



Green Energy Match

Aligning Energy Savings & Jobs

Presentation at BECC
November 2012



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Presentation Overview

1. The Program

2. The Results

3. Energy Savings →
Economic Development

GEM at a Glance

1. Show how energy savings create a stronger local economy
 2. Scalable technology platform provides data for rapid learning
 3. Innovative Public–Private Partnership
 4. LBNL reviewing data preparation and results
-  **“Create the cookie cutter”**

USE OUR FREE TOOLS BELOW. DISCOVER HOW TO SAVE ENERGY & MONEY.

LOWER ENERGY BILL.

Get personalized recommendations.

[View Recommendations »](#)



AVERAGE UTILITY BILLS.

How do you compare to similar homes?

[Begin Comparing »](#)



FIND REBATES.

See rebates and tax credits.

[Find Rebates »](#)



SOLAR CALCULATOR.

See if Solar is right for you.

[Solar Calculator »](#)



YOUR UTILITY STATEMENT FOR APRIL 2011 UTILITY DATA IS ESTIMATED

ELECTRICITY

\$61



-\$0
 COMPARE
 TO LAST
 MONTH

+\$0
 COMPARE
 TO LAST
 YEAR

[START SAVING »](#)

GAS

\$92



-\$72
 COMPARE
 TO LAST
 MONTH

+\$0
 COMPARE
 TO LAST
 YEAR

[START SAVING »](#)

CO₂ CREATED

1,160 lbs



-764 lbs
 COMPARE
 TO LAST
 MONTH

0 lbs
 COMPARE
 TO LAST
 YEAR

[START SAVING »](#)

ESTIMATED ANNUAL ENERGY USAGE

Electric (kWh): 6,388
Natural Gas (therms): 1,129

SAVINGS OPPORTUNITY (per year)

Annual Energy: \$1,250
Electric (kWh): 3,493
Natural Gas (therms): 582

[View last month](#)



YOUR ENERGY RATING





- GOOD: Efficient
- FAIR: Room for Improvement
- POOR: High Energy User
- VERY POOR: Energy Hog

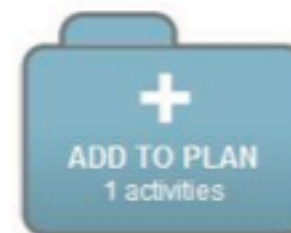
Energy Saving Ideas

Filter by type Sort by View

INSTRUCTIONS

To add activities to your plan, mark as completed or not interested, simply drag the icon over to the folders on the right.

| | | | |
|--|---|--|--|
|  Buy a new washing machine |  Buy a portable air cleaner |  Buy an energy-efficient freezer |  Change furnace filter regularly |
|  Change spray irrigation to drip |  Clean dryer vent |  Clean lint screen in dryer every load |  Close the fireplace damper |
|  Close window shades on hot days |  Compost kitchen and yard waste |  Correct improperly installed insulation |  Don't heat or cool an empty house |




Green Energy Match

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Green Energy Match



1




2



Two types rewards for energy savings

Monthly Statements & Coupons



Green Energy Match

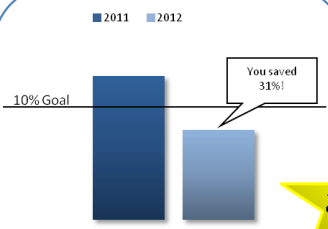
GEM Statement - May 2012

Dear GEM Participant,

Thank you for participating in the Green Energy Match (GEM) program. Below is your energy use from **May 2012** compared to last year.

Let's see how you did:

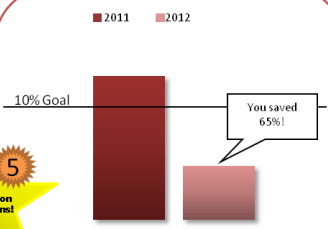
Electricity



You saved 31%!


You reduced your consumption by 31% compared to last year!

Gas



You saved 65%!

You reduced your consumption by 65% compared to last year!




We have included **five** 70%-off coupons that can be used at participating merchants (see included offer sheet for deals). Please enjoy this reward as a thank you for doing your part to save energy and make your neighborhood green!



For tips on how to save more next month, text ENERGY to 68398. You will receive weekly saving tips plus the chance to enter contests to win additional rewards!

