

**Texas-New Mexico Power Company
2012 Program Rollout**



January 10, 2012

Prepared by: CLEAResult

Overview



- TNMP & CLEAResult role's
- Background of Programs
 - SCORE
 - CitySmart
 - Commercial Solutions
- 2011 Results
- 2012 Program Overview/Requirements
- 2012 Key Changes
- Questions & Answers

Introductions



Texas-New Mexico Power

- **Stefani Case** - Energy Efficiency Program Manager
- TNMP's role:
 - Administer programs
 - Contract (MOU or LOI) with Program Sponsor / Partner
 - Ensure that program follows PUC rules
 - Provide funding for incentive payments
 - Interface with industry players
 - Serve as a resource of information – unbiased experts

Introductions



CLEARResult

- **Megan Frisa**, Program Consultant
- **Grace Hsieh**, Program Specialist
- **CLEARResult's Role**
 - Program Implementer
 - Partner Outreach
 - Provide technical assistance
 - Administers incentive payment
 - Performs pre/post-inspection
 - Verifies measure impacts
 - Interface with industry players
 - Serve as a resource of information – unbiased experts

Legislative Drivers



- Texas Senate Bill 7:
 - Deregulated the electricity market in Texas
- Led to requirements for IOUs to offset 5% of projected annual load growth through energy efficiency programs
 - 10% in 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

HB 3693 and SB 12



- 1) A governmental entity responsible for payments for electric, water, or natural gas utility services shall record in an electronic repository the governmental entity's metered amount of electricity, water, or natural gas consumed for which it is responsible to pay and the aggregate costs for those utility services.
- 2) The governmental entity shall report the recorded information on a publicly accessible Internet website with an interface designed for ease of navigation if available, or at another publicly accessible location.

*Government Code Chapter 2264.001

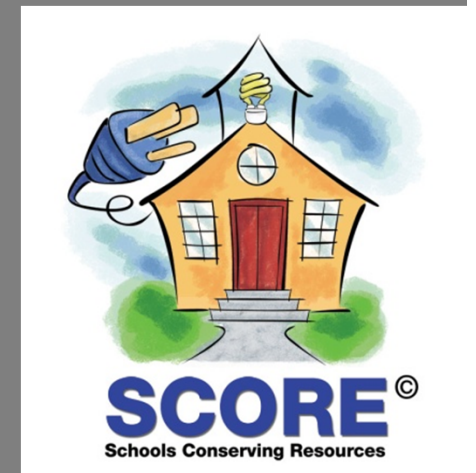
Available Programs



SCORE Program



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



CitySmart Program



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



Commercial Solutions Program



- Provides technical expertise, and financial support necessary to help partners to realize long term energy savings
- Communications support, technical assistance
- Energy performance benchmarking
- Energy master planning workshops
- Minimum project size: 10kW



Toolkit Approach



- Benchmarking
- Energy Master Planning Workshop
- Technical assistance
 - Opportunity assessments
 - Plan review
 - Energy engineering analysis
 - Building walk through audits
- Training and seminars
- Financing assistance
- Public relations support



