

# Energy Upgrade California™ Participation Workshop

Reduce energy use. Save money. Create jobs.



# Agenda

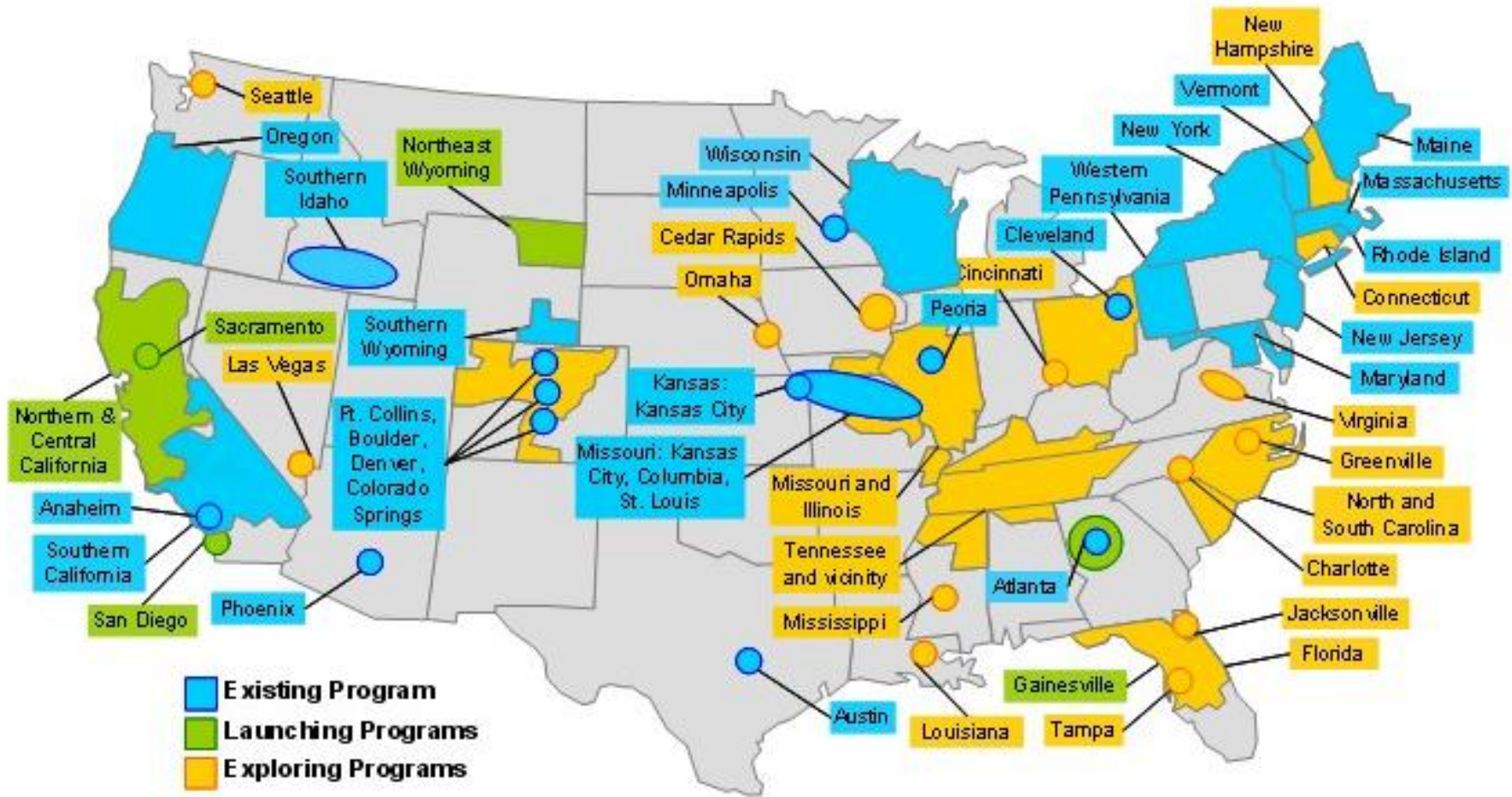
- Why home performance and Energy Upgrade California
- How to participate in Energy Upgrade California in PG&E service territory
  - Program scope
  - Contractor enrollment process and requirements
  - Jobs reporting and rebate application overview
  - Field mentoring and quality assurance
- Local opportunities and incentives

**Goal: Everything you need to know to participate.**

# National Trends

- New homes to existing homes
- Home flipping to home improvement
- Prescriptive Rebates to Performance Incentives
- Single Measures to Whole House
- Energy Efficiency Financing
- Dumb Meters to Smart Grid
- Flat Utility Rates to Time-of-Use
- Greening Your Home – Reduce Carbon Footprint
- Insulation is as Sexy as Solar

