



ENCYCLE

INTELLIGENT BUILDINGS MADE EASY

Holistic HVAC optimization through integrated
cloud-based technology for customers
using energy management systems

ENTERPRISE CUSTOMER SOLUTIONS

ENCYCLE CONFIDENTIAL AND PROPRIETARY INFORMATION - NOT TO BE COPIED OR DISCLOSED TO THIRD PARTIES WITHOUT THE EXPRESS PERMISSION OF ENCYCLE TECHNOLOGIES, INC.

© 2024 ENCYCLE TECHNOLOGIES INC.. ALL RIGHTS RESERVED. ENCYCLE, SWARM LOGIC, SWARM IQ, SWARM PORTAL, SWARM TECHNOLOGY, AND SWARMSTAT ARE REGISTERED OR PENDING TRADEMARKS OF ENCYCLE TECHNOLOGIES INC.

UNLOCK ADDITIONAL VALUE STREAMS THROUGH YOUR INSTALLED ENERGY MANAGEMENT SYSTEMS

As an enterprise-level customer with a energy management system (EMS), you are already focused on reducing HVAC related energy costs and CO2 emissions across your building portfolio.

But what if you could achieve even more savings on top of what you are realizing with no additional capital investment?

You can save up to 30% or more with the independently proven savings of Encycle's unique AI-enhanced, data-driven Swarm Logic energy management solution.

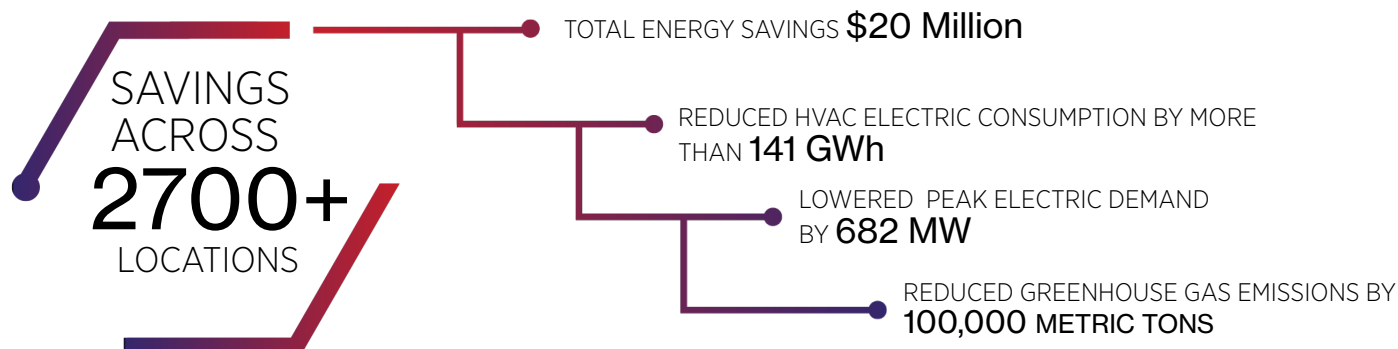
Swarm Logic, Encycle's multi-patented, cloud-based software works with your energy management system to collect HVAC equipment and building operational data, sending it to the cloud where Swarm Logic determines optimal HVAC control decisions for the EMS to apply.

Commercial and industrial multi-site companies across North America rely on Swarm Logic software to significantly lower utility bills, maximize efficiency, and proactively meet emissions reduction targets.



