

US EPA ARCHIVE DOCUMENT

Save Energy,
Money and
the Environment

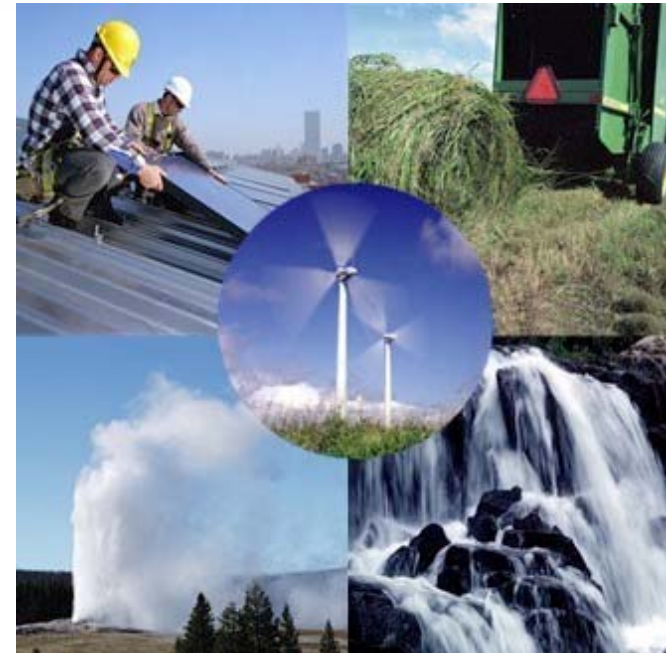
2009 SCE Energy Efficiency Program Offerings

May 2009



Policy Drivers

- ❑ **California's Energy Action Plan** makes **Energy Efficiency and Demand Response** the first resources in our "loading order"
- ❑ **California Global Warming Solutions Act** requires GHG emissions reduction to 1990 levels by 2020
- ❑ 75% of Americans favor imposing mandatory controls on carbon dioxide emissions & other greenhouse gases
- ❑ Regulators want Energy Efficiency earnings comparable to supply-side earnings



