

CEE ENERGY-EFFICIENT TRAFFIC SIGNAL INITIATIVE



2002 PROGRAM SUMMARY

ALLIANT ENERGY

AUSTIN ENERGY

CALIFORNIA ENERGY COMMISSION

CALIFORNIA UTILITIES:

PACIFIC GAS & ELECTRIC

SAN DIEGO GAS & ELECTRIC

SOUTHERN CALIFORNIA EDISON

CALTRANS (CALIF. DOT)

EFFICIENCY VERMONT

NEW JERSEY UTILITIES:

CONECTIV

JERSEY POWER & LIGHT

PUBLIC SERV. ELECTRIC & GAS

ROCKLAND ELECTRIC

NATIONAL GRID USA

NEW YORK POWER

AUTHORITY

NYSERDA

NORTHEAST UTILITIES

NW ALLIANCE

NSTAR ELECTRIC

CITY OF PHILADELPHIA

PUGET SOUND ENERGY

SACRAMENTO MUNICIPAL

UTILITY DISTRICT

UNITED ILLUMINATING

WISCONSIN DIV. OF ENERGY

XCEL ENERGY – MINNESOTA

CONTACT: MELISSA LUCAS • MLUCAS@CEE1.ORG • (617) 589-3949

Alliant Energy- Iowa “Custom Rebate Program”

Alliant Energy offers Custom Rebates to their commercial and industrial customers who replace equipment/ measures with efficient models, including LED traffic signals. Program dates: January 1, 2001 – December 31, 2002.

Contact:
Account Manager
(800) 255-4268

salesupporteast@alliant-energy.com
www.alliantenergy.com/business/comminc/financing/rebates.htm

Austin Energy

Austin Energy is in the process of obtaining approval for an LED traffic signal incentive program with the City of Austin. Austin Energy intends to begin the program in 2002. More details will be available shortly.

Contact:
Fred Yebra
(512) 974-3405

fred.yebra@austinenergy.com
www.austinenergy.com

California Energy Commission “Energy Efficiency Financing Program” “Energy Partnership Program” "Battery Backup Systems for LED Traffic Signals"

Financing: Offers low-interest loans to cities and counties for implementing energy efficient measures including LED traffic signals.

Partnership: Provides technical assistance to local governments to identify energy saving projects in existing and planned facilities.

Battery Backup Systems: Provides grants for the installation of battery backup systems for intersections with LED Traffic Signals

Contact:
Virginia Lew
(916) 654-3838
Sacramento, California
e-mail: Vlew@energy.state.ca.us
www.energy.ca.gov/efficiency/financing/index.html
www.energy.ca.gov/efficiency/partnership/index.html

**David Rubens — for battery
backup systems**
(916) 651-9857
Sacramento, California
drubens@energy.state.ca.us
www.energy.ca.gov/peakload

California Statewide Utility Express Efficiency Program “Express LED”

**-Pacific Gas & Electric
-San Diego Gas & Electric
-Southern California Edison**

As a part of the Express Efficiency Program, three California Investor-Owned Utilities are offering rebates for LED traffic signals, exit signs and channel lettering signs. Details are available from each utility’s web site. See below for contact information.

Pacific Gas & Electric

(800) 468-4743

San Francisco, California

www.pge.com/003_save_energy/003b_bus/003b1a equip_rebate.shtml#led

San Diego Gas & Electric

(800) 644-6133

Jeff Alexander (858) 636-5762

jalexander@sdge.com

San Diego, California

www.sdge.com/sbs/SDGELED.pdf

Southern California Edison

(800) 736-4777

Rosemead, California

www.rebatesandoffers.com/fyb_ro_sm_rebates.asp?pgmid=2008

CalTrans – California Department of Transportation “Energy Conservation Program”