2011 Program Results

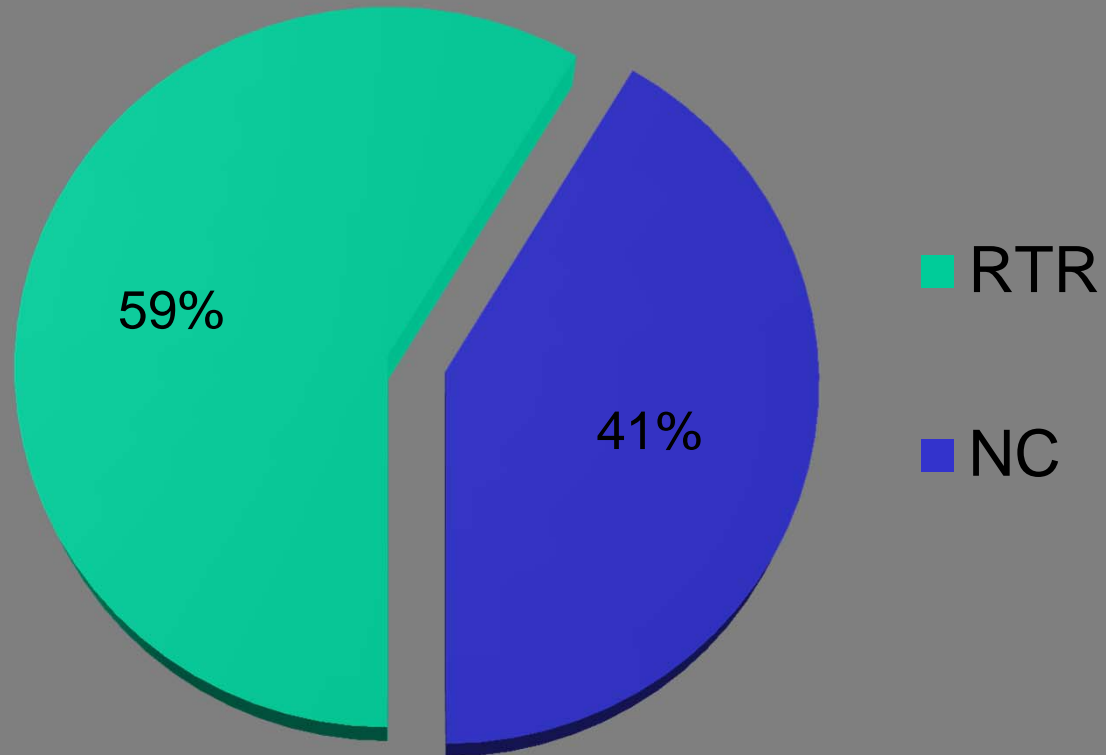


- 48 Partners participated in the 2011 program
- Provided 2098 kW and 6,243,912 kWh of reduced peak demand load
- Delivered \$349,620.20 worth of incentives
- 162 projects completed in 2011
 - Smallest 5 kW
 - Largest 250 kW
- Averaged 26 man-hours of implementation per project
 - Project documentation (needed to verify savings per PUCT)
 - Pre/Post inspections
 - Completing applications & calculation forms
 - Final Engineering review to verify kW reduction/project savings

