



Partnering with Cities

How to Leverage Utility DSM Efforts
with Cities' Climate Goals

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E SOURCE

Colorado Utility Exchange 2009

Climate and DSM

- Over 50% of emissions come from electricity and natural gas consumption
- DSM is one of the solutions to achieving reduction in GHG emissions

Introduction

- New utility-city partnership model
 - Aligns utility DSM programs with local Climate Action Plan
 - To achieve common target, share strategy and resources to reduce energy consumption
 - Mutual benefits: utility DSM experience assist cities meet carbon goals; cities provide regulatory action, community leadership
- Case Studies (partnership design, results, lessons learned, replicable strategy)
 - City of Fort Collins, CO
 - City of Aspen, CO
 - Palm Desert, CA

City of Fort Collins/FC Utilities

- 1999 – set GHG reduction goals (revised in 2008)
- Goals
 - Reduce emissions by 20% below 2005 levels by 2020
 - Reduce emissions by 80% below 2005 levels by 2050
- Aligned climate goals with existing utility programs
 - Climate Wise program (commercial)
 - Refrigerator/Freezer Recycling program (residential)



Climate Wise Program

- Launched in 2000 by the city
- Encourage businesses to reduce GHG emissions through: energy efficiency, waste reduction, water conservation, transportation
- FCU provides technical support for energy-efficiency projects
- Businesses recognized as Bronze, Silver, Gold, Platinum, depending on the level of commitment/achievements
- To achieve Gold & Platinum status, **must participate in utility DSM programs**



Climate Wise Results (2008)

- 124 partners (170 cumulative)
- Avoided 100,000 metric tons CO₂e
- 37% of avoided emissions attributed to electric efficiency measures
- Saved partners \$7.2 million



Refrigerator and Freezer Recycling Program

- \$35 bill credit, free pick-up
- Old refrigerators and freezers contain foam insulation using CFC-11
 - CFC-11 is an ozone depleting substance, so has been phased out in new models
 - CFC-11 has GWP of 4,680!!
- Common disposal method is shredding, releasing 9 – 40% of the blowing agent
- Incinerated in FC
- Understand climate impacts beyond kWh savings



Results (2006 – 2008)

FCU Program	Total MWh saved	Cumulative MT CO ₂ e reduced
Clothes Washer Rebate	377	277
Cooling Rebate	191	140
Refrigerator & Freezer Recycling Program	989	726
RFR Program – CFC-11 Destruction		4,158
Residential Lighten Up	9,623	7,063
Electric Efficiency Program	9,270	6,803
Integrated Design Assistance Program	519	381
TOTAL	24,760	22,330



City of Aspen

- 2005: adopted Canary Initiative Plan
- Climate Action Plan
 - Goal: reduce 30% (below 2004 levels) by 2020 and 80% (below 2004 levels) by 2050
 - EE “first thing we must do”
 - Energy efficiency of buildings (2004 – 2009)
 - Cut GHG by 20% below 2004 in all City of Aspen facilities;
 - All new construction must be 50% more energy efficiency than IECC;
 - Offer incentives for customer to reduce GHG by 20% below 2004 levels by 2009 in existing buildings.

Working with Local Partners

- 2006: City of Aspen Utilities launched DSM portfolio
- Community outreach and education
 - Partnered with 3rd party implementer/coordinator, Community Office for Resource Efficiency (CORE)
 - Launched marketing campaigns: *Unplug, Aspen*, resource guides, etc.
 - Educate (climate change) and communicate (utility bills, public meetings, public educational events, etc.)
 - Offer educational materials to teachers and students
 - Partnership with other utilities (Holy Cross) and stakeholders, Aspen Global Warming Alliance (Aspen Institute, Aspen Global Change Institute, Aspen Skiing Company, Rocky Mountain Institute, etc.)



Palm Desert Energy Demonstration

- Established in 2007
- Partners: City of Palm Desert, Southern California Edison, Southern California Gas Co., Energy Coalition
- Demography: residential, 42,000
- Residential sector consumes 55% of total electric usage, 73% of total gas consumption
- Goals: reduce energy consumption by 30% and peak demand by 30% by 2011 compared to 2005
- Portfolio of programs: “Set to Save”
 - Financial incentives (cash rebates, loans)
 - Behavioral change (compare with neighbors)



What's Working

- Coordinate existing programs
- Simple application
- Robust financing
- Coordinated marketing
- Commitment



Coordinate Existing & New Programs

- Avoid reinventing the wheel
- Increases program delivery efficiency
- Utilize existing utility DSM programs
 - Residential, commercial electric and gas rebates
 - Other tools, e.g. Online Home Energy Audit (SCE)
- Jointly design & implement new programs
 - New technology demonstration: variable-speed pool pumps, LED pool lights, LED landscape lighting

Simple Application

- Key to lowering hurdle for customer participation especially if multiple incentive providers and contractors involved
- “One-stop shop”
 - Variable-speed pool pumps “Go with the Flow”
 - Customer makes one phone call to apply
 - Contractor visits and gives a quote
 - Signs the check



Robust Financing

- Minimize financial barriers
- Partnership offers:
 - Utility rebates (residential & commercial)
 - Utility on-bill financing (commercial)
 - City-funded loan program (residential)
 - Assembly Bill 811 (AB-811) / Energy Independence Program
 - Increased property tax assessment
 - No credit check required
 - Loans can be transferred to the new homeowner
 - Minimum \$5,000; 15 to 20 years; 7 percent interest (average)
 - Eligible measures are energy efficiency & renewable energy
 - Other examples: Berkeley(CA), Boulder (CO)



Coordinate Marketing & Outreach

- Instrumental to building a groundswell of community support
- Develop a universal brand: “Set to Save”
 - Web sites to shirts worn by contractors
- Identify the most effective leader
 - City knows its community and how to cater messages
 - City-led marketing efforts
- Utilize local government resources
 - Periodic newsletters, etc...