Energy Action Plan Loading Order

**Energy
Efficiency &
Demand
Response**

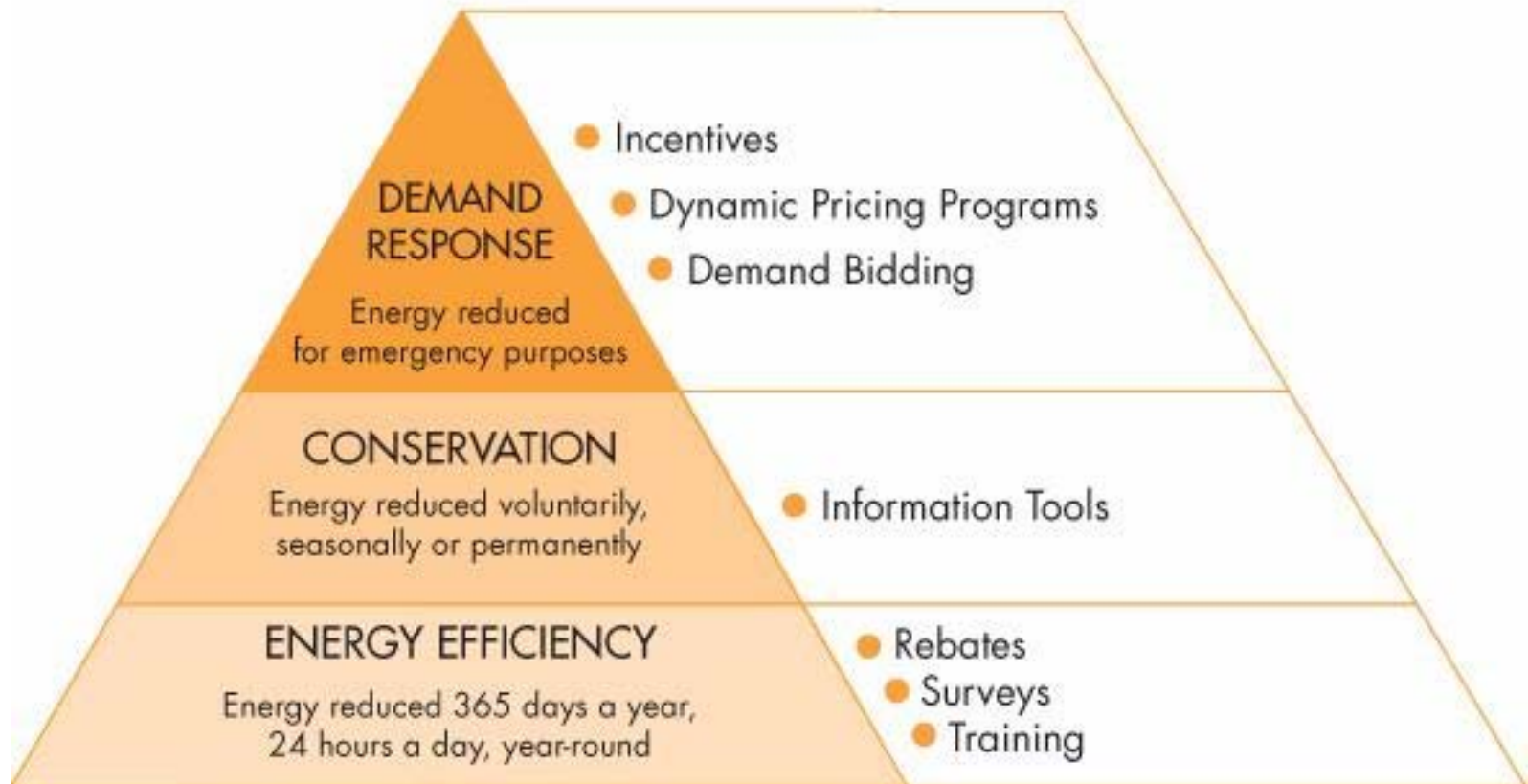
**Renewable
Energy
Resources**

**Distributed
Generation**

**Fossil-Fired
Generation**

Demand Side Management

SCE provides a broad portfolio of tools for customers to help them save energy and money, and provide added reliability



The Benefits of Energy Efficiency

- ❑ SCE and its customers are the nation's leaders in reducing greenhouse gases (GHG) through energy efficiency

- ❑ Over the past five years, our customers have saved 5 billion kWh
 - Enough energy to power 725,000 homes for an entire year,
 - Reducing GHG emissions by more than two million metric tons, the equivalent of removing 350,000 cars from the road.



AB 32 Compliance

- ❑ **Energy Efficiency**
 - Lighting
 - Heating, Ventilation and Air Conditioning
 - Refrigeration
 - “Envelope” measures
- ❑ **Demand Response**
 - Various tariff options
- ❑ **Renewables**
 - Photovoltaic systems
 - Solar water heating systems
- ❑ **Transportation**
 - Hybrid vehicles
 - Plug-in hybrid electric vehicles
 - Electric vehicles



How Will AB 32 Impact Business?

❑ **It will impact electric rates:**

The need for lower carbon content generation will likely increase average generation costs thus, increase rates

❑ **It will impact large emitters:**

New reporting requirements

- Facilities that emit 25,000 mtons/year or more from stationary combustion sources
- Electric generators that emit 2,500 mtons/year or more and that have at least 1 MW capacity

❑ **It will impact businesses not directly affected:**

- Will have greater scrutiny on GHG emissions
- Have an opportunity to become good corporate citizens by voluntarily reducing carbon footprint



