Case Study

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Ed Begley, Jr. and the Vertex 100: Hollywood's Greenest Dynamic Duo

The Challenge:

Ed Begley, Jr. is widely respected as one of the first "green" actors in Hollywood, pursuing energy efficiency since 1970. At times, Begley's ecological views and practices have been perceived as extreme, like showing up to gala events on a bicycle. Now he's considered by many as the one who had it right all along.

In 1988, Ed moved into a house built in 1936 and has transformed it into an example of his dedication to energy conservation. Begley's roof hosts a wind turbine and more than one hundred 60-watt solar panels that provide 90% of his home's energy. Despite his extensive efforts, Ed realized his environmentally friendly house still had room for improvement. After a home energy performance evaluation, an infrared camera showed leaks where heat was escaping in the winter and cool air was seeping out in the summer.

The Approach:

Ed's first step was to seal up his basement. In so doing, he was forced to replace his standard natural gas water heater that required air vents for its open flame ignition. Needing a sealed combustion unit, Ed chose the natural gas, condensing, power direct-vent Vertex™ 100 from A. O. Smith.

Ed had other reasons for choosing the Vertex 100, the result of A. O. Smith's partnership with the U.S. Department of Energy to accelerate the development of higher efficiency residential water heaters. The Vertex 100, with a top-mounted down-fire pre-mix burner and a patented glass-lined helical coil heat exchanger, operates at an industry-leading 96% thermal efficiency, using energy more efficiently to heat water. In comparison, most standard and tankless water heaters operate at 80% thermal efficiency or less, meaning at least 20 cents of every dollar spent on energy to heat water is wasted.

Case Notes

Project:
Sustainable House of Ed Begley, Jr.

Location:
Studio City, CA

Product:
Vertex™ 100 Residential Gas Water Heater

Product Highlights:

- *96% thermal efficiency*
- *100,000 BTU power-direct-vent gas water heater*
- *164-gallon first hour delivery*
- *129-gallon recovery @ 90°F rise*
- *Top-fired burner and blower combination for better combustion*
- *Advanced electronic temperature control and diagnostics with large LCD screen*
- *Side taps for dual-purpose usage in combination systems (radiant floor, forced air heating)*
- *Same electrical, water and gas connections as conventional power-direct-vent units*
- *Similar footprint to standard water heaters*

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The Vertex 100 will also help reduce Ed's winter heating bills. Further utilizing its high efficiency and output, the Vertex 100 can be used in dual-purpose applications such as radiant floor and home heating. In Ed's heating system, air is forced by fan around a coil fed by side taps on the Vertex 100, using hot water to deliver heated air throughout his home.

The Impact:

With its inspired design, the Vertex 100 maximizes energy usage by providing higher output through more efficient combustion and heat transfer to produce **more** hot water than larger units. For an environmental champion like Ed Begley, the Vertex 100 is an ideal addition, taking care of his family's traditional hot water needs (showers, laundry, dishwashing, etc.) while supplying heat for his home. On a recent episode of *The Tonight Show with Jay Leno*, Ed told Jay he pays about $300 a year for electricity. With the Vertex 100, now Ed can also expect greater savings on his fuel bills.