The State of California Department of Transportation (Caltrans) has been field-testing and promoting the use of energy-efficient LED traffic signals since 1992 in part through their product performance specifications. Caltrans is also working with the State’s Department of General Services to offer Caltrans and California local governments mass procurement pricing for any quantity of LED traffic/ pedestrian signals. Caltrans is currently completing a statewide retrofit program where they are changing all signals at state owned intersections to LED signals. At the completion of the project, over 210,000 LED signals will have been installed. Hourly kilowatt grid load has been reduced by about 9.3 megawatts full time, for annual savings of about 82,000 Megawatt-hours. Caltrans intersections account for approximately 10% of the total intersections in California. Many cities and county transportation departments are also in a full scale LED upgrade mode. Estimated impact of total state conversion to full color LED signal conversion will reduce electric grid load by about 90 megawatts, and save about 800,000 MWh annually.

As a direct result of full intersection upgrading to LED signals, battery backup systems (BBS) have been developed by Caltrans to supply up to 4 hours of full intersection operation during power loss, with an additional 4 hours of flashing red signal operation on a single battery pack. Again the State has used its mass procurement power to cause the pricing of these BBS upgrades to drop to under \$1,500 per intersection. Caltrans started statewide installation of BBS upgrades

on state-owned intersections in the summer of 2001, and plans to complete those upgrades by the end of the summer of 2002. While BBS upgrades will not save energy, they allow the level of intersection service to continue during power outages from any causes, be it fire, flood, storm, earthquake, or rotating utility blackouts.

Contact:

Stephen C. Prey, Coordinator
Caltrans Energy Conservation Program
Sacramento, California
steve.prey@dot.ca.gov

California Department of Transportation Resource Conservation Program:
www.dot.ca.gov/hq/oppd/rescons/rchomepg.htm

California Department of Transportation Energy Plan 2001 Report:
www.dot.ca.gov/hq/oppd/rescons/nrg_plan/nrgpln99.htm

LED and LED intersection battery backup systems performance specifications:
www.dot.ca.gov/hq/esc/ttsb/electrical/electrical_index.htm

California State LED traffic signal multi-vendor procurement contract information:
www.pd.dgs.ca.gov/default.asp?mp=/acqui/ledtraffic.asp

California's Sustainable Building Design Program (Green Buildings):
www.ciwm.ca.gov/GreenBuilding/Blueprint/Blueprint.pdf

California's Infrastructure Investment Plan for the 21st Century:
www.bth.ca.gov/invest4ca/FullReport.pdf

Efficiency Vermont “LED Traffic Signal Incentive Program”

Efficiency Vermont promotes the use of energy-efficient LED traffic signals by offering incentives to municipalities throughout the state. All Vermont State traffic signals have already been converted to LEDs. In order to qualify for the incentives, the traffic signals must meet the Energy Star Traffic Signal Specification. Incentive levels include 12” red lamp \$50; 8” red Ball \$50; 12” red arrow \$50; 12” green lamp \$110; 8” green lamp \$110; all other signal types (including pedestrian) are rebated on a custom basis. The program has been in place since January 2000. Last year, the program saved 100 MWh of electricity.

Contact:

Gabe Arnold
(888) 921-5990
Burlington, Vermont
garnold@veic.org
www.encyvermont.org

**New Jersey SmartStart Buildings Statewide Program
“Equipment Incentives: LED Traffic Signals”**

-Conectiv

-Jersey Central Power & Light

-Public Service Electric & Gas

-Rockland Electric

This new statewide program being implemented by seven New Jersey electric & gas utilities provides a variety of incentives and technical/educational assistance. As a part of the equipment incentives, cities and towns purchasing LED traffic signals can receive the following incentives: 8” red/green lamp \$35; 12” red/green lamp \$50; pedestrian lamp \$20 when purchasing LED traffic signals. This program will be offered until December 31, 2002.