BUILDING INTELLIGENCE MADE SMARTER

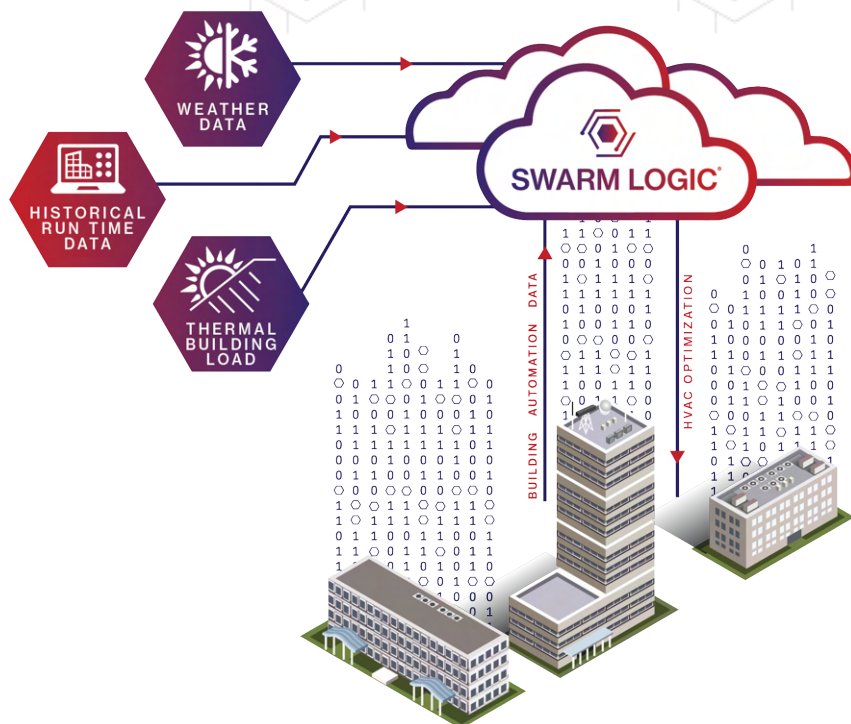
Encycle's enterprise-level energy management solution seamlessly integrates Swarm Logic software with existing building controls (energy management systems) via a cloud-based application programming interface (API). Companies can leverage their existing building controls rather than disrupt or replace them. Swarm Logic helps customers make the most out of their EMS, resulting in even greater levels of energy efficiency and carbon footprint reduction.



SWARM LOGIC:

Powered by Data, Driven by Sustainability™

Swarm Logic is empowering some of the biggest retailers and other multi-site companies to combat HVAC-related energy challenges. This AI-enhanced software looks at HVAC as a system instead of trying to drive efficiency out of individual rooftop units (RTUs). Swarm Logic is unlike any other energy management software offering on the market. It is a truly unique and transformative solution that requires no capital investment, is fast and easy to install, and delivers instant energy savings.



FEATURES AND BENEFITS:



Dramatically reduces energy costs and consumption while maintaining desired building comfort levels



Integrates with several manufacturers' smart thermostats



Requires no additional hardware purchase unless new thermostats need to be installed or existing thermostats need to be replaced



Through advanced machine learning, adapts to each building's individual RTU zone requirements and characteristics



Uses real-time analysis of energy-related data, collected every five minutes



Operates autonomously 24/7/365



Supports sustainability goals by reducing CO2 emissions



Reduces energy consumption (kWh) and demand (kW) for both cooling and heating



Provides energy and HVAC unit reporting and analytics through Encycle's web-based Swarm Portal and Swarm Mobile platforms



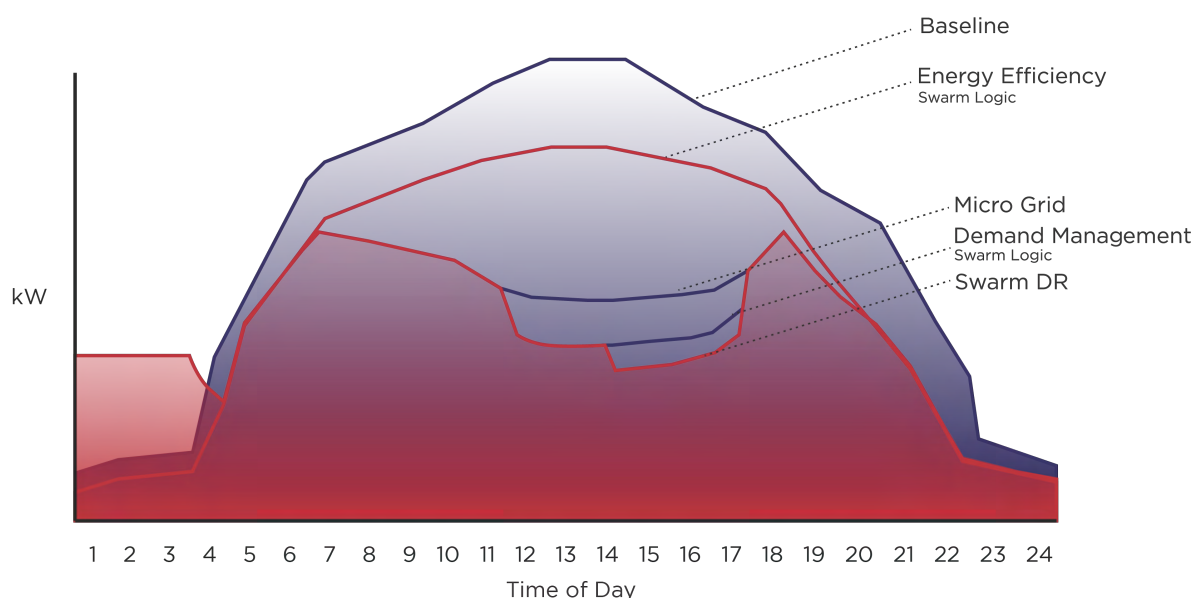
Supports demand response protocols to unlock additional revenue (OpenADR 2.0 and CPower Link)

