

## 2009 Electric & Gas Conservation Programs

### Connecticut Energy Efficiency Fund Programs for Commercial & Industrial Customers

A Presentation by:  
CL&P's Conservation and Load  
Management Department

CL&P  
Conservation and Load Management Department  
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## Energy Efficiency & Background

- ▶ Connecticut Energy Efficiency Fund (CEEF) was created in 1998 by CT State Legislature
- ▶ Energy efficiency is a valuable resource for Connecticut, it:
  - Reduces air pollutants and greenhouse gases
  - Creates monetary savings for customers
  - Reduces need for more energy generation
  - Creates jobs
- ▶ Money for programs comes from electric and natural gas utility customers
  - Electric customers pay 3 mils per kilowatt-hour
  - Natural gas programs are funded through gas utility bills and approved by the Department of Public Utility Control
    - Programs are for firm gas customers only

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## 2009 CL&P Project Incentive Caps

- ▶ \$300K Incentive Cap for each meter per year  
AND
- ▶ \$750K per year Per Federal Tax ID

- This Incentive Cap is not applicable for natural gas projects

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## Commercial & Industrial Programs



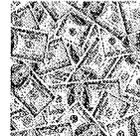
New Construction,  
Major Renovation &  
Equipment  
Replacement



Retrofit  
Projects &  
Small  
Business



Operations &  
Maintenance  
Projects



Financing

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## New Construction, Major Renovations & Equipment Replacement

### Energy Conscious Blueprint Program

- ▶ Captures electric and natural gas savings where they are cost-effective; during design
- ▶ Provides \$ incentives for installing: energy-efficient lighting\*, lighting controls, HVAC equipment, motors, refrigeration, process equipment, gas boilers, VFDs, etc.
- ▶ Covers up to 95% of the incremental cost of installing measures
- ▶ Prescriptive incentives are used where available
- ▶ Subject to Utility Caps

\* Lighting projects use watts/sq.ft. calculations relative to ASHRAE 90.1-2004 baselines

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## New Construction, Major Renovations & Equipment Replacement

### Energy Conscious Blueprint Program

- ▶ Provides prescriptive rebates for:
  - CT Motor Up Rebate for Motors (\$ per motor)
  - CT Cool Choice for HVAC Equipment (\$ per ton)
- ▶ Utility prescriptive caps apply to the following:
  - VFDs (\$ per hp)
  - Gas Boilers (\$ per MBH)
  - Window Glazing (\$ per sq.ft.)
  - Pool Covers (\$ per sq.ft.)
  - Cool Roofs (White Roofs); (\$ per sq.ft.)
  - Air Compressors (semi-prescriptive)
    - From 5 hp to 100 hp (\$ per hp)

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## New Construction, Major Renovations & Equipment Replacement

### Lighting Incentives

- ▶ If lighting design is below code by  $\geq 10\%$ :
  - Incentive will be the lesser of \$0.15 sq.ft or \$50 per fixture
- ▶ If lighting design is below code by  $\geq 30\%$ :
  - Incentive will be the lesser of \$0.50 sq.ft or \$50 per fixture
- ▶ Occupancy sensors receive \$20 per fixture controlled  
However:
  - Buildings over 5,000 sq.ft. must have lighting control strategy (as required by code)
  - Incentives will be offered for occupancy sensors on projects that have another control system that turns them on/off, i.e., Energy Management System

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## Retrofit

### Energy Opportunities Program

- ▶ Encourages customers to replace functioning equipment with more energy-efficient options (excludes equipment that is  $\geq 75\%$  of its useful life - use ECB rules)
- ▶ Provides incentives to customers who install electric and/or natural gas measures: energy-efficient lighting, lighting controls, compressed air systems, motors, HVAC, VFDs, steam traps, etc.
- ▶ Covers up to 40% of the installed cost for lighting and non-lighting measures
- ▶ Prescriptive incentives are used where available
- ▶ Subject to Utility Caps

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## Retrofit

### Energy Opportunities Custom Lighting Incentives

- ▶ Can be earned if redesign of lighting system exceeds ASHRAE 90.1-2004 by 15%
  - Must use watts/sq.ft. methodology
  - Must submit dimensioned floor plans
- ▶ Will be the lesser of 40% of installed cost or Utility Caps
- ▶ Solid state or induction lighting eligible for an additional 10%

### Express Lighting Rebate

- ▶ Prescriptive dollar per unit
- ▶ Subject to Utility Caps

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## Comprehensive Initiative

- A *Comprehensive* project must meet the following criteria:
  - Must have energy savings from at least two electric end uses and at least two measures
  - At least 15 percent of the value of the project's electric energy savings and peak summer demand reduction must be in a non-lighting end use (based on \$0.50 per annual kWh and \$700.00 per kW)
  - No one measure can have 85 percent or greater of the value of the project's energy savings and peak summer demand reduction (based on \$0.50 per annual kWh and \$700 per kW).