Energy Efficiency Programs

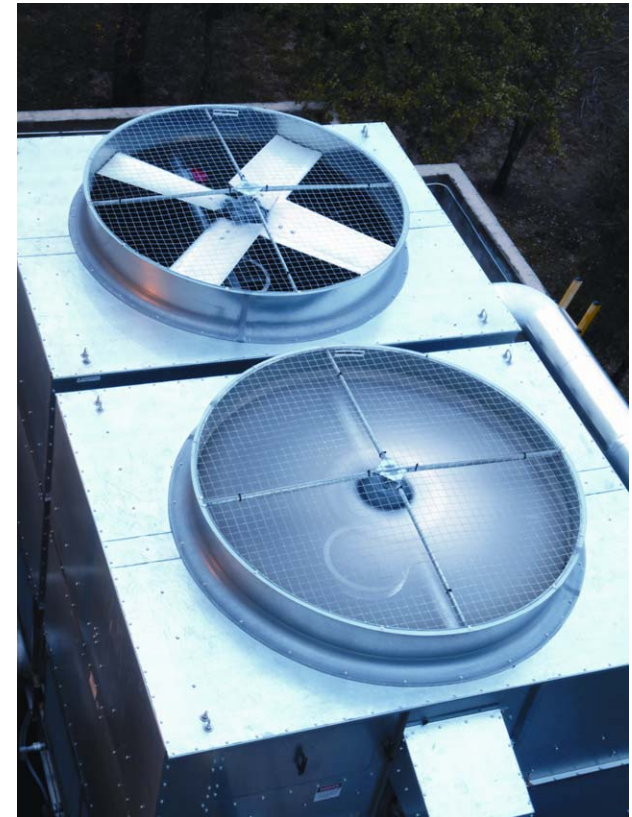
Program	Description	Typical Customer	Benefits/Gains
Standard Performance Contract	Offers financial incentives to offset cost of installing high efficiency equipment or systems. Projects include retrofits like lighting, or more specialized process improvements & equipment replacements. Incentives are based on type of measure installed, the KWh saved and kW reduced over a 12 month period.	All SCE non-residential customers, regardless of size or energy usage.	Applicants are eligible to receive up to 50% of the cost for each project.
Express Efficiency	Offers fixed cash incentives to offset the cost of replacing or upgrading equipment with new, energy-efficient technology. Incentives are available for: lighting, food service, refrigeration, air conditioning, office, etc.	All SCE non-residential customers regardless of size or monthly electric demand	Applicants are eligible to receive up to 100% of the measure cost per site.
Non Residential Audits	Customers are provided with an onsite energy survey regarding their business & receive a report with customized energy-efficiency recommendations that includes an estimated cost savings for each measure. Remote energy surveys can also be completed online, mailed-in or by telephone.	All non-residential customers regardless of size or monthly electric demand with a valid & active SCE electric service account.	Reduce energy use by increasing energy efficiency in operations & compare facility's energy usage to peer facilities.
Direct Install Program	An SCE-approved contractor will come to your facility to help identify energy savings opportunities & provide you with a free energy savings analysis. The contractor will require a Customer Authorization Form to obtain the customer's written permission to proceed with the work. Next, the customer receives <i>free</i> installation of <i>free</i> energy efficiency products.	All unassigned SCE non-residential customers with less than 100kW monthly electrical demand, and are not a corporately-owned franchise may participate.	Reduce energy use & energy costs.
Savings by Design	Offers design assistance for buildings, including information & analysis tailored to the needs of your project, to help you design the most efficient building possible. Applies to new or existing commercial construction.	Commercial building owners & design team members.	Incentives for owners & rewards for design teams to implement sustainable energy-efficient design & technologies which help them earn credits toward LEED certification.

Standard Performance Contract

- Calculated incentives for installing high efficiency equipment or systems
 - Retrofit or replacement
 - New process load in an existing facility
 - Increased productivity/output

- Delivered directly to customers via account executives, vendors

- Proposed project must be approved by SCE prior to commencement



Standard Performance Contract Case Study

Customer: Merrick International

Challenge: Control rising energy costs (considered moving out of state to control expenses)

Solution:

SPC incentives to purchase and install innovative molding machinery that uses less power

Benefits:

- ❑ Increased energy efficiency with lower usage even as output increased
- ❑ Labor and direct cost savings

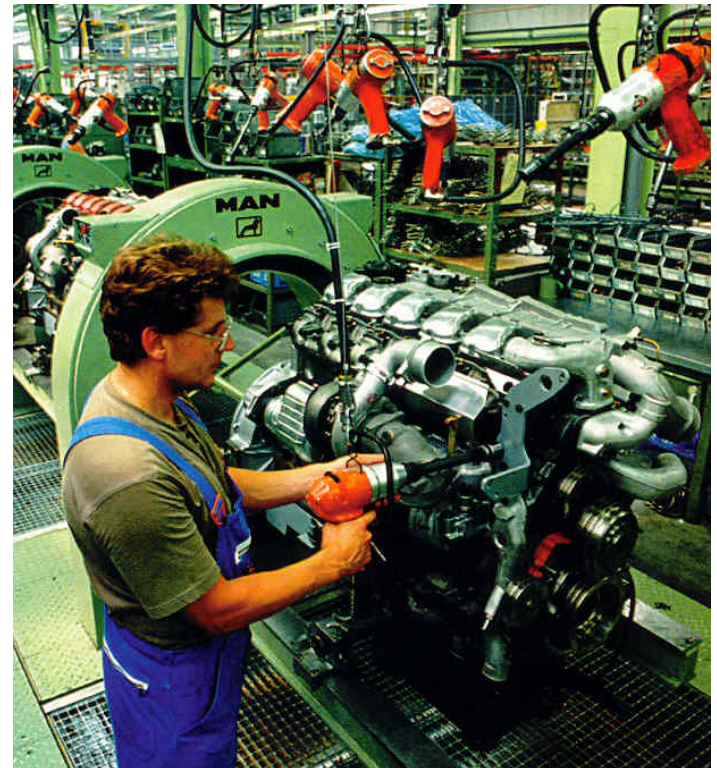
Savings to date:

