



Energy Innovation Conference

Tyler, Texas

September 3, 2013

Dub Taylor, Director
State Energy Conservation Office (SECO)

Today's Agenda

- 1) About SECO**
- 2) About Energy Efficiency
- 3) SECO Resources
- 4) How to Engage

About SECO

Mission Statement: to increase the efficient use of energy and water while protecting the environment

- ❖ One of 56 state/territory “energy offices”
- ❖ Focus is technology deployment – no R&D
- ❖ U.S. Department of Energy state level program conduit
 - ❖ State Energy Program (SEP)
 - ❖ Pantex/Waste Isolation Pilot Plant (WIPP)
 - ❖ ARRA (stimulus funds)



State Energy Conservation Office

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"Energy Efficiency: Texas' Newest Energy Resource."



Susan Combs Texas Comptroller of Public Accounts

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- Stimulus Funds

As the state energy office, SECO partners with Texas consumers, businesses, educators and local governments to reduce energy costs and maximize efficiency.

Targeted Tips and Tools:

Residential Consumers



State and Local Government



Business and Industry



Schools and Teachers



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SECO
Funding & Incentives **GO**

Texas Building Energy Code

Attend online IECC training >>

Senate Bill 898

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Conservation vs. Efficiency

Conservation

A change in **behavior** based on the attitude:

"Do less to use less"

- ❖ Turning off lights
- ❖ Unplugging electronics and power transformers
- ❖ Turning off computers and monitors
- ❖ Turning up thermostats

Conservation vs. Efficiency

Efficiency

The application of **technologies and best practices** to eliminate waste based on the attitude:

"Do the same or more with less"

- ❖ Motion sensor lighting controls/efficient lamps
- ❖ Smart power strips
- ❖ Enable computer sleep mode
- ❖ Programmable thermostats/efficient HVAC

Why Energy Efficiency?

- ❖ Preserve operating dollars for core mission
- ❖ Stewardship of natural resources
- ❖ Avoid paying on-peak spot prices for power
- ❖ Pay for capital projects and deferred maintenance via energy savings projects
- ❖ Lead by example
- ❖ Improve indoor comfort/temperature
- ❖ Improve outdoor air quality

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SECO - Major Focus Areas

Emerging clean energy technology

- ❖ Clean energy business incubators
- ❖ Study: water/wastewater systems for demand response
- ❖ Technology field validations

Efficiency technical assistance and financing

- ❖ K-12 & local government energy assessments*
- ❖ LoanSTAR revolving loan program*

Energy training and education

- ❖ Energy code adoption & compliance support*
- ❖ PACE implementation
- ❖ Energy Efficiency Best Practices Guide*

SECO Technical Assistance

Preliminary Energy/Water Assessments

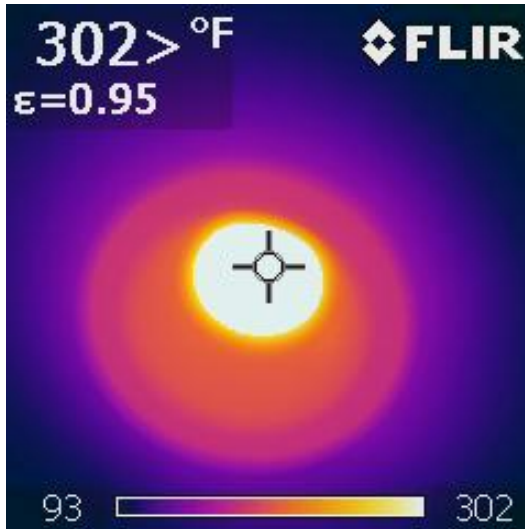
- ❖ Public school and local government facilities are eligible
- ❖ Baseline energy analysis – utility bills
- ❖ Identify system optimization and equipment replacement projects
- ❖ Provide cost estimates – equipment and installation
- ❖ Provide low/no-cost O&M recommendations
- ❖ Estimate energy savings and cost avoidance
- ❖ Payback analyses for each recommended project

