

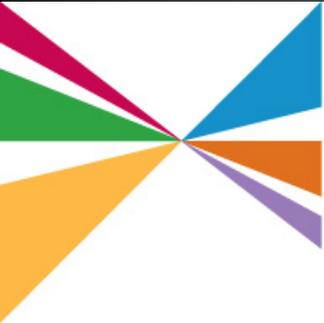


Toolbox Tuesdays

Energy Efficiency Retrofit Programs

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Office of Sustainability
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**SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS**



Discussion Topics

- Advantages, difficulties and lessons learned from the following Energy Efficiency projects and programs:
 - Energy Upgrade California
 - LEED
 - Internal Energy Efficiency and Energy Management Projects
 - Our Sustainability Plan



Energy Upgrade California

- Unprecedented collaboration between LA County, our utilities, and the CEC.
- Public facing program covering:
 - Rebates & Incentives
 - Marketing & Outreach
 - Workforce Development (Scholarships & Training)
 - Contractor Qualifications
 - Data Sharing
 - Quality Assurance





The History

- ARRA funds and the SOW
- Residential PACE went to sleep
- IOU Whole House Retrofit Program (WHRP)
- CEC involvement
- Agree to collaborate



Welcome to Energy Upgrade California™



Why?
The Big Picture

Program Participation Options

**Two entry paths
for participation**

Basic



Advanced

Basic Participation

Offers customers an easy entry point on the path to a more energy-efficient home

- Single family-owned detached homes
- Focus on building shell
- No diagnostic audit required
- Platform for advanced participation

Comprehensive home energy-efficiency measures

- Focusing on single family-owned detached homes
- Requires diagnostic audit (HERS Phase II compliant)
- Comprehensive Assessment – Test-In / Test-Out
- Comprehensive scope of work
- Envelope measures + system upgrades
- Achieve an average 20% in annual energy savings

Adjusting the Incentive for LA County Homes

| Calculation Method | Utility only | Utility +LAC |
|------------------------------|--------------|--------------|
| Basic Package | \$1,000 | \$1,000 |
| Advanced Package 10% Savings | \$1,250 | \$1,250 |
| Advanced Package 15% Savings | \$1,500 | \$1,500 |
| Advanced Package 20% Savings | \$2,000 | \$2,500 |
| Advanced Package 25% Savings | \$2,500 | \$3,000 |
| Advanced Package 30% Savings | \$3,000 | \$3,500 |
| Advanced Package 35% Savings | \$3,500 | \$4,000 |
| Advanced Package 40% Savings | \$4,000 | \$4,500 |

* Hybrid programs currently in design for municipal utility programs.



Collaboration Goals

1. Leverage utility and County resources
2. Prevent competition between programs
3. Share implementation responsibilities
4. Maximize participation in each program



Early Decisions

- Single brand (name, logo, & message)
- Single application & web site
- Single IT system for data collection
- Joint outreach (Advertising, research & materials)
- Combined quality assurance
- Same retrofit packages & prerequisites
- Same approved contractor list