(Message and Data rates may apply. To opt-out at anytime, text STOP to 68398. For terms and conditions, text HELP to 68398)

Thanks again and keep up the good work!
-The City of San José & the WattzOn team















Sponsored by:

Questions?
Contact WattzOn at:
650-948-2004
greenenergymatch.org



| | |
|--|--|
|  <p>Artega's Food Center 70% off Total Grocery Purchase of \$20 Value: \$20 1003 Lincoln Ave. San Jose, CA 95125 Limited to first 3 customers</p> |  <p>Wicked Dance and Fitness 70% off Three Drop-In Dance Classes Value: \$39 940 Willow St San Jose, CA 95125 Limited to first 15 customers</p> |
|  <p>Great Wall Restaurant \$14 off your purchase of \$20 or more Value: \$20 1455 Bird Ave San Jose, CA 95125 Limited to first 10 customers</p> |  <p>Round Table Pizza \$7.49 (+tax) For Any Large Specialty Pizza Value: \$24.99 1175 Lincoln Ave. San Jose, CA 95125 (408-295-4644) Dine-in or Take-out Only, No Cash Back, No Substitutions</p> |
|  <p>La Chosita Restaurant \$7 off your purchase of \$10 or more Value: \$10 2424 Almaden Rd San Jose, CA 95125 Limited to first 20 customers</p> |  <p>Sonoma Tanning 70% off Signature Tan Value: \$75 70% off Tan Line Eraser Value: \$65 70% off Sonoma Tan Value: \$45 1165 Lincoln Ave. Ste 123 San Jose, CA 95125</p> |
|  <p>Tutti Frutti Frozen Yogurt 70% off Purchase up to \$20 Value: Up to \$20 1163 Lincoln Ave. San Jose, CA 95125</p> |  <p>America's Best Karate 70%-off One month of classes. Includes a uniform Value: \$165 6940 Almaden Expwy. San Jose, CA 95120</p> |
|  <p>Strada Salon & Day Spa \$35 for any Salon or Spa Service Value: \$100 2292 Lincoln Ave. San Jose, CA 95125</p> |  <p>BRUNI Gallery Fine Art 70%-Off One 11x14 Print and One Art Card By Famous Jazz Portrait Artist BRUNI & Prints Art by Frank Day Value: \$100 1171 Lincoln Ave. San Jose, CA 95125</p> |
|  <p>Pay \$7.50 for a \$25.00 cake Value: \$17.50 2003 Story Rd. Ste #600 San Jose, CA 95122</p> |  <p>7 1/2 Restaurant Mexican Grill Pay \$9.00 for up to \$30.00 worth of food (except seafood) Value: \$21.00 2166 Story Rd. San Jose, CA 95122</p> |

The favorite coupon!

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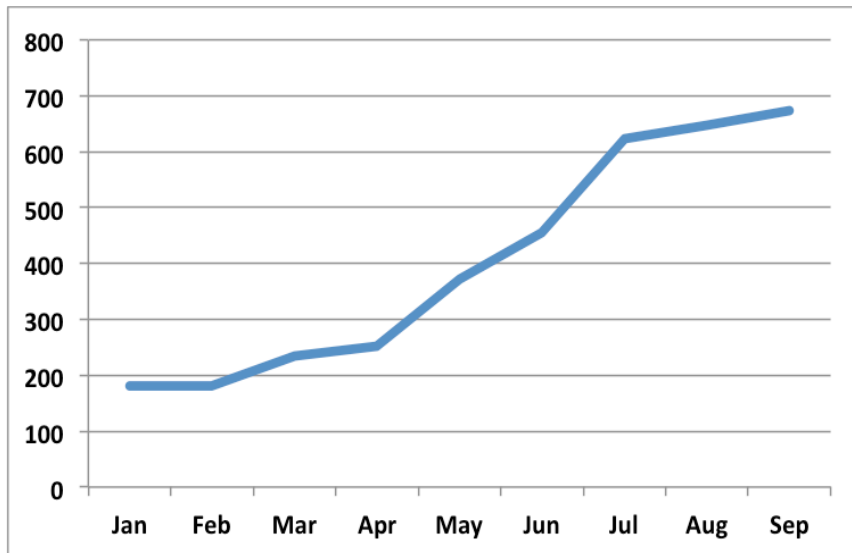
How We Track Energy Data

- Automated software tools capture energy data each month
- Consumer-permissioned access (“Auto Green Button”)
- First data grab includes prior 12 months: **baseline for savings calculations**

