AZUSA PACIFIC UNIVERSITY

Verdant Energy Management Solutions

Azusa Pacific University

About

Azusa Pacific University, situated in the city of Azusa in California, offers a range of student housing options that support its vibrant campus life. Rooted in its Christian heritage, the university is committed to sustainability. It's been actively implementing energy-saving initiatives to create a more efficient and environmentally conscious campus.

Number of Units
323

Building Type
Dormitories

Building Location
Azusa, California, USA

Building Class
Student Housing

VERDANT by COPELAND

Energy Consumption Challenges

Azusa Pacific University (APU) needed an energy management solution tailored to the unique demands of retrofitted dormitories. The university wanted a system that could seamlessly integrate with existing infrastructure without disrupting daily operations or student life.

Energy Management Ecosystem

HVAC type: PTAC

Electric Rate: $0.1200 / kWh

Climate Zone: Warm-Dry

Addressing rising energy costs was also a key priority, particularly in a student housing environment where HVAC systems often ran unnecessarily in unoccupied rooms. APU aimed to implement a solution that would improve energy efficiency, reduce costs, and support their long-term operational goals.

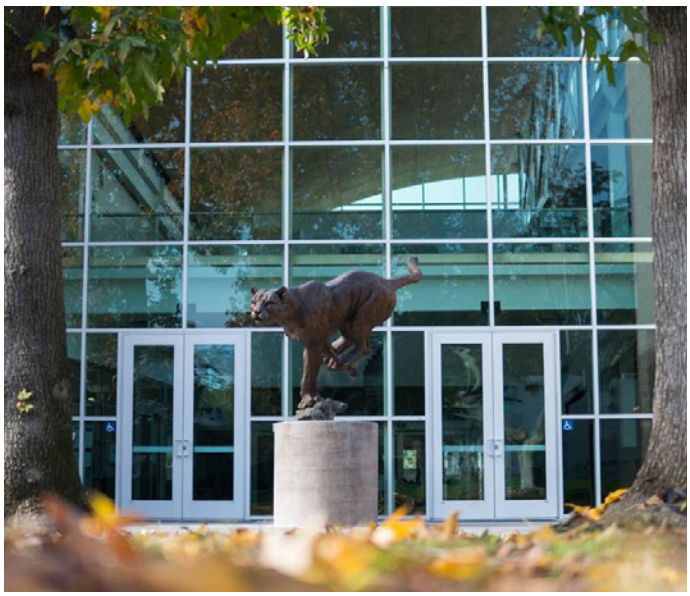
Property Goals

When Azusa Pacific University partnered with Verdant, their primary goals aimed to achieve the following:

Reduced Energy Consumption:
Lower energy waste across the dorms to minimize operational costs.

Optimized HVAC Usage:
Automatically adjust heating and cooling based on room occupancy, ensuring energy is only used when necessary and HVAC lifespan is prolonged.

Seamless Retrofit Integration:
Easily integrate with existing infrastructure without disrupting operations or students.