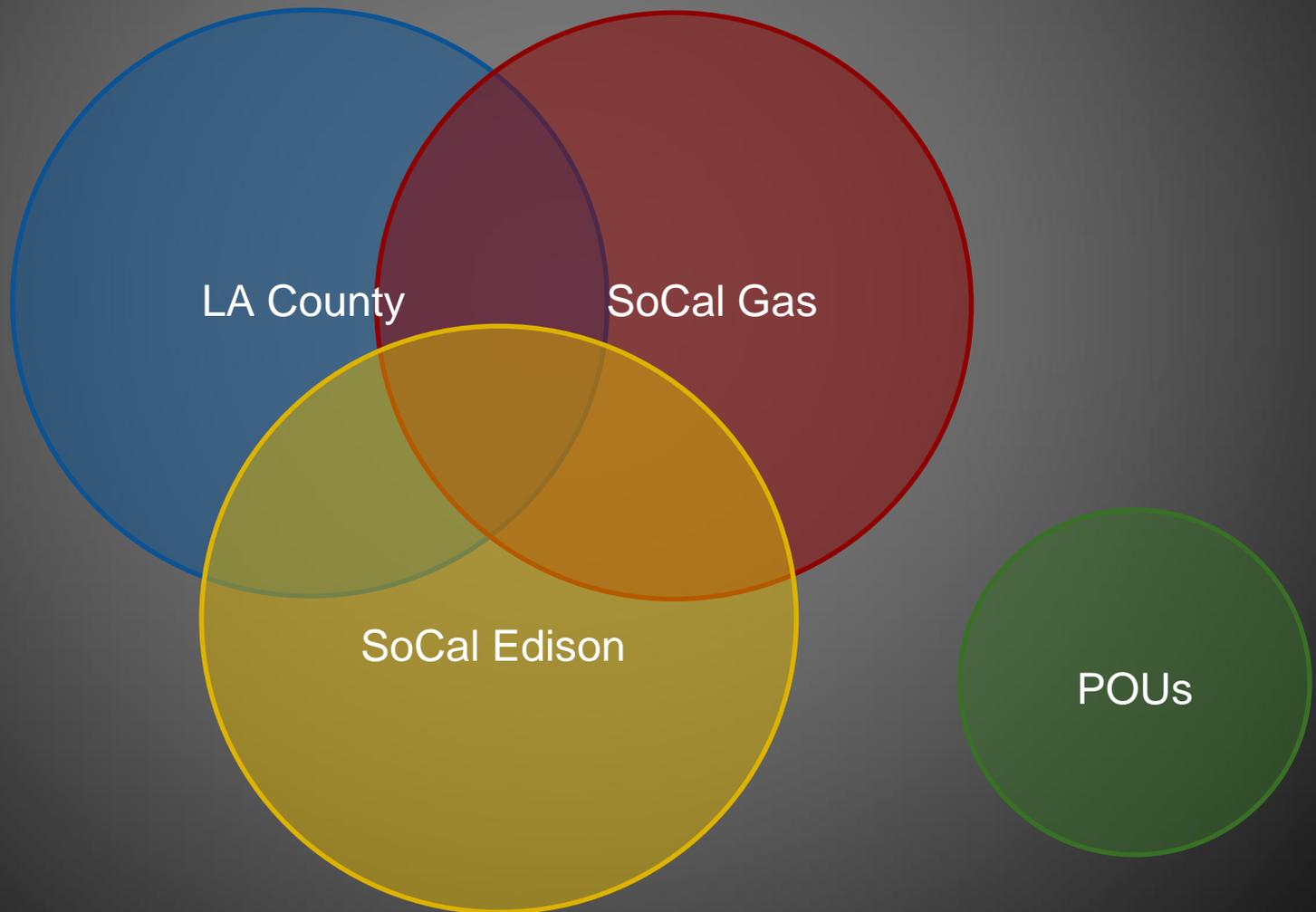


IOUs + LAC Coordination





Barrier 1: Territory





Strategy 1: **Territory**

- Develop one joint web site
- Develop one program design
- Convince POUs to adopt the joint County-IOU program
- Delineate responsibilities (financial & admin)
- State involvement (CEC)



Barrier 2: Ownership

- How to share program development responsibilities?
- How to create and change program design, collateral & internet presence?
- What are the legal responsibilities (Private company vs. local government)?
- What is the impact of future funding?





Strategy 2: **Ownership**

- Prove LA's value proposition to the IOUs
 - Scholarships, incentives, pilot programs, marketing campaign
- Create an Action and Responsibility Table
- Create a process flow and set of rules for modifications
- Add extra time to the schedule for approval processes
- Future funding responsibilities are TBD...
 - Affects maintenance to web site, continued marketing efforts, availability of rebates, etc.
 - SoCal Gas Funds taken by the State



Barrier 3: Participant Recruitment

- How to get cities to sign a participation agreement?
- How to target marketing within different cities? And, which cities do we concentrate efforts?
- Actively participating cities vs. those who don't...





Strategy 3: **Participant Recruitment**

- Direct calling and mailing
- Work with the COGs
- Create a City Participation Toolkit
- Marketing plan and demographics study identifying target markets (retrofit ready, retrofit persuadable)
- Allow for local customization on the website (rebates, activity calendar)



Barrier 4: **Regulatory**

- How do we share data and comply with 15/15 rule?
- How can we co-mingle funding sources?
- How do we justify 2 different sets of reporting requirements?





Strategy 4: **Regulatory**

- Aggregate data complies with 15/15 rule
- Release form allows for specific data
- LA County incentive provides a reason to sign the release form
- Separate financial responsibilities
- Negotiations with the DOE alleviated some of the reporting requirements
- CPUC introduced a bill to allow sharing with local governments



Barrier 5: **Coordination**

- Is it a legal requirement or policy?
- What is the leadership structure?
- How much do we share?
- How do we reevaluate program effectiveness and change accordingly?





