

# Delivering more savings for California’s ESAP and CARE customers with a targeted Opower behavioral program

California’s investor-owned utilities (IOUs), working in partnership with Opower, can deliver a targeted behavioral program that significantly increases the:

- Number of low-income households saving money on their bills
- Rate of participation in existing programs
- Cost-effectiveness of the overall low income efficiency portfolio

## THE CHALLENGE

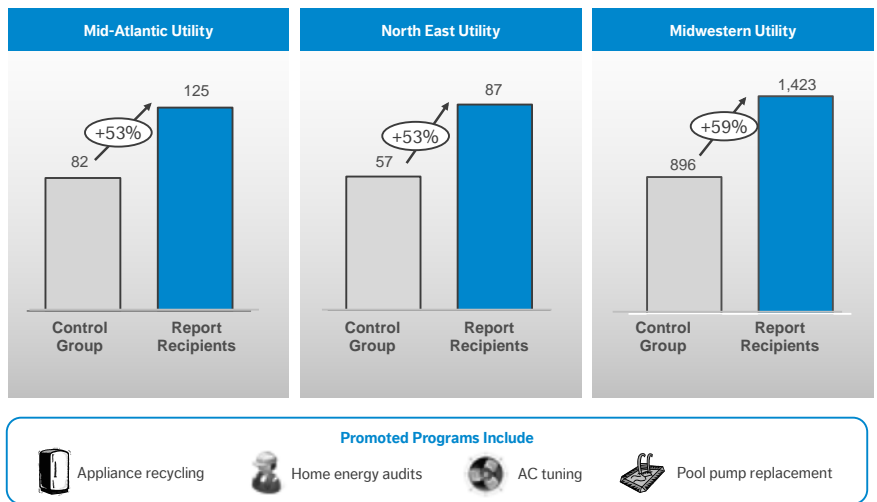
To increase participation in ESAP installed measures and lift the overall TRC of the portfolio, workshop stakeholders have discussed the need for innovative delivery mechanisms and new approaches to customer education.<sup>1</sup> Furthermore, IOUs have identified that education and awareness gaps are significant barriers to low-income customers capturing and sustaining energy savings.<sup>2</sup> Opower’s information-based approach helps fill these gaps.

## THE OPPORTUNITY

Opower’s energy-efficiency programs combine behavioral science, consumer-centric design, and highly personalized communications to motivate residential customers to save energy and save money on their bills. Working with more than 60 utilities in the U.S., Opower has driven sustained reductions in energy consumption through information-driven changes in consumer energy behavior. Our communications are read by over 90% of consumers and motivate the vast majority of them to become more energy-efficient. Our “Insight Engine” analyzes each customer’s energy-usage patterns and household characteristics to provide messaging personalized to each customer, making them more likely to take action.

Elsewhere in the U.S., we have implemented EE programs that target low-income households. These deployments:

- **Deliver cost-effective energy savings** through sustained behavior change
- **Attain cost-effective TRCs** (often near 1.0 or higher)
- **Improve customer satisfaction** with the utility
- **Increase participation/enrollment** in other utility EE programs (e.g., weatherization, rebates) by as much as 60%, as illustrated by the graphic to the right
- **Counter the rebound effect** by continuously driving residents towards energy-efficiency behaviors



## REGULATORY TREATMENT OF BEHAVIORAL PROGRAMS

Behavioral programs are a qualified energy resource in California. Beginning in 2009, SB488 (Pavley) required CA IOUs to report savings from “comparative energy usage disclosure programs” to the CPUC using experimental design. The CPUC later affirmed SB09-488 in Decision 10-04-029 that behavioral programs using experimental design are a qualified energy efficiency resource. PG&E and SDG&E are currently deploying Opower behavioral programs.