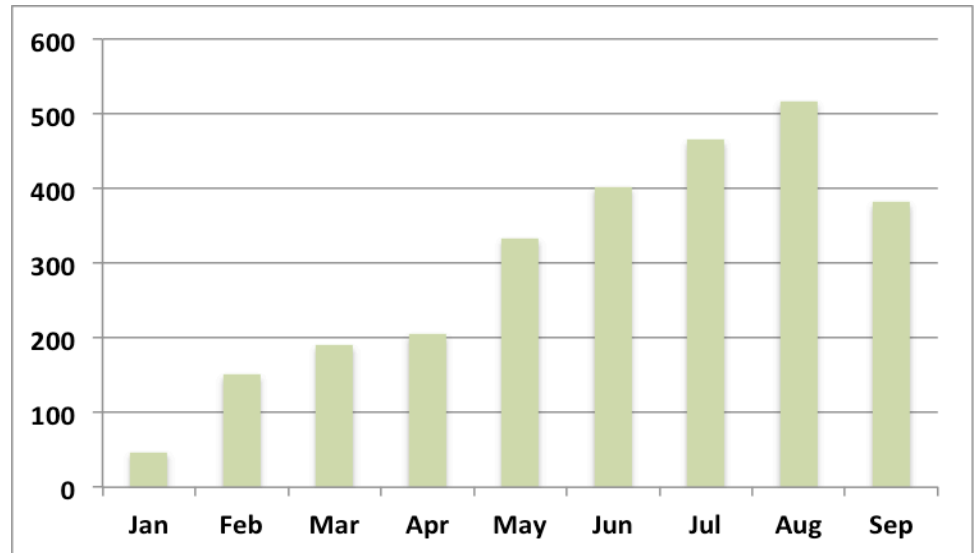
Quick Summary of Results

- Over 700 households joined in 2012
- Expansion from 3 areas to city-wide
- Participants are saving: 65% earn coupons

