

2012 SCORE and CitySmart Programs

Program Summary

Dec 8, 2011



Overview

- Introductions
- Background of Programs
 - SCORE
 - SCORE LITE
 - CitySmart
- 2011 Results
- 2012 Programs
- 2012 Key Changes
- Questions?
- Other Programs



Introductions

CenterPoint Energy

- **Cheryl Bowman** - Energy Efficiency Program Manager
- CenterPoint's role:
 - Administer programs
 - Contract with Program Sponsor / Partner
 - Ensure that program follows PUC rules
 - Administers incentive payments
 - Conducts post inspections
 - Interface with industry players
 - Serve as a resource of information – unbiased experts

CLEAResult

- **Steve Gremillion** – Program Consultant
- CLEAResult's Role
 - Program Implementer
 - Partner Outreach
 - Provide technical assistance
 - Performs pre-inspection
 - Verifies measure impacts
 - Interface with industry players
 - Serve as a resource of information – unbiased experts

- Led to requirements for IOUs to offset 25% of projected annual load growth through energy efficiency programs
 - 10% in 2002 - 2007
 - 15% in 2008
 - 20% in 2009-11
 - 25% in 2012

- Given this mandate, Utilities have developed several programs to help customers faced with rising energy prices and resource constraints

- However, the PUCT is currently adjusting the energy efficiency rule, which may or may not cause program changes mid-year in 2012.

- Federal, state and local codes will also be changing in the next year or two that will affect the deemed savings which will affect the incentives for measures.

Available Programs



SCORE Program



- **Schools Conserving Resources**
- Focuses on energy efficiency in K-12 and higher education schools
- Cash Incentives
- Non Cash Incentives
 - Energy Performance Benchmarking
 - Energy Master Planning Workshops
 - Communications Support
 - Technical Assistance



SCORE Lite Program



- SCORE Lite
 - Allows SCORE Partners to implement their projects similar to Standard Offer process
 - Partner is responsible for all documentation and completion of calculation forms.
 - Incentives are the same as Standard Offer Pro
 - **No Non-cash incentives**



CitySmart Program



- Focuses on energy efficiency in local government sector
- Cities, Counties, select state agencies
- Cash Incentives
- Non Cash Incentives
 - Energy Performance Benchmarking
 - Energy Master Planning Workshops
 - Communications Support
 - Technical assistance



