

Premier Gardens

Sacramento, California



Moving Toward Zero Energy Homes



Zero Energy Homes Generating Interest in Sacramento

In April 2004 Premier Homes opened the first standard “zero energy” community of its kind in the Sacramento region—Premier Gardens. By partnering with some of the industry’s leading experts in energy-efficiency including the Sacramento Municipal Utility District (SMUD), ConSol and the National Renewable Energy Laboratory (NREL), Premier Gardens was designed to save homebuyers up to 60 percent on utility costs. Consisting exclusively of “Zero Energy Homes” (ZEH), this community

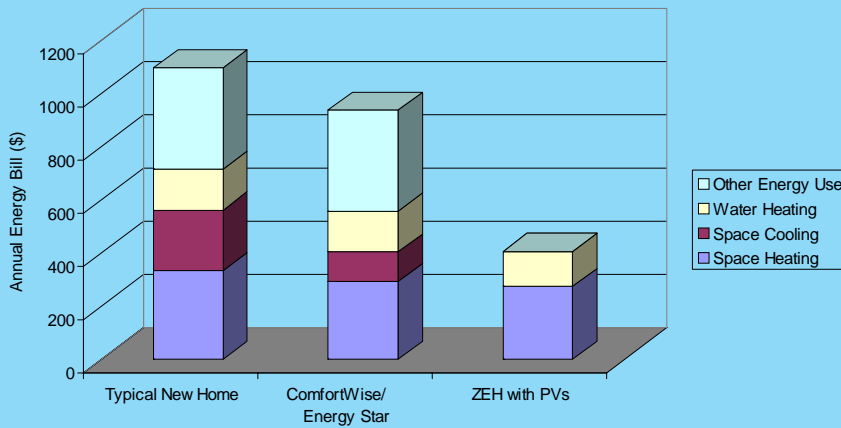
combines innovative construction and energy-efficient appliances with renewable energy systems such as on-demand water heating and solar electricity to create a home that is not only energy-efficient but produces its own electricity. Branded as a “Premier ProEnergy Community,” Premier Gardens is the first of its kind to offer entry-level buyers so many energy features as part of the standard package.

The homes at Premier Gardens are certified as both a SMUD Solar Advantage Home and an Advantage Home, which means the homes exceed the current California Title 24 energy cooling requirements—some of the most stringent in the nation—by 50 percent. In addition, the homes will receive a Home Energy Rating that independently verifies their energy-efficiency, which according to Premier Homes will enhance the resale value of the homes.

“We are excited to bring the first standard “zero energy” community to Sacramento. Premier Gardens is a unique opportunity for first-time homebuyers to live in an extremely energy-efficient home that will provide them with a solid value both now and in the years to come.”

*- Kevin Yttrup, president.
Premier Homes*

Annual Energy Bill Comparison



Key Features

Energy Efficiency

Appliances	Energy Star®
Air Sealing	Caulking and sealing measures ensure low air infiltration
Insulation	R-19 wall insulation R-38 attic insulation R-4.2 duct insulation Insulated ducts buried in attic
Windows	Spectrally selective glass high performance windows U-factor: 0.37 sliders; 0.33 fixed; 0.34 patio door. SHGC: 0.32 sliders; 0.35 fixed; 0.33 patio door.
Heating/Cooling	0.91 AFUE furnace 14 SEER A/C
Lighting	All fluorescent lighting
Water Heating	Tankless water heater with 0.82 energy rating Hot water pipe insulation
Photovoltaics	2 kW AC roof-integrated solar electric system

About Zero Energy Homes

To take U.S. home energy performance to a higher level, DOE created the Zero Energy Homes (ZEH) initiative, bringing the latest R&D out of the laboratory and into homes. Both energy efficiency and renewable energy technologies - like solar water heating and solar electricity - serve these homes. DOE's goal is to help builders create homes that produce as much energy as they use over the course of a year. ZEHs are connected to the utility grid, and some are even energy generators, rolling the utility meter backward when they produce more electricity than they consume.

DOE selected four teams that are working with researchers at the National Renewable Energy Laboratory to introduce the ZEH concept into the single-family, new-home construction industry. The four teams are ConSol, Stockton, California; Davis Energy Group, Davis, California; NAHB Research Center, Upper Marlboro, Maryland; and Steven Winter Associates, Norwalk, Connecticut.

For more information:

A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

"Zero Energy Homes provide multiple benefits - lower energy bills for the homeowner and reduced energy demand on hot summer days when electricity is more expensive and the power grid most utilized," said Paul Bender, SMUD manager of power production. "SMUD is proud to be involved with bringing the first community of its kind to Sacramento homebuyers."

Each "Premier ProEnergy" home is designed with cutting edge energy technologies that will be independently inspected for quality and performance. Using ComfortWise construction protocols and features, each home qualifies for the Environmental Protection Agency (EPA) and the Department of Energy's (DOE) ENERGY STAR® Homes national program. Specific energy-efficiency features include: a 2 kW AC solar electric home power system, a tankless water heater that produces 6.5 gallons of hot water per minute, a mechanically designed heating and air conditioning system, spectrally selective glass windows, and tightly sealed air ducts.



The PV system meter displays solar electricity generated and electricity used in the home.

Project Information

ConSol

Rob Hammon, principal
Phone: 209.473.5000
www.ConSol.ws
rob@consol.ws

Sacramento Municipal Utility District

Mike Keesee, program manager,
Renewable Generation Assets
916.732-5244
mkeesee@smud.org

Premier Homes

John Stewart, principal
916.789.9715
www.BuiltbyPremier.com

Zero Energy Home Contacts

U.S. Department of Energy

Lew Pratsch
Phone 202.586.1512
Lew.Pratsch@hq.doe.gov

National Renewable Energy Laboratory

Tim Merrigan
Phone: 303.384-7349
tim_merrigan@nrel.gov