Participants, Jan – Sep 2012



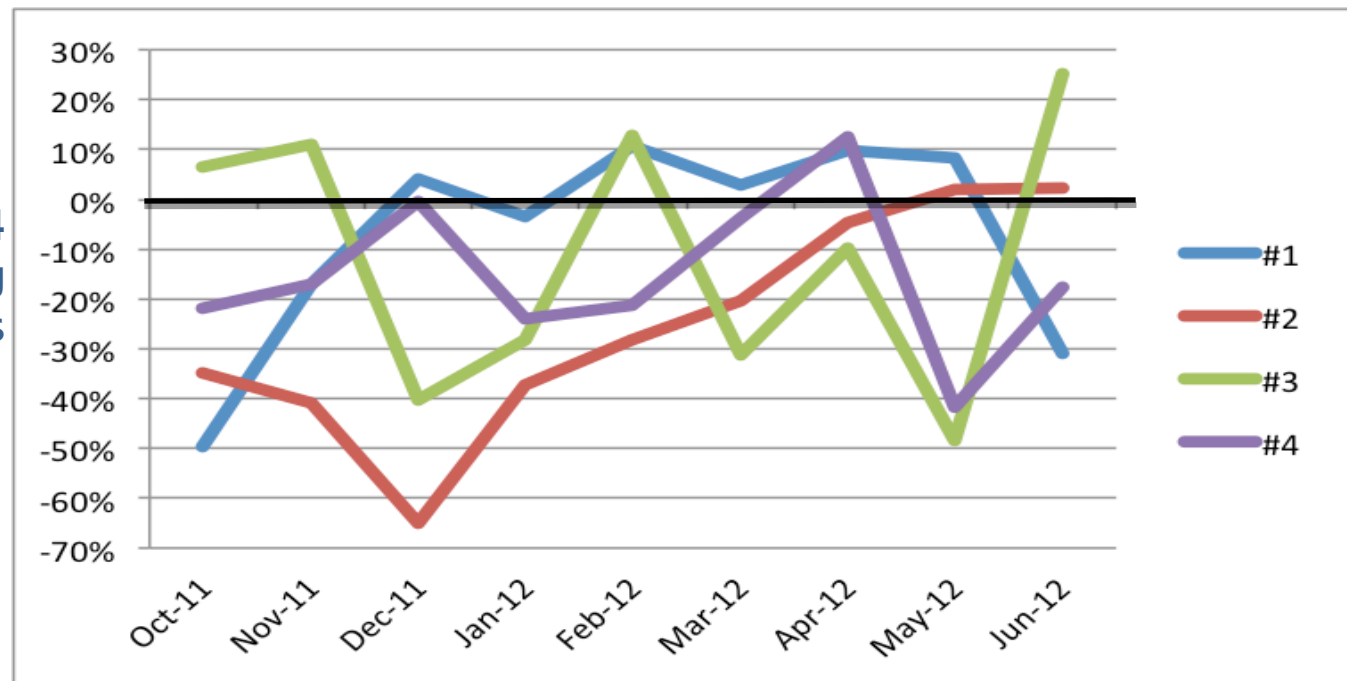
Coupons Issued, Jan – Sep 2012



Savings Results: Habits Matter

- Average savings: 0 – 4% (after controls)
- 50% of participants save each month
- Savers: average 22% energy savings & \$30
- Many save, but not every month

Sample of 4
participating
homes



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Serving a Diverse Community

- Pilot neighborhoods mimic region:
 - a) Latino, economically challenged
 - b) Southeast Asian, sprawling, ethnic networks
 - c) White, upper-middle class
- Consistent savings patterns in 3 pilot groups
- Initial city-wide expansion captured “green at hearts:” Lower use, lower savings
- ➔ Lesson: Outreach methods matter to program composition

Outreach Methods

- ✓ **Events:** Create awareness, but few signups.
- ✓ **Digital & print outreach:** Energy savings as a product, hit consumers 5 times: Works.
- ✓ **City-credentialed channels:** City website, council newsletters. Works.
- ✓ **Door-to-door:** Important for ESL families. No shared concept of energy savings.
- ✓ **Barriers to participation:** Email accounts!

Community Awards



- Contacted 150+ Groups
- Spoke at 13 Events
- 1 Group signup
- No other takers!

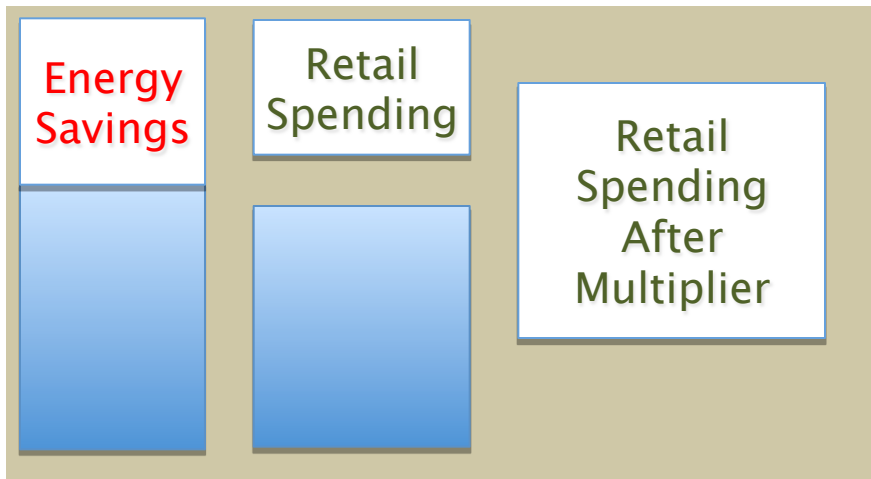
GEM Community Grant, Winter 2012
Green Academy, Overfelt High School
San José, CA

Aligning Energy Savings & Jobs

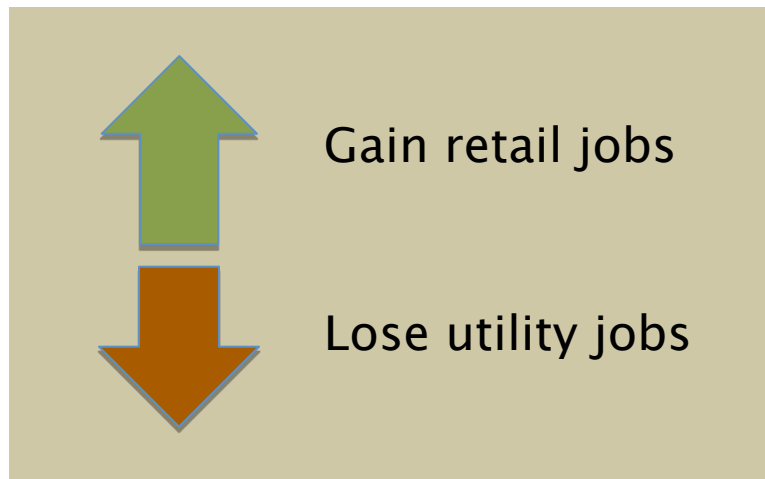


What Happens When We Save?

