

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 AI/Machine-Learning Energy Conservation technology for large Central Cooling Systems. ECORE actively evaluates dynamic variables, such as the constantly changing load, ambient air temperature, relative humidity, system temperature and pressure, among other variables, 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 load 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 is guaranteed to reduce HVAC energy 20-40%.

ECORE does not replace your BMS or BAS; ECORE makes it smarter. ECORE becomes the bolted-on brain that optimizes operation of centralized HVAC system in response to changing real time conditions without operator intervention.

ECORE communicates with the BMS/BAS using a native interface and relies on native HVAC system controls consistent with manufacturer specifications; therefore, there is no impact on manufacturer warranty.

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.

Typical Implementation Time: 8-12 weeks

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

CASE STUDY: John's Island Club

- Beach Club in Vero Beach, Florida
- Integrated with Johnson Controls' METASYS BMS
- Saved over 40% of cooling energy
- Implemented on the SaaS model

"In the recent measurement and verification (M&V) conducted during May 2018 the results showed that the ECORE saved an average of 1,065 kWh per day (41.6%)"

- Rex Wilson
Director, Facilities,
John's Island Club

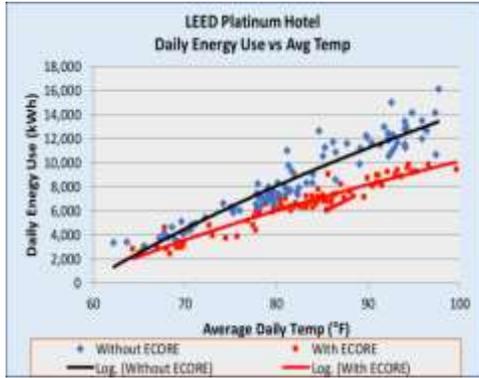
Date	Consumption (kWh)
1-May-18	1400
2-May-18	1450
3-May-18	1400
4-May-18	1450
5-May-18	1400
6-May-18	1450
7-May-18	1400
8-May-18	1500
9-May-18	2400
10-May-18	2450
11-May-18	2500
12-May-18	2550
13-May-18	2600
14-May-18	2650

DISTRICT COOLING PLANT 2016 vs. 2017 w/ECORE®

- 25,000-ton District Cooling Plant in the Middle East for data center, comfort cooling and industrial process cooling.
- 10 sets of chillers & 23 energy transfer stations.
- Even with a very low electricity price (about 4 cents per kWh), ECORE was able to achieve substantial cost savings.
- Annual energy costs – US\$ 3.2million
- Savings – US\$ 600,000

Year	Average kW/Ton
Without ECORE - 2016	1.01
With ECORE - 2017	0.78

Savings with ECORE - 23 %



ITC Hotels is a member of the Starwood Group and is India's premier hotel chain with 17 five-star hotels. All of the hotels are LEED Platinum certified. ITC's flagship hotel, the Maurya in Delhi, was one of the most energy-efficient hotels in the world. The ITC team, in cooperation with OEM engineers, identified the potential for additional energy efficiency improvements. After installing the ECORE platform, OEM was able to save ITC about 32% of cooling energy, with approximately a 2-year payback.