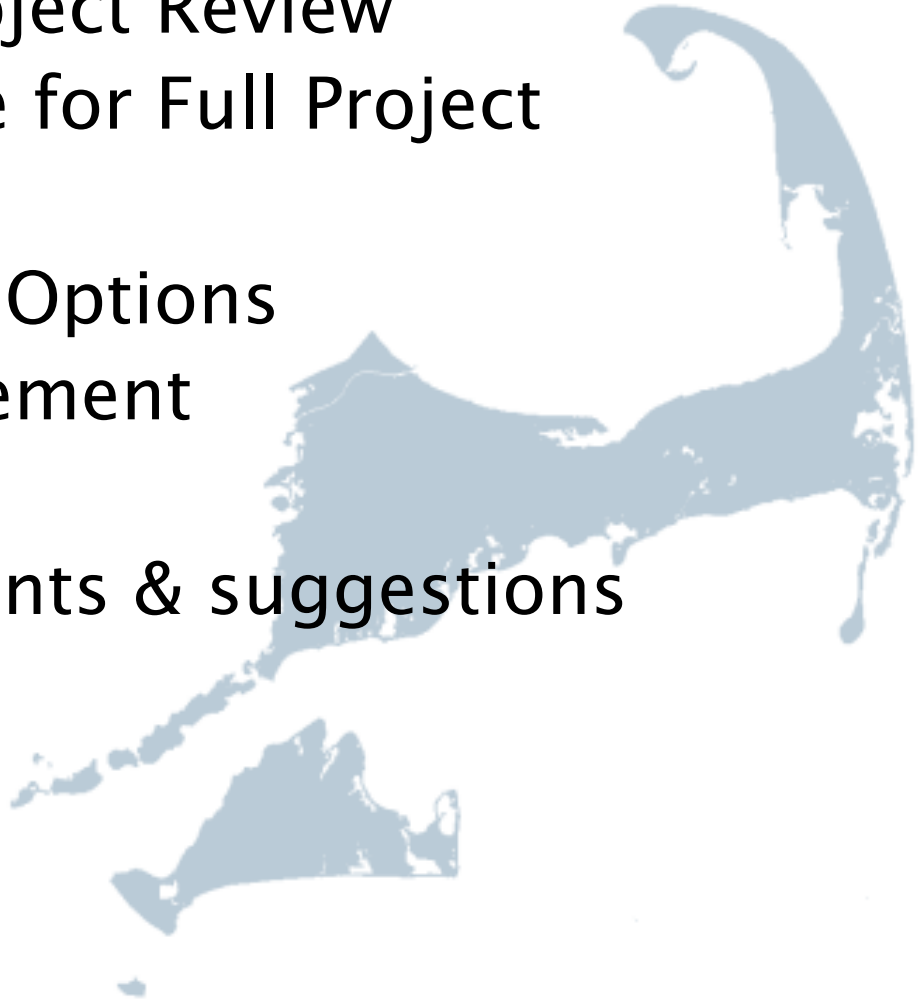
Cape Light Compact Municipal Streetlight Retrofit to LED Full Project

*Energy Efficiency in Gateway Cities
June, 2013*



Agenda

- ▶ Demonstration Project Review
- ▶ Proposed Schedule for Full Project
- ▶ Scope of Work
- ▶ Specifications and Options
- ▶ Participation Agreement
- ▶ Closing Notes
- ▶ Questions, comments & suggestions



Introduction

- ▶ Municipal LED Streetlight Project *is the most significant single project investment* in energy efficiency that will bring long-term benefits to the quality of life on Cape Cod & Martha's Vineyard
- ▶ Project is part of Cape Light Compact energy efficiency program
 - Eligible for 100% incentive
 - Cost-effectiveness test per DPU approved plan
 - Estimated total cost approx. \$5 million

Demonstration Project Review

October, 2012 – May, 2013

- ▶ Demo Participation Agreements
- ▶ Fixture selection
 - Considered experience of other communities
- ▶ Order and delivery
- ▶ Installation
- ▶ Fixture Replacements(2)
- ▶ Repairs (2)
 - Non-fixture related

[LED Fixture Installation Video](#)

[Project Webpage](#)

www.capelightcompact.org/ledstreetlights/

Demo Project Feedback

- ▶ Feedback
 - Survey Monkey results
 - Barnstable
 - Truro
 - Brewster
 - Chatham
 - Cotuit
 - Provincetown
 - Others



Demo Project Review, cont'd

Selected Customer Feedback

- "...all of us appreciate energy conservation and with the LED lights fewer watts, power, are needed to get the work done. Still, I must ask you the question that, with the LED lights, why can't their luminance be reduced?" (Brewster)
- "...staring at "my" streetlight, still bright at 7:00 AM – it seems to me that every one of these light, old and new, creates an excessively large pool of light. The fixtures, old and new, are a major part of the problem. Why should any of these lights shine on land adjacent to the road? Their "pool" should be a narrow oval, not a circle..." (Cotuit)
- "...the lights are too harsh. We need softer lights please..." (Provincetown)
- "...change them all please..." (Dennis)
- "...Great energy saver and white light..." (Sandwich)
- "...I think they look great, though I do imagine some folks may take some time to get used to the difference in color, simply because yellow streetlights is what we're all used to!" (Truro)
- "The light at the corner of Route 137 and Route 6A looks very dim compared to the others in the area." (Brewster)

