

Overview

Hotels are so much greater than the sum of their parts. They offer guests everything from basic amenities and comforts to a range of specialty services. To provide these guest experiences, hotel managers rely on staff, third-party vendors, and various infrastructure — all of which represent an overhead cost.

Hotel management is about synchronizing those moving parts, keeping them well-oiled, and ensuring that they're all working as efficiently as possible — producing maximum output at minimum cost.

Property Management Systems (PMSs) and other smart technologies help hotel managers streamline operations by consolidating those operations under a single platform. The more that a hotel's operational infrastructure integrates with their PMS, the greater the efficiencies and cost-savings. Verdant's energy management system integrates seamlessly with most PMS's and other smart technologies, reducing costs through both energy consumption and operational efficiency.



The Challenge

Modern hotels rely on a network of smart technologies to optimize operations, enhance guest experiences, and manage costs, including Property Management Systems (PMSs) and Energy Management Systems. Integrating these diverse systems into a unified platform can present hotel managers with a significant challenge.

Without seamless connectivity, hotels risk inefficiencies, data silos, and increased operational complexity. The key to maximizing efficiency is ensuring these smart technologies work together. Verdant's energy management system integrates effortlessly with leading PMSs and smart technologies, allowing hotel managers to centralize control, automate energy savings, and improve overall operational performance.

Verdant Solutions

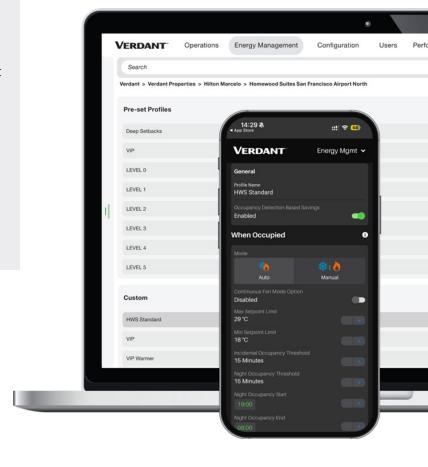
Verdant's energy management solutions help hotel managers streamline energy consumption, reduce costs, and integrate seamlessly with existing Property Management Systems (PMS) and smart technologies. From onsite hardware to machine-learning algorithms, Verdant's energy management systems help hotel operators strike the perfect balance between profitability and guest satisfaction.

Energy Management System

Managing energy consumption simultaneously across guest rooms and common areas presents a challenge for hotel managers. Energy management systems, however, seamlessly integrate with Property Management Systems (PMS) and smart technologies to optimize energy efficiency without compromising guest comfort.

Verdant's energy management system streamlines energy consumption, reducing HVAC runtimes up to 45%. Our EMS ensures any given space in a hotel is neither overheated or overcooled, automating energy management with intuitive features such as remote access, scheduling, and load balancing.

In fact, Verdant collects real-time data from energy meters, sensors, and other sources to track energy usage patterns. Our energy management system then transforms this data into actionable, energy-saving measures, eliminating inefficiencies and reducing energy energy waste. Best of all, Verdant offers unparalleled HVAC and smart technology compatibility.



Smart Thermostat

Verdant's smart thermostats allow both hotel managers and guests alike to pre-program temperature settings around their preferences and occupancy patterns, reducing waste not only in unoccupied rooms, but also in common areas.

Hotel operators can adjust smart thermostats in common areas according to peak occupancy times, streamlining energy consumption without compromising guest satisfaction. Guests, on the other hand, can set their smart thermostats to preserve energy while they are away, lowering overall operational costs and their utility bills.

However, not all smart thermostats are designed for hotel management. While consumer-grade options like Nest and Ecobee are good fits for single-family homes, hotels with centralized HVAC systems require commercial-grade smart thermostats. Verdant's smart thermostats (VX4, VX, and ZX) come equipped with key features such as Smart Alerts, Dynamic Recovery, Remote Control, and Flexible Setbacks to maximize efficiency and energy savings



What is a PMS Integration?