Project implementation support

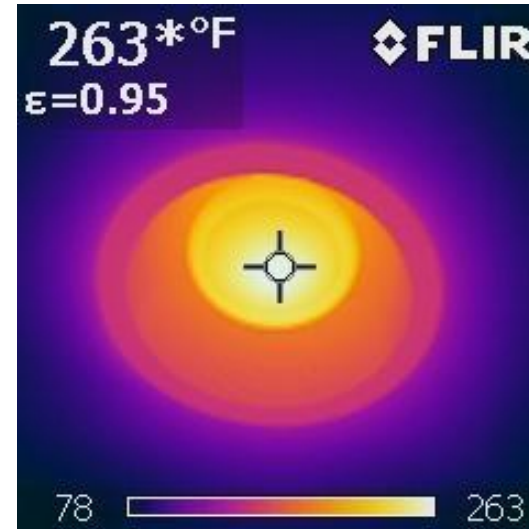
- ❖ LoanSTAR loan financing
- ❖ Energy Savings Performance Contracting (ESPC) Guidelines

Thermal Imaging - lighting

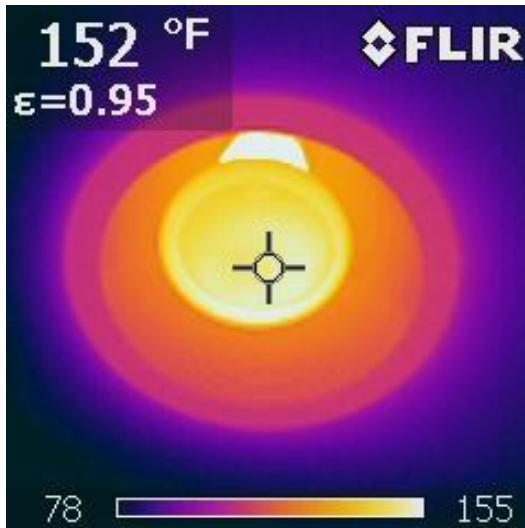
60 watt
Halogen



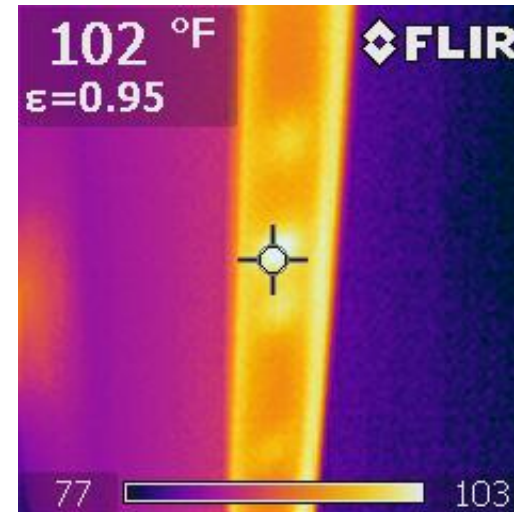
60 watt
Incandescent



14 watt
Compact
Fluorescent

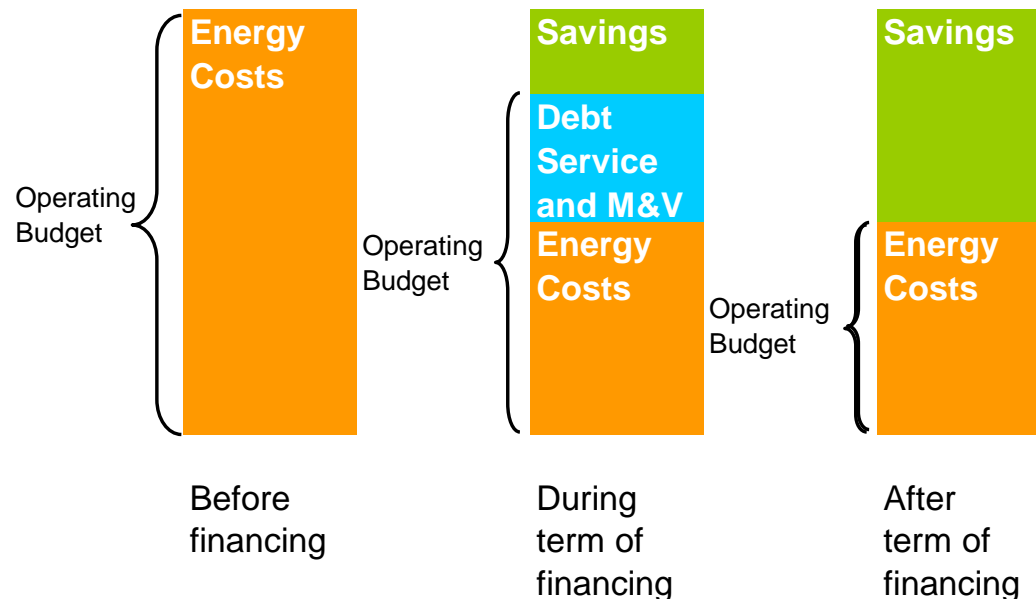


3.3 watt
Light Emitting
Diode (LED)



LoanSTAR (Saving Taxes And Resources)

- ❖ Low interest revolving loan program that finances energy and water efficiency projects for public facilities
- ❖ Loan terms: 2% interest, 10 year simple payback, \$7.5 million loan cap
- ❖ \$200 million loan fund capitalized with the State's remaining Oil Overcharge and Federal ARRA/Stimulus funds
- ❖ Self-servicing debt – borrowers repay loans through savings/avoided costs



LoanSTAR Impact

Executed 233 loans totaling \$386,566,967

- ❖ 91 loans to public schools districts
- ❖ 60 loans to public higher education
- ❖ 52 loans to local governments
- ❖ 17 loan to state agencies
- ❖ 13 loans to public hospitals

Average project/loan payback: 6.9 years

Total Savings to Date (1990-2013)

- ❖ Avoided Costs/Savings(\$) - \$384,963,475
- ❖ Electric Savings (kWH) - 3,282,736,142
- ❖ Natural Gas Savings (MMBTu) - 12,337,638
- ❖ Chilled Water Savings (MMBtu) - 6,897,619

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Building Energy Code



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Texas Building Energy Code

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Codes & Standards