Demo Project Review, cont'd

- ▶ Demo fixtures – stay or go? (decide by June 14)
 1. Stay in place
 2. Stay in place and *may* be replaced with fixtures proposed with Full Project – decide prior to Award
 3. Stay in place and *may* be relocated by Full Project contractor (need from/to Towns/FDs)
 4. Go back to HPS now – *elect to not participate in Project*
 - a) Relocate Demo LEDs to Town/FD who wants them as part of Full Project
 - b) Relocate Demo LEDs to Town/FD who wants them now

Proposed Schedule for Full Project

- ▶ June 14: Participation Agreements Executed (including Exhibit A Special Terms and Conditions)
- ▶ July 12: RFP/RFQ Available
 - DOER Energy Management Services (c. 25A, sec. 11C (RFP) or 11I (RFQ))
- ▶ July 30/Aug 1: Mandatory Pre-Bid Meeting/Bidder Questions
 - Optional site visits (encouraged)
- ▶ Aug 9: Responses Due
- ▶ Aug 16: Bidder Presentations
- ▶ Sept 6: Contractor Selection
- ▶ Sept – Oct: Audit-to-EMS
 - Pre-install field assessments/energy audit/project development plan
- ▶ Nov 15: Fixture orders placed
- ▶ Jan, 2014: Installations begin (batch billing updates town-by-town)
- ▶ June, 2014: Installations complete
- ▶ November, 2014: Fixture revisions (if needed)
- ▶ December, 2014: Final invoices and wrap-up

Full Project Scope

Fixture Selection, Procurement & Installation

- ▶ Cape Light Compact contract on behalf of 21 participating municipalities (>15,000 luminaires):
 - New LED fixtures will replace existing operating fixtures
 - New LED fixtures will replace comparable, or lower, lumen size
 - Retrofit all municipal-owned streetlights to LED (designate on Exhibit A by June 14 any to exclude)
 - Pre-installation energy assessment
 - Fixture selection/procurement
 - Fixture installation
 - 100% Cape Light Compact energy efficiency program incentive for Project (except any police detail) subject to cost-effectiveness screening

Full Project Scope, cont'd

Operations & Maintenance

- ▶ Participating Municipality will have separate contract for O&M services:
 - General Maintenance Fixed Price per lamp/mo
 - Contractor does visual inspections “spotting” OR
 - Community (Town/FD) does “spotting”
 - Considering request for web-based app to submit outage reports
 - Fixture changes to LED (after Retrofit Project)
 - Call Center
 - Emergency Response
 - Extra Work
 - Response times per current terms
 - Repairs done not more than ten business days from outage report
 - Add/relocate/remove fixtures after Project

Specifications & Options

- ▶ Technical specs
 - Share, learn from others: MAPC, DOE SSL Consortium
- ▶ Options
 - Controls including dimming, on/off, strobe, sequencing
 - a) Capability (if cost-effective, would apply to all fixtures)
 - b) Cost adder for Town/FD if wanted to include as there are not currently verifiable energy savings to support an incentive
 - Historic/ornamental (if cost-effective, would be eligible for incentive, otherwise cost adder for Town/FD)
 - Other options, if any?

Participation Agreement

Highlight of Important Terms

- ▶ Retrofit of working inefficient Town/Fire District owned streetlights
- ▶ Exhibit A Special Terms and Conditions
 - Relocate/Remove/Add (cost adders may apply)
 - Identify exclusions by streetlight pole #
- ▶ Refund Obligation for any Town who changes fixtures to non-energy efficient fixtures or terminates membership in the Cape Light Compact before end of energy savings

Participation Agreement

Recovery of Project Costs – Example

- ▶ By way of illustration, Town A receives a total incentive of \$50,000 for 100 streetlights installed;
- ▶ Five years after installation is complete, Town A terminates membership in Compact or reverts to non-energy saving fixtures;
- ▶ Assuming a ten-year measure life of the fixtures, Town A would refund the Compact \$25,000.

Closing Notes

- ▶ Approvals by Others, such as Historic Districts: The Cape Light Compact will provide any supporting materials and data upon request to Towns or Fire Districts who have additional approvals of other agencies/authorities, however, these are Town or FD applications that the Project assumes the Town or FD will obtain prior to start of installations
- ▶ Towns/FD who elect not to participate in Project will need to separately procure O&M services. Notify by June 14 of election to not participate and timing of Demo fixtures to be replaced with former HPS fixtures.
- ▶ Police details is responsibility of Towns/FD
 - see MA Highway Work Zone Safety & handout of regs for reference
- ▶ Web-based survey concluded on Monday, May 6, 2013

Thank You!

Questions, comments, suggestions

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