# Home Performance Nationwide

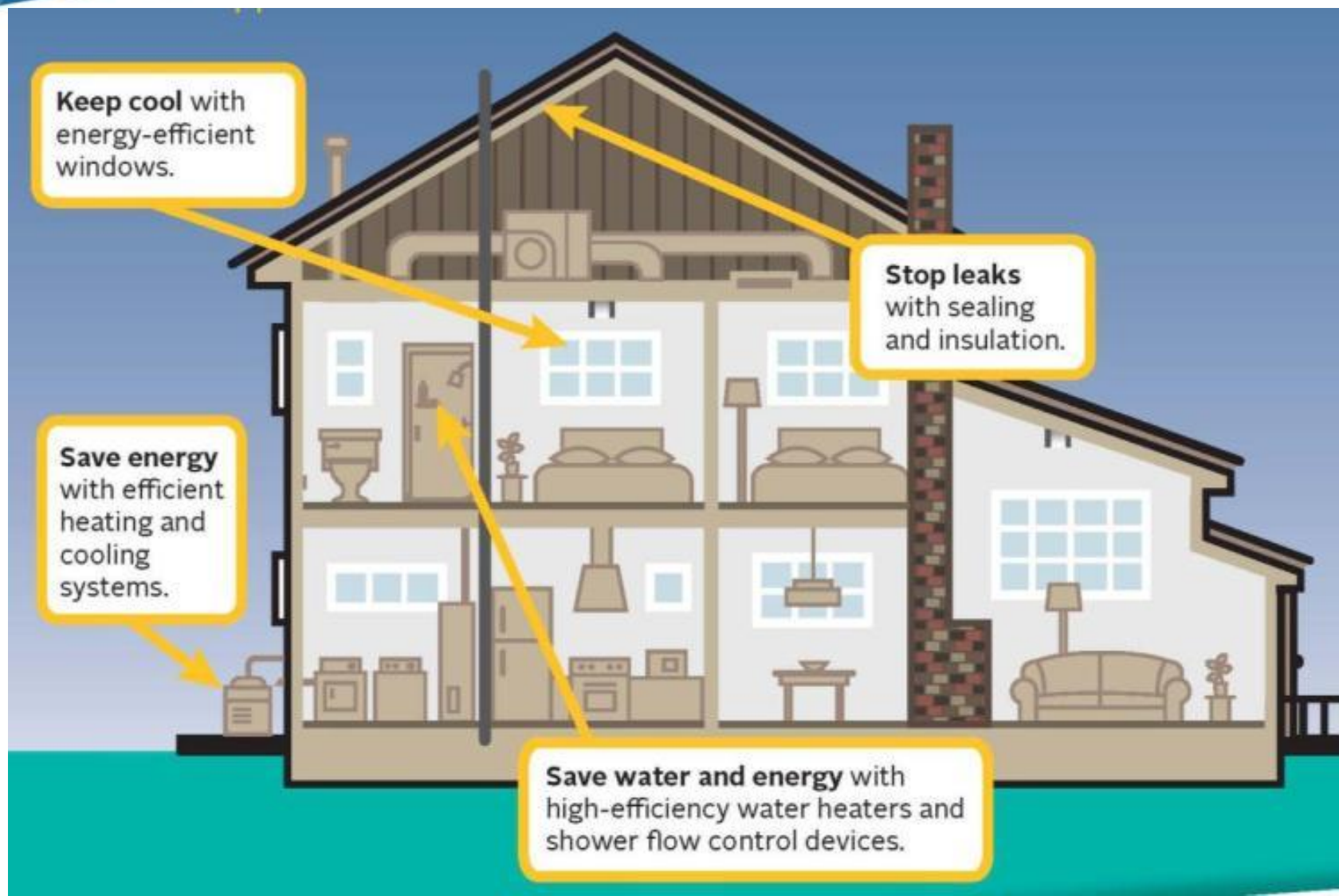


# Home Performance Defined

- Developed using building science principles
- Based on 20 years of scientific research on system interactions in the whole house
- Solutions to address failing points within our homes:
  - Poor indoor air quality
  - High energy use
  - Poor occupant comfort
  - Lack of durability
- Buildings are highly complicated systems of components
  - Must be addressed through a comprehensive cause-and-effect analysis



# Whole House Approach



# Home Performance Approach

- **Whole house diagnostic assessment** to determine the root cause of the problem
- **Qualified contractors** with tools and knowledge to turn individual problems into comprehensive solutions
- Potential to achieve **40%+ energy savings (performance based)**
- No more “patchwork” of measures
- **Contractor-based turn-key delivery** helps walk the homeowner through the job process

# Energy Upgrade California Overview

Energy Upgrade California™ delivers the tools and resources that make it easy for property owners to improve energy and water efficiency, save money, increase home comfort and help the environment.

**[www.EnergyUpgradeCA.org](http://www.EnergyUpgradeCA.org)**



Reduce energy use. Save money. Create jobs.





# Unprecedented Collaboration

- **Partnership** between the California Energy Commission and Public Utilities Commission
- **Collaboration** with the local city and county governments, investor-owned utilities and municipally-owned utilities
- **Vision:** Create a sustained home performance industry and transform the market for energy efficient existing home retrofits



# Funding Sources

- **Investor Owned Utility Whole House Rebate Program**
- State Energy Program/American Recovery and Reinvestment Act (ARRA) stimulus funds
- California Energy Commission-administered Energy Efficiency and Conservation Block Grants
- Better Buildings Program
- Employment Development Department Workforce Investment Act

**Utility rebates expected to continue beyond 2012**

# How Energy Upgrade California Looks to Homeowners

Reduce energy use. Save money. Create jobs.



# Program Benefit Summary

- Make your home more comfortable
- Potentially lower your utility bills
- Improve home efficiency
- Receive rebates and incentives
- Take a Whole House approach
- Help the environment
- Boost your local economy



# Rebates for Single Family Upgrade Packages

Calculation Method	Utility Rebate
<b>Basic Package</b>	<b>\$1,000</b>
<b>Advanced Package</b>	
15% Savings	\$1,500
20% Savings	\$2,000
25% Savings	\$2,500
30% Savings	\$3,000
35% Savings	\$3,500
40% Savings	\$4,000

Reduce energy use. Save money. Create jobs.



# Participating Contractors

- Trained for Energy Upgrade California
- Valid CA contractor's license, bonding, certifications, training
- Experts in energy efficiency
- Certified by Building Performance Institute (BPI)





# Program Website for Homeowners

Energy Upgrade California's one-stop-shop

Visit [www.EnergyUpgradeCA.org](http://www.EnergyUpgradeCA.org) to:

- Plan an energy upgrade project tailored to your home
- Find a list of Participating Contractors
- Find out which rebates and incentives are available in your local area
- Watch a video about the program





Energy Upgrade California is your one-stop-shop for home improvement projects that lower your energy use, conserve water and natural resources, and make your home healthier and more comfortable.

Use this website to:

- Plan your upgrade projects
- Locate participating contractors
- Find rebates and incentives

**Reduce** energy use.  
**Save** money.  
**Create** jobs.

### Why Upgrade Now?

Learn about the benefits of an Energy Upgrade

[Go »](#)

### Get Started!

Enter your county name to find local rebates and contractors

[Go »](#)

#### Upgrade Updates

[Subscribe](#)

#### \$100,000 Home Energy Makeover Contest

LA County Homeowners: Five homes will win makeovers estimated at \$10,000, one grand prize

#### Watch the Video Vignette!

Follow the Halls as they consider home energy upgrades and visit Roberto, who shows them his

#### Go Green, Get Green

Using eco-friendly materials like recycled content insulation helps conserve resources and can increase

# Alameda County

[My Action Plan](#)

[About the Program](#)

[Find a Contractor](#)

[Rebates and Incentives](#)

[Find Financing](#)

[Local Info](#)

Welcome to Energy Upgrade California in Alameda County, your one-stop-shop for home efficiency projects that can reduce energy and water use, create a more comfortable home and may even lower your utility bills. This website will connect you with participating contractors to help plan and complete your project—and with the rebates and incentives to help pay for it!

**Visit My Action Plan »**

to get started on your project

**Explore the program »**

to learn more

**Take a tour »**

and find out what you can do



myaction plan

## Get Started Now!

Go through an easy step-by-step process to get specifics about YOUR home—your projects, rebates and incentives.

[Go »](#)

### Why Upgrade Now?



- Save energy
- Increase your home's comfort
- Help the environment
- Improve indoor air quality

[Go »](#)



**Find Rebates & Incentives**

[Go »](#)



**Find a Participating Contractor**

[Go »](#)



The trademarks used herein are the property of their respective owners. All rights reserved.

### Upgrade Updates

Subscribe

#### \$100,000 Home Energy Makeover Contest

LA County Homeowners: Five homes will win makeovers estimated at \$10,000, one grand prize estimated at \$50,000. Enter now!

#### Watch the Video Vignette!

Follow the Halls as they consider home energy upgrades and visit Roberto, who shows them his upgrade project.

#### Go Green, Get Green

Using eco-friendly materials like recycled content insulation helps conserve resources and can increase the value of your home.





# Alameda County

My Action Plan

About the Program

Find a Contractor

Rebates and Incentives

Find Financing

Local Info



## Upgrade your home today with these simple steps:

1. Find the Upgrade Package that works best for you.
2. Learn how to get up to \$4,000 from your utility company (plus separate rebates and tax credits).
3. Find an Energy Upgrade California participating contractor to help plan your Upgrade.

Enter your address to find local rebates.

523 Kenmore Avenue, Oakland

Locate »

I consent to provide my personal information (such as street address) and have viewed the notice of my rights and protections below. (Required)

Renewable Funding, LLC is a private corporation and is designing, implementing and maintaining this website on behalf of the California Energy Commission under the Energy Upgrade California™ program. Information you provide through this website is submitted directly to Renewable Funding, LLC, which is conducting this work as a subcontractor under the Energy Commission's contract with the Local Government Commission. Any personal information collected from you by Renewable Funding, LLC on behalf of the California Energy Commission is subject to the protections established by the California Information Practices Act of 1977 ("Information Practices Act") (Civil Code, sections 1798 et seq.). Personal information includes, but is not limited to, your name, social



1 Choose a Package

2 Add Enhanced Options

3 Choose a contractor

Select the rebate package that works best for you.

## Basic Upgrade

**\$1,000** Incentive

Select »

**10%** Energy Savings

### Benefits

The Basic Upgrade Package is designed to help save energy and keep your home comfortable. Most of your home's energy loss happens due to leaks and insufficient insulation. The Basic Upgrade is an easy way to take care of this problem and improve your home's comfort and efficiency.