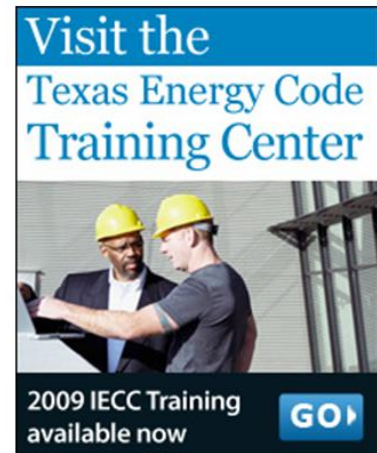
[Commercial And Residential Construction](#)

Texas Building Energy Code


Texas is committed to achieve 90 percent compliance with the newly adopted 2009 International Energy Conservation Code by 2017. To reach that goal, the State Energy Conservation Office provides resources and training to building professionals and the general public on the latest energy codes and standards.

Texas leads the nation in energy consumption and is the fifth largest energy consumer in the world. Buildings account for almost 40 percent of the state's total energy use and 70 percent of electricity use, representing a significant opportunity for energy savings.

New construction is the most cost-effective point in the life of a building to establish energy efficiency elements. Building energy codes serve as a starting point to reduce energy dependence and extend our natural resources.



Visit the
Texas Energy Code
Training Center



2009 IECC Training
available now

Trusted sites | Protected Mode: Off

150%



Energy Efficiency Best Practices Guide

Accelerating Energy Efficiency Program Deployment in Locally-Governed Electric Service Areas

www.seco.cpa.state.tx.us/resources/eebpguide.php

- ❖ A Guide to Best Practices for Energy Efficiency
(PDF, 4.4 MB)
- ❖ Saving Energy and Money: How to Start, Expand, or Refine Energy Efficiency Programs
(PDF, 1.7 MB)
- ❖ Budget and Saving Estimate Calculator
(XLS, 436 KB)

Questions?

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