1. Increased Local Retail Spending



2. Increase in Jobs



3. Net gain in spending and jobs

| BEFORE | AFTER |
|----------------------|--------------------------------|
| \$1M energy spending | \$1M shifts to retail spending |
| | \$1.2 – \$1.7M economic impact |
| | Lose 9 utility jobs |
| | Gain 22 – 32 retail jobs |

City & Regional Impacts: 5% Energy Savings

| Population | Utility Bills | 5% Savings | (+) Retail Spending | (-) Utility Jobs | (+) Retail Jobs | Net Jobs Gain |
|------------|---------------|------------|---------------------|------------------|-----------------|---------------|
| 1M | \$600M | \$30M | \$35 – \$50M | 270 | 700 – 1000 | 500 – 750 |
| 100,000 | \$60M | \$3M | \$3.5 – \$25M | 27 | 70–100 | 50 – 75 |
| 50,000 | \$30M | \$1.5M | \$1.8 – \$12M | 14 | 35–50 | 25–38 |
| 1.8M | \$1.08B | \$54M | \$63 – \$90M | 486* | 1300 – 1800 | 900 – 1350* |


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Putting It All Together

San José **Green Vision**

Goals

- 50% energy reduction per capita
- 100% clean renewable power
- Private capital

Economic Outcomes

- 2500 new jobs
- \$250M new spending

Green Energy Match

Start Now

- Habits
- Smart purchases
- Appliances & electronics
- Smart thermostats
- Solar (hot leads!)

The path to get there

- GEM as umbrella program
- Connect residents to next steps
- Immediate cash benefits
- Track and validate

Questions?

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Annual Flow

| Incremental Purchases | units | Total Sales | Jobs per \$1M | Total Jobs |
|---------------------------------------|-------|----------------|---------------|-----------------|
| Solar | 5,460 | 136.5 | 10 | 1365 |
| EE Appliances | 8190 | 7.7805 | 20 | 155.61 |
| Smart Thermostat | 8190 | 2.8665 | 10 | 28.665 |
| TOTAL | | 147.147 | | 1549.275 |
| After retail multiplier | | | | |
| incremental retail & incremental jobs | | 206.0058 | | |
| | | 58.8588 | | 1177 |
| Habit savings increment per year | | | | \$2.4 |

| Green Vision/GEM Rollout | | | | | | | |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|
| YEAR | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| ES- Habits | \$2.4 | \$4.8 | \$7.1 | \$9.5 | \$11.9 | \$14.3 | \$16.6 |
| ES- Retail | | | | | | | |
| Impact | \$3.3 | \$6.7 | \$10.0 | \$13.3 | \$16.6 | \$20.0 | \$23.3 |
| ES Jobs | 67 | 133 | 200 | 266 | 333 | 399 | 466 |
| Purchases | \$147.1 | \$147.1 | \$147.1 | \$147.1 | \$147.1 | \$147.1 | \$147.1 |
| Purchases Jobs | 1549 | 1549 | 1549 | 1549 | 1549 | 1549 | 1549 |
| Purch Incr | | | | | | | |
| Impact | \$58.9 | \$58.9 | \$58.9 | \$58.9 | \$58.9 | \$58.9 | \$58.9 |
| Purch Incr Jobs | 1177 | 1177 | 1177 | 1177 | 1177 | 1177 | 1177 |
| Solar Cash | | | | | | | |
| Savings | \$1.1 | \$2.2 | \$3.2 | \$4.3 | \$5.4 | \$6.5 | \$7.6 |
| Solar Retail | | | | | | | |
| Impact | \$1.5 | \$3.0 | \$4.5 | \$6.1 | \$7.6 | \$9.1 | \$10.6 |
| Solar Savings - | | | | | | | |
| Jobs | 30 | 61 | 91 | 121 | 151 | 182 | 212 |
| Total Sales | \$210.41 | \$214.82 | \$219.23 | \$223.64 | \$228.04 | \$232.45 | \$236.86 |
| Total Jobs | 2823 | 2920 | 3017 | 3114 | 3210 | 3307 | 3404 |
| less Utility Jobs | 31 | 62 | 93 | 150 | 150 | 150 | 150 |
| Net New Jobs | 2792 | 2858 | 2924 | 2964 | 3060 | 3157 | 3254 |
| Pct solar | 49% | 48% | 47% | 46% | 45% | 43% | 42% |