TNMP 2011 Program Results



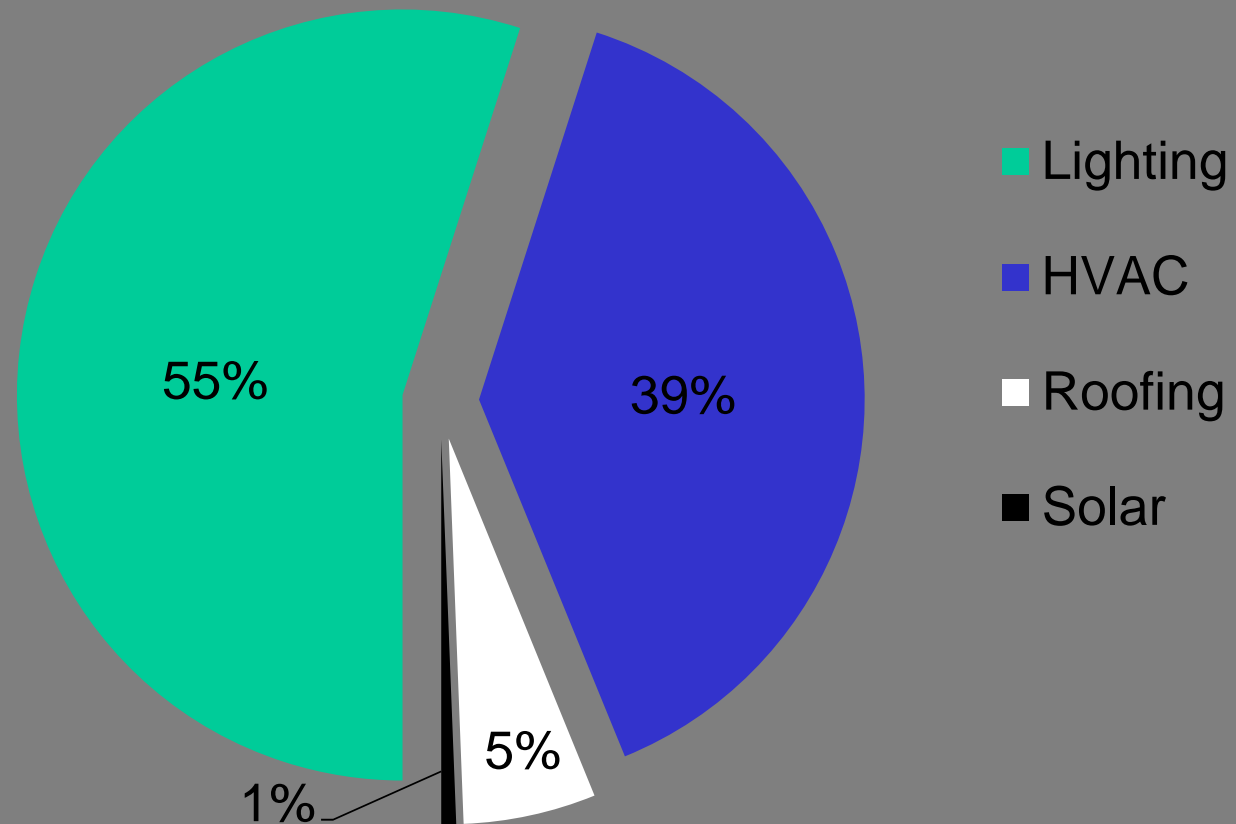
2011 TNMP Project Types



TNMP 2011 Program Results



2011 TNMP Measure Types



Environmental Impacts



SCORE, CitySmart and Commercial Solutions program savings since 2008

- 6,530 annual kilowatts (kW) saved
- 14,066,930 annual kilowatt hours (kWh) saved
- 168,803,160 approximate equipment life kilowatt hours (kWh) saved

Equivalent* to annual CO2 emissions from:
22,823 cars for one year OR
10,078 homes for one year

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

Total Program Budget



2012 Total Incentive

\$296,000

2012 Cash Incentives



Utility	Program	Energy Efficiency Measure(s)	kW incentive
TNMP	SCORE / CitySmart/ Commercial Solutions	Lighting	\$165
TNMP	SCORE / CitySmart/ Commercial Solutions	HVAC	\$165
TNMP	SCORE / CitySmart/ Commercial Solutions	Roofing, Other M&V	\$165

Typical Project Process



MOU/LOI

Project
Application

Pre
Inspection

Measure Installation

Post
Inspection

Savings
Verification

Incentive
Payment

Measure Eligibility



- Must produce peak demand and / or energy savings
- Peak demand:
 - June 1 through September 30
 - Monday – Friday 1PM to 7PM
- Permanently installed (no plug load)
- Exceeds minimum energy efficiency standards (code)

Typical Qualifying Measures



- Types of Construction
 - New Construction
 - Renovations
 - Retrofits
- Lighting-T5's, SuperT8's, Energy Star qualified LEDs
- HVAC- ACC, WCC, RTU, DX, Split Systems
 - minimum project is 5 ton
- Roofing- Must use Energy Star rated materials, increase 'R' value and reflectivity
- Other measures and M&V
 - Motors & Pumps
 - Compressed Air

Calculation Options



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

Ineligible Measures



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

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



- 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



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 - Lighting



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

2012 Program Timeline



- January 15, 2012
 - Applications for 2012 Accepted

- November 30, 2012
 - Final Project Documentation for 2012 program due

Vendor Neutrality



- Program makes recommendations for higher efficient measures!
 - No ties to manufactures or installation firms
 - Program does not sell products or services
 - Program does not install products
- Partner uses their contractor(s)
- Program wants projects to be *Efficient* yet accurately provide verifiable project savings

Critical Point to Remember



**Projects MUST be POST inspected by
Nov 30th 2012
to qualify for incentives**

THANK YOU &
QUESTIONS?



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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