

REDUCE HVAC ENERGY COSTS BY 40% AND EXTEND EQUIPMENT LIFE WITH NO UPFRONT COST



PROBLEM

MACHINE INEFFICIENCY (“OIL FOULING”) – Even with proper maintenance, 100% of HVAC systems lose capacity and efficiency over time. The majority of HVAC units operate 40% less-efficiently than when first installed as “brand new.” For example, it may take a new unit 10 minutes to cool an area to 72 degrees. After 5 years, the unit will take 14.5 minutes to cool that same area. The main cause for this inefficiency is called “oil fouling”—an accumulation of oil deposits within the unit which affects the thermal conductivity of the HVAC system. Many business owners and facility managers are unaware of oil fouling and how it decreases the efficiency of an entire HVAC system.



eco-enterprise

We drive sustainability for companies, nonprofits
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Available Worldwide



LONGER RUNTIMES (HIGHER ENERGY COST) - When an HVAC system operates inefficiently clients experience longer runtimes (rooftop units) and higher loads (chillers) which increase energy costs. Tenants/Staff expect property managers to fix climate complaints immediately. Companies that overlook proven innovations in HVAC ultimately delay climate control, pollute and overspend.

OPERATIONAL INEFFICIENCY - Many factors within an organization contribute to poor HVAC performance, costing significant time, money and energy; moreover, reducing the sustainability of the business. These issues are not corrected with normal system maintenance, because the industry focuses on operational continuity and not HVAC Optimization:

- **Sensor Miscalibration**
- **Improper Operation Sequencing**
- **Mechanical Wear**
- **Outdated Control Systems**
- **Building Management Changes / Facility Manager Turnover**
- **Incorrect Water Temperature**
- **Unknown Faulty Equipment**
- **Mismanaged Energy Management Systems**
- **Improper Air Flow / Fan Speed**

LIMITED BUDGET - As older HVAC units break down, requiring costly service calls, companies consider replacing their equipment entirely. Paying upfront for new HVAC units is an expensive fix. In addition, installing a new HVAC system negatively impacts productivity and revenue.

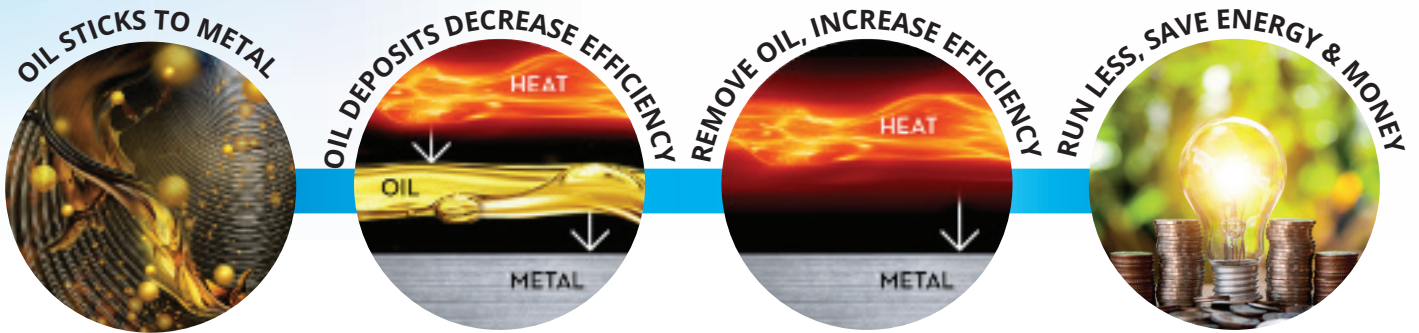
SOLUTION

ECO-ENTERPRISE HVAC OPTIMIZATION

With 300+ case studies, certified by professional engineers at over 130,000 locations in 38 countries worldwide, *Eco-Enterprise HVAC Optimization* is a proven, four-part process to restore and maintain efficiency:



PROPRIETARY NANOTECHNOLOGY - Eco-Enterprise's Patented Nanotechnology is the world's leading Energy Conservation Measure (ECM). It eliminates the inefficiency caused by oil-fouling. Therefore, it restores cooling capacity and reduces kWh consumption, which extends the life of HVAC equipment and shrinks the carbon footprint of a facility. Results may vary depending on the application; on average, the nanotechnology has been shown to reduce HVAC runtime and increase equipment life by 20%.



FORENSIC ENGINEERING - HVAC Optimization experts go beyond the standard engineering analysis to find efficiency that increases energy performance. Eco-Enterprise's team brings unique expertise from every area of the HVAC industry, providing a comprehensive view of climate control.

EXPERT TRAINING & SUPPORT - By implementing *Eco-Enterprise HVAC Optimization* it is equivalent to having access to a forensic engineering team, 24x7. Seasoned HVAC experts train client's maintenance staff on how to navigate forensic data and run climate control in the most profitable way. Eco-Enterprise's team also helps clients to mitigate issues occurring from employee turnover.

IIoT HARDWARE & MACHINE LEARNING SOFTWARE - Another revolutionary aspect of Eco-Enterprise HVAC Optimization is the use of custom IIoT (Industrial Internet of Things) hardware and software. This cutting-edge platform identifies inefficiencies throughout the HVAC system and learns how to correct them. Sensors (hardware) installed at unique points of the units, collect real-time data and reliable metrics. Complex machine learning algorithms (software) sort and measure this data, over time, to understand why anomalies occur. Facility managers rely on this solution to capitalize on savings opportunities and explain issues to upper management. Business owners drive clear ROI by receiving an increase in system performance with an ongoing reduction in machine usage and energy costs. Clients also benefit from reduced maintenance costs.

NO UPFRONT COST / "SHARED SAVINGS" PROGRAM - Clients who qualify for "Shared Savings" receive a transformative new approach to funding HVAC optimization: Eco-Enterprise invests in infrastructure with hands-on engineering expertise, innovative hardware/software, and patented nanotechnology. The result is a powerful financing program that allows clients to see savings without any capital outlay of their own.



WHY ECO-ENTERPRISE?

We drive sustainability for companies, nonprofits and governments while saving them money. We do this by providing the following:

1
Unique
Financial Solutions



2
Cutting-Edge
Technologies



3
Smart City and
Building Automation



Clients significantly reduce expenses by engaging Eco-Enterprise's *Unique Financial Solutions* to acquire refunds from unknown overcharges. Business and nonprofits can reallocate the immediate refunds they receive towards other capital expenditures and upgrade infrastructure. For example, Eco-Enterprise offers *Cutting-edge Technology*: COVID-CLEAN Products/Services, Power-over-Ethernet LED Lighting, HVAC Optimization, Solar Power, etc. Moreover, Eco-Enterprise provides *eco-system BAS*, a fully comprehensive Building Automation System, enabling organizations to monitor and control all buildings—increasing savings, efficiency, sustainability, and safety.