- ❑ 1.45 million kWh
- ❑ 35% decrease in direct costs for electricity
- ❑ Indirect savings in labor and increased sales capacity



Express Efficiency

- ❑ Statewide business customer incentive program
- ❑ Fixed incentive amounts are paid for prescribed (itemized) energy efficient equipment retrofits
- ❑ Delivered directly to customers via the web, account executives, and vendors
- ❑ Apply for rebate after the equipment is installed



Express Efficiency Case Study

**Customer: Korean-American
Grocers Association (KAGRO)**



Challenge:

Reduce energy waste that cuts into already small profit margins

Measures:

- ❑ Install energy-efficient lighting
- ❑ Repair and upgrade gaskets in stores walk-in and reach-in coolers
- ❑ Install compact fluorescent lights in key locations
- ❑ Insulate piping
- ❑ Install strip curtains in walk-in refrigerator

Energy & Demand Savings:

10% savings on electricity during typical 6-month period

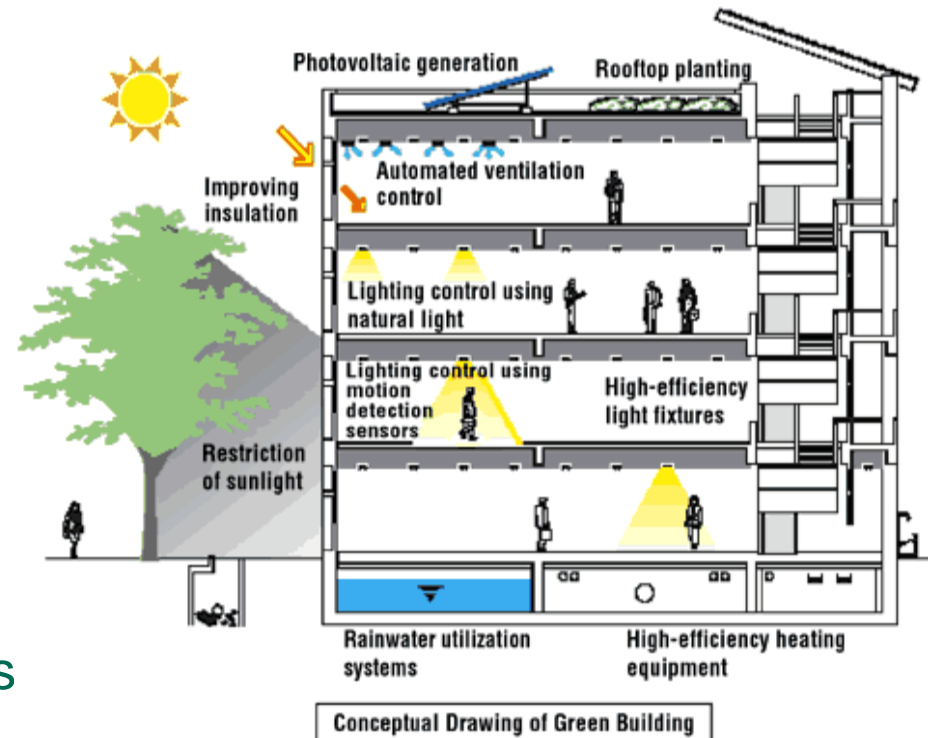
Savings By Design

Non-residential New Construction and Major Renovations

Savings By Design offers building owners and design teams:

- Design Assistance
- Energy Design Resources
- Owner Incentives
- Design Team Incentives

SBD emphasizes and promotes using the integrated design process to achieve high performance buildings



Savings By Design Case Study

Customer: Allergan

Challenge:
Controlling energy costs of new campus

Solution:
Use SCE Savings by Design Program to plan and build in efficiencies into the new building

- Benefits:**
- ❑ 13 million kWh saved in one year, effectively avoiding 11% additional electrical energy consumption facility-wide
 - ❑ Reduced demand of 2800 kW in new facilities



New in EE: Peak Demand Incentive

Peak Demand (kW) incentive is given for permanent peak kW reduction achieved from customer usage during peak time.

Why add a peak demand (kW) incentive?

- ❑ Increase customer motivation (and participation) to install equipment that reduces energy demand during peak periods
- ❑ Reduce grid level peak demand
- ❑ Support statewide and company goals for kWh and kW reduction

Customer Benefits

- ❑ Increased incentive
- ❑ Reduced peak operation and demand charges

Peak Demand Savings

kW Savings Methodology

Grid level impact from 2-5 p.m.

3 consecutive weekdays

- Contains hottest day (historical data)
- Climate zone dependent

Peak kW = 9-hour average of kW usage

Permanent (i.e. not demand response)

Key question: Does the equipment operate during the CPUC defined peak demand period, and if so how?