### What is it?

The Basic Upgrade Package requires these measures:

- [Air sealing](#)
- [Attic insulation](#)
- [Duct sealing](#)
- [Hot water pipe insulation, where accessible](#)
- [Thermostatic shut-off valve](#)
- [Combustion appliance safety testing including installation of Carbon Monoxide \(CO\) monitor](#)
- Recommended: Low flow showerhead

## Advanced Upgrade

**\$1,500-\$4,000** Incentive

Select »

**15%-40%** Energy Savings

### Benefits

- Get a professional energy assessment of your home
- Receive a customized solution for your needs
- Optimized energy savings, comfort, and air quality

### What is it?

The Advanced Upgrade Package is an energy efficiency solution customized for your home and your needs. The Advanced Upgrade Package optimizes the energy savings you can achieve and rewards you accordingly—the more energy you save, the higher your incentive.

### Package

None Chosen

### Enhancements

None Chosen

### Contractors

None Chosen

1 Choose a Package

2 Add Enhanced Options

3 Choose a contractor

We've found **local contractors** we've verified as being **qualified** to help you with your package and projects.

## Advanced Upgrade Contractors

We've found 18 contractors near you qualified to perform Advanced Upgrades.

[View these Contractors »](#)

## Solar Energy Contractors

We've found 23 contractors near you offering Solar Electric Services.

[View these Contractors »](#)

Package
<b>Advanced Package</b> <b>Get up to \$4,000</b> <a href="#">Change</a>
Enhancements
<b>Solar Electric</b> <b>Green Options</b> <a href="#">Change</a>
Contractors
None Chosen <a href="#">Contact</a>



All of the companies listed here have indicated that they serve residents in Alameda County. The list is presented in random order.

## Find contractors who:

### Offer whole home services

- Basic Package (18)
- Advanced Package

### Offer additional services

- Energy Assessment (18)
- Green Options (0)
- Solar Electric (5)

### Have these credentials

- BPI Accredited Company (2)
- BPI Certified AC or Heat Pump Professional (0)
- BPI Certified Building Analyst Professional (17)
- BPI Certified Envelope Professional (9)
- BPI Certified Heating Professional (2)
- Build It Green Certified Green Building Professional (0)
- California Solar Initiative (2)
- PG&E Energy Upgrade Contractor (18)
- SCE/SoCalGas Energy Upgrade Contractor (1)
- SDGE Energy Upgrade Contractor (0)
- SMUD Energy Upgrade Contractor (1)

### By contractor name

18 contractors match your criteria Sort: [By name](#)

Results per page

Page 1 of 2

## Geoconserve Remodeling and Construction



Basic Package Qualified



Advanced Package Qualified

We built our first passive solar, super insulated house in 1993. Since then we've been working to learn how to build and remodel houses to the highest standards of energy efficiency, comfort, fresh air and long term durability. We'd love the chance to listen to your concerns about your home and see how we could help you make it better. Please see our website at [www.homeenergyretrofit.com](http://www.homeenergyretrofit.com) and geoconserve remodeling. We strive to be on the cutting edge of energy efficient technologies and best p

**Credentials:** BPI Certified Building Analyst Professional, BPI Certified Envelope Professional, PG&E Energy Upgrade Contractor

**Services:** Energy Assessment

[Email contractor »](#)

**Phone:** 510-530-4443

2432 Encinal Drive Walnut Creek  
California 94597

[Visit website »](#)

## Advanced Home Energy, Inc



Basic Package Qualified



Advanced Package Qualified

Leading Home Performance Contractor in the Bay Area. Voted Best Green Building Contractor 2010 in the Bay Area in the Best Of the Bay.

**Credentials:** BPI Certified Building Analyst Professional, BPI Certified Envelope Professional, BPI Certified Heating Professional, PG&E Energy Upgrade Contractor

**Services:** Energy Assessment, Solar Electric

[Email contractor »](#)

**Phone:** 510-540-4860

4907 Central Ave Richmond  
California 94804

[Visit website »](#)

## Recurve



Basic Package Qualified



Advanced Package Qualified

\$99 Complete Home Energy Assessment when you mention you found us on the Energy Upgrade California website. Recurve is a BPI Accredited Company with over six years of experience and thousands of happy Bay Area customers. We are your one-stop-shop from Energy Audit to completed Retrofit.

**Credentials:** BPI Accredited Company, BPI Certified Building Analyst Professional, BPI Certified Envelope Professional, BPI Certified Heating Professional, PG&E Energy Upgrade Contractor

**Services:** Energy Assessment

**Languages Spoken:** Spanish

[Email contractor »](#)

**Phone:** 877-303-0979

1167 Mission St San Francisco  
California 94103

[Visit website »](#)

# Why Enroll?

Reduce energy use. Save money. Create jobs.



# Home Performance Benefits to Contractors

- **Differentiate from competition**
- Compete on quality, not price
- Bigger job size with bigger profit margins
- Reduce seasonality
- Fewer customer callbacks
- Training for employees to increase professionalism and reduce turnover

# Marketing Collateral



**energy upgrade<sup>™</sup>**  
CALIFORNIA  
IN THE BAY AREA

**Get Your REBATE!**

With over \$4,000 in rebates available, it's the right time to plan your upgrade.

**The benefits:**

- Reduced energy and water use
- Greater building comfort
- Lower utility bills
- Minimized waste
- Improved indoor air quality
- Increased house value
- Reduced impact on the environment

**Is your house leaking energy and money?  
Get REBATES to Upgrade now**

**Energy Upgrade California is your path to greater efficiency and comfort**

Energy Upgrade California in the Bay Area is a one stop shop for homeowners to find everything they need to make home improvements that save energy, water and other natural resources. The program connects you with Participating Contractors who can help you plan and complete your project—and get you **rebates** to help pay for it.

**Take a “whole house” approach  
The sum is greater than its parts**

Increasing your home's efficiency isn't just switching out light bulbs or adding low-flow showerheads—it's approaching your home as a complete system, with heating, air-conditioning, water and other systems working together more effectively to help lower your energy use. Energy Upgrade California in the Bay Area connects you to the experts and resources you need to take a “whole House” approach.

-   
1 Visit the website to plan your upgrade
-   
2 Find a contractor
-   
3 Complete your project
-   
4 Get your rebate!

**Start your Upgrade today: [www.EnergyUpgradeCA.org](http://www.EnergyUpgradeCA.org)**  
Bay Area Call Center: (855) 464-8484



**Get Comfortable with Energy Savings**  
Rebates up to \$4,000!

**energy upgrade<sup>™</sup>**  
CALIFORNIA  
IN THE BAY AREA

Upgrade your home. Conserve. Save money.

Reduce energy use. Save money. Create jobs.





# Print Ads & Door Hangers



**Your house is trying to tell you something.**



energy upgrade  
CALIFORNIA  
IN SAN MATEO COUNTY



Most homes leak energy and money. But don't fear. Now you can get up to **\$4,000 in REBATES and INCENTIVES** for energy upgrades.

- Save money
- Improve indoor air quality
- Increase comfort
- Help the environment

Learn more:  
[www.EnergyUpgradeCA.org](http://www.EnergyUpgradeCA.org)  
or call the Bay Area Call Center  
(855) 464-8484



energy upgrade  
CALIFORNIA  
IN SAN MATEO COUNTY



**Your house is trying to tell you something.**

INSULATE ME

HELP ME! YOU'RE WASTING MONEY

INSULATE

**But don't fear. Now you can get up to \$4,000 in REBATES and INCENTIVES for Energy Upgrades.**

Learn more:  
[EnergyUpgradeCA.org](http://EnergyUpgradeCA.org)  
Area Call Center (855) 464-8484



energy upgrade  
CALIFORNIA  
in Alameda County

Reduce energy use. Save money. Create jobs.



