ENCYCLE
INTELLIGENT BUILDINGS MADE EASY

CASE STUDY
SWARM LOGIC®

HOW ENCYCLE HELPED A COSMETOLOGY & ESTHETICS SCHOOL SAVE OVER **18%** ON ENERGY CONSUMPTION AND **17%** ON PEAK DEMAND CHARGES.

SAVED
$11,470
ON ENERGY COSTS

- ENERGY COSTS SAVINGS OF **$11,470** THROUGH EXISTING SMART THERMOSTATS WITH DEPLOYMENT IN LESS THAN ONE DAY
- LOWERED ANNUAL ELECTRIC CONSUMPTION BY **18%** AND PEAK ELECTRIC DEMAND BY **17%**
- REDUCED TOTAL ANNUAL GAS CONSUMPTION BY **27%**
- REDUCED CARBON EMISSIONS BY **65 METRIC TONS**

BEAUTY SCHOOL

NORTH CAROLINA COSMETOLOGY COLLEGE

This beauty school location is approximately 27,000 square feet, with areas for classrooms, cosmetology services, and offices that accommodate students, teachers, and customers at varying occupancy levels throughout each day.

Several training programs are offered with class sizes ranging for an average of 130 students enrolled. Rooms with different capacities, as well as various beauty equipment (hair dryers, steamers, wax pots), and cold weather in winter months often led to sudden interior temperature changes that impacted occupant comfort. Manual override adjustments to thermostat settings were a regular occurrence.

School owners wanted the ability to:

- Maintain comfort as efficiently as possible, while also reducing energy costs
- Optimize HVAC operations without staff intervention needed
- A solution that did not require purchase of additional hardware

CUSTOMER CHALLENGES

- High energy costs prompted the need to find ways to lower energy spend, consumption, and peak demand without purchasing expensive new hardware
- Lack of insight into the performance of existing HVAC equipment was limiting the ability to budget maintenance activities
- Manual overrides to thermostat settings were causing inefficient HVAC operations and excessive wear on units
- Occupant comfort during seasons of both hot and cold weather was challenging to maintain while energy costs continued to rise

ENCYCLE'S SWARM LOGIC SOLUTION

Working with their existing smart thermostats, the customer deployed Swarm Logic cloud-based technology in less than one day through their utility provider. The integration enabled more efficient HVAC operations despite changing conditions such as outdoor temperature and building occupancy.

This allowed the school to maintain desired comfort, reduce both gas and electric consumption, and achieve year-round energy cost savings.

SWARM LOGIC RESULTS

This beauty school in North Carolina was facing escalating energy costs and high energy consumption due to inefficient HVAC operations at their facility, which accommodates students, staff, and customers throughout the year. Owners were seeking a solution to optimize their HVAC performance, reduce energy expenses, and improve overall comfort levels within the building.

Real-time data analytics and insights enabled building owners to identify energy consumption patterns and proactively address any inefficiencies. Machine learning capabilities allowed for continuous optimization and fine-tuning of the HVAC systems to maximize energy savings without compromising comfort levels.

Integration of the autonomous HVAC optimization solution not only delivered tangible energy cost savings and consumption reductions, but also improved overall operational efficiency and occupant comfort.

Swarm Logic's intelligent algorithms and real-time monitoring capabilities led to a notable decrease in energy consumption, contributing to the school's sustainability goals and environmental initiatives.

By leveraging innovative technology and data-driven insights, the beauty school successfully transformed its HVAC systems into energy-efficient assets that support a sustainable and comfortable learning environment.

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