

Municipal LED Streetlight Project

Wrap-Up and Transition to O&M

November 12, 2014

Cape Light Compact Governing Board

**Cape Light
Compact**



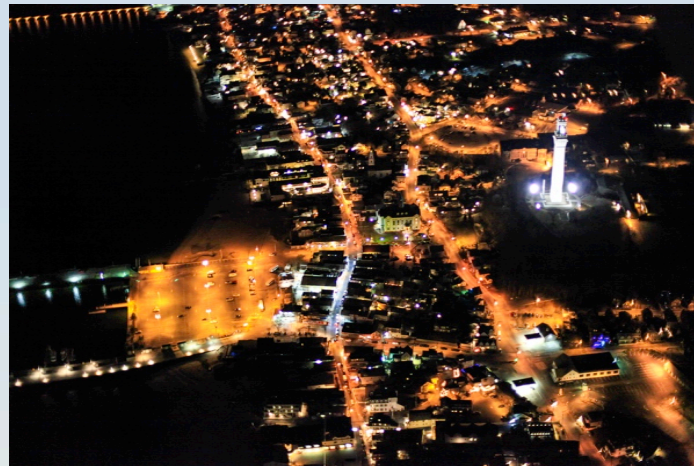
Working together toward a smarter energy future

TOPICS



Provincetown Aerial Views*

Before (high pressure sodium)



After (LED)



- Project Recap
- Billing Revisions
- Annual M&V
- “Last Call” Projects
- O&M Info
- Reminders & Notes

*Aerial photos by Kelsey-Kennard Photography, Chatham, MA

Project Recap



OVERALL TOTALS

- 23 Participating Municipalities
- 15,700 eligible* lights converted (projected 12/31/2014)
- 17,000 points GIS GPS-mapped
- Annual energy savings > 3,310,000 kWh (approx. 70% reduction)
 - Annual utility bill savings > \$657,000
 - Annual maintenance savings > \$212,000
- Combined Annual billing and maintenance savings > \$869,000

Energy Efficiency Program Funding by Cape Light Compact

- Approx. \$5.9 million (incl. GIS GPS-audit), part of 2013-2015 Three-Year DPU Approved Energy Efficiency Plan
- 10-year energy savings performance contract (Ch. 25A)

*Eligible lights were municipal owned-roadway street lights (NSTAR S-2 tariff (Rate Code 82))

Project Highlights



- Multi-year, multi-phase, effort from early 2012 – 2014
 - Demonstration project led to 6-phase full conversion project
 - Mostly non-Summer work, 60-day adjustment period
 - Special Terms & Conditions unique to many communities
 - Provided for purchase from NSTAR for Phase II participation
- Special Recognition
 - Falmouth – greatest # of streetlights (2,573, not incl. admiral hats)
 - West Tisbury – greatest % energy savings (87%)
 - Provincetown – most engaged community in demonstration phase
- Thanks and Appreciation
 - So many... CLC Board members & staff, DPU/DOER, NSTAR, Town Administrators, DPW/Hwy staff, Selectmen and all involved
 - Awesome Siemens Team!!

Safety First, Always!



THANK YOU!

SIEMENS

Project Benefits - *updated*



Project Benefits

- Significant increase over planned estimates
- Combined total savings**

	Annual Estimated kWh Savings	Annual Estimated Utility Bill Savings	Annual Estimated Maintenance Savings
January, 2014	3,170,904	\$652,441	\$210,398
September, 2014	3,309,419	\$656,912	\$211,561
<i>(Peak Demand Reduction = 0.827 MW)</i>			

**Savings estimates revised based on “as installed” actuals and the addition of additional Phase II participants including:
C-O-MM, Tisbury and West Tisbury who completed their purchase of street lights from NSTAR Electric. Will be revised again when Phase II installs are completed by 12/31/2014.

Admiral Hats & Extra Work Completed



- Admiral Hats (324 fixtures) retained
 - Incandescents/CFLs replaced with screw-in LEDs (including feeder wire replacements* to extend life of fixtures)
- “Last Call” opportunity (floods, decoratives) included in final Phase 6
 - Subject to cost-effectiveness screening
 - Only for outdoor roadway/parking area type-fixtures



*Feeder wire replacements funded through CLC Operating Budget – LED Streetlight Reserve.

Billing Revisions & Annual M&V



BILLING REVISIONS

- Submitted to NSTAR by Siemens on Town-wide batch basis
- NSTAR typically implemented revised billing codes within 1 to 2 billing cycles following batch submittal by Siemens
- See **HANDOUT** for Town & Fire District specifics
 - *Review of and resolution regarding billing adjustment delays:*
 - Phase 2: NSTAR adjustment back to July, 2014
 - Phase 3 & 4: Check from Siemens*

ANNUAL MEASUREMENT & VERIFICATION

- Siemens will request by October each year a copy of billing detail from each Participant and submit energy savings performance report to Cape Light Compact
- CLC submits Annual Report to DOER (for 10-years)

*Billing delay credit/check from Siemens to Cape Light Compact who will then issue checks to each Phase 3 & Phase 4 Towns or Fire Districts.

Operations & Maintenance



- O&M contract in place with each Town or Fire District & Siemens
- Contract term: 3-years
 - Option to extend for 2-yrs
- Outage reporting call Siemens at 800-544-4876
(800-LIGHTS-ON)
- 5-business day response

O&M Contract Comparison (Maintenance Pricing - \$ Per Light Per Month)		
	non-LED fixture	LED fixture
Old O&M contract	\$1.22	n/a
New O&M contract*	\$1.27	\$0.33
<i>>70% lower fixture maintenance pricing with LED vs. non-LED</i>		

* Siemens may adjust the \$PLPM pricing each year of the contract; e.g., by a pre-stated amount or tied to the Boston CPI-U.

Reminders & Notes



- *Any new ADDED streetlights*
 1. Submit Work Order Request for New Service Connection to NSTAR (Kathy White, Account Executive)
 2. NSTAR will send a bill for this W.O.
- *Any 'PRIVATE' streetlights (S-1 tariff, Rate Code 79 or 81)*

Town or Fire District can request to buy from NSTAR and once municipal owned convert to LED through Siemens and Cape Light Compact (private residential/businesses do not have option at this time to choose an LED luminaire from NSTAR)
- Notes:
 1. Please notify Siemens when municipality adds, changes or removes a street light to keep O&M billing up to date; and,
 2. Be sure the new LED fixtures are added, if necessary, to municipalities insurance policy.

THANK YOU



Town of Falmouth Aerial Views Before - After

