

IHG saved an average of \$144.55 per guestroom per year without inconveniencing guests

IHG Hotels and Resorts used Anacove Connected Thermostats to cut energy consumption per room by an average of 1,157 kWh in both booked and vacant guestrooms



The Experiment

In 2023, IHG Hotels and Resorts conducted an in-depth energy savings and performance study of networked, occupancy-sensing, smart guestroom thermostats in rented and vacant guestrooms.

The study took place in three metropolitan areas: Atlanta, Georgia; Orange Beach, Alabama; and Fort Walton, Florida.

The Hypothesis

The Anacove Connected Thermostat will save energy and money by identifying when a guest is, or is not in the room, and updating temperature settings to reflect the appropriate mode, reducing PTAC runtime.



Baseline vs. Anacove Performance (kWh)

	Average Amp Hours per Room per Day	Average Energy Consumption per Room per Day (kWh)	Performance Relative to Baseline (Savings)	Average Energy Savings per Room per Day (kWh)
Atlanta, GA				
Baseline thermostat	17.641	4.283	N/A	N/A
Anacove	12.046	2.925	-31.71%	1.358
Orange Beach, AL				
Baseline thermostat	45.806	11.121	N/A	N/A
Anacove	32.215	7.821	-29.67%	3.3
Fort Walton, FL				
Baseline thermostat	50.095	12.162	N/A	N/A
Anacove	30.093	7.306	-39.93%	4.856

Study Design

Alluimia, a market leader in commercial Energy Efficiency as a Service (EEaaS) solutions, conducted this smart thermostat study using revenue-grade meters to determine both baseline and Anacove Connected Thermostat performance.

Part 1: Alluimia first measured the baseline performance of guestrooms containing existing thermostats without networked or smart capabilities or additional sensors.

Part 2: Once baseline measurements were recorded, an Anacove Connected Thermostat, fully integrated with the IHG Edge dashboard and IHG Connect Wi-Fi service, was installed in each room in the study to measure its performance.

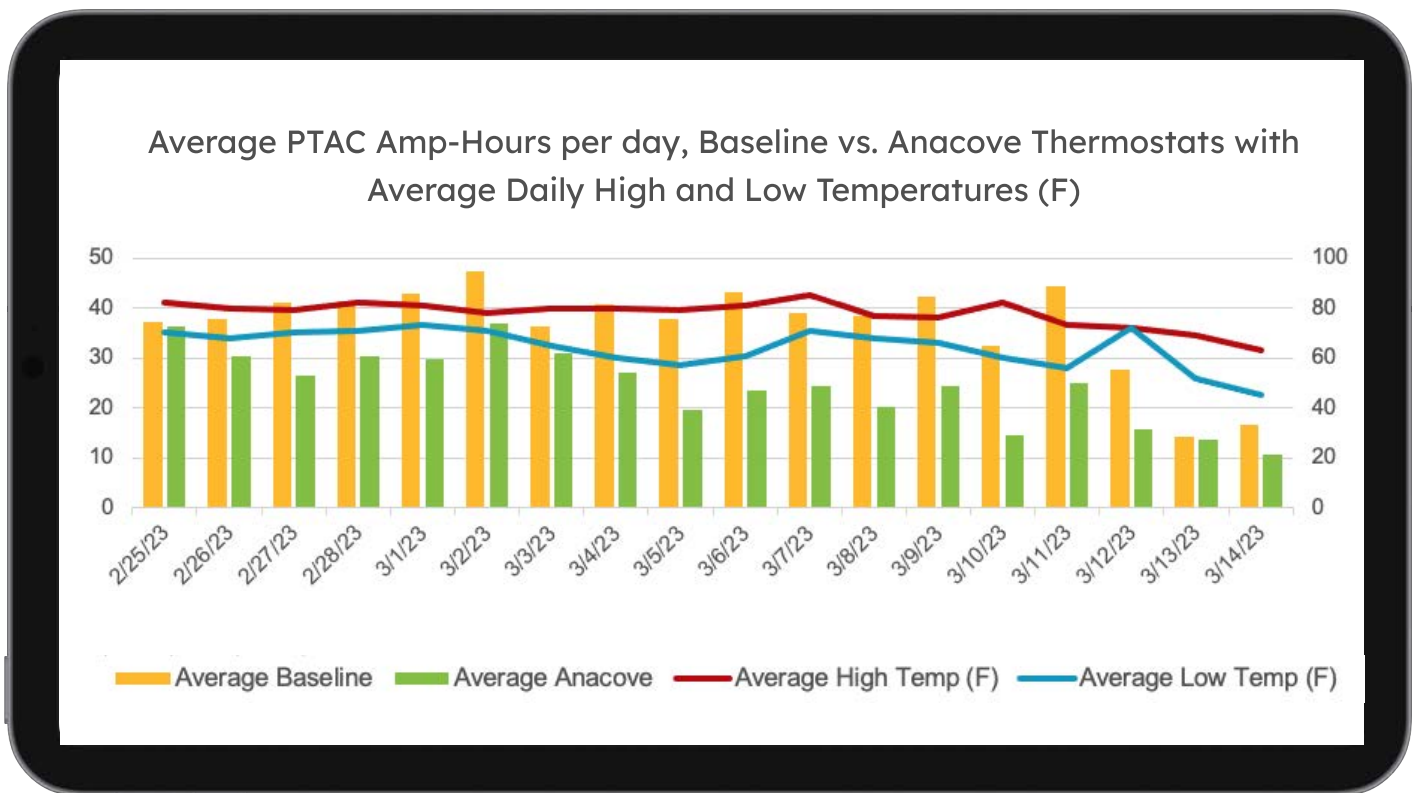
The Anacove Connected Thermostat used integrated occupancy sensing and IHG Edge to know when a room was occupied, unoccupied, or unrented to adjust settings to maximize savings.

Anacove Connected Thermostats and Three Temperature Modes:

- 1. Unrented & Unoccupied:** Temperature settings designed to substantially limit PTAC run time. For example: heat set point at 60°F or cooling set point at 78°F.
- 2. Rented & Unoccupied:** Temperature settings designed to keep room within a comfortable range for guests, who enter and exit at will. This allows rooms to quickly cool down or warm up once a guest is present. For example: heat set point at 68°F and cooling set point at 74°F.
- 3. Rented & Occupied:** Guest controls temperature, thermostat maintains guest's preferences.

Baseline vs. Anacove Performance (Amp Hours)

The study showed that IHG hotels can save energy without discomfort to guests by installing Anacove Connected Thermostats for an average of 1,157 kWh or \$144.55 in annual savings per guestroom.



Anacove Impact

The IHG study found a consistent pattern across all three hotel test sites during the study period. Anacove thermostats provided an average 33.77% improvement relative to baseline during the study period, once installation was complete and temperature settings had been fully optimized. This was accomplished without noticeable impact on guest comfort, while consistently delivering savings versus rooms with no thermostats and rooms with traditional in-room thermostats.



33.77%

improvement relative to
baseline during the study
period

Connected thermostats engineered for hospitality

The Anacove leadership team are experts in hotel services and energy management. They applied their experience, insight and knowledge – as well as multiple patent-protected technologies – into producing the first-ever connected thermostat conceived especially for the hotel industry.

Centralized management...



**Simple installation
and operation**



**Cloud-based energy
management solution**



**Energy management
as a service**



**Integrates with top
PMS applications**

... for individual comfort



**Guests never enter a
room that's too hot or
too cold**



**Maximizes guests
comfort**



**Provides home-like
simple operation**



**Learns from guest
behavior and room
attributes**