

SCHOOL DISTRICT HARNESES THE POWER OF BUILDING CONTROLS

Case Study

“Students and staff spend a lot of time here. It should be a quality environment... we shouldn't have to spend thousands of dollars to be able to harness that”

Randi Arruda
Director of Finance & Technology
Swansea Public School District



Honeywell

The Swansea, Massachusetts school district set its sights on upgrading energy efficiency in its existing facilities and turned to Honeywell. The cost/benefit results raised eyebrows, and utility incentives.



Located on Narragansett Bay, with all the climatic variables that implies, the Swansea school district sought to retrofit each of the six schools in the district – from grade school to high school – over five years, with the simple goal of energy savings. With the help of Air Masters HVAC Services of New England and Honeywell Building Automation Controls, they got a good deal more.

Like many school districts, Swansea Massachusetts faced a variety of facility challenges, with buildings of different ages operating with a mix of older and obsolete technologies for air handling. Randi Arruda, Director of Finance and Technology for the district was receiving reports of freezing cold rooms in one building while driving by another only to see open windows in winter. But she also had a vision for the district's opportunity to be a better steward of sustainability and taxpayer dollars.

THE NEEDS

- Reduce energy consumption/carbon footprint
- Integrate control of all systems and devices
- Gain insights from energy management data
- Improve indoor comfort
- Reduce service calls

THE SOLUTION

The answer was a five-year plan to refit each of six schools and integrate them through Honeywell's WEBS building automation controller directing field controllers and wireless sensors throughout the district's facilities. Combined with the limitless programmability of Honeywell Spyder™ controllers, this means that unnecessary energy consumption in unused areas can be controlled for both HVAC and the district's LED lighting retrofit.

THE RESULT

The Niagara platform offered an interface that all the district decision-makers could understand without an engineering degree, and allowed the facilities manager to take a proactive approach to building maintenance that significantly reduced service calls.

WEBS based controls allow the facility manager to monitor and manage system set points and parameters, ultimately improving building comfort management.

In addition to the improvements in comfort and low maintenance, Swansea Schools have cut their energy costs by 27% overall and their energy use in half. Since 2015, Swansea has saved over \$260,000 in rebates from both Liberty Utilities (gas company) and National Grid (electric company).



“...the boilers would either run all night long or when the janitor came in at 5am to turn it on. Now we set the schedule, so the boiler knows what the outdoor and indoor conditions are for optimal start and stop times.”

Josh Medeiros
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