2011 Program Results

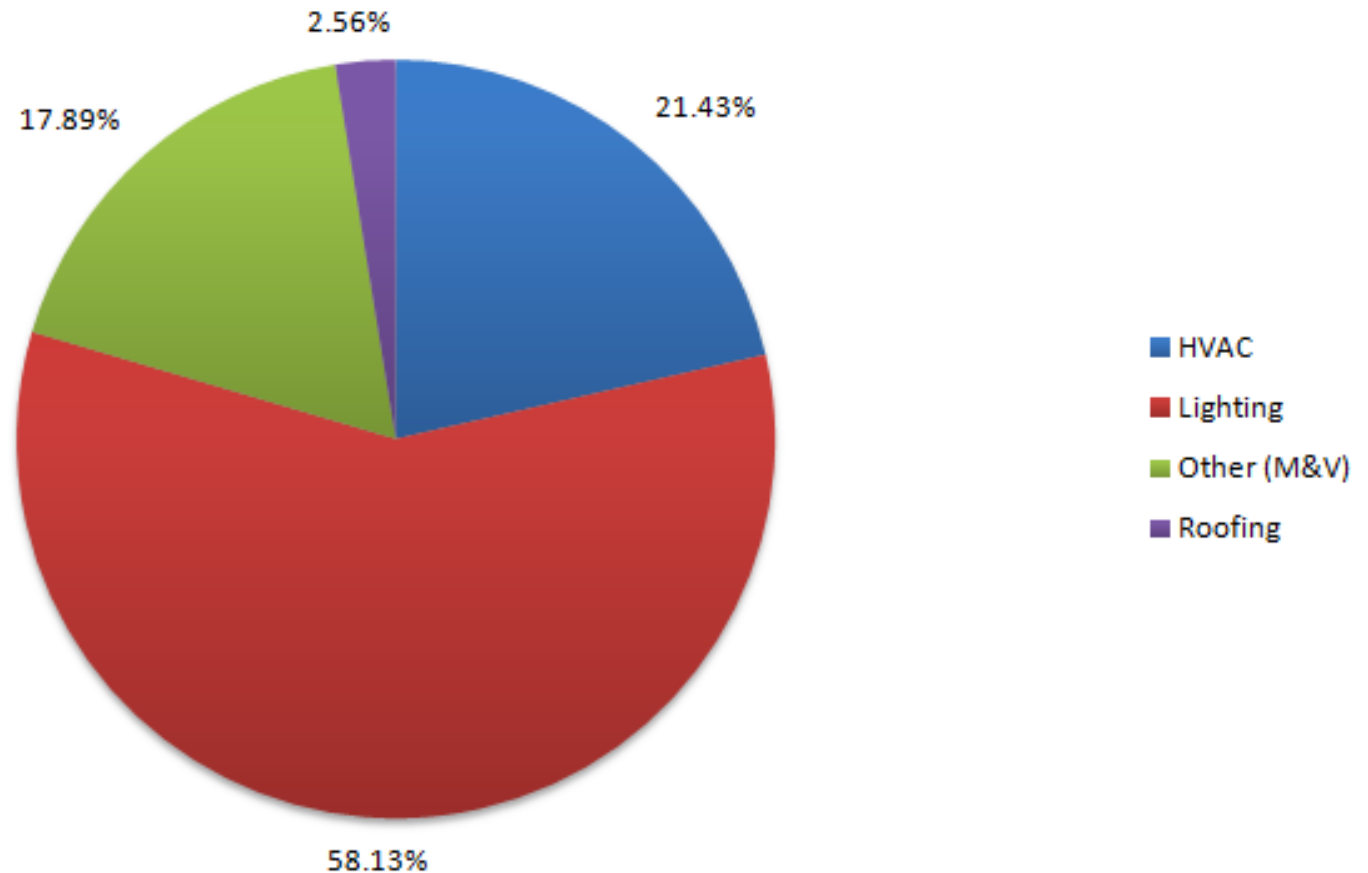


- 32 Partners participated in the 2011 program
- Achieved 4805 kW reduced peak demand
- Delivered \$2,500,000 worth of incentives (almost \$200,000 more than 2010)
- 222 projects
 - Largest 186 kW
- Averaged 29 hours of implementation per project
 - Project documentation (needed to verify savings per PUCT)
 - Pre inspections
 - Completing applications & calculation forms
 - Final Engineering review to verify kW reduction/project savings

