Case Study

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# HIGH-END HOME DESIGN INCORPORATES CIRREX® SOLAR THERMAL WATER HEATING SOLUTION

## Developers Use Sustainable Water Heating to Gain LEED Certification

As one of the most sought-after beach communities on the West Coast, Laguna Beach is known for its luxury homes. Tresor Properties, a Laguna property development and construction company dedicated to sustainability, seeks to bring high-end design together with environmental responsibility.

In July 2009, Tresor broke ground on a multimillion-dollar residential project that aims to be one of the greenest, most energy-efficient homes to date. By incorporating innovative, sustainable technology, Tresor constructed the only LEED Platinum certified residence in Laguna Beach.

"Our goal in this environmentally sensitive zone was to build the most over-the-top LEED home ever created," said Jeff Fischbeck, co-owner and vice president of sales for Tresor. "We want to be the innovator in bringing high design to responsible building. It is easily perceived as very granola, and we are not that. This is a high-end home, the best of the best."

To meet the hot water needs of the high-design home known as 990 Ocean Front Drive, Tresor needed a water heating solution that would efficiently provide hot water and help the home gain LEED Platinum certification. The ENERGY STAR® rated A. O. Smith Cirrex® Solar Thermal Water Heating System was the answer.

The 3,800 sq. ft. home utilizes three solar panels on the roof, which will produce up to 70 percent of the home's water heating needs. The system includes

## Case Notes

**Project:**
**Solar Thermal Heating System Provides Sustainable Hot Water in a High-end Home Seeking LEED Platinum**

**Location:**
**Laguna Beach, Calif.**

**Product:**
**A. O. Smith Cirrex® Solar Thermal Water Heating System**

**Product Highlights:**
- *Up to 10.1 SEF: Can provide up to 70% of energy needed for water heating*
- *ENERGY STAR® qualified*
- *Tax credit eligible*
- *Can produce the same amount of energy as photovoltaic converters at 1/8th the cost*
- *Easy-to-operate electronic control*

**Other Products Used:**
- *A. O. Smith iComm™ Elite Remote Monitoring Service*
- *A. O. Smith Cyclone® Xi High Performance Commercial Gas Water Heater*

a 120-gallon tank to store hot water. In the event that there is not enough sunlight to adequately heat the water, a high efficiency A. O. Smith Cyclone® Xi will serve as a booster heater. Together, the water heaters provide five points toward the home's LEED certification.

"The pairing of these water heaters is one of the best ways to reduce a home's carbon footprint and significantly cut its utility bill," said Damon Kellogg with B and D Professional Plumbing Inc., who installed both units. "While the Cirrex will provide most of the home's hot water, installing a Cyclone as the backup model will ensure continuous, highly efficient hot water."

To help monitor water usage in the home, Tresor has installed the *i*COMM™ Elite Remote Monitoring Service by A. O. Smith, a highly innovative water heater monitoring service. This sophisticated service provides remote monitoring of the Cyclone—including leak detection as well as immediate fault alerts—ensuring environmentally responsible water heating.

"This home truly is high end," Fischbeck said. "You can see who just rang your doorbell and control every switch in your house from your iPhone. The *i*COMM service will send you texts and emails immediately if the backup water heater encounters any faults or leaks."

The LEED certified home has also incorporated a number of other environmentally friendly features. Sustainable aspects of the home include Forest Stewardship Council certified lumber, efficient insulation and windows, and fly ash mixed into the concrete (which increases tensile strength and diverts coal byproduct from landfills), as well as a home automation controller that manages temperature, lighting, shades that raise and lower according to the position of the sun, and Jacuzzi controls.

Find out more about Tresor Properties and other eco-friendly projects at www.TresorProperties.com, and visit www.hotwater.com to learn more about the Cirrex Solar Thermal Water Heating System.

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