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## Comprehensive Incentives

- ▶ Lesser of:
  - 50% installed cost
  - Buy-down of project to 2-year payback based on customer meter savings
  - Energy savings caps of up to \$0.50/annual kWh + \$700.00/summer peak kW combined
  
- ▶ Additional Comprehensive incentives for firm gas customers:
  - 10% added to all qualifying gas measures (unless capped at Utility energy savings caps)

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## Energy Management Systems (EMS)

- ▶ Existing EMS may be upgraded or replaced regardless of system age.
- ▶ No incentives will be offered for repair or replacement of pneumatic controls with pneumatic controls.
- ▶ For qualifying projects, the incentives will be calculated based on the lesser of:
  - 40% of the installed cost
  - \$500 per point (total system points impacted)
  - avoided energy cost (1 yr) – up to \$0.30/Annual kWh and \$700.00/ summer peak kW combined

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## Operations & Maintenance

### 2009 Operations & Maintenance Program

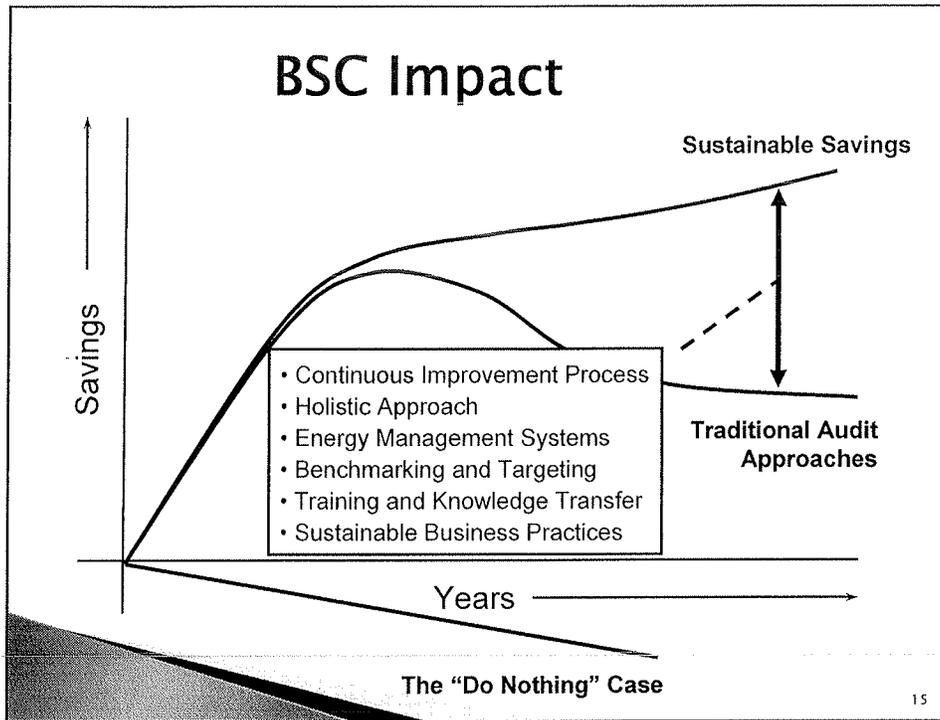
- Improves electrical and natural gas efficiency through changes and repairs that can be classified as maintenance procedures rather than capital investments
- Not intended for normal preventive maintenance, repetitive procedures or to subsidize major equipment purchases
- Provides incentives for repairs or replacements for defective steam traps, condensate return, compressed air systems (i.e., repair of leaks) and EMS maintenance, such as: replacement of defective sensors, relays, actuators and reprogramming
- Incentives of up to 40% of the installed cost for qualified O&M measures
- Subject to Utility Caps

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## Business Sustainability Challenge

- Introduces practices and processes to help manage energy and other resource use strategically
  - Makes energy and carbon management an integral and sustainable part of your business
- Access technical support that integrates energy efficiency, load management, carbon management & renewable energy options for long term benefits
- Results in:
  - Better management of energy and energy expenses
  - Reduced operating and maintenance costs and improved productivity
  - Improved facility and equipment reliability and performance
  - Actively engaged employees
  - Reduced financial and environmental risk
  - Reduced carbon emissions

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## Retro Commissioning

### Retro Commissioning Program

- ▶ Optimizes operation of customer's facility without installing capital equipment through technical, engineering and implementation support
- ▶ Requires minimum facility size of 100,000 sq.ft.
- ▶ Requires fully functioning Direct Digital Control (DDC) Energy Management System (EMS) that can conduct trending & reporting

## Retro Commissioning

### 2009 Retro Commissioning Program

- ▶ Provides incentives for a variety of measures including:
  - Reset chiller discharge temperature
  - Reset pump and fan speeds
  - Demand ventilation
  - Optimization of AHU supply fan static pressure
  - Broaden humidity set points in data centers
  - Boiler optimization
  - Confirm sequence of operations for EMS equipment
- ▶ Covers 40% of implementation costs for EMS improvements and investigation fees

