

New Construction in Arizona Proves to be a Sound Investment

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Posted by **Macie Melendez** on March 11, 2013

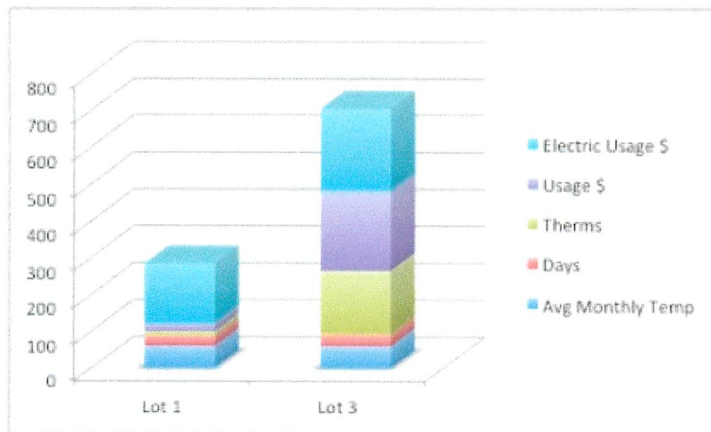
Many homeowners still question whether energy investments are worth their time and money. While we can't deny the fact that there are upfront costs, energy efficiency has proved time and time again to benefit homeowners in the short- and long-term. Case in point: **Sterling at Silverleaf**, a single-family new construction project in Scottsdale, Arizona, that received gold-level certification by the National Association of Homebuilders (NAHB).



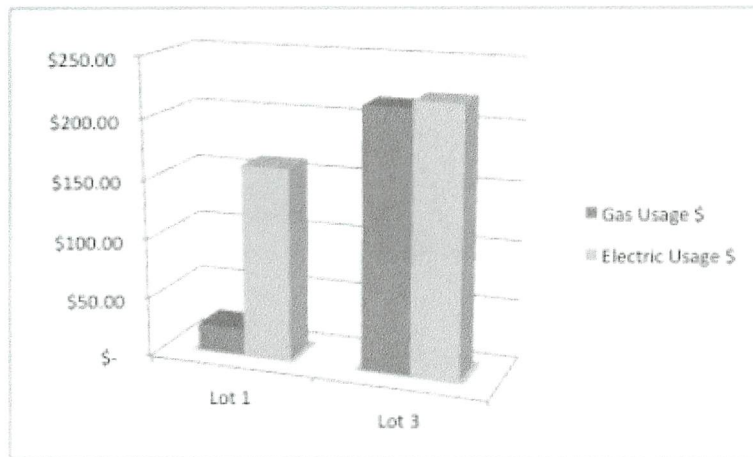
Nathan Day, developer and president of Sterling Collection Development Group.

Nathan Day, developer and president of Sterling Collection Development Group, decided to put his new green homes to the test to determine if his investment in building to NAHB standards, which can be 10 to 12% more than building a traditional home, was worth it.

Day hired a certified home energy rating team to compare Sterling's energy performance against a traditional home, comparable in size and layout. The test found that Day's green home saved 74% in energy costs per month when compared to the traditional home. That translated to a \$184 average energy and gas bill per month compared to \$440. Heating, cooling, hot water, lighting, appliances, and photovoltaics were all factors in the test. (See graphs below for a side-by-side comparison of a traditional home, Lot 3, and a Sterling home, Lot 1.)



The graph shows the gas usage in Lot 1 at Sterling (built to gold-level NAHB standards) versus Lot 3 (a traditional home of the exact layout and floor plan).



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The top money-saving features in these homes are:

- **Spray Polyurethane Foam Insulation.** Sterling used Gaco Wallfoam, which reduces the monthly energy bill by up to 40%, improves indoor air quality, creates a comfortable, draft-free home, controls exterior and interior noise levels and increases the home's value.
- **Energy Efficient HVAC System.** Sterling chose Trane 20Xi HVAC systems because of their high SEER rating and their patented CleanEffects and FreshEffects filtration systems.
- **LED Lighting & Eco-Mode App.** In addition to having LED bulbs throughout the home, Sterling created a proprietary iPad app, developed by Crestron, that dims the lighting in the home to 85% power. When set to Eco-Mode, the dimmers restrict the flow of electricity to 85% of full power levels, automatically saving 15% on an energy bill.
- **Hybrid Water Heater.** Sterling uses the Eternal hybrid water heater, which is 98% efficient, durable, and leaves almost no carbon footprint.
- **Dual Pane Low-E Windows.** In the average single-family home, 20% of all heat loss occurs through the windows. Sterling installed dual pane low-e windows because of their tested and proven cost savings.

"From a practical standpoint, it makes good financial sense to spend the extra money initially required to build a more efficient home in light of the decreased costs of operating and the rising costs of energy," said Day. "When people think of 'green' homes, they think they have to sacrifice comfort. We've proven that you can actually improve a home by going green—you decrease energy costs, increase its value, and improve health benefits."