2011 Program Results- Measure Types



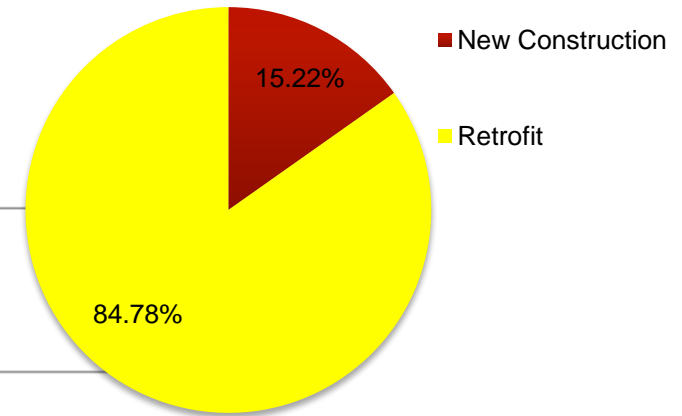
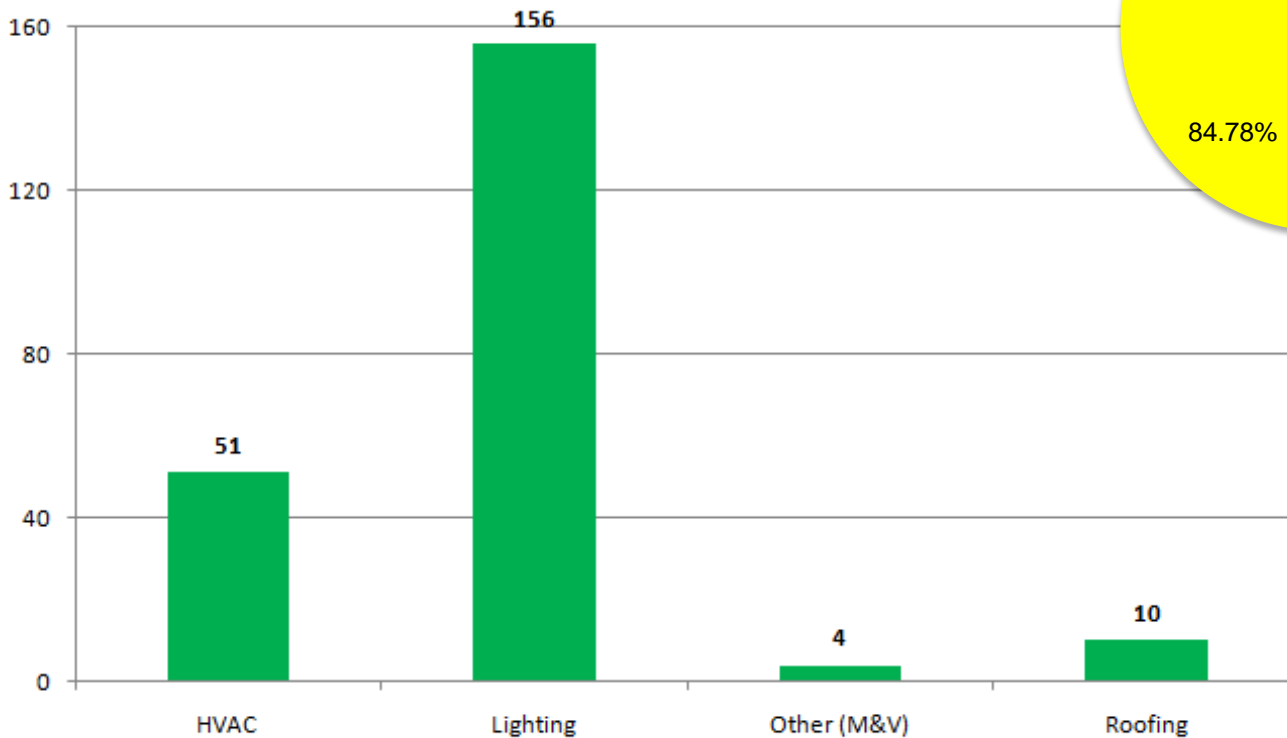
CenterPoint 2011 SCORE/CitySmart Program Measures



2011 Program Results -Project Types



Count of Projects



Historical Results



- SCORE / CitySmart and SCORE Lite Savings since 2006
 - 24,000 annual kilowatts saved
 - 56,424,198 annual kilowatt hours saved
 - 677,090,376 approximate equipment life kilowatt hours saved
- Equivalent* to annual CO2 emissions from:
 - 91,547 cars for one year
 - 58,216 homes for one year

*<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

2012 Goals and Budget



Savings Goal		Budget
5000 kW	12,000,000 kWh	\$2,500,000

- Incentive rates vary according to measure.
- Incentives are paid for verified savings over a one year period.

2012 Incentives – SCORE / CitySmart



Non-Cash incentives for 2012

- Technical assistance with project identification and documentation
- Energy performance benchmarking
- Energy master planning workshops
- PR and communications support
- Project application management

Cash Incentives for 2012

MEASURE TYPE	\$/KW	\$/KWH
Lighting – Fluorescent, HID	\$125	\$0.03
Lighting – LED	\$125	\$0.06
Cooling – DX Units	\$175	\$0.04
Cooling – Chiller	\$175	\$0.06
Motor	\$175	\$0.04
Variable Frequency Drives	\$150	\$0.04
Window Film	\$125	\$0.04
Window Replacement	\$125	\$0.04
Roofing	\$150	\$0.06
All Other Measures	\$150	\$0.04

2012 Incentives – SCORE Lite



Non-Cash incentives for 2012

- Application Management

Cash Incentives for 2012

MEASURE TYPE	\$/KW	\$/KWH
Lighting – Fluorescent, HID	\$120	\$0.04
Lighting – LED	\$210	\$0.08
Cooling – DX Units	\$240	\$0.09
Cooling – Chiller	\$260	\$0.11
Motor	\$235	\$0.09
Variable Frequency Drives	\$180	\$0.07
Window Film	\$200	\$0.08
Window Replacement	\$210	\$0.08
Roofing	\$240	\$0.09
All Other Measures	\$175	\$0.06