# Resources and Marketing Materials

## Online Resource Library

- Brochures
- Fact Sheet
- Lawn sign
- Logos
- Talking Points
- Marketing guidelines
- Marketing terms



[www.energyupgradeca.org/resources](http://www.energyupgradeca.org/resources)

(accessible with your Participating Contractor username and password)

Reduce energy use. Save money. Create jobs.





# Energy Upgrade Resource Library

The image displays two browser windows showing the Energy Upgrade Resource Library website. The left window shows the main 'Resource Library' page, and the right window shows the 'Contractor Resource Library' page. A red arrow points to the 'Participating Contractors' link on the left page.

**Energy Upgrade California | Reduce Energy Use. Save Money. Create Jobs.**

**energy upgrade CALIFORNIA** Reduce energy use. Save money. Create jobs.

Find out more | For contractors | Sign up for e-updates | News | Events

## Resource Library

The Resource Library provides access to marketing materials and other tools to help you reduce energy use in your area. The library is available to the following eligible users. Click on the link below to access the corresponding library:

- [Participating Contractors](#)
- [City County and Regional Staff](#)
- [Program Partners and Affiliates](#)
- [Energy Champions](#)

**Print on Demand Site**

If you would like to customize and order professionally printed marketing material, visit our print-on-demand site using the same user name and password as the Resource Library.

[Enter the print on demand website](#)

The Resource Library and Print on Demand Site are both password protected. If you are a user and have not received access to the library, please email [library@energyupgradeca.org](mailto:library@energyupgradeca.org).

**Contractor Resource Library**

Downloading these materials implies agreement with the Energy Upgrade California Brand Guidelines.

### Participating Contractors

Contractor	Date	Files
1. READ FIRST	05/05/11	1 file
Alameda County	05/25/11	11 files
Los Angeles County	06/02/11	36 files
Sonoma County	06/01/11	2 files
Statewide (not county-brand...terials	05/24/11	26 files

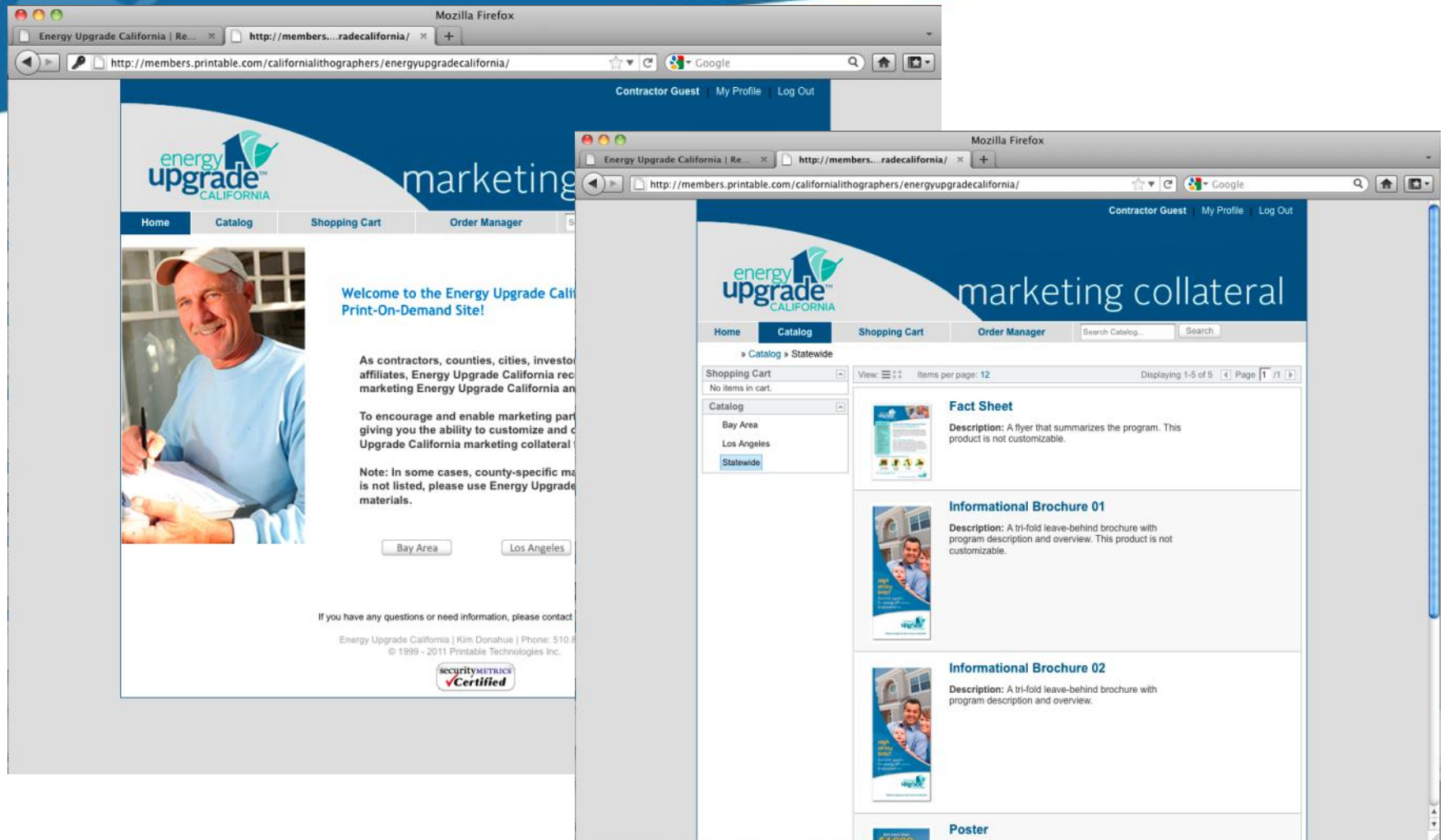
powered by **box**

home | about | press room | contact us | terms of service | Explore Engage 360

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[www.energyupgradeca.org/resources](http://www.energyupgradeca.org/resources)

# Energy Upgrade Print-On-Demand Site



[www.energyupgradeca.org/resources](http://www.energyupgradeca.org/resources)

# Two ways to Co-brand

## 1. “Design your own,” apply Energy Upgrade logo

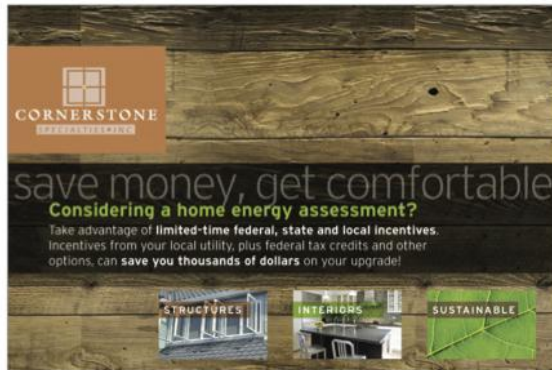
- Freely promote your contractor business, allows you to maintain your own branded look and feel
- Have the resources to create your own materials

## 2. Use pre-designed materials, add contractor logo

- Cost-effective: order through the Print-On-Demand site, no copywriting or design resources needed
- Quick turnaround time: delivered in 5-7 business days

# Examples of Contractor Co-Branding

## 1. "Design your own"



front



back

## 2. Pre-designed Materials



Informational brochure, front



Informational brochure, back



# Participating Contractor Logos

There are four Energy Upgrade California Participating Contractor logos available:

*horizontal option, full color logo on a white background*



*horizontal option, black and white logo on a white background*



*wordmark in blue*



*wordmark in black*



See page 2 of Contractor Co-Branding Guidelines.

