



Innovation Goes Green: Sustainable design in a home that is functional, affordable and beautiful.

Southern California Gas Company (SoCalGas®) encourages the installation of new and existing natural gas technologies and services in residential housing. SoCalGas helps builders and developers share insights and best practices in green building and sustainability by sharing real-life examples by participating high performing demonstration projects, such as the Dawn Creek Project. The goal is to present examples of how projects designed with energy-efficient natural gas appliances and related technologies help builders meet state energy, sustainability and environmental goals while providing outstanding value and convenience to SoCalGas' residential customers.

THE "WHOLE-HOUSE" PERSPECTIVE

The "whole-house perspective" views the entire home as an integrated energy system with interdependent parts where one component of a home's design affects another. At Dawn Creek, the home's components work together as a system where innovation, cost savings and energy efficiency support each other, adding value to the home.

Incorporating high-tech features into a green project can lead to questions about affordability. However matching the cost of

each feature to the value it provides to the home and the home's system, can result in significant energy cost savings to buyers. Applying measures that work with the local climate to design considerations can dramatically affect energy efficiency.

SOCALGAS: PROGRAMS AND INCENTIVES

When companies like KB Home are designing and building green homes they turn to SoCalGas' programs, incentives and expertise to help them break ground on new projects. "The Gas Company has really gone out of its way to help us as builders," said Tom DiPrima, executive vice president, KB Home Southern California Division. "They have programs like the California Advanced Homes Program that provides incentives and expertise to assist us in designing our homes to be energy efficient and affordable."

Beginning in the design phase of a project, experienced SoCalGas account executives provide support and recommendations to improve energy efficiency levels and maximize available builder incentives. SoCalGas works closely with builders and energy analysts to share new ideas and technologies and to help them design better, healthier homes that save new homebuyers money year after year.



Tom DiPrima, Executive Vice President, KB Home - Southern California Division, accepting an award for his Dawn Creek project for "Energy- Efficiency Excellence" from George Minter, Director Policy and Environmental Solutions for SoCalGas.

SAVING ENERGY WITH SUSTAINABLE DESIGN

KB Home's Zero House 2.0 project is being hailed for its innovative, cost-effective, sustainable design. The 2,500 square-foot, high-performance, single-family residence offers buyers an array of state-of-the-art, energy-efficient design options. Both affordable and practical, the home also exceeds current ENERGY STAR® qualified guidelines.

Showcased in the Dawn Creek project, Zero House 2.0 is one the most unique and energy-efficient homes ever built by KB Home. And because they needed a reliable partner to make this dream project a reality, KB Home reached out to SoCalGas' residential new construction team for assistance regarding incentive programs and technology options before breaking ground.

BUILDING A SUCCESSFUL STRATEGY

KB Home chose Lancaster, California as the place for their mid-range homes because energy-efficiency was important to buyers both for comfort and post-purchase affordability. KB Home reached out to key "innovation partners" like SoCalGas, to help them integrate the right mix of advanced materials and technologies to meet their sustainability goals. The company then focused on promotion by creating a buzz during the process, and energizing their staff, partners and stakeholders to support their ZNE vision.

INNOVATION-WOW!

KB Home Zero House 2.0 uses highly innovative, cost-saving, green technologies in their sustainable design, creating a consumer "WOW" factor with the following:

- Natural gas home automotive refueling appliance.
- Hydronic heating system incorporating a highly efficient tankless water heater.
- Greywater waste heat recovery system which extracts energy from drain water and uses it to preheat water used in the home's tankless water heater.
- And much more! (See Sidebar: Dawn Creek's Green Innovations.)

INNOVATIVE GREEN TECHNOLOGY

Many of the model homes' features demonstrate that cutting-edge green technology and design can be practical, energy-efficient and save homeowner's costs over time. Located in Lancaster, CA, home to a population of more than 159,000 residents, many commuting upwards of 75 miles daily, the project's home refueling appliance encourages and supports the homeowner's use of natural gas vehicles. An advanced thermostat's wireless feature enables commuters to easily monitor and control their HVAC system from a PC, tablet or smart phone, while miles away from home.



The project's greywater recycling system uses sub-surface irrigation to water the home's rock garden and exterior landscape which makes a good fit for the community's desert-like climate. Additionally, the roof-top photovoltaic panels that KB Home offers, combined with Dawn Creek's 281 days of annual sunshine make this green feature a great value.

Energy benefits of a 96% efficient tankless water heater are no secret to the green builder, but when KB Home paired theirs with a high efficient air handler to also provide hydronic space heating, efficiency was maximized. These "combo systems" are known for comfort, dependability and low operating costs, but they also reduce first costs by eliminating the need to provide combustion venting for space heating.

Dawn Creek's Green Innovations:

- Energy Star Certified Home, DOE Challenge Home and Water Sense label
- High efficiency tankless water heater
- Hydronic space heating with high efficient A/C in semi-conditioned space
- Fuel forward "Smart Garage" with CNG fueling station and EV charger
- Greywater heat recovery system
- Advanced HVAC thermostat
- 6 kW solar PV system
- Double-pane Low-E windows
- Sealed attic with plenum, ducts and HVAC unit in conditioned space
- 16 Seer AC with HERS verified tight ducts and adequate airflow
- Advanced LED colored lighting
- Motion-sensing kitchen faucet, low-flow shower heads and low-flush toilets
- ENERGY STAR® smart appliances
- Greywater recycling system and sub surface irrigation

GET SUPPORT FROM SOCALGAS

Contact your SoCalGas account executive during the design phase of your next project, so we can assist you and provide support, recommendations and information on builder incentives. Reach us at newhomes@socalgas.com.

NO-COST TRAINING

SoCalGas offers no-cost Title 24 training courses to customers. By enrolling in the educational green building seminars at SoCalGas' Energy Resource Center in Downey, your team can stay current on all the latest energy efficiency measures and incentives available.

Visit socalgas.com or call **(866) 563-2637** for details.



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These programs are funded by California utility customers and administered by Southern California Gas Company and Los Angeles Department of Water and Power under the auspices of the California Public Utilities Commission and the City of Los Angeles. Rebates and incentives are provided on a first-come, first-served basis until program funds are no longer available. Customer results cited may not be typical. Additional conditions apply; see program terms and conditions for details. Southern California Gas Company is not responsible for any goods or services selected by the customer.