“Set to Save” Brochures

Get Set to Save and Save Big!

Save money and save the environment.

City of Palm Desert
Office of Energy Management
73-710 Fred Waring Drive
Suite 200-A
Palm Desert, CA 92260

set to save

PALM DESERT

EDISON

The Energy Coalition

set to save

Save Big on an Ultra Energy Efficient Variable-Flow Pool Pump. Just \$735 – Installed!

set to save

The City of Palm Desert
Southern California Edison
The Energy Coalition
Southern California Gas Company

Courtesy: Palm Desert Energy Demonstration Partnership



“Set to Save” Web Site

set to save

Palm Desert Energy Partnership

Palm Desert Edison The Energy Coalition

Palm Desert is about to get a whole lot greener.

Set To Save Home
 About the Partnership
 Rebates & Savings
 Conservation Tips
 Contact
 Press Releases

Search the site
 GO

Special Announcement
Electricity Report FAQs

Gas Report FAQs

Need a Loan to Finance Your Energy Efficiency Projects?
 Click here to go to the City of Palm Desert's Loan Program made possible by AB811
LEARN MORE

Palm Desert Weather!
100°F
 NO 7/28/09

Welcome to Set to Save! Here you'll find information to help you save energy, money and the environment. It's part of a pioneering new initiative to help make the City of Palm Desert a whole lot greener. Together, we can make a difference.

Featured Savings

Residential Savings

- [Online Home Energy Survey](#)
- [All residential rebates and Incentives](#)
- [Energy Savings Calculator](#)
- [New 2009 Federal Tax Credits Now Available](#)

Commercial Savings
NEW! Commercial HVAC Incentives are now available to you, the business owner.

- [Summer Discount Plan](#)
- [Commercial Electric Rebates](#)
- [Commercial Natural Gas Rebates](#)
- [Commercial Gas & Electric Food Service Rebates](#)

Source: Palm Desert Energy Demonstration Partnership



Commitment

- City of Palm Desert set up Office of Energy Management
 - 1 manager, 2 staffs
- Drove regulatory action
 - Residential loan program
- Exert community leadership
 - Utilize existing partnerships with neighborhood groups, community groups, nonprofits, business groups

Partnership Costs & Results

Partner	Reduction goal	Budget (2006 to 2008)	Proposed budget (2009 to 2011)
Southern California Edison	215 million kWh; 50 MW; 5.7 million therms	\$14 million	\$21 million
Southern California Gas Co.	215 million kWh; 50 MW; 5.7 million therms	\$2.24 million	\$2.6 million
City of Palm Desert	215 million kWh; 50 MW; 5.7 million therms	\$2 million, plus \$8.5 million in loans	\$2 million, plus \$8.5 million in loans

Notes: kWh = kilowatt-hours; MW = megawatts. © E SOURCE; data from Palm Desert Energy Demonstration Partnership

- As of July 2009, the partnership saved
 - 78 million kWh, 1.8 million therms
 - 39,000 metric tons of CO₂ equivalent
- Without the partnership, savings would have been
 - 6 million kWh, 28,500 therms (historical data)

Future Actions

- ***“To achieve the partnership goals, further energy savings will have to come from behavioral change,”*** Becky Estrella, SoCalGas.
- Communicate energy consumption of households and compare usage with neighbors
 - OPOWER (Positive Energy)
- After 8 months, studies show 1.5 to 2.5 percent savings.
- ***“Increased face-to-face outreach is necessary to induce further behavioral change,”*** Becky Estrella



In Sum...

- Think beyond kWh savings
 - Identify opportunities to capture all possible GHG
- Work with local partners: 3rd party implementers, stakeholder groups
- Keep the program application process simple
 - Customers should ideally have to make one call
- Offer robust financing
- Coordinate existing programs and jointly design and implement new programs.
 - Increases program delivery efficiency
- Coordinate marketing and outreach
 - Universal brand logo; identify lead organization



Potential Partners

- **ICLEI—Local Governments for Sustainability** is a membership association of local governments committed to advancing climate protection and sustainable development. As of July 2009, more than **545 U.S. cities** and 29 Canadian cities are members.
- **The U.S. Conference of Mayors Climate Protection Agreement** has been adopted by **965 mayors**. The agreement is a voluntary commitment to reduce emissions in their cities to 7 percent below 1990 levels by 2012.

***“If we are together
nothing is impossible.
If we are divided all will
fail.”***

Winston Churchill



For More Information

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