Contact:

Check this web site for individual utility contacts:

www.njsmartstartbuildings.com/main/contact_us.html

Equipment incentive details: www.njsmartstartbuildings.com/main/equip_inc.html

National Grid USA

-Granite State Electric

-Massachusetts Electric

-Nantucket Electric

-Narragansett electric

**“Energy Initiative: Energy Efficient Lighting Systems &
Design 2000 Plus: Lighting System Incentives”**

Through their Energy Initiative and Design 2000 Plus programs, National Grid offers their customers rebates for purchasing and installing LED traffic signals. The incentives are as follows: red signals \$70; green signals \$90; and pedestrian signals \$90. Incentives will be available through December 2002.

Contact:

Account Manager

Massachusetts Electric

www.masselectric.com/bus/managers/index.htm

Narragansett Electric

www.narragansett.com/bus/managers/index.htm

www.nationalgrid.com/usa

New York Power Authority “Long Term Energy Partnership Agreement”

NYPA’s Long Term Energy Partnership Agreement is to assist New York State customers achieve energy and maintenance savings while providing efficient lighting, reducing emissions, improving the environment, and increase system reliability. NYPA offers financing, education, project management, purchasing and installation to customers. The program saves an estimated, \$209,000 a year and over \$370,000 in maintenance. NYPA recommends ENERGY STAR labeled traffic signals. NYPA is also involved in an LED Project with the NYC Transit Authority. NYPA is planning to retrofit over 40,000 red, green and yellow incandescent track signals to the LED Signals.

Contact:

Maribel Cruz
(914) 390-8228
White Plains, New York

maribel.cruz@nypa.gov
www.nypa.gov

New York State Energy Research & Development Authority

In order to increase awareness of the benefits of LED traffic signals, and to build demand for existing and new products, NYSERDA has sponsored the development of several resources for municipalities, counties and state transportation officials. Through a NYSERDA-sponsored web site, interested officials can find an educational brochure, case studies, articles pertaining to LED traffic signals and other resources. In addition, NYSERDA has developed an LED Traffic Signal Life Cycle Cost Analyzer which is also available on their web site.

Contact:

Laurie Kokkinides
(518) 862-1090, ext. 3353

Albany, New York
lijk@nyserda.org
www.lrc.rpi.edu/Ltgtrans/nysled

Northeast Utilities “Custom Services Program” Connecticut Light & Power Western Massachusetts Electric

Northeast Utilities offers their municipal customers incentives for purchasing LED traffic signals. Municipalities can apply for the rebates directly and have their public works staff purchase and install the signals or work through a contractor that applies for the rebate on their behalf and then purchases and installs the signals. Rebate amounts are as follows: 12” red signal \$50; 8” red signal \$40; 12” green signal \$110; 8” green signal \$65.

Contact:

Dick Schondelmeier
(860) 832-4945

Hartford, Connecticut
schonra@nu.com
www.nu.com

Northwest Energy Efficiency Alliance “Local Government Association Information & Training Program”

The Northwest Energy Efficiency Alliance works with local government organizations to inform them about various energy efficiency and market transformation opportunities. As a part of this program, the Alliance has shared information on the benefits of LED traffic signals to interested local governments. Also, to supplement existing information on LEDs, the Alliance has signed a contract with the City of Portland, Oregon to prepare a case study on its recent citywide retrofit of red and green LED traffic signals. The city will also provide outreach and technical support to local governments in the Northwest.

Contact:

Andy Ekman
(503) 827-8416, ext. 223
Portland, Oregon
aeckman@nwalliance.org

www.nwalliance.org/projects/current/localgov.html

NSTAR Electric “Commercial & Industrial Retrofit Program”

Through their Commercial and Industrial Retrofit Program, NSTAR offers their customers rebates for purchasing and installing LED traffic signals. The incentives are as follows: red signals \$75 and green signals \$90. Incentives will be available through December 2002.