<sup>1</sup> In A.11-05-017, A.11-05-018, A.11-05-019, and A.1105-020

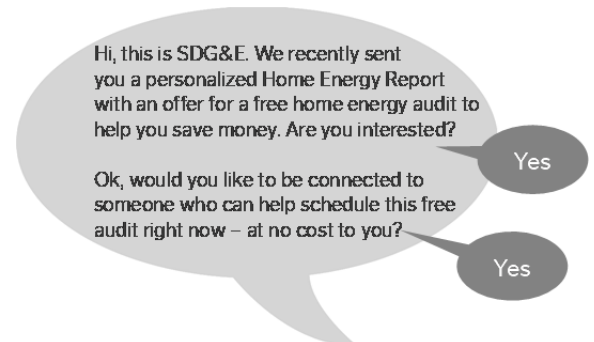
<sup>2</sup> “Low Income Energy Efficiency (LIEE) High Usage Needs Assessment For Southern California Edison, 2009-2011”, Hiner & Partners (6/11)

## SUGGESTED APPROACH

Opower proposes to send a customized version of Opower's Home Energy Reporting Program (HER Program) to 50,000 homes in each of the IOUs' service territories, beginning in the first quarter of 2012. The HER Program would be similar to the existing HER Programs at SMUD, SDG&E, PG&E, Glendale Water & Power, and other California utilities, but would be tailored to low-income customers as outlined in this memo. (The graphic on the following page illustrates the front page of a Home Energy Report tailored for a low-income customer.)

We propose a 2-year program with participating customers receiving an average of 6 reports per year. If the program performs well, after 6-12 months (after the Low Income Portfolio bridge period has ended) the program could be expanded to include additional homes. We also recommend incorporating two enhancements: layered communications and targeted tear-off rebate/enrollment forms.

1. **Layered communications:** At other utilities, we have seen strong initial results from "layering" communications channels. We recommend the IOUs employ Opower interactive messaging. This enhancement would reinforce messages on energy-saving behavior changes and easily link customers to other ESAP offers to increase participation rates to drive additional engagement and savings. The graphic to the right illustrates how a call could entice a customer to participate in another EE program.



2. **Targeted coupons:** Opower can deliver targeted coupons, rebate redemptions, and enrollment forms for different programs on the bottom of HERs (as illustrated on the following page). These make it easy for consumers to redeem a rebate or register for a program via a preprinted mail-back form (e.g., CARE rate, home audit). Furthermore, we can match specific ESAP program offers to the customers best suited for them.

### Targeting and enrolling low-income customers using demographic data

The Low Income Oversight Board seeks to increase the enrollment rate in low-income programs among eligible customers and to increase the number of homes treated. Opower's current programs in California do not target based on income; however, five current programs in other states specifically target low-income households.

We propose targeting reports at both CARE customers and customers we believe are low income and are thus CARE-eligible. This would enable us to increase the number of low-income households that the IOUs are currently reaching with their low-income programs. For low-income customers not currently on a CARE rate, we could include CARE promotions to increase enrollment.

## Home Energy Report

Account number: 123456789  
Report period: 06/01/10 - 06/30/10

We are pleased to provide this personalized report to you as part of a pilot program.

The purpose of the report is to:

- Provide information
- Track your progress
- Share energy efficiency tips



This information and much more available at [BGESmartEnergy.com/Reports](http://BGESmartEnergy.com/Reports)

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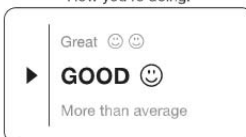
Low-income homes are targeted for the program, either by tariff (e.g., on a CARE rate) and/or by demographic (income) data

### Last Month Neighbor Comparison

You used **19% MORE** energy than your efficient neighbors.



How you're doing:



\* This energy index combines electricity (kWh) and natural gas (therms) into a single measurement.