A Property Management System (PMS) integration connects a hotel's central management software with external solutions, including smart thermostats, energy management systems, and IoT devices. Verdant's energy management solutions integrate seamlessly with PMS and smart technologies, enabling real-time automation of HVAC settings, occupancy detection, and energy-saving modes.

This seamless communication enhances guest comfort, reduces energy waste, and improves operational efficiency. With Verdant's PMS integration, hotel managers can rely on Guest Room Energy Management System (GREMS) to enhance energy efficiency while maintaining a comfortable guest experience, all without requiring manual intervention from hotel staff.

How Verdant Integrates with PMS and Smart Technologies

Verdant thermostats seamlessly integrate with Property Management Systems (PMS) like Opera, MEWS, and HotelKey using the Verdant API. Our energy management solutions automates energy savings, optimizes room occupancy settings, and enhances guest comfort — delivering a seamless, energy-efficient experience for hotel managers and guests alike.

Building Management Systems

Building management systems (BMS) are the backbone of hotel operations, integrating your hotel's core operational systems such as heating, cooling, air conditioning (HVAC), lighting, and security into one cohesive network.

Verdant's energy management solutions provide hotel managers with real-time insights and automation for these systems, ensuring unoccupied rooms aren't unnecessarily heated or cooled. Additionally, by leveraging Internet of Things (IoT) technology, Verdant enables hotels to collect and analyze real-time data, optimizing energy use and enhancing operational efficiency across all connected devices.

The end result is streamlined energy efficiency without compromising guest experience. Our energy management systems boast universal compatibility with all HVAC types, integrating into your existing or modern infrastructure for seamless energy management.

Door Locks

Inefficient door lock systems contribute to significant energy waste, as heating and cooling often remain active in unoccupied rooms. Verdant's smart thermostats integrate seamlessly with industry-leading door lock systems, including Assa Abloy, Onity, Dormakaba, and more, to streamline energy consumption.

Our energy management solutions combine intelligent occupancy sensors with patented software to reduce HVAC energy usage and significantly reduce energy waste. When a guest enters using a keycard, Verdant's energy management system automatically adjusts the temperature to a comfortable level. Likewise, when the room is vacant, heating and cooling levels are adjusted — enhancing guest comfort, improving operational efficiency, and reducing unnecessary energy costs.



Smart Lighting

When it comes to hotel energy management, "keeping the lights on" isn't just a metaphor, but both an operational requirement and overhead cost. Fortunately, smart lighting systems help hotel managers reduce energy costs, ensuring the lights are active only when needed.

Smart lighting essentially leverages occupancy sensors to adjust lighting according to real-time occupancy patterns and time of day. This significantly reduces energy consumption for both hotel managers and guests alike, reducing energy waste in individual rooms and common areas such as hallways and lobbies.

IoT energy management solutions enable seamless automation and remote control, optimizing energy efficiency across the entire property. Best of all, our EMS integrates seamlessly with existing Property Management Systems (PMS) and smart technologies, offering hotel managers a plug-and-play energy management solution.



Demand Response

Energy management technology extends beyond hardware upgrades and appliance improvements. Hotel managers can also adopt financial strategies to reduce overhead energy costs.

Notably, <u>Demand Response Programs</u> help hotel managers earn credits or even cash incentives on their utility bills by <u>reducing energy consumption during peak demand periods</u>. These programs are typically operated via utility providers or third-party services on an opt-in basis.

Put simply, hotel managers are notified ahead of time when a peak usage event is forecasted. By opting in, they can automatically adjust energy-intensive systems like HVAC and water heaters to draw less energy, helping to alleviate stress on the grid. In return, hotels can "sell back" the saved energy to the utility company, applying the generated revenue to offset their energy bills.

Smart Room Integration

Verdant seamlessly integrates with various smart guestroom initiatives, including leading systems like Hilton's PEP, Marriott's GRMS, and IHG® Studio. Featuring versatile integrations such as BACNet, ZigBee, Bluetooth, and restful API, this unparalleled compatibility helps hotel managers optimize room controls, automate energy savings, and offer personalized experiences.