TYPICAL CUSTOMER SAVINGS

Swarm Logic typically saves customers 10%-30% on HVAC-related energy consumption, spend, peak demand charges, and emissions with results verified by independent third-party reviewers and several utilities in the United States and Canada.

Encycle's Swarm Logic technology significantly outperforms LED retrofits with a comparably greater ROI and no capital expense or human interaction required. Since Encycle evolved into a software only solution provider, it has saved our customers over \$20 million in energy costs across more than 2,700 facilities and 18,000 RTUs. Even the most energy-efficient buildings — including those that are LEED certified — have the potential to lower their energy consumption and emissions with Swarm Logic.

Reducing CO2 emissions is a priority for mitigating climate change. A company's environmental, social, and governance (ESG) actions are now the main criteria used to evaluate whether an investment is socially responsible or ethical.



WITH ENCYCLE, DEMAND MANAGEMENT YIELDS IMMEDIATE SAVINGS

Traditional demand management (DM) strategies involve a static set of operating processes and programming that are designed specifically for each building's current design, equipment, and utilization. This highlights a major limitation of traditional DM strategies, which is the inability to adapt to continually changing business landscapes or other conditions. Besides this lack of flexibility and responsiveness, traditional DM approaches require technical expertise, significant time, individual site customization, and capital investment.

Encycle's Swarm Logic uses its IoT-based technology to help companies quickly realize the savings and benefits of DM for a fraction of the cost while solving typical DM issues. Swarm Logic is a smart choice that wins "hands down" compared with traditional DM strategies in terms of ease of implementation, simplicity, risk, adaptability, responsiveness, scalability, value, and comfort.

SWARM IQ Actionable Fault Detection



Swarm IQ™ is Encycle's autonomous RTU fault detection tool that provides actionable intelligence to customers subscribed to Swarm Logic, helping them become more proactive with their HVAC activities and more efficient in budget spending. This data-driven functionality allows facility managers to gain unprecedented visibility into the maintenance and efficiency of their HVAC assets. Learning about equipment issues and addressing potential major issues early allows facility managers to bundle low-priority service calls and reduce truck rolls and downtime.

SWARM SENTINEL Increasing Work Order Efficiency



Swarm Sentinel™ is Encycle's automated HVAC RTU fault detection notification tool that provides straight-through processing of Swarm IQ-sourced data to a customer's work order solutions platform. This unique, value-added function of Swarm Logic software optimizes the efficiency, accuracy, and cost of equipment maintenance, ultimately reducing truck rolls and extending equipment life.

SWARM DR Demand Response That's Less Demanding



Swarm DR™ provides access to utility-created demand response (DR) programs, integrating our data-driven Swarm Logic software to automatically manage peak demand and load control while minimizing impact on comfort. This simplified approach removes complexity and capital outlay barriers, turning traditional energy costs into a recurring revenue stream for our enterprise customers.

About Encycle:

Deploying autonomous intelligence and analytics, Encycle improves commercial HVAC management, energy efficiency and building comfort to reduce operating costs and carbon footprint. As the only utility-endorsed HVAC optimization software, our patented machine learning solutions seamlessly integrate into maintenance workflows. Encycle enables multi-site commercial and industrial companies to maximize efficiency and reach sustainability goals by improving energy use and budgetary spend decisions.

Enterprise and utility markets served

- Retail / specialty stores
- Entertainment venues
- Restaurants
- Distribution centers
- Malls and shopping centers
- Offices
- Grocery stores
- Medical and wellness facilities
- Education facilities and campuses
- Light industrial
- Utility energy e²ciency programs
- Utility demand response programs

Companies ready to embrace adaptable and scalable breakthrough technologies will benefit from Encycle's holistic approach to optimization, decarbonization, and energy savings.