Reduce energy use. Save money. Create jobs.



# Participating Contractor Snapshots

Reduce energy use. Save money. Create jobs.





# Program Statistics

- 142 Participating Contractors
- 1200+ Jobs in Pipeline
- \$11,745 Average Advanced Job
- \$6,565 Average for Basic Job

# ABC Cooling & Heating in Fresno

- Differentiates our business
- Increases our margins
- Higher average tickets
- Customers for life
- Reduces Seasonality
- Reduces Callbacks



Reduce energy use. Save money. Create jobs.



# Brower Mechanical

**BROWER MECHANICAL, INC.**

HEAT • AIR • SOLAR • INSULATION • RESIDENTIAL • COMMERCIAL

- **Pathway**

- Started in Started in 1978 as HVAC Service Company
- Embraced building science in 2006 as a way to reduce callbacks
  - *“Why doesn’t 3-ton work for all 1500 sq. ft. homes?”*
- Participate in PG&E and SMUD programs
- June 2011 was busiest month in company’s history

- **Biggest Challenges:**

- Management must “own” the process
- Need to go slow to modify pricing, operations
- Utility rebates validate to homeowners that whole house is the right approach

Reduce energy use. Save money. Create jobs.



# Advanced Home Energy, Berkeley

- **Started in 2006** as insulation-only company
  - Expanded to “whole house” to avoid being the low-cost bidder
- **Then and Now:**
  - 1 crew with \$1200-\$1500 jobs
  - 7 crews with \$7,000 - \$10,000 jobs
- **Biggest threats:**
  - High customer expectations
  - Organizational complexity
  - More work than we can handle



News photo by Mike DiCarlo  
Ori Skloot of Advanced Home Energy told members of the Rossmore Residents Association how they can help reduce their energy consumption.

# Hartman-Baldwin

- Remodeler integrate Whole House into every job
- Average job size \$60,000
- Open Houses at completed projects
- “Home Remodelers' Survival Guide” Workshop



## IS YOUR HOME A HUMMER OR A PRIUS?

Home may be where the heart is, but a house is also a complex mechanical system that often runs inefficiently costing you money, polluting your home's air and leaving you uncomfortable year-round.

**HOW WE DO IT**  
HartmanBaldwin is certified by Energy Star and the Building Performance Institute to evaluate your home from attic to basement with the latest in green technology to check the efficiency of your home's windows, insulation, Heating Ventilation and Air Conditioning system (HVAC), as well as the CO safety of all gas appliances.

**SUSTAINABLE BUILDING PRACTICES**  
Our commitment to high quality construction includes implementing the best practices of sustainable building and its emerging technologies. A whole-system approach results in durable, comfortable and beautiful homes that are energy efficient and environmentally responsible.

**SCHEDULE A FREE HOME ASSESSMENT IF YOU'RE CONSIDERING THE FOLLOWING HOME IMPROVEMENT PROJECTS:**

- Solar Panels
- Roof repair or replacement
- HVAC repair or replacement
- Major Remodeling

CALL 909.676.1344 TODAY

**HARTMAN BALDWIN**  
design/build

CLM#40361

**DID YOU KNOW?**

- A bigger air conditioning unit alone isn't the answer.
- Installing solar panels alone isn't the answer.
- Changing windows alone isn't the answer.
- Proper insulation alone isn't the answer.
- Proper installation and integration of all of these components is the answer, we can show you how...

Interior view of a modern kitchen with a curved countertop and wooden cabinets.

100 West Foothill Blvd., Claremont, CA 91711 T 909.676.1344 / 626.486.3518 www.hartmanbaldwin.com



# Green Home Solutions by Grupe



- **Pathway**

- Launched Carsten Crossings as Grupe's first "Zero Energy" community in 2006
- Created subsidiary to specialize in energy efficiency and solar in existing homes



- **Then and Now:**

- Began with 5 Construction Staff
- Now have 20 full time



- **Biggest Challenges:**

- Generating Volume
- Paperwork/Rebate Processing
- Finding our Market



Reduce energy use. Save money. Create jobs.





[Insert Your Company Here]



Reduce energy use. Save money. Create jobs.



# Questions?

Reduce energy use. Save money. Create jobs.



# Agenda, Part 2

- How to participate
  - Rebate program scope
  - Contractor enrollment process and requirements
  - Jobs reporting and rebate application overview
  - Field mentoring and quality assurance
- Local opportunities and incentives

# Rebate Program Scope

Reduce energy use. Save money. Create jobs.



# Property Owner Eligibility for PG&E Rebates

- PG&E gas or electric customer (no propane)
- Single-family detached residences
- Existing homes (not new construction)
- Property owners do not need to reside in home



# Rebate Scope

## PG&E Whole House Rebates Do Not Cover...

- New Homes
- Commercial and Multi-Family Properties
- Single Measures (e.g., HVAC replacement only)
- Water Efficiency
- Solar
- Load Control

# Basic Upgrade Package

Receive \$1,000 homeowner rebate for completing ALL measures

Measure Description	Program Standard
Air sealing	$\leq 0.35$ ACHn
Attic insulation	$\geq R-38$
Duct sealing	Reduce leakage to $\leq 10\%$
Hot water pipe insulation	5+ feet of accessible pipe
Combustion Appliance Safety	Home must pass test
Carbon Monoxide monitor	At least 1 CO monitor
Thermostatic control valve	Installed on primary shower
Low flow showerhead	Recommended, not required

# Advanced Upgrade Package

- Complete an Energy Assessment to determine current conditions that affect energy consumption
- Select a combination of upgrade measures estimated to achieve 15% - 40% energy efficiency improvement
- Recommended: Complete all Basic Package measures and add some Advanced measures
- Conduct a follow-up assessment to confirm energy savings and rebate amount

# Other Whole House Incentives

Based on location, these rebates may apply:

- Rebates for HERS II ratings and trainings
- Local government energy efficiency rebates
- Water utility rebates
- Green labeling rebates
- Appliance rebates
- Federal tax credits

# How to Enroll

Reduce energy use. Save money. Create jobs.





# Becoming a Participating Contractor

**STEP 1**: Attend a Mandatory Participation Workshop

**STEP 2**: Meet the Program Eligibility Requirements

**STEP 3**: Start Enrollment Application

**STEP 4**: Get the Required Technical Trainings

**STEP 5**: Get Approved and Start Selling Jobs

# STEP 1: Mandatory Participation Workshop

CONGRATULATIONS!