Strategy 5: **Coordination**

- Leadership at the utilities changes... steering committee, specialty committee, one-on-one weekly chats, good relationship with Peevee
- Policy vs. Legal Requirement?
- LA County is willing to share all with anyone (local governments, CEC, DOE, and utilities)
- Diligence in communicating with utility partners
- EM&V and the typical utility program



Barrier 6: **Different Goals & Agendas**

- Can we include additional green measures?
- Whose schedule takes precedence?
- When is appropriate to evaluate and revise the program?
- What about commercial and multi-family?





Barrier 6: **Different Goals & Agendas**

- COMPROMISE!
- High-level champions with decision-making power
- LA County provides financing options & rebates which cover additional measures and building types
- LA County condensed schedule to match the utilities' schedule
- As with everything, there are still hurdles...



Energy Efficiency Projects

- Lighting Retrofit: T-12 to T-8
- Building Level Lighting Controls
- High Efficiency Motors; Variable Speed Drives
- HVAC Automation Upgrades
- Chillers and Package Unit Replacements
- Boiler Replacement
- HVAC Retro-commissioning
- LEED-EBOM





Financing Challenges

- Annual funding energy efficiency depends on budget climate – some years there is no annual funding.
- The County cannot borrow money due to debt limitation – cannot subject future Board to any future debt. Therefore, certain programs cannot be utilize such as:
 - On Bill Financing – debt limit.
 - Energy Savings Performance Contracting – also due to debt limit.
 - CEC Low-Interest Loans



Financing Mechanisms

- CEO/Board approved County funds
- Municipal Lease Purchase Financing
- Quasi Performance Contracting – ESCO guarantees the savings but County funded the projects
- Productivity Quality Investment Funds (County)
- California Public Utilities Commission funded Partnership Programs with Utilities SCE & SCG

Los Angeles County Energy Efficiency Programs



Enterprise Energy Management Information System (EEMIS)

EEMSuite™ Enterprise Navigator

All views: LA_County\ISD_Headquarters_Electrical My views: HoA_electric(amar)

LA County Buildings by Geography Buildings by Department Large County Campus Sites County Summary Information

Summary Electrical Mechanical Allocation

Eastern Avenue Complex
SCE 3-011-6255-30

| ISD Headquarters | kWh | kW | Deg F |
|---------------------------|-------|------|-------|
| Electric Utility Main | 300 | 1198 | 66.85 |
| ISD Headquarters Main | 58 | 232 | |
| | kVarh | kVar | |
| Electric Utility Reactive | 293 | 1171 | |
| ISD Headquarters Reactive | 0 | 1 | |

Outside Temperature: 66.85

ISD facilities at Eastern Ave share a common Utility Main with the facilities belonging to the Fire and Sheriff Departments.

Start date: 4/11/2011 Days: 15

Overlays: Day before Week before Other date 4/21/2011

Options: Add legend Auto refresh trend data

Point ID: 13
Point name: A Bldg Main ROC
Total value: 38,830.00 kWh
Peak Value: 308.00 kW (4/18/2011 1:45 PM)
Load factor: 50.3 %
Last alarm: Normal
Last value: 232.00 kW (4/21/2011 10:45:00 AM)

ISD.EasternComplex.SCE3-011-6255-30.ISDHeadquarters.ElectricityInfo.A Bldg Main ROC 4/11/2011 - 4/26/2011

4/11/2011 00:00 4/13/2011 00:00 4/15/2011 00:00 4/17/2011 00:00 4/19/2011 00:00 4/21/2011 00:00

Pacific Daylight Time



Utilities

- Los Angeles County budget over \$170 million - over 6400 accounts
- SCE, DWP, SCG, Burbank, Pasadena, Glendale , Azusa
- DGS (Dept. of General Services) non-core gas - 14 major facilities
- More than 200 water agencies
- Major functions - resolve bill discrepancies, service turn on/off, outage management, regulatory affairs, Tariff Pricing
- Resolve Departmental utility issues - rates, billing
- Recycled/Reclaimed water development - supporting utilities



Financial Resources

- Southern California Edison
<http://www.sce.com/>
- Los Angeles Department of Water and Power
<http://www.ladwp.com/>
- Southern California Gas Company
<http://www.socalgas.com/>
- Energy Star Portfolio Manager
<https://www.energystar.gov/istar/pmpam/>



LEED for Existing Buildings

- Completed the retrofit and LEED submittal for our own building
- Increase our internal knowledge about sustainability
- Ability to complete many of the services internally
- Learned to modify the way we do things





The Plan

- Modify the way we do things
- Package our sustainability services
- Look for new opportunities
- Build awareness
- Change actions and attitudes
- Try to make some actions “required”



Contacts

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www.green.lacounty.gov

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