

VENSTAR COLORTOUCH WI-FI THERMOSTATS REDUCE ENERGY USAGE BY 8 PERCENT IN UTILITY COMPANY STUDY

KEY FINDINGS:

Venstar's ColorTouch Reduced Energy Usage

- Venstar's ColorTouch® thermostat was proven to reduce energy consumption by an average of 8 percent
- Most of the participants found installation of the ColorTouch thermostat to be "very easy"
- 93 percent of participants found the enrollment process for Venstar's Skyport[®] mobile app to be "very easy" or "easy"
- Many participants commented that the ColorTouch thermostat was "user friendly"
- Participants said that being able to view their energy use history changed their behavior to better manage their energy usage by programming their thermostats

STUDY FINDINGS:

Easy Programming Equals Energy Savings

The study concluded that utilizing Venstar's ColorTouch thermostat, a userfriendly, easy-to-use programmable Wi-Fi thermostat, reduced energy usage due to:

- Ease for the occupants to program and manage energy usage at home or while they are away using the mobile app.
- Instant access to energy usage reports so occupants can instantly see if their usage is up or down
- Receive alerts on a wireless device of the home's temperature has gone above or below the pre-set limits

ColorTouch.

Study Participants: Residential Natural Gas Customers

The program was implemented with Liberty Utilities' residential natural gas customers. Their existing programmable thermostats were replaced with Venstar's ColorTouch Wi-Fi thermostats.

All participants used Apple® iPhone and/or Android® smartphone devices, to use Venstar's Skyport mobile app for remote access and management of their ColorTouch Wi-Fi thermostats.

STUDY METHODOLOGY: Wi-Fi Thermostat Pilot Program

As part of its New Hampshire energy efficiency programming, Liberty Utilities created a Wi-Fi Thermostat Pilot Program to evaluate the impact of these thermostats on occupant behavior and energy consumption. The study was implemented by The Cadmus Group Inc.

Venstar ColorTouch Wi-Fi thermostats were installed in residents' homes and energy usage was analyzed to determine changes in energy usage with the new Wi-Fi programmable thermostats versus the older programmable thermostats without Wi-Fi capabilities. Participants completed four surveys throughout the study to ascertain their behavior in operating the thermostat and satisfaction level.

In addition, The Cadmus Group had the ability to view customers' Skyport accounts to view their thermostat settings and energy usage for the period of the study, enabling the analysis team to gather information about customer energy usage, including HVAC system run-time. A temperature logger was installed next to each thermostat to verify inside temperatures during the study.



OBJECTIVES:

Track Energy Usage with Wi-Fi Thermostats

- Determine if energy usage can be reduced with the use of a Wi-Fi programmable thermostat based on the hypothesis that energy usage is driven by both characteristics of the home and energy systems as well as the behavior of the occupants.
- Evaluate participant satisfaction with Venstar ColorTouch thermostats and the value of ease-of-use on its usage and impact on reduction in energy usage.

RESULTS:

ColorTouch Thermostats Reduce Energy Usage

The study proved that Venstar's ColorTouch Wi-Fi programmable thermostats encourages energy efficient behavior by making it easy for occupants to program smart schedules and control their thermostats from home or away with a wireless connection.

Giving users the ability to program their thermostats and access to energy usage information had a direct impact on lowering energy costs. Half of the participants programmed their thermostat schedule on the thermostat itself, while 15 percent utilized the Skyport mobile app and 35 percent used both.



About Liberty Utilities

Liberty Utilities is a natural gas and electricity distribution utility serving 87,000 natural gas customers and 43,000 electricity customers in New Hampshire. The study was part of Liberty Utilities' energy-efficiency programs and incentives to help customers save money and reduce carbon emissions.

Study Administration: The Cadmus Group Inc.

The study was implemented by The Cadmus Group Inc. Cadmus provides professional consulting services that help clients achieve their goals and create social and economic value today and for future generations. By applying exceptional technical expertise and a highly collaborative approach, we deliver customized solutions that address complex challenges facing the realms of natural and built environments, energy, public health, climate, homeland security, and international development.

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About ColorTouch

Venstar offers six models of its award-winning ColorTouch smart programmable residential and commercial thermostats. Topranked by Consumer Reports, all six ColorTouch models have a multi-functional, simple-to-use, touch screen, which can be programmed to display a picture gallery of up to 100 files to be used as a digital picture frame when not in use as a thermostat.

ColorTouch thermostats are compatible with Venstar's Skyport Cloud Services, which allows both commercial and residential users to use Venstar's free Skyport mobile app on their Apple iOS°, Android[°], and BlackBerry[°] mobile devices or directly from the Web to instantly access and control multiple thermostats at numerous locations.

What Study Participants Had to Say about ColorTouch

"Intuitive! Love the touch screen."

"Can make changes remotely on the fly anytime."

"Easy to use my phone to control the thermostat."

"Easier to program than our old programmable thermostat."

"Can program my thermostat using my phone when I'm not home."

Liberty Utilities Study (08/2016)

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