



INNOVATION | ZNE

BALANCED APPROACH HELPS ABC GREEN HOME 3.0 ACHIEVE ZERO NET ENERGY EFFICIENCY GOALS

The ABC Green Home 3.0 in Fullerton, California is a showcase of high-performance building design and 21st-century construction techniques. Conceptualized by Peninsula Publishing and designed by Danielian Associates, this 2,400 square-foot single-family multi-generational home was built by Habitat for Humanity of Orange County for ownership by a U.S. military veteran family.

SoCalGas® was the Presenting Sponsor for the project and numerous Product Sponsors donated their materials, expertise and labor to assist Habitat OC in the construction process. Using the balanced energy approach to energy systems design, the two-story home features a 3.7 kW rooftop photovoltaic solar electricity generation system and provides residents with the natural gas appliances they prefer in a home that is super-efficient, sustainable and healthy. Along with a new 2-pounds-per-square-inch corrugated stainless steel tubing natural gas houseline piping system and load center, the home contains the following natural gas appliances:

**Condensing Tankless Water Heater • Indoor Fireplace • Cooktop
Condensing Zoned HVAC System • Clothes Dryers • Outdoor BBQ**

The overall energy efficiency of the ABC Green Home 3.0 was evaluated using the Energy Design Rating (EDR) metric, which is a more stringent measurement system than the widely-used RESNET 100-point scale. The EDR rating also takes into account non-Title 24 Part 6 energy loads such as domestic appliances and consumer electronics and an EDR score of 0 equals ZNE. The home's final EDR rating with the 3.7 kW rooftop photovoltaic system was -0.6¹, so it's designed to produce more energy than it consumes!

The ABC Green Home 3.0 has impressive energy-efficiency credentials including certifications² from:

- ENERGY STAR®
- Leadership in Energy & Environmental Design (LEED) - Platinum
- Residential Energy Services Network (RESNET®) - Energy Smart Builder
- U.S. Department of Energy (DOE) - ZERO Energy Ready Home
- National Association of Home Builders - National Green Building Standard™
Home Innovation - NGBS Green Partner
- Wellness Within Your Walls (WWYW)
- United States Environmental Protection Agency - WaterSense

The ABC Green Home 3.0 is an excellent example of how using natural gas and electricity together in a balanced energy approach to residential new construction can achieve outstanding results in the effort to reach Zero Net Energy.

SoCalGas – Your Partner in the Clean Energy Future

¹ ABC Green Home 3.0 CF1R-PRF-01 Report; ConSol Energy Consultants; 2016-09-20

² GH Builder's "The ABC Green Home", Volume 2, 2017, page 24