You are on your way to becoming an  
**Energy Upgrade Contractor!**

# STEP 2: Program Eligibility Requirements

BASIC UPGRADE PACKAGE	ADVANCED UPGRADE PACKAGE
<p><b>CSLB Contractor's License</b></p> <ul style="list-style-type: none"> <li>• Class "B" General Bldg. or C-2, C-20</li> </ul>	<p><b>CSLB Contractor's License</b></p> <ul style="list-style-type: none"> <li>• Class "B" General Bldg.</li> </ul>
<p><b>Insurance</b></p> <ul style="list-style-type: none"> <li>• General Liability, Business Auto, Workers' Comp</li> </ul>	<p><b>Insurance</b></p> <ul style="list-style-type: none"> <li>• General Liability, Business Auto, Workers' Comp</li> </ul>
<p><b>2 Years of Relevant Work Experience</b></p>	<p><b>2 Years of Relevant Work Experience</b></p>
<p><b>Training</b></p> <ul style="list-style-type: none"> <li>• Participation Workshop, <b>Basic Package Training</b></li> </ul>	<p><b>Training</b></p> <ul style="list-style-type: none"> <li>• Participation Workshop, <b>Advanced Package Training</b></li> </ul>
<p><b>Certifications</b></p> <ul style="list-style-type: none"> <li>• BPI Building Analyst must perform CAS Test</li> </ul>	<p><b>Certifications</b></p> <ul style="list-style-type: none"> <li>• BPI Building Analyst must be on staff, perform CAS Test</li> </ul>
<p><b>Agreement to Program Terms and Conditions</b></p>	<p><b>Agreement to Program Terms and Conditions</b></p>

# Contractor's License Requirements



Active, current CSLB Contractor's License in good standing:

BASIC UPGRADE PACKAGE	ADVANCED UPGRADE PACKAGE	
Class "B" General Building Contractor	Class "B" General Building Contractor	
C-2 Insulation and Acoustical <b>AND</b>		
C-20 Heating, Ventilating, & Air Conditioning		

# Insurance Requirements

\$1,000,000 minimum insurance coverage:

- Commercial General Liability, naming Build It Green and PG&E as Additional Insured
  - \$1M each occurrence / \$2M aggregate
- Business Automobile Liability
  - \$1M each accident
- California Statutory Workers' Compensation
  - \$1M each accident



# Two Years of Relevant Work Experience

Acceptable documentation dating back 2 years includes:

- Contractor State License Board license (preferred)

**OR**

- Financial records

# Agreement to Program Terms and Conditions

**No employee or subcontractor with access to customer homes has been convicted within the last 7 years of:**

- Arson, assault, battery, burglary, driving under the influence, domestic violence, larceny, manslaughter, murder, theft (including identity theft), or any crimes against children.

## STEP 3: Enrollment Application Process

Once you are ready to enroll, go to: [www.builditgreenutility.org](http://www.builditgreenutility.org)

- Complete the online enrollment process via Build It Green's Contractor Account Management tool.

# Contractor Portal



## Contractor Portal

For the PG&E Whole House Program

- [Program Overview](#)
- [Events](#)
- [About](#)
- [News](#)
- [Forum](#)
- [Help](#)

### program overview



The Energy Upgrade California™ program was created to help reduce energy usage throughout the state by offering incentives to homeowners for a limited time.

These incentive packages encourage homeowners to take a "whole house" approach by combining several related improvements at once to increase a home's overall energy efficiency and achieve greater savings.

By working with participating contractors, homeowners can choose from two incentive options, the Basic Upgrade Package or the Advanced Upgrade Package, based on their improvement needs and budget.

#### Basic Upgrade Package

The Basic Upgrade Package focuses on the building shell— including installing and upgrading insulation and patching duct work. This package qualifies for incentives of up to \$1,000..

#### Advanced Upgrade Package

The Advanced Upgrade Package is a comprehensive plan focused on the Basic Upgrade Package components, plus installing new systems (heating, cooling, and water heaters), replacing ductwork, upgrading single-pane windows, and more. This package qualifies for incentives of up to \$4,000.

#### Basic Package

AMOUNT AVAILABLE

up to **\$1,000**

POTENTIAL ENERGY SAVINGS

**10%** (average)

#### Advanced Package

AMOUNT AVAILABLE

**\$1,500 - \$4,000**

POTENTIAL ENERGY SAVINGS

**15% - 40%** (average)

my application

Get Started Now

Go »



Submit and Track Jobs

Go »

#### More Training



- [Green Upgrade Training](#)
- [Building Forums](#)
- [PGE Beta System Demo Online](#)



Administered by:

**Build It GREEN**  
Smart Solutions from the Ground Up

User login

# Apply Online



## RETURNING MEMBER

User Name

Password

[Forgot your password?](#)

**Sign In**

## NEW USER

Email Address

Confirm Email Address

Password

Confirm Password

**Sign Up**



# Documentation Checklist

- Signed Contractor Participation Agreement
- Contractor License Information
- Evidence of being in business for 2 years
- Copies of Certificates for all BPI-certified employees
- Certificate(s) of Insurance
- List of employees with access to Customer homes
- Authorization to conduct background checks on all staff and subcontractors who would enter a PG&E customer home
- Background check confirms that no employee with access to Customer homes has been convicted within past 7 years
- List of sales personnel and Home Improvement Salesman registration number(s)

# Verification Process

- ✓ Application status:
  - Pending
  - Approved
  - Denied
  
- ✓ Access to Application files will be limited to Administrators
  - Build It Green
  - PG&E
  - EGIA
  
- ✓ Customer Service:
  - Tel: 1-866-970-7348
  - Email: [enrollment@builditgreenutility.org](mailto:enrollment@builditgreenutility.org)

# STEP 4: Required Trainings and Certifications



BASIC UPGRADE PACKAGE	ADVANCED UPGRADE PACKAGE
<p><b>Program Participation Workshop</b></p>	<p><b>Program Participation Workshop</b></p>
<p><b>Basic Upgrade Package Technical Training:</b> required if there is no BPI Building Analyst employed on staff</p>	<p><b>Advanced Upgrade Package Technical Training:</b> required for all BPI Building Analysts employed by Advanced Upgrade Package Contractors.</p>
	<p><b>(recommended) Basic Upgrade Package Technical Training</b></p>
<p><b><u>Required Certifications</u></b></p>	
<p><b>BPI Building Analyst</b> must perform the Combustion Appliance Safety testing</p>	<p><b>BPI Building Analyst</b> must be on staff and perform the Combustion Appliance Safety test-in/test-out</p>

# Basic Upgrade Package Technical Training



- FREE 3-day classroom and field training
- Overview of building science and the home performance approach
- Classroom and hands-on field instruction
- Required for non-BPI certified contractors
- Recommended for Lead Installers and Project Supervisors
- Introduction to Advanced Building Performance Training

# Advanced Upgrade Package Technical Training

## 1 day workshop

- Augmented BPI Combustion Appliance Safety Procedures and Action Guidelines
- Duct test procedures not covered in BPI Building Analyst training



# Building Performance Institute



What is BPI?

- Professional certification provider
- National standard for home performance
- 8 professional certification options
- Accredits local BPI Affiliates for training and testing
- BPI Certified = Professional / Individual
- BPI Accredited = Company

Go to [www.bpi.org](http://www.bpi.org) to learn more



# CA-Based BPI Training Providers

- Build It Green
- California Building Performance Contractors Association
- California Center for Sustainable Energy
- ConSol
- Greener Dawn, Inc.
- JTRL - Train To Sustain Program
- Laney College
- MLC Home Performance
- OurEvolution Energy and Engineering
- Richard Heath & Associates, Inc.
- Rising Sun Energy Center
- Sutech School of Vocational and Technical Training
- Synergy Companies

# STEP 5: Approval and Begin Selling Jobs

After ALL of STEPS 1-4 have been completed:

- Contractor is provided a Username and Password
- Contractor listed as an Energy Upgrade Contractor at [www.energyupgradeca.org](http://www.energyupgradeca.org)
- Submit Energy Upgrade jobs for review
- Access additional resources

# Job Submission and Rebate Processing

Reduce energy use. Save money. Create jobs.



