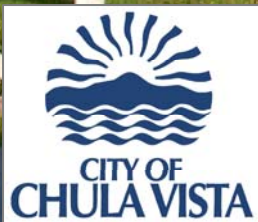


SUSTAINABLE ENERGY SHOWCASE HOME

Brendan Reed, Environmental Resource Mgr.



LOCAL GOVERNMENT PARTNERSHIPS

- Leverage their unique roles for EE
- Integrate EE in all services & programs

Community
Centers &
Libraries

Land Use &
Building
Codes

Major
Employer

Business
Licenses

Economic
Development

Building/
Facility
Owner

Retrofit
Financing

Redevelopment
& Housing

LOCAL GOVERNMENT PARTNERSHIPS

- Leverage their unique roles for EE
- Integrate EE in all services & programs

Community
Centers &
Libraries

Land Use &
Building
Codes

Major
Employer

Business
Licenses

Economic
Development

Building/
Facility
Owner

Retrofit
Financing

Redevelopment
& Housing

LOCAL GOVERNMENT PARTNERSHIPS

- Leverage their unique roles for EE
- Integrate EE in all services & programs



PROJECT GOAL

- Create a local showcase for home retrofits & EUC
- Demonstrate Emerging Technologies
- Link to green job training
- Contribute to local green economy



Chula Vista Sustainable Energy Showcase Home Project Overview



The City of Chula Vista, ConSol, and San Diego Gas and Electric (SDG&E) Emerging Technologies Program are leading a team that will upgrade an average home in a typical neighborhood to demonstrate how average can become extraordinary, efficient, attractive, comfortable, and cost effective. The Chula Vista Sustainable Energy Showcase Home project team — which also includes General Electric (GE), California Center for Sustainable Energy (CCSE), the County of San Diego, and Sweetwater Authority — will upgrade the house to achieve deep energy savings of over 50%. The house will be open to the public for events that promote affordable and effective home energy improvements and energy efficiency rebate programs.

The City of Chula Vista, in collaboration with Community HousingWorks purchased the distressed property in September 2011 at a substantial discount through Chase's Community Revitalization Program. Once home renovations are completed, the property will be resold to a qualifying low-income family through the Chula Vista First-Time Homebuyer Assistance Program.

Energy upgrades are being funded by SDG&E, while their installation is being completed through CCSE and the County of San Diego's GETUP green jobs training program. The workforce training consists of participants who are unemployed or underemployed who want to gain hands-on experience with building energy performance and installing energy-efficient lighting, insulation, air sealing, water heating, and HVAC systems.

In addition to the energy efficiency improvements, GE will be installing a state-of-the-art 2.4 kW solar photovoltaic array to reduce the home's energy demand and carbon footprint. It will be the first demonstration of its new "plug & play" solar energy system technology, which is uniquely designed to be cost-effectively installed during reroofing activities. GE will also be installing a home energy network to help the future homeowners track and manage their energy use.

The Chula Vista Sustainable Energy Showcase Home will be highlighted through public open houses, on-site contractor trainings, and video case studies. The home will also serve as a demonstration site for the Energy Upgrade California Community Savings Initiative, which helps to bring together neighborhood residents to get the benefits of home energy efficiency upgrades at a lower cost. In addition to statewide Energy Upgrade California incentives, Chula Vista residents are able to receive special incentives and 0%-interest loans through the City's Home Upgrade, Carbon Downgrade program to support their home energy improvements.

Project Highlights

- Building performance training for unemployed contractors and green energy program graduates
- High efficiency appliances, space & water heating, insulation, windows, lighting, and water fixtures
- 2.4 kW GE solar photovoltaic system
- Over 50% energy savings
- Resold to a low-income family through First-Time Homebuyer Assistance program

Energy Upgrade California is a partnership of the California Energy Commission and the California Public Utilities Commission and is funded by California utility customers. The Community Savings Initiative, GETUP workforce training, and Chula Vista Home Upgrade, Carbon Downgrade programs are also funded in part through the American Recovery and Reinvestment Act. Solar energy upgrades are being funded through a General Electric donation and a California Solar Initiative grant.



PROPERTY FACTS

- **1,900 sf, single-family detached (1984 year built)**
- **JP Morgan Chase foreclosure**
- **Purchase by City/Community HousingWorks**
- **Utilized HUD Neighborhood Stabilization Program**



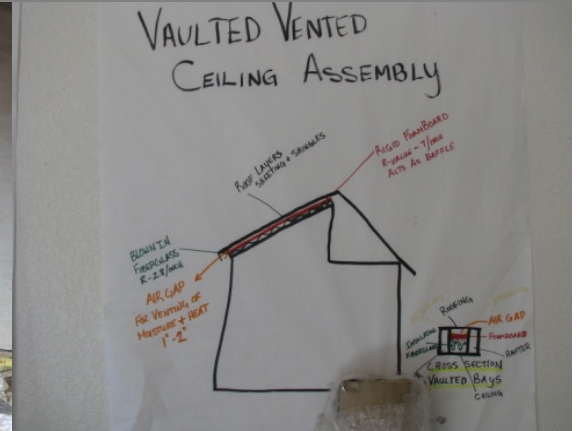
GREEN JOB TRAINING

- Green Grad Education & Training Upgrade Program (GETUP)
- 13 unemployed students
- Energy upgrade materials provided by SDG&E ETP



GREEN JOB TRAINING

- 2-weeks hands-on training at work site
- 1-week classroom skills
- 6-month paid internship