Measure Eligibility

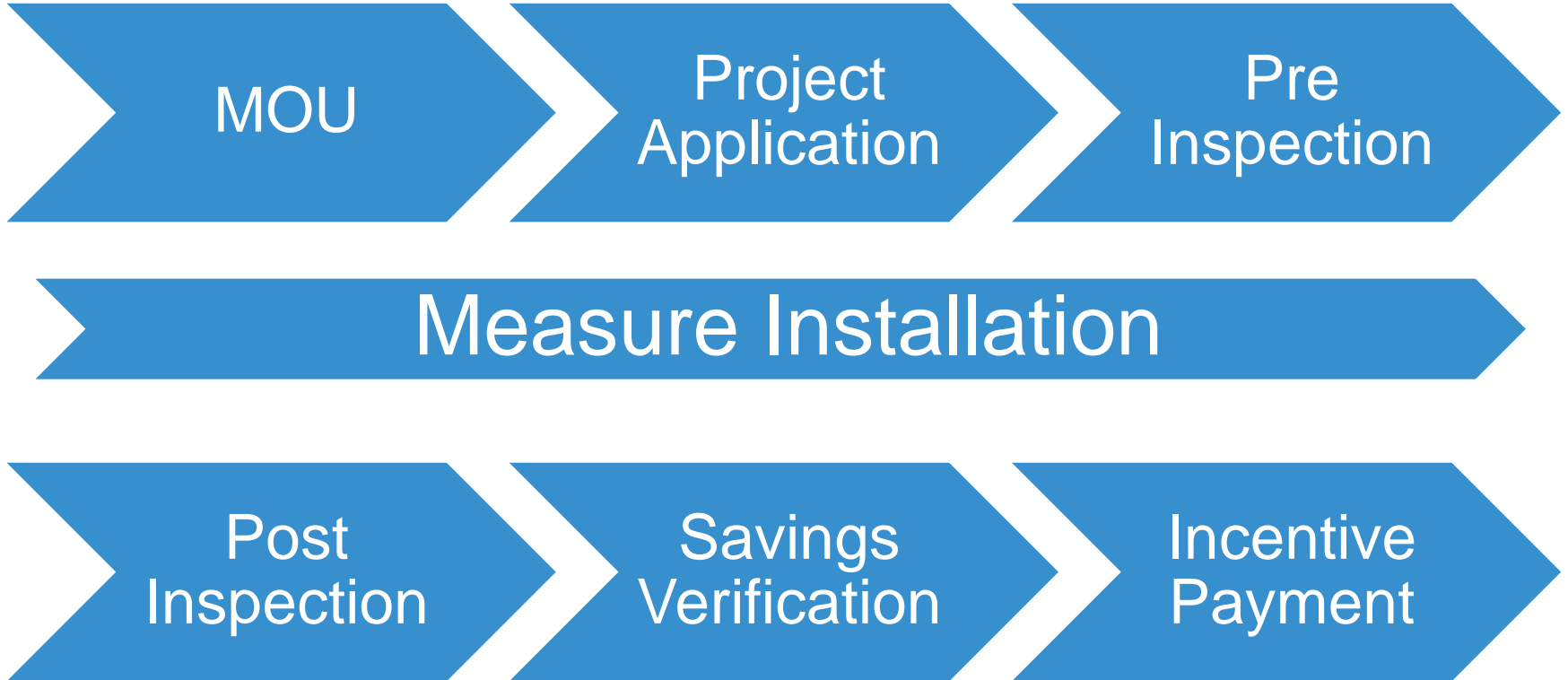


- Produces Measurable Peak Demand and/or Energy Savings
- 10 Years Persistence
- Exceeds current federal minimum efficiency standards (code)
- Emphasis is Placed on Peak Summer Demand Savings
 - Peak period: June 1 through September 30, Monday – Friday 1PM to 7PM
- Permanently installed (no plug load)
- Typical Qualifying Measures

Ineligible Measures

- Removable Measures (ie: plug loads)
- Off Peak Exterior Lighting – qualify in other programs
- Cogeneration or Self Generation (except renewable)
- Fuel switching to electric
- Measures that Require no Capital Investment – qualify in other programs
- Thermal Energy Storage
- Measures that Receive Incentives in Other CNP Programs
- Redundant Equipment (ie: Backup Chillers)
- O&M Measures (ie: Air Filters)

Typical Project Process



2012 Key Changes



- Projects for Schools Must Be Submitted to SCORE OR SCORE Lite
- Updated Efficiency Standards
 - Lighting – Standard T8
 - HVAC – State of Texas could move to ASRAE 90.1 - 1999
- Operation Hours Changes for Buildings
- Could see Baseline Changes for HVAC Need invoices with model numbers
- Additional Documentation Requirements

2012 Key Changes - Lighting



July 1, 2010

- T12 magnetic ballasts can no longer be manufactured or imported for sale. As a result of this federal regulation, the only type of ballast available for purchase for T12 lamps is an electronic ballast.

