ENCYCLE
INTELLIGENT BUILDINGS MADE EASY

CASE STUDY
SWARM LOGIC®

HOW ENCYCLE HELPED A PUBLIC CHARTER SCHOOL REDUCE OVERALL ELECTRIC CONSUMPTION BY **40%** AND REDUCE PEAK DEMAND BY **30%**.

COST SAVINGS
$8,899
IN LESS THAN 6 MONTHS

- LOWERED PEAK ELECTRIC DEMAND BY **586 kW** IN LESS THAN SIX MONTHS
- SAVED AS MUCH AS **$2,437** A MONTH ON ENERGY COSTS
- LOWERED ELECTRIC ENERGY CONSUMPTION BY **40%** ON AVERAGE
- REDUCED CARBON EMISSIONS BY **60 METRIC TONS**

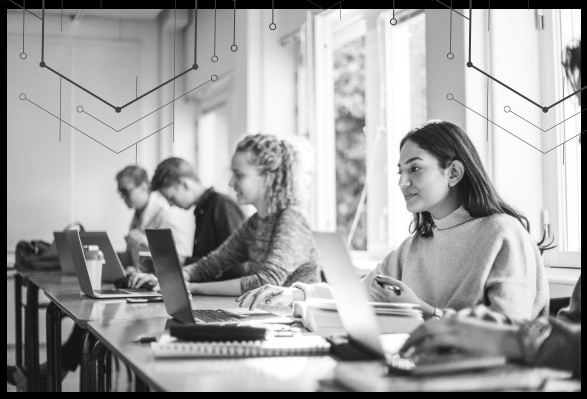
PUBLIC CHARTER SCHOOL

EDUCATIONAL & COMMUNITY FACILITY

This tuition-free charter school opened their renovated historical mill building in 2006 with the vision of community revitalization and now ranks in the top 20% of public schools statewide. The school is for grades six through twelve and their mission is to enable students to become educated, responsible and productive men and women.

The campus has grown to approximately 70,000 square feet after stages of construction and building improvements being completed over the course of a decade. School facilities include a library, two dining halls, classrooms, offices, an auditorium, a gymnasium, and additional multipurpose rooms that support students' passions and interests in art, theatre, film, dance, physical fitness and sports.

Operating on state funding for day-to-day expenses, the school relies on fundraising and grants for capital needed to purchase, maintain or improve their buildings and grounds. Community involvement is essential to providing students with a successful learning environment.



CUSTOMER CHALLENGES

- Automate and simplify energy management strategies and control capabilities to optimize HVAC performance.
- Enable remote, decentralized load management for easy scheduling and energy consumption reduction.
- Provide analytics and reporting to track electricity usage and improve building health and comfort.
- Access to real-time and historical load data to help identify mechanical issues and improve maintenance workflows and budgetary decisions.
- Lower energy costs with little to no capital expenditure required and would not overburden school staff members.

ENCYCLE'S SWARM LOGIC SOLUTION

Encycle's utility-endorsed software deployed to optimize the 48 HVAC units at the charter school. Seamless integration was completed after installation of new smart thermostats through their utility provider and quickly began capturing energy savings 24/7/365, and enabling automated performance data to be monitored by the school's facility management in Swarm Portal.

SWARM LOGIC RESULTS

In collaboration with their utility program provider, the charter school implemented Swarm Logic across their facilities quickly and inexpensively. The software provided real-time monitoring and control capabilities, enabling energy cost savings resulting from reductions in electric consumption and demand almost immediately.

By leveraging advanced analytics and automation, the solution identified mechanical issues with aging HVAC units and operational inefficiencies caused by suboptimal thermostat settings, enabling proactive maintenance and improving budgetary spend decisions.

The successful deployment at the public charter school exemplifies the positive impact of leveraging technology to enhance operational efficiency and achieve significant energy cost savings. The energy management solution not only benefited the school but also contributed to the community by promoting sustainability, reducing environmental impact, and fostering a culture of responsible energy consumption.

Swarm Logic offered a comprehensive but simple tool for the school to overcome energy challenges and improve HVAC performance, allowing them to continue to prioritize academic excellence, community engagement, and student well-being.

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