HOME IMPROVEMENTS - Roof

- Fire hazard - wood shake shingles
- ENERGY STAR roof



HOME IMPROVEMENTS – Heating System

- Inefficient heating system
- High-efficiency hydronic heating



HOME IMPROVEMENTS – Windows

- Single-paned
- ENERGY STAR dual-paned, low-e



HOME IMPROVEMENTS – Lighting

- Outdated fixtures
- LED fixtures – pendant, sconce, recessed models

BEFORE



AFTER



HOME IMPROVEMENTS – Bathroom

- Inefficient plumbing fixtures
- WaterSmart toilet & plumbing



HOME IMPROVEMENTS – Flooring

- Broken tiles & inefficient appliances
- ENERGY STAR appliances & sustainable materials



HOME IMPROVEMENTS – Kitchen

- Outdated tile & carpet
- Rapidly-renewable materials – bamboo & cork



HOME IMPROVEMENTS – Renewable Energy

- 2.4 kW 'Plug & Play' Solar PV
- 32 sf ICS Solar Hot Water



HOME IMPROVEMENTS – Landscaping

- Water-efficient with additional sustainable features
- Southwestern College career training



Landscape Conceptual Plan

SCALE 1/4" = 1'-0"

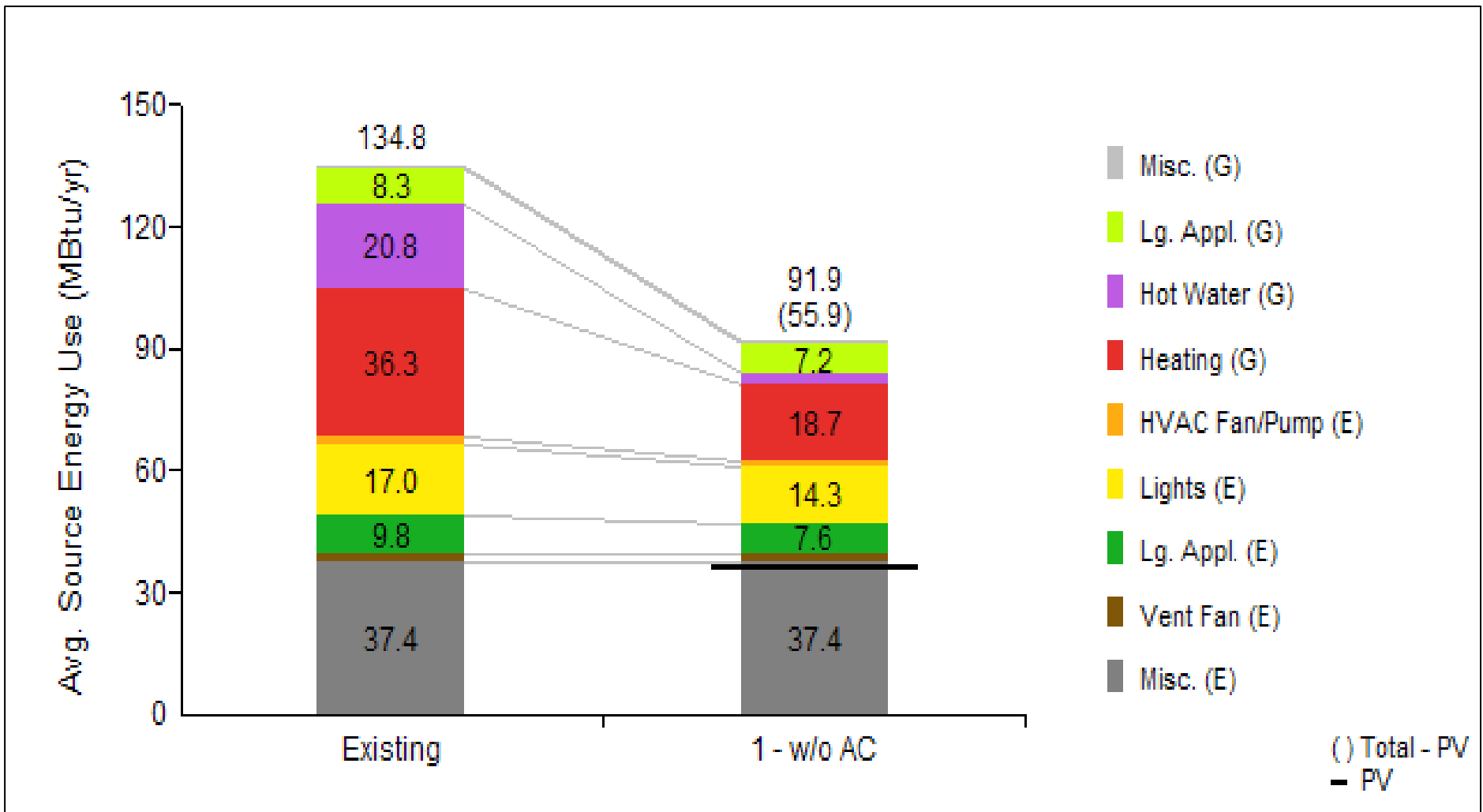


SUSTAINABLE ENERGY SHOWCASE HOME
590 Fig Ave., Chula Vista, CA 91910



HOME IMPROVEMENTS – Overall Energy Use

- Over 50% reduction in energy use
- Local purchasing (\$40,000) & hiring (35%)



SHOWCASE PERIOD

- Ribbon-cutting ceremony
- Monthly open houses
- Contractor & realtor trainings
- Broader community sustainability outreach
- Home performance M&V
- Future LI homeowners



**THANK YOU TO ALL THE
PROJECT PARTNERS
...& WE ARE JUST GETTING STARTED!**



Sullivan Solar Power
Leading the Solar Energy Revolution