# Job Submittal Process

**STEP 1**: Site Assessment

**STEP 2**: Job Submission (Pre-installation)

**STEP 3**: Perform the Work

**STEP 4**: Post-installation Assessment

**STEP 5**: Rebate Request (Post-installation)

**STEP 6**: Homeowner Gets Rebate

# STEP 1: Site Assessment

1. Interview Homeowner/occupant
2. Collect Job data
3. Define scope of work & review with homeowner
4. Collect utility bill data (*highly recommended, not required*)
  - Homeowner release form
  - 12 months of data preferred
5. Perform Combustion Appliance Safety Test
  - Performed or supervised by BPI-certified professional
6. Model Energy Performance (*Advanced Upgrade Package only*)
7. Discuss assessment with homeowner/occupant

# Special Note – Combustion Safety Testing

## *“DO NO HARM ”*

- Critical life safety and liability issue
- Requires BPI certification
- To be completed **pre-**, and **post-installation**
  - Must be tested **each day** of the project when air sealing or duct sealing work is conducted
- Required for Basic and Advanced Upgrade Packages
- **PG&E Requirement:** Augmented BPI Combustion Appliance Safety (CAS) Protocols



# Special Note – Energy Modeling Software

## Accepted Energy Modeling Software:

- **EnergyPro 5.1, Residential Performance Module**
  - Purchase through EnergySoft: IM1 + RM4
  - Modeling performed by trained and proficient energy modeler on-staff or subcontracted
  - HERS and HERS II Raters acceptable
- Other software may become available as approved by CEC as HERS II compliant

# STEP 2: Job Submission (Pre-installation)

1. Online job submission and reporting
  - Green Energy Compass
  - Accessed from Contractor Portal ([www.builditgreenutility.org](http://www.builditgreenutility.org))
2. Submit required documentation (*see next slide*)
3. Quality Assurance (QA) “desktop” review
  - Technical: scope of work review, baseline conditions / simulations make sense
  - Admin: valid account, eligible BPI-BA for CAS test, no double dipping, etc.
4. Notice to Proceed issued by QA admin

# Pre-installation Data Collection

BASIC UPGRADE PACKAGE			ADVANCED UPGRADE PACKAGE		
	Pre	Post		Pre	Post
<b>Job Data Collection Form (Excel)</b> • Like Pilot Program JRT	<input type="checkbox"/>	<input type="checkbox"/>	<b>Job Data Collection Form (Excel)</b> • Like Pilot Program JRT	<input type="checkbox"/>	<input type="checkbox"/>
<b>CAS Data Collection Form (PDF)</b> • Fill-in form / Combustion Safety per BPI	<input type="checkbox"/>	<input type="checkbox"/>	<b>CAS Data Collection Form (PDF)</b> • Fill-in form / Combustion Safety per BPI	<input type="checkbox"/>	<input type="checkbox"/>
<b>CAS Action Guidelines (Excel &amp; Doc)</b> •Augmented CAS Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<b>CAS Action Guidelines (Excel &amp; Doc)</b> •Augmented CAS Procedures	<input type="checkbox"/>	<input type="checkbox"/>
<b>Proposal / Scope of Work (PDF)</b>	<input type="checkbox"/>		<b>EnergyPro Input File (BLD)</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Signed Bid &amp; Invoice (PDF)</b>		<input type="checkbox"/>	<b>EnergyPro Output File (XML)</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Supplemental</b> • Utility data/release, photos, building permit	<input type="checkbox"/>	<input type="checkbox"/>	<b>Proposal / Scope of Work (PDF)</b>	<input type="checkbox"/>	
			<b>Signed Bid &amp; Invoice (PDF)</b>		<input type="checkbox"/>
			<b>Supplemental</b> • Utility data/release, photos, building permit	<input type="checkbox"/>	<input type="checkbox"/>

## STEP 3: Perform the Work

1. Execute contract with homeowner
2. Pull all necessary building permits
3. Complete installation measures per approved scope of work

# STEP 4: Post-installation Assessment

1. Perform diagnostic verification tests
  - Blower door air infiltration test
  - Duct leakage test
2. Combustion safety test-out
  - *Performed by BPI Building Analyst*
3. Update EnergyPro model with test-out results
4. Complete Data Collection Requirements

# STEP 5: Post-installation Rebate Request

1. Online job submission and reporting
2. Submit required documentation (*see next slide*)
3. QA “desktop” review
  - **Technical:** scope of work review; CAS results show “pass”
  - **Admin:** Signed contract; account holder info correct for rebate check; occupant signed CAS form; job cost, building permit #, etc.
  - **CAS check:** phone call to homeowner to confirm CAS test was completed
4. Rebate Approval issued by QA admin



# Post-installation Data Collection

BASIC UPGRADE PACKAGE			ADVANCED UPGRADE PACKAGE		
	Pre	Post		Pre	Post
<b>Job Data Collection Form (Excel)</b> • Like Pilot Program JRT	<input type="checkbox"/>	<input type="checkbox"/>	<b>Job Data Collection Form (Excel)</b> • Like Pilot Program JRT	<input type="checkbox"/>	<input type="checkbox"/>
<b>CAS Data Collection Form (PDF)</b> • Fill-in form / Combustion Safety per BPI	<input type="checkbox"/>	<input type="checkbox"/>	<b>CAS Data Collection Form (PDF)</b> • Fill-in form / Combustion Safety per BPI	<input type="checkbox"/>	<input type="checkbox"/>
<b>CAS Action Guidelines (Excel &amp; Doc)</b> •Augmented CAS Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<b>CAS Action Guidelines (Excel &amp; Doc)</b> •Augmented CAS Procedures	<input type="checkbox"/>	<input type="checkbox"/>
<b>Proposal / Scope of Work (PDF)</b>	<input type="checkbox"/>		<b>EnergyPro Input File (BLD)</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Signed Bid &amp; Invoice (PDF)</b>		<input type="checkbox"/>	<b>EnergyPro Output File (XML)</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Supplemental</b> • Utility data/release, photos, building permit	<input type="checkbox"/>	<input type="checkbox"/>	<b>Proposal / Scope of Work (PDF)</b>	<input type="checkbox"/>	
			<b>Signed Bid &amp; Invoice (PDF)</b>		<input type="checkbox"/>
			<b>Supplemental</b> • Utility data/release, photos, building permit	<input type="checkbox"/>	<input type="checkbox"/>

# STEP 6: Homeowner Rebate Issued

1. Rebate Checks sent to Homeowner
2. Final QA
  - Homeowner Survey
  - Field Verification of Sampled Jobs
3. PG&E Central Inspection Unit
  - Some jobs may be selected for PG&E's review
4. Customer Service
  - Whole House Rebate Program Representative
    - P: 866-970-7348, E: [jobs@builditgreenutility.org](mailto:jobs@builditgreenutility.org)
  - PG&E Smart Energy Line
    - For Non-Program questions, 1-800-743-5000

# Tips For a Streamlined Job Process

## Successful Energy Upgrade Contractors:

1. Read and follow all directions
2. Accurately complete **ALL** Data Collection requirements (fields, forms, etc.)
3. Accurately model all building features in EnergyPro
  - Utility bill history is highly recommended
4. Take pictures!
5. Provide job notes, sketches, etc. for unique building features and/or potential areas of confusion
6. Double check work before submitting

# Quality Assurance

Reduce energy use. Save money. Create jobs.



# Why Quality Assurance?

- Ensure quality of work
- Verify safety protocols
- Provide contractor feedback, support, mentoring
- Evaluate effectiveness of training

# Multiple Consumer Protections

- Contractor screening and credentials
- Contractor background checks
- Desktop review of job submissions
- Field verification of selected jobs
- Homeowner surveys and hotline



# Field Verification based on Random Sampling

## Sampling Rates for Participating Contractors

<b>Tier 0</b>	<b>100% review of jobs while Contractor has outstanding corrective actions.</b>
<b>Tier 1</b>	<b>3 of first 5 jobs completed by new participating Contractor</b>
<b>Tier 2</b>	<b>4 of next 20 jobs</b>
<b>Tier 3</b>	<b>After completion of first 25 jobs: 15% rate for Contractors without BPI-BA on staff (1 in 7) 5% rate for Contractors with BPI-BA on staff (1 in 20)</b>

# Field Mentoring Can Double as QA Verification

1. Available on demand. You provide the house.
2. 5 FREE field mentoring sessions
  - Additional sessions @ \$500
3. Tier 1 & 2: Schedule to coincide with job close-out to count as QA verification
4. You may correct any deficiencies identified through the field mentoring before a final pass/fail determination is made
5. Bring your whole team!

