



## **Energy Study Finds Rinnai Tankless System Outperforms Traditional Hot Water Heaters**

### ***Independent Study Shows Rinnai Tankless Hot Water Systems Save More Energy and Money Than Traditional Hot Water Tanks***

**Peachtree City, GA** –An independent study recently completed by the Okaloosa Gas District in Valparaiso, FL found that the Rinnai, a tankless hot water system, outperformed traditional hot water tanks in several key areas including energy savings and operating efficiency. Performance of Rinnai's system was measured against an electric 40-gallon hot water tank and a gas-fired 40-gallon hot water tank in three key areas: hot water recovery time, energy efficiency and economic savings.

The Okaloosa Gas District conducted the 30-day study titled "Performance Comparison of Residential Water Heating Systems." The study simulated typical residential hot water usage to analyze the differences in performance between traditional 40-gallon hot water heater tanks and the Rinnai tankless system. The study was completed under the engineering supervision of Exelon Services Federal Group (ESFG) and culminated with a complete report of the "side by side" comparisons of these systems. The testing procedure guidelines were developed in part from the Federal Register, which provides a standard for fair comparison between energy efficiency, energy use and the operating cost of each water heater under identical testing conditions.

"In almost every other country in the world, tankless hot water systems like Rinnai's are the standard way to heat water for the home," said Ervin Cash, Vice President - Heater and Water Heater Groups for Rinnai's North American operations. "Rinnai uses state-of-the-art fully modulating gas valve technology. Our tankless hot water systems are more energy efficient, save more money and save precious floor space for consumers, and studies like the Okaloosa Gas study are just further proof that Rinnai tankless water systems are a smart alternative to antiquated hot water tanks."

**Energy Consumption and Cost Efficiency**- The objective of these tests was to determine the energy consumption and cost to operate each system for a typical

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residential family. Hot water draws were taken from each water heating system every ½ hour each weekday from 7 am to 3 pm for a study total of 360 draws. At the beginning of each hot water draw, the energy meter readings were recorded as well as cumulative quantity of water drawn.

Prior to conducting the test, each water heater was set to output water at the temperature of 135 degrees Fahrenheit. Results show Rinnai supplied a consistent source of 135-degree water while the electric and natural gas-fired tanks were not able to maintain the desired temperature.

The study results also concluded that Rinnai's energy consumption and operational costs were significantly lower than both hot water tanks. On average, monthly household savings with a Rinnai were \$21 greater when compared to the electric 40-gallon tank and approximately \$6.50 greater when compared to the natural gas-fired 40-gallon tank.

Energy consumption test results also placed Rinnai ahead of both types of traditional water heater tanks. While the electric 40-gallon tank system used 332.9 kilowatts per hour (kWh) to operate, Rinnai consumed just 0.6 kWh during the same test period. Measured against the natural gas-fired tank, Rinnai saved an average of 6.6 therms of natural gas.

**Recovery Time** - This performance test evaluated the amount of time it took each hot water system to reheat water to a desired temperature. The test showed it took the electric tank system approximately one hour to fully recover and thirty-three minutes for the natural gas-fired tank system to recover. Rinnai was exempted from this performance test because the unit does not store water, rather it is directly connected to a water line and heats water only when a hot water outlet is tapped. This allows households the luxury of simultaneously using multiple hot water sources without any loss of temperature consistency. Rinnai tankless hot water technology has been in the United States for nearly four years and literally hundred of thousands of units have been installed worldwide, not only proving the technology reliable but also setting Rinnai as the industry standard.

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### **About Rinnai Corporation**

Rinnai North America Corporation, a subsidiary of Rinnai Corporation in Nagoya, Japan, was established in 1974 and is headquartered in Peachtree City, Georgia. Rinnai Corporation manufactures gas and oil appliances, including tankless hot water heaters, a wide range of kitchen appliances, and heating and air conditioning units. Today, Rinnai is the single largest gas appliance manufacturer in the world, and is the technology leader in its industry. Annual corporate revenues including those of its subsidiaries are in excess of \$3 billion. With a global perspective to create 21<sup>st</sup> century products for the home and office, Rinnai Corporation commits itself to the safety and pursuit of comfortable lifestyles. For more information about the Rinnai Corporation and the Rinnai tankless system, call 1-866-746-6241 or visit [www.rinnai.us](http://www.rinnai.us) or [www.foreverhotwater.com](http://www.foreverhotwater.com).

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