### Who are your Neighbors?

#### All Neighbors

Approximately 100 occupied, nearby homes that are similar in size to yours (avg 2,651 sq ft) and have both electricity and natural gas service

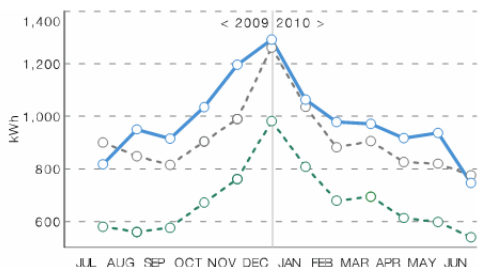
#### Efficient Neighbors

The most efficient 20 percent from the "All Neighbors" group

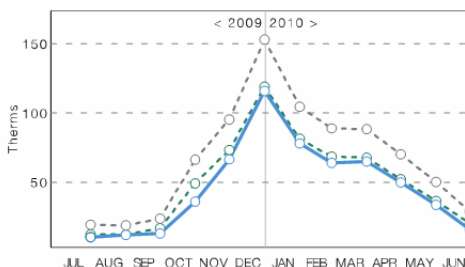
### Last 12 Months Neighbor Comparison

You used **20% MORE** energy than your efficient neighbors.  
This costs you about **\$305 EXTRA** per year.

#### Electricity | 47% more electricity than your efficient neighbors



#### Natural Gas | 8% less natural gas than your efficient neighbors



With California's Energy Savings Assistance Program you may qualify for free, energy-saving improvements to your home.

FREE

The EnergyTeam may provide for free:

- Attic insulation
- Faucet aerators
- Low-flow showerheads
- Water heater blankets
- Energy-efficient lighting

There's no cost to you and no catch! All you need is to be qualified based on the number of people in your home and your yearly household income.

#### ACEO INCOME GUIDELINES

Number Of Persons In Household	Maximum Yearly Gross Household Income
1 to 2	\$ 31,800
3	\$ 37,400
4	\$ 45,100
For each additional household member add:	\$ 7,700

Call now to sign up: (888) 555-1234

[www.cpuc.ca.gov/PUC/energy](http://www.cpuc.ca.gov/PUC/energy)

Content "modules" promote programs for low-income consumers (e.g., Home Audit registration) and/or education on local support resources. Efficiency tips (on the back of the report) focus on low-cost, high impact improvements (less than 2-year payback)

### Additional benefits to low-income customers

Low-income customers sometimes do not understand, adhere to, or take full advantage of existing programs. The HER Program can help break the barriers to low-income engagement and participation. Here are a few examples:

- **Keeping audit appointments.** We understand that SDG&E and SCG have proposed offering a \$50 grocery store gift card to customers to encourage customers to keep home energy audit appointments. Opower can reduce appointment no-shows through reminders that leverage behavioral science, thus helping reduce marketing costs.
- **Promoting ongoing savings post audit/retrofit.** Too often, recipients of retrofit programs do not receive ongoing engagement and education on how to best operate and maintain their newly efficient home, which leads to a decrease in energy savings over time. For example, households often forget to replace furnace filters after a new furnace is installed. Opower reports can specially target households that have had a new furnace installed with a recommendation to change their furnace filter once per year. Home Energy Reports help ensure that whole-house retrofit program recipients achieve the most savings possible.
- **Improve public health among vulnerable segments of the low-income community.** Weather-related fatalities often occur during the first heat wave or cold snap, not necessarily the hottest or coldest days of the year. The IOUs could address this public health issue by sending springtime reminders to elderly low-income populations to check that ceiling fans and A/C units are working properly. While no direct energy savings would necessarily be attributable to this approach, it could be an innovative and inexpensive way to promote public health.