 **Green Energy Match**

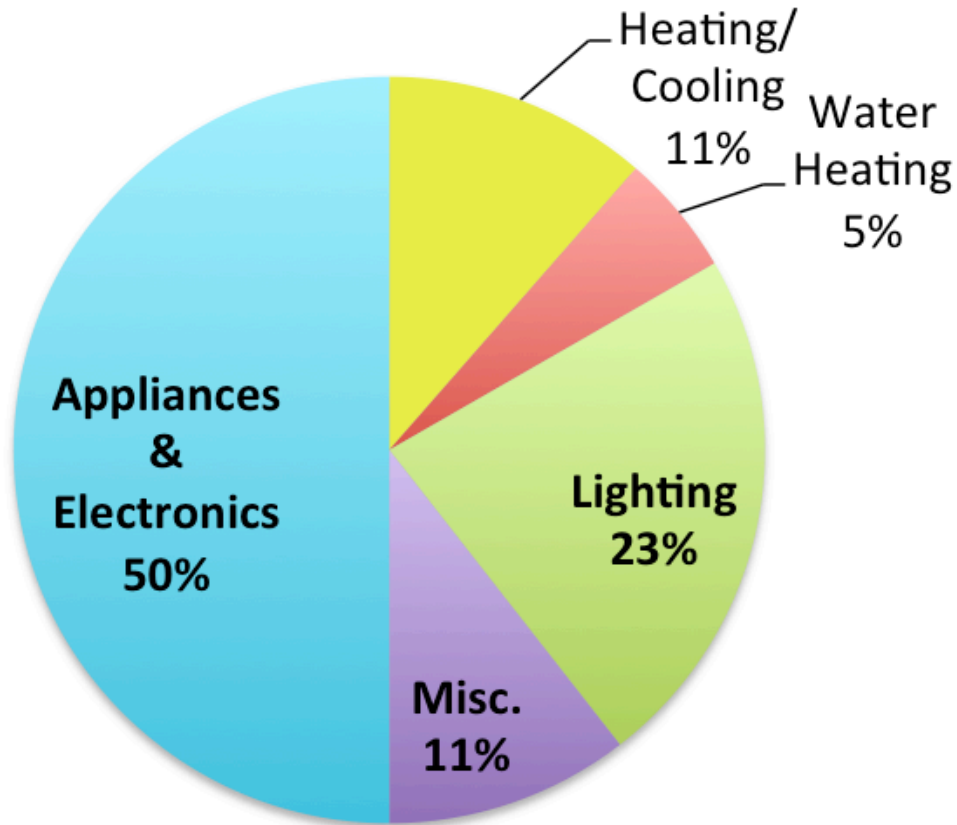
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Sample data on BBP

July 2012 Energy Change by Better Buildings Program

| Program | # In Program and GEM | Gas (Therms) | Electricity (kWh) | Bill (\$) | Bill (%) |
|------------|----------------------|--------------|-------------------|-----------|----------|
| ESAP | 12 | 3% | 11% | -\$56.45 | 5% |
| MIDI | 6 | 0% | 0% | -\$35.82 | 25% |
| WAP | 3 | -24% | -34% | -\$12.14 | 27% |
| ESAP/WAP | 7 | 3% | -8% | \$11.60 | -26% |
| MIDI/WAP | 2 | 10% | -3% | \$3.38 | 3% |
| No Program | 15 | -5% | -6% | -\$32.16 | -10% |

How We Use Energy at Home



Energy Use in CA Residential Sector, CPUC

Result: Green Vision & Jobs

- Full package: 52% savings per home
- Assume 3 – 4% adoption per year
 - 5000 solar installs
 - 8000 appliances, 8000 thermostats
- \$200 – \$250M/yr economic impact
- 2800 – 3300 new jobs
 - 50% solar (10 jobs per \$1M)
 - 5% other direct
 - 45% indirect/retail

A Simple Package
Of Today's
Technology

Green Energy Match



Green Energy Match



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