Contact:

Tom Butler
(781) 441-8706

Boston, Massachusetts

thomas_butler@nstaronline.com
www.nstaronline.com/index2.asp?lk=buss

The City of Philadelphia “Three-Color LED Retrofit Program”

In April 1997, the City of Philadelphia's Municipal Energy Office began a two-year, \$2.33 million program to replace all 28,000 signals in the city. The project, initiated by the Energy Office, was funded in part by a grant from Public Technology Inc. (PTI). Based on the success of this initial retrofit, the Streets Department has initiated a citywide three-color LED retrofit program that will last until 2005 (replacing all traffic signals with LEDs). This project is estimated to save the city 1985 kW or 90% of the energy previously used for traffic signals. In addition, the project will save the city \$1.6 million dollars every year.

Contact:

**Joseph Doyle, Chief Street Lighting
Engineer**
(215) 686-5515

Philadelphia, Pennsylvania

joseph.m.doyle@phila.gov
www.phila.gov

Puget Sound Energy “LED Traffic Signal Replacement Program”

Puget Sound Energy is offering prescriptive incentives to its city, town county and state customers installing red LED traffic signals. The program started in June of 1999 and will continue through at least spring 2002. The incentive levels are as follows: 8” red signal \$8; 12” red arrow \$12; pedestrian signal \$10; 12” red signal \$12; and 12” green signal \$38 (when changed with red signal). Puget Sound Energy requires that the signals meet the ITE specification. More than 70 cities, counties and DOTs have been contacted about the program and to date, several are planning to do retrofits in the next year.

Contact:

Nora Williams

(425) 424-6687

Bellevue, Washington

nwilli@puget.com

www.pse.com/yourbusiness/builders/builders.html

Sacramento Municipal Utility District “Custom Incentive Program”

The Sacramento Municipal Utility District (SMUD) is offering a custom incentive based on kW reduced between 1-9 PM for measures including LED traffic signals. SMUD is paying \$225 per kW reduced through 12/31/02. SMUD Encourages cities and counties to use the Caltrans specification as well as Energy STAR qualified traffic signals. SMUD hopes to continue the incentive program again in 2003, but that decision will not be made until late 2002.

Contact:

Stephen Stinson

916-732-6622

Sacramento, California

sstins@smud.org

www.smud.org

United Illuminating “UI Traffic Light Change-Out”

United Illuminating offers their municipal customers incentives for the installation of LED traffic signals. Incentives through this program are as follows: new 12” 3-color fixture \$250; new 8” 3-color fixture \$165; 12” & 8” red & green signals \$40; 12” & 8” yellow signal \$25; new hand/man pedestrian \$150; retrofit hand/man pedestrian \$40; arrows \$40. During 2001, New Haven, Connecticut installed over 4500 signals with assistance from this program.

Contact:

Roy Haller

(203) 499-2025

New Haven, Connecticut

roy.haller@uinet.com

www.uinet.com

Xcel Energy-Minnesota “Lighting Retrofit Rebates”

Xcel Energy offers their municipal customers rebates for retrofitting LED traffic signals into existing traffic signals. The incentive amounts are as follows: 8” red signals \$15; 8” green signals \$40; 12” red signals \$25; 12” green signals \$65; LED pedestrian signals (Walk/Don’t Walk) 9” signals \$25 and 12” or larger signals \$40.

Contact:

Lisa Peters

612-904-5321

Minneapolis, Minnesota

Lisa.A.Peters@xcelenergy.com

www.xcelenergy.com

Wisconsin Division of Energy “Wisconsin Focus on Energy Program”

The Focus on Energy program will leverage the new Wisconsin DOT contract for LED traffic signals. DOT intends to buy 12,000 12” three-ball LED traffic signals (at less than \$250 each), 1500 pedestrian signals, and 5000 arrows, of all three colors. All Wisconsin local governments may buy from this contract. Additionally, the Focus on Energy Program is providing incentives to cities to expedite installation of LEDs. In other news, a solar LED demonstration project will involve installing a solar traffic flasher atop a rural stop sign. The expectation is that using solar traffic signals and flashers may be a cost effective alternative to extending electricity to an intersection.

Contact:

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