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## PRIME

### Process Reengineering for Increased Manufacturing Efficiency Program

- ▶ Increase productivity and reduce-per-unit energy usage through Lean Manufacturing Techniques and the Kaizen process
- ▶ Focuses on industrial manufacturing processes
- ▶ Provides benefits
  - Reduces waste of material, time and transportation
  - Reduces inventory requirements
- ▶ Using utility approved contractors, the first two events are provided at no cost to the customer. The customer shares 50% of the cost for up to two subsequent events
- ▶ Subject to Utility Caps

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## American Recovery and Reinvestment Act State Energy Program (SEP)

- ▶ Available funding: \$39M
  - \$11.5M to CEEF
    - CL&P & UI to administer funding for gas companies
    - \$9.2M CL&P
    - \$2.3M UI
  - \$1M CMEEC
  - \$5M DPW for State Buildings
  - \$20M to CCEF (solar thermal & PV, geothermal, etc)
  - \$1.5M for Clean Cities & Dept of Public Safety initiatives

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## Upcoming Training Events

- ▶ Tax Incentives
- ▶ Energy Management Planning
- ▶ Solid State and Induction Lighting
- ▶ Lighting Applications 101
- ▶ Lighting Controls
- ▶ Strategies for Green Building Designs
  
- ▶ Check CL&P/UI Web Site Events Calendars For Updates

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## Important Reminders

- ▶ Contact us early
- ▶ Letter of Agreement(s) must be signed prior to the purchasing energy-efficient measures (except rebates)
- ▶ Agreement Milestone Dates
- ▶ Project Scope Changes
- ▶ Project Close Out Documentation
  - Examples:
    - Invoices
    - Permits
    - Disposal Fees
    - Lifts

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## Small Business

### Small Business Energy Advantage Program

- ▶ Provides energy-saving and retrofit opportunities for small businesses
  - CL&P customers  $\leq$  200 kW average monthly demand are eligible
  - UI customers  $\leq$  150 kW average monthly demand are eligible
  - Has pre-approved list of contractors to provide energy assessments and installation of energy-efficient measures

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## Small Business

- ▶ Provides incentives to customers who install: energy-efficient lighting, lighting controls, HVAC maintenance and refrigeration controls, air compressors, VFDs, etc.
- ▶ Incentives cover:
  - Up to 40% of the installed cost for lighting and non-lighting measures
  - Solid state or induction lighting may be eligible for an additional 10%
- ▶ Offers 0% financing for qualifying customers
- ▶ Maximum loan of \$100,000 - CL&P, \$65,000 - UI
- ▶ On the bill financing available
- ▶ Subject to Utility Caps

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## CL&P Contacts

- ▶ New Construction (ECB): Lomont White (860) 665-3790
- ▶ Retrofit (EO): John Matchett (860) 665-3054
- ▶ O&M/RCx: Dave McIntosh (203) 352-5457
- ▶ Cool Choice/MotorUp Rebates: Dave Hayward (860) 665-3386
- ▶ Express Lighting Rebates: Dave Hayward (860) 665-3386
- ▶ Small Business: Randy Vagnini (860) 832-4753
- ▶ PRIME: Rich Asselin (860) 665-3292
- ▶ Residential Programs: Joe Swift (860) 832-4936
- ▶ Natural Gas Programs: Rich Asselin (860) 665-3292
- ▶ Training Mailing List E-Mail: [clmevents@nu.com](mailto:clmevents@nu.com)
- ▶ CL&P Account Executives

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## UI Contacts

- New Construction (ECB): Roy W. Haller (203) 499-2025
- Cool Choice: Michelle LeMoine (203) 499-5828
- MotorUp: Michelle LeMoine (203) 499-5828
- Retrofit (EO): Roy W. Haller (203) 499-2025
- Express Lighting: Roy W. Haller (203) 499-2025
- Small Business: Dennis O'Connor (203) 499-2025
- Financing: Roy W. Haller (203) 499-2025
- O&M Services: Roy W. Haller (203) 499-2025
- Load Response: Rick Rosa (203) 499-2632
- ▶ Residential Programs: Chris Ehlert (203) 499-2965
- Natural Gas Programs: Roy W. Haller (203) 499-2025
- ▶ UI Account Managers

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## Web Information

- ▶ CEEF/DPUC     [www.CTEnergyInfo.com](http://www.CTEnergyInfo.com)
- ▶ CL&P            [www.cl-p.com](http://www.cl-p.com)
- ▶ UI                [www.uinet.com](http://www.uinet.com)
- ▶ Yankee Gas     [www.yankeegas.com](http://www.yankeegas.com)
- ▶ CNG             [www.cngcorp.com](http://www.cngcorp.com)
- ▶ SCG             [www.soconngas.com](http://www.soconngas.com)
- ▶ CCEF            [www.ctcleanenergy.com](http://www.ctcleanenergy.com)

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# QUESTIONS???

Customer  
Feedback

Customer  
Feedback

Customer Feedback is the key to success in the marketplace.