

20-40% REDUCTION in HVAC ENERGY

**ECORE-CI® (ECORE - Efficient COoling and REfrigeration)
AI-Driven Energy Conservation Technology**

ECORE-CI® is Online Energy Manager's (OEM's) patented self-managing energy reduction technology for large central cooling systems. Ecore actively samples conditions such as load, outside air temperature, humidity, system temperatures and pressures, among other variables, computes the optimal balances to minimize kWh/Cooling Ton and sends instructions to BMS/BAS to automatically adjust set points and balance loads across multiple chillers, yielding dramatic energy and cost savings.

With large-scale commercial projects worldwide ranging from 500 to 25,000 tons, Ecore is proven technology that is guaranteed to reduce HVAC energy and GHG emissions 20-40%+.

Typical Applications: ≥500Ton Closed Loop Chiller Systems and Heat Pumps. Regardless of building type (Hospital, Office Buildings, Industrial, Hospitality, School, Data Center, etc.) or efficiency rating (LEED, WELL, Energy Star etc.).

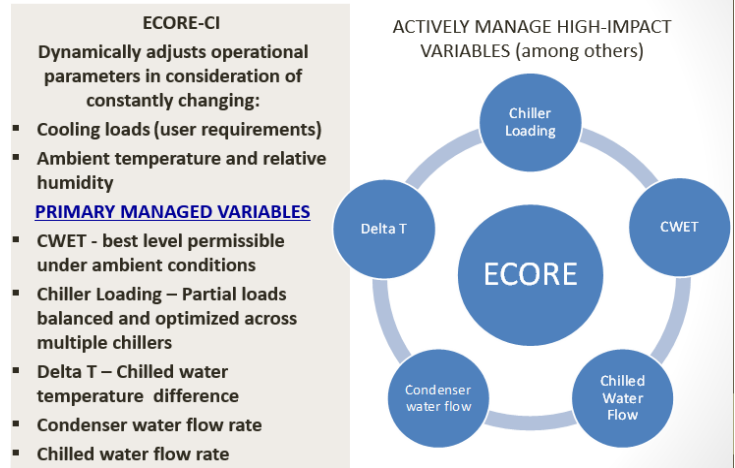
ECORE does not replace your BMS or BAS; Ecore makes it smarter. Ecore is autonomous; it optimizes operation of centralized HVAC systems in response to changing real time conditions without operator intervention. Ecore is customized and programmed directly into the BMS/BAS; therefore, there is no impact on manufacturer warranties.

BMS and BAS generally have the capability to execute commands and specify various equipment set-points, with the addition of Ecore they can now analyze and optimize set-points in response to changing real time conditions without operator intervention.

ECORE-CI delivers dramatic energy cost reduction and capture approximately 1/3rd more cooling capacity by resolving inefficiencies. Therefore, in most cases no construction efforts are required.

Typical Implementation Time: 8-12 weeks

* Ecore-CI® is a registered trademark of On-Line Energy Manager, LLC



Yale - Science Park Building - New Haven, CT / 2020

- ▶ **Building Size:** 106,000 square feet
- ▶ **Property Type:** Mixed use, offices and laboratories
- ▶ **Building Management System:** Automated Logic
- ▶ **ECORE Chiller Optimization** - implemented by EIC
- ▶ **Savings Achieved:** >30%

Related Properties Office Building, CT /2020

- ▶ 180,000 Square Feet office building
- ▶ Measures Installed
 - Dynamic Set-Points for Heat Pumps
 - Optimizing Cooling Tower Supply Temperature
 - Installing and controlling VFDs for Chilled Water Pumps
 - Outside air intake DCV implemented
- ▶ Savings Achieved ~ 30%
- ▶ Implemented by EIC

Norristown Area School District

- **Location:** Norristown, PA
- **Building Type(s):** K-12 Schools and Administration Buildings
- **Number of Buildings:** Fifteen (15)
- Robert McGreevy, provided design, engineering and installation support for efficient boiler and chiller installation, electric to gas conversion, lighting retrofit and controls, DDC controls, and rooftop solar installation.
- The Ecore Control Module was programmed directly into the BAS to manage dynamic setpoints for minimum total power consumption in the system at all times.
- **Summary of Results:**
 - Annual Cost Savings: \$3.77M
 - No financial risk to owner per GESA financing terms