July 14, 2012

- All linear fluorescent lamps manufactured or imported for sale in the U.S. must meet more stringent efficacy standards.

Future Legislation – Effective Late 2014

- Very Likely Standard T8 and T12 Electronic Ballast – no longer manufactured or imported.

2012 Key Changes - Lighting



Changes to Lighting Eligibility

- Specified as Reduced Wattage or High Performance by - Consortium for Energy Efficiency (CEE- www.cee1.org)

Why CEE?

- Utilities using CEE Specifications as a way to substantiate the lamp/ballast combinations they will accept in their Programs
- Facilitates the gradual phase-out of T12 magnetically ballasted equipment
- Specifications are industry-accepted and already in place – relatively easy and inexpensive to adopt and apply in your programs

What and Where are the CEE Specifications?

- The Specifications are comprised of various attributes of lighting systems such as lumens, wattage, lamp life, mean lumens per watt, ballast efficacy factor, etc.

<http://www.cee1.org/com/com-lt/com-lt-main.php3>



2012 Key Changes - Other



Lighting Operating Hours and On Peak Coincidence Factors (CF) Updates

Building Type	2011		2012	
	Hours	CF	Hours	CF
Education (K-12; w/o summer session)	2150	0.82	2777	0.47
Education (K-12; with summer session)	2085	0.67	3577	0.69
Higher and Summer Education	2085	0.67	3577	0.69
Office	3760	0.80	3737	0.77
Parking Structure	7884	1.00	7884	1.00
Public assembly	3760	0.80	2638	0.56
Public order and safety	3760	0.80	3472	0.75

What does this mean?

- Some projects – reduced calculated savings for the same project
- K-12 schools, we need documentation if a building is used for summer sessions

Measurement & Verification – M&V



Deemed Savings	Simplified M&V	Full M&V
Based on data from past Energy Efficiency Programs and industry data	Based on engineering calculations using typical equipment characteristics for particular applications.	Required for all measures not meeting criteria for deemed or simplified M&V.
No metering required	Reduced need for certain types of field monitoring by using stipulated values for operating hours, equipment efficiencies, etc.	Use more rigorous application of end use metering, regression analysis or computer simulations.
	May involve spot or short term metering and sometimes simple long term monitoring.	General guidelines available, but need to be adapted to specific measure.

M&V Options

Measure	Applicable M&V Methodology
Cooling – DX Cooling – Chiller Lighting Windows & Roofs Motor Efficiency Upgrades	Deemed, Simplified, or Full
Constant air to variable air side conversions (if other measure included) Fan and Pump Variable Speed Drive Installation	Simplified or Full
Non-uniform loads, whole building analysis, simulation, complex controls system with interactive effects etc.	Full

2012 Program Timeline



➤ January 11th 2012

➤ Applications for 2012 Accepted

➤ November 30, 2012

➤ Final Project Documentation for 2012 program due.

Questions

- Web site: www.centerpointefficiency.com
- Contact: Cheryl Bowman (713) 207-5631
cheryl.bowman@centerpointenergy.com
- Contact: Steve Gremillion (713) 819-6232
sgremillion@clearesult.com



Calvin Burnham, P.E., CEM
calvin.burnham@centerpointenergy.com

(713) 207-3423

[Retro Commissioning Program](#)

[Advanced Lighting](#)

Background Materials

- CEE Qualified lamps and ballasts:
 - Commercial Lighting: <http://www.cee1.org/com/com-lt/com-lt-main.php3>
- CEE Specification Templates:
 - Full Wattage: <http://www.cee1.org/com/com-lt/com-lt-specs.pdf>
 - Reduced Wattage: <http://www.cee1.org/com/com-lt/lw-spec.pdf>
- Education and marketing materials for HPT8 systems:
 - DesignLights HPT8: <http://www.designlights.org/hpt8.php>
- Performance Comparisons when Upgrading to T8 Lighting
 - <http://www.lightingtaxdeduction.org/technologies/ex-t8.html>
- ENERGY STAR qualified commercial LED
 - http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LTG