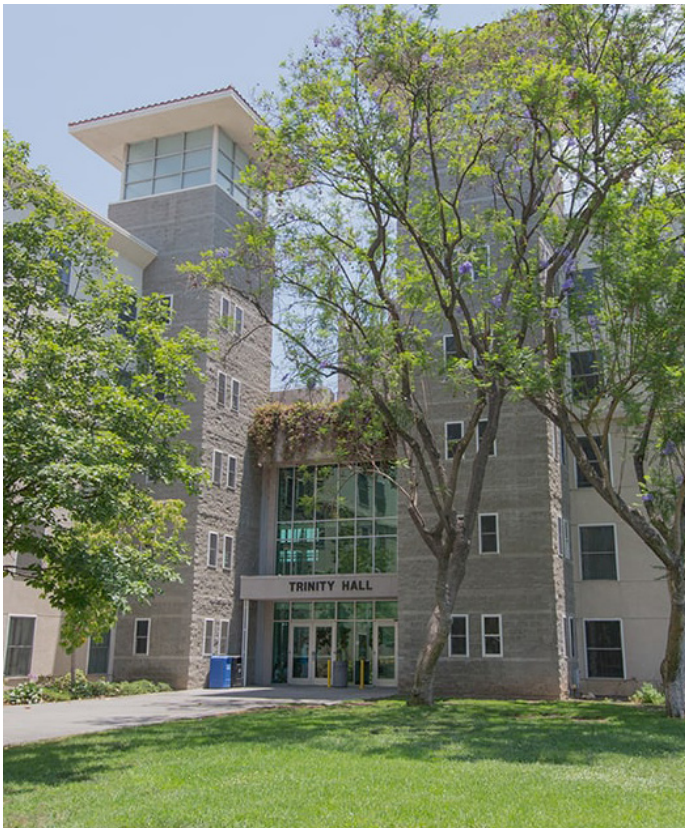


Solution

Taking Control of Energy Usage

In January 2018, Azusa Pacific University installed Verdant's energy management solution across its two dormitories. Verdant's plug-and-play thermostats were seamlessly integrated into the existing infrastructure without disrupting campus life.

Since implementation, the system has helped APU reduce energy waste, optimize HVAC performance, and streamline energy management, supporting the university's goals of cost efficiency and sustainability. The thermostats have been very dependable with a low failure rate, further reinforcing Verdant's value as a long-term asset in managing energy consumption effectively.



How Verdant Saves Energy

Verdant's smart thermostats address energy inefficiency through advanced occupancy sensing technology that continuously detects motion and body heat in the room. When students are present, they can fully control the room temperature. Once the room is unoccupied, Verdant thermostats automatically switch to 'setback mode,' allowing the temperature to naturally drift by a few degrees. This significantly reduces HVAC runtimes by an average of 45%.

Simplified Installation Process

Verdant's solution was crafted with retrofit needs in mind, providing a plug-and-play installation that made the process both quick and efficient. At Azusa Pacific University, a student worker was able to install the thermostats, highlighting the ease of deployment. This seamless process allowed the system to be implemented rapidly without interrupting the daily flow of campus life.

With versatile compatibility across various HVAC systems, Verdant's thermostats ensured a smooth integration with the university's existing infrastructure. This adaptability not only simplified the retrofit but also enhanced the long-term sustainability of the energy management system.

Centralized HVAC Management

Managing energy use in student housing can be complex due to fluctuating occupancy levels throughout the year. Verdant's centralized HVAC management solution gave Azusa Pacific University a powerful tool to oversee and adjust heating and cooling across all dormitories and communal areas from a single platform.

The system automatically assessed occupancy patterns and made automatic adjustments to HVAC settings, ensuring energy was only used when rooms were in use. This approach not only improved energy efficiency but also provided the university with a streamlined way to optimize climate control in a dynamic environment.

Results

Performance Highlights

After the installation, the university experienced significant savings, with data showing a noticeable reduction in energy costs and improved efficiency.

> *We have enjoyed the ability to create customized energy settings. We have used this to save during unoccupied times and to reduce callouts. Initially, we adjusted energy levels throughout the year to save energy, but this led to students calling and saying, 'My thermostat does not go as low as it used to.' Recently, we created a new energy setting that we no longer need to adjust, and it is still saving energy. Most importantly, when everyone leaves at the end of the school year, we can turn off all thermostats remotely from a desk computer in minutes.*
>
> *— Client Testimonial: Azusa Pacific University*

Engstrom Hall:

- **Installation Date:** January 2018
- **Rooms:** 148
- **12-Month kWh Savings:** 134552.64 kWh
- **12-Month $ Savings:** $16,091.04

Trinity Hall:

- **Installation Date:** January 2018
- **Rooms:** 175
- **12-Month kWh Savings:** 118480.56 kWh
- **12-Month $ Savings:** $14,329.68

Big Picture

Overall Portfolio Savings
(Both Dorms Combined):

Total kWh Savings
1,750,146.33 kWh

Total $ Savings
$210,410.17

Equals to
206 gasoline-powered cars off the road for one year

Equals to
1,290 electric-powered cars off the road for one year

Take Control of Your Energy Management with Verdant

Reduce Energy Costs

Save up to 20% on energy costs and reduce HVAC runtimes by 45% on average without affecting guest comfort.

Plug & Play

Suitable for both retrofit and new construction projects, our wireless thermostat can be self-installed in under 15 minutes.

True Mesh Networking

Keep your thermostats connected without interfering with your Wi-Fi.

Effortless Integration

The Verdant system can integrate with all HVAC types, PMS, BMS, lighting controls, and other smart technology

Say goodbye to unnecessary heating and cooling costs with Verdant's energy management system. Installed by top student properties, Verdant prioritizes energy efficiency without compromising resident comfort.

Want to Learn More?

Contact Us:
verdant.sales@copeland.com

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