Indeed, IoT energy management technology (i.e. HVAC Energy Management Systems, Smart Lighting, Smart Water Management, Predictive Maintenance, etc) can increase hotel profitability, ensuring that all systems are operating at 100% efficiency. And with some of these technologies <u>yielding a return in as little as one to two years</u>, there is an overwhelming case for hotels to embrace IoT and the new levels of profitability that they offer.

Water Leaks

Water leaks can cause significant damage to hotel properties, leading to costly repairs and potential health hazards Verdant's water detection sensors safeguard asset protection by monitoring high-risk areas such as mechanical closets, kitchens, and laundry rooms. The sensors send real-time alerts when water is detected in unwanted places, allowing for swift intervention.

Easy to install in under 10 minutes per unit, these sensors provide a proactive solution that not only prevents expensive water damage but also strengthens asset protection by helping maintain safe temperature and humidity levels — preserving both the property's investments and guest health.

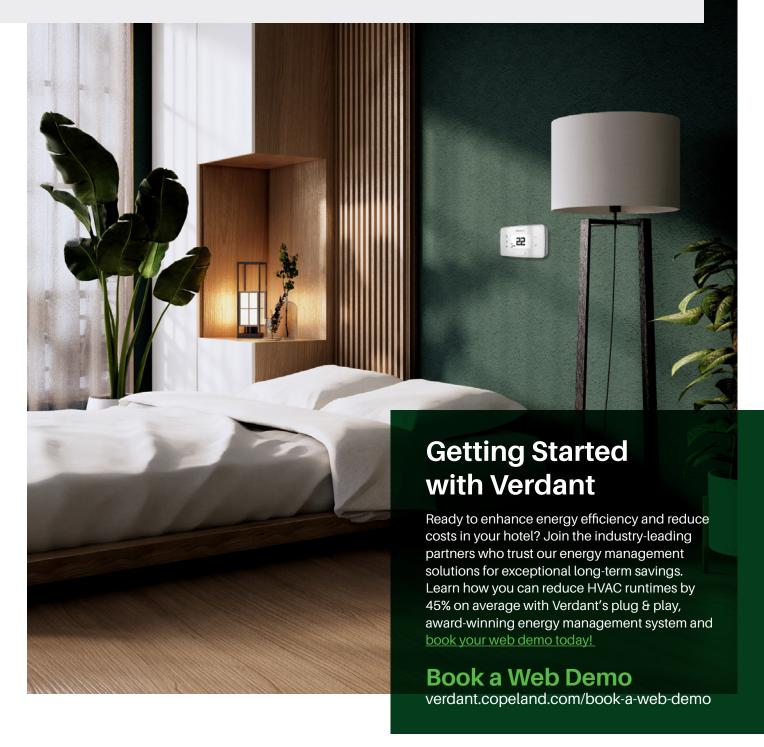




Verdant's Energy Management System: How it Works

Trusted and installed in over 9,000 multifamily buildings, <u>hotels</u>, <u>senior living</u>, and <u>student housing properties</u>, Verdant's energy management system delivers maximum energy savings without sacrificing guest comfort. Our smart thermostats combine occupancy sensors with patented software to streamline HVAC energy usage and reduce HVAC runtimes.

Verdant <u>collects real-time data</u> from energy meters, sensors, and other sources to track energy consumption patterns. Our energy management system then analyzes the data to identify areas of inefficiency and wastage. These data-driven insights can be used to implement energy-saving solutions such as automation, scheduling, and load balancing.





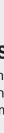
Optimal Savings

Optimizes settings in real-time, ensuring you get the maximum energy savings possible.



Compatibility

Verdant thermostats are compatible with most PTACS, VTACS, split units and fan coil systems.





Self-Installs

Your staff can self-install each smart thermostat in less than 10 minutes.

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Quick Payback

Cuts room HVAC runtimes by 45% on average* and typically pays for itself in 12-18 months*3.



Fully Automated

Automates guestroom HVAC energy management at your property, without any involvement from your staff.