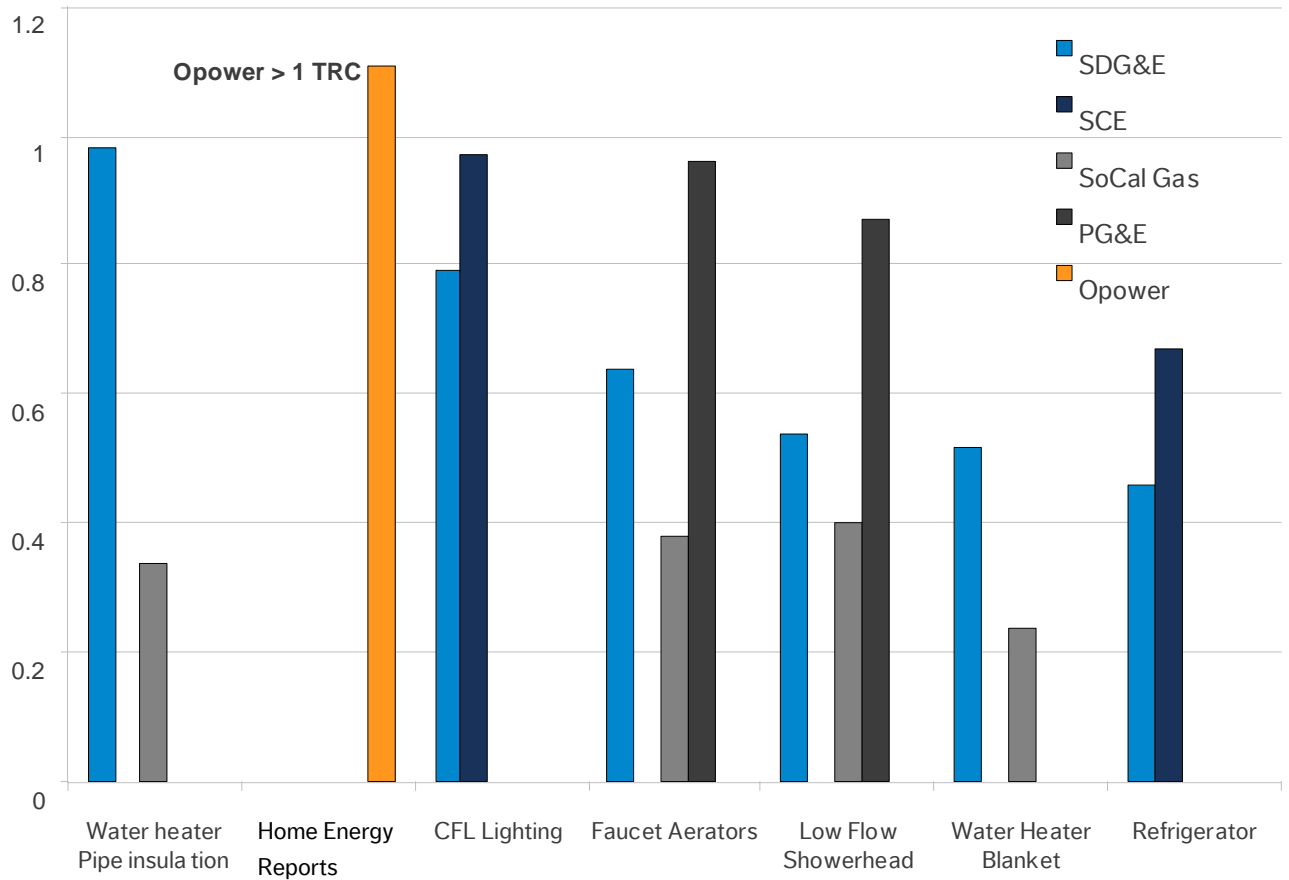
### PROGRAM RESULTS

Opower's 3+ years of experience enable us to forecast savings rates with a high degree of confidence for a given program. The following table summarizes the expected savings from a 2-year Opower program targeting 50,000 homes in each of the 4 IOUs (i.e., a total of 200,000 households across California).

	Year 1	Year 2
MWh savings	13,600 – 14,831	22,673 – 24,725
Therm savings	456,926 – 613,061	616,889 – 811,696

Based on previous results, the HER Program could yield a 2-year TRC that is competitive with the most cost-effective programs in the IOUs' 2012-2014 low income portfolios, as outlined in the figure below.

## Opower and IOU Low Income Portfolios



28 October 2011

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### BRINGING INNOVATION TO CALIFORNIA'S LOW INCOME PROGRAMS

The savings projections and TRCs shown above assume an early spring 2012 launch, and include only the direct benefit from behavior change conservation. Cost-effectiveness would be further improved through an increase in participation in ESAP installed measures. Furthermore, report times can help mitigate the savings erosion that occurs when new equipment is poorly maintained. The HER Program would provide benefits beyond those quantifiable in the TRC by providing information to households who often lack it, helping them save energy and money.

We look forward to comments and questions from workshop stakeholders.

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