# Corrective Field Verification Triggers

Four more field verification triggers:

1. Application anomalies from paper review
2. Homeowner survey shows job performance issue or no CAS test
3. Customer complaint warrants further investigation
4. Outstanding corrective actions from other jobs

QA field inspections become fee-based when conducted in response to these events which trigger corrective action. The fee is **\$500** per visit plus travel costs.

# Field Verification Inspection Process

1. Conduct visual survey
2. Assess that measures claimed are “new” to the home
3. Compare quality of measure with program standards
4. Re-tests (blower door, CAS test, duct tests, etc.)
5. Energy Simulation: review inputs (Advanced only)
6. Validate all test-out results
7. Prepare QA report, noting how measures could have been improved

# Field Verification Score

Group	Finding
<b>FAIL</b>	
Score: 0	Performance does not meet technical standards or program requirements, occupants' health and safety are threatened; <u>immediate corrective action required.</u>
Score: 1	Performance does not meet technical standards or program requirements; <u>immediate corrective action required.</u>
Score: 2	Performance meets all combustion safety requirements but several technical deficiencies were observed; corrective action required
<b>PASS</b>	
Score: 3	Performance meets all technical standards and program requirements, some areas of technical performance need improvement.
Score: 4	Performance meets all technical standards and program requirements.

# Corrective Action: Field Verification Failures

1. **Corrective Action: Low.** Restarts a Contractor's sampling rate at Tier 1.
2. **Corrective Action: Medium.** Restarts a Contractor's sampling rate at Tier 1 plus mandatory fee-based mentoring.
3. **Corrective Action: High.** One year suspension from program, name removed from Contractor Directory

If inspection failure rate is...			
Tier 1 or 2	1 failure / year	2 failures / year	3 failures per year
Tier 3	≥ 2% / year	≥ 3% / year	≥ 5% / year
...then the corrective action required is...			
	Low	Medium	High



# Health & Safety

Reduce energy use. Save money. Create jobs.



# Safety Overview

## Comprehensive safety is a program requirement

1. Must abide by BPI Health and Safety standards
2. OSHA equipment safety standards
  - Fitted respirators, dust masks, gloves, protective clothing, safety glasses, hard hats, etc.
3. Combustion Appliance Safety Tests
4. Hazardous Materials generated during a project

# Combustion Appliance Safety Testing

## Augmented BPI CAS Protocols have been adopted

1. Core BPI CAS standards
2. Augmented supplementary protocols adopted by PG&E
  - Adapted from Natural Gas Appliance Test (NGAT) protocols
  - CAS Action Guidelines form contains additional test procedures

# Hazardous Material Considerations

## Potential Hazards Encountered on Energy Upgrade Jobs

- Asbestos
- Lead based Paint
- Mercury
- Spray Polyurethane Foam (SPF)
- Polychlorinated Biphenyls (PCBs)
- Knob and Tube Wiring
- Other Hazardous Materials

# Program Contacts

## Whole House Rebate Program Hotline

Web: [www.builditgreenutility.org](http://www.builditgreenutility.org) or  
[www.energyupgradeca.org](http://www.energyupgradeca.org)

Phone: 866-970-7348

Email: [info@builditgreenutility.org](mailto:info@builditgreenutility.org)

**PG&E Smart Energy Line 1-800-743-5000**

- Local Opportunities and Incentives

Reduce energy use. Save money. Create jobs.





# Energy Upgrade California: Multi Pronged Program Delivery Approach

- **California Energy Commission Energy Upgrade California Team**

State-wide program designed to bolster the activities of the IOU EUC Program by providing:

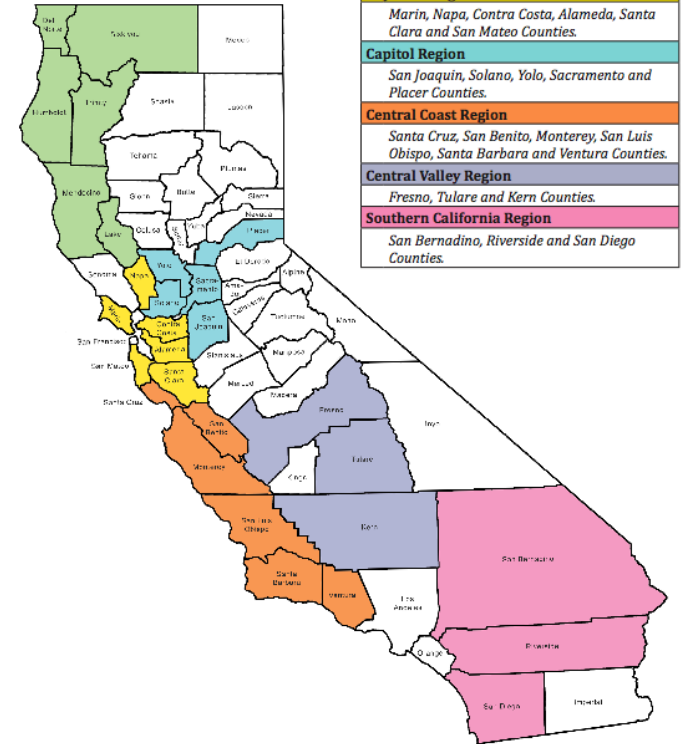
- Technical Assistance for Contractors
- Outreach and Education to Property Owners
- Stakeholder Engagement



# Program Implementation

- Regional Coordinators in Every Program Plus Region
- (6) Program Plus Regions
- Over (30) Staff Contributors
- (5) Delivery Team Organizational Partners
  - ECOLOGY ACTION
  - Valley Vision
  - Redwood Coast Energy Authority
  - Renewable Energy Development Institute
  - California Center for Sustainable Energy

Regional Delivery Team Map



# Contractor Technical Assistance

- Financing Programs & Additional Rebate Programs
- Marketing & Branding Support
- Supplementary Training and Networking Opportunities
- Connection with interested Property Owners



# Subsidized Contractor Training Program

- Building Performance Institute Building Analyst
  - Five day training with written and field testing
  - Pay only \$130 (\$1600 value)
- California Whole House Energy Rater (HERS II)
  - Learn to conduct diagnostic whole-house verifications
  - Save \$400 on HERS II training and testing
- Trainings taking place through March 2012
- Sign up at: [www.contractor-training-ca.org](http://www.contractor-training-ca.org)

# Homeowner Outreach



- Homeowner workshops
- Tabling at “green” community events
- Presentations to community groups, chambers of commerce etc.,
- Provide personalized education & support
- Identify and eliminate barriers to participation

# Financing Partnerships in CA

## **CHF Loans for Energy Upgrades**

- 0-3% fixed interest rate, 15-year loan
- No minimum or maximum loan amount

## **CHF Grants**

- 15% of project cost, up to \$1,250 per home, AND
- Up to \$700 to cover initial and final home energy assessments

**For more information on CHF visit:**

<http://www.chfloan.org/>

## Point of Contact

**To get in touch with the Regional Coordinator in your area send an e-mail to:**

**[Fieldstaff@ecoact.org](mailto:Fieldstaff@ecoact.org)**





Thank you for attending

Reduce energy use. Save money. Create jobs.