Climate Zone	Peak Demand Period*
Los Angeles Area (CZ 6)	July 9-11
El Toro Area (CZ 8)	September 23-25
Pasadena Area (CZ 9)	August 6-8
San Bernardino Area (CZ 10)	July 8-10
Fresno Area (CZ 13)	August 14-16
China Lake Area (CZ 14)	July 9-11
Blythe Area (CZ 15)	July 30-August 1
Mt Shasta Area (CZ 16)	August 6-8

* Dates are allowed to shift 1-2 days to avoid weekends.

Evaluating Peak Demand Incentive Eligibility

High-efficiency chiller replacement at a hospital

- ✓ kWh savings
- ✓ Peak kW savings

Premium-efficiency motor upgrade at a concrete plant

- ✓ kWh savings
- Eligible for peak kW savings if the motor nominally operates 2-5 p.m. during the “peak demand period.”



Indoor lighting upgrade at a secondary school that only operates from September to June in Huntington Beach [CZ 6; 7/9-7/11]

- ✓ kWh savings
- Not eligible for peak kW savings (does not operate during “peak demand period” of 7/9-7/11)

Outdoor lighting upgrade with photosensors in a parking lot

- ✓ kWh savings
- Not eligible for peak kW savings (only operates at night)

SCE Energy Centers

CTAC

- ❑ Remodeled Foodservice Technology Center (Q1)
- ❑ New Innovation Center displays (solar tracking skylight, streetlight display, high-bay LEDs, lighting kiosk)



AgTAC

- ❑ HVAC Technology Center (Q4)
- ❑ New displays (solar, air compressor control, motors and drives, and more)



New Seminars for 2009

- ❑ California Leading the Charge in Sustainable Building and Resource Conservation Seminar
- ❑ Energy Efficiency for Foodservice with a '2009 Forecast for the Economic Picture' Seminar
- ❑ Lighting Controls Installer Training Program, installer certification (Q1)
- ❑ Building Operator Certification and Training

Look for more classes offered at offsite locations and via video/webinar!



Your Account Executive Can Help

- ❑ **There are many different SCE Programs and Rates to choose from:**
 - Energy Efficiency
 - Demand Response
 - Renewables
 - Optional Rates
 - Economic Development Services
 - Products & Services

- ❑ **SCE offers detailed rate analyses to assist you in making decisions**

- ❑ **Our goal is to help you reduce your energy usage, energy cost and carbon footprint**



Glossary Of Terms

- AgTAC – Agricultural Technology Application Center
- AP-I – Ag & Pumping Interruptible
- AB – Assembly Bill
- Auto DR – Automated Demand Response
- C&I – Commercial & Industrial
- CAISO – California Independent System Operator
- CBP – Capacity Bidding Program
- CEC – California Energy Commission
- CFL – Compact Fluorescent Lamp
- CPP – Critical Peak Pricing
- CPUC – CA Public Utilities Commission
- CSI – California Solar Initiative
- CTC – Competition Transition Charge
- CTAC – Customer Technology Application Center
- DA – Direct Access
- DA CRS – DA Cost Responsibility Surcharge
- DA CRS UC – DA CRS Undercollection Contribution
- DAEBSC – DA-Eligible Bundled Service Customer
- DBP – Demand Bidding Program
- DR – Demand Response
- DRC – DR Contract
- DWR – Department of Water Resources
- EE – Energy Efficiency
- ERRRA – Energy Resource Recovery Account
- FERC – Federal Energy Regulatory Commission
- FRD – Facilities Related Demand
- FSL – Firm Service Level
- GCCD – Generation Capacity Charge Discount
- GHG – Greenhouse Gases
- GRC – General Rate Case
- HVAC – Heating, Ventilation and Air Conditioning
- IDR – Interval Data Recorder
- kW – Kilowatt
- kWh – Kilowatt Hour
- MW - Megawatt
- NEM – Net Energy Metering
- OAT – Otherwise Applicable Tariff
- PCIA – Procurement Charge Indifference Adjustment
- RTP – Real Time Pricing
- RTU – Remote Terminal Unit
- SBD – Savings by Design
- SDP – Summer Discount Program
- SP26 – South Path 26 (So Cal territory)
- SPC – Standard Performance Contract
- TA&TI – Technical Assistance & Technology Incentives
- TES – Thermal Energy Storage
- TOU – Time of Use
- TOU-BIP – TOU Base Interruptible Program
- TRD – Time Related Demand
- URG – Utility Retained Generation
- VCD – Volumetric Charge Discount (CPP)