



Energy Management Software for HVAC Optimization in Commercial Buildings

MARKET SIZING & COMPETITIVE LANDSCAPE 2024 TO 2029

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Energy
Management
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Synopsis

This report is a new 2024 study that provides a detailed market forecast to 2029, broken down by region and vertical market.

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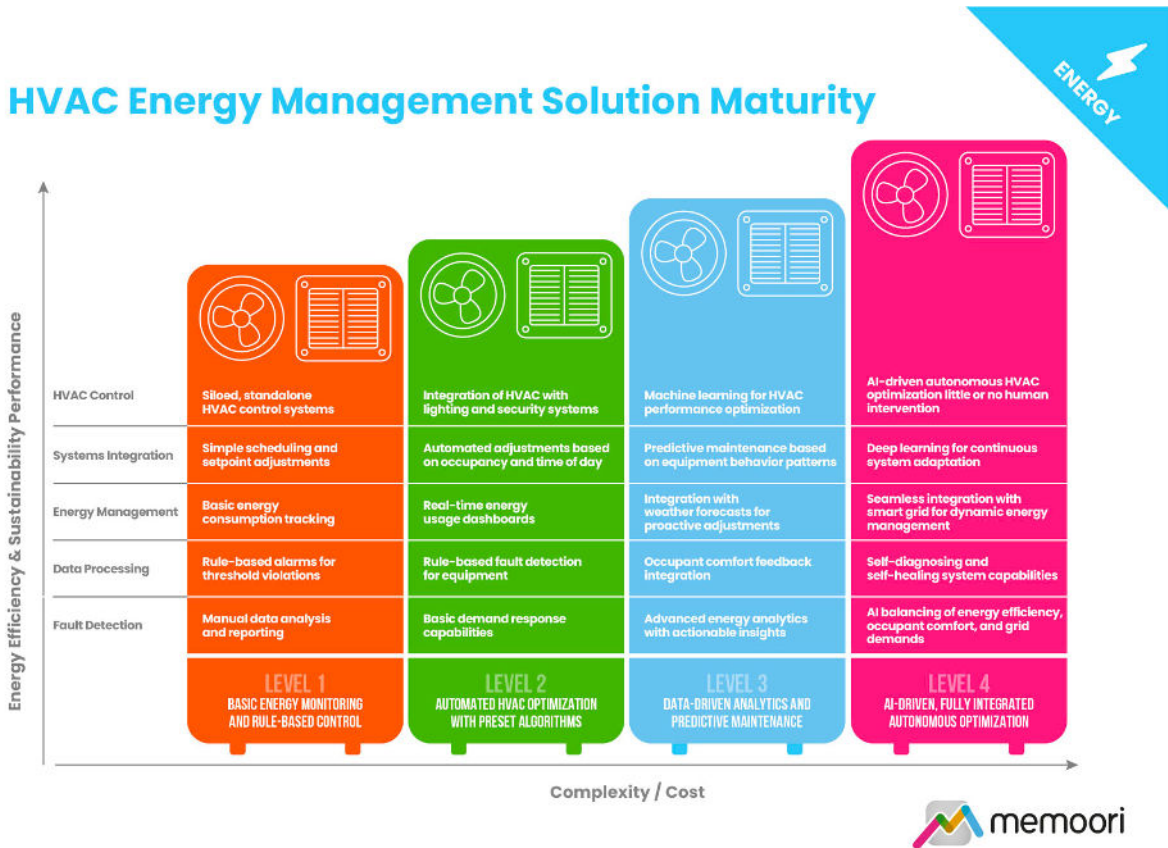
Introduction

In today’s complex commercial real estate landscape, energy management has become a critical focus for property and facilities managers. Optimizing energy use is not just about lowering costs, it has become a key factor in achieving sustainability and resource efficiency.

This new research takes an in-depth look at how artificial intelligence-driven energy management technologies will transform the way HVAC systems operate, enhancing both operational efficiency and sustainability.

The report includes, at no extra cost, a spreadsheet containing the data from the report and high-resolution presentation charts showing the key findings. It is the first in a 2-part series of reports, with the second report on building-to-grid interaction software being published later this year.

Both these reports are included in Memoori's 2024 Premium Subscription Service, which also gives access to our chatbot AIM, where you can query all our research using the power of Large Language Models (LLMs).



HVAC Energy Management Solution Maturity Model

To better understand the landscape of HVAC energy management solutions and their relative maturity, Memoori has developed a model categorizing these solutions into four distinct tiers.

- **Tier 1** represents basic energy monitoring and rule-based control, with limited automation and integration.
- **Tier 2** introduces semi-automated control and basic data-driven analytics, allowing for more comprehensive energy management.
- **Tier 3** transitions to data-driven optimization incorporating machine learning and predictive analytics, enabling dynamic optimization based on real-time and predictive data.
- **Tier 4** represents the pinnacle of HVAC energy management, with predominantly autonomous and AI-driven systems capable of optimizing performance without human intervention.

Based on an assessment of available data on technology adoption, the report develops a theoretical model of the global distribution across the HVAC Energy Management Solution Maturity tiers.

Within its 227 Pages and 19 Charts, the report filters out all the key facts and draws conclusions, so you can understand exactly how energy management technology is impacting HVAC systems and why.

The market for Energy Management Software for HVAC Optimization in Commercial Buildings is projected to grow from a baseline value of \$3.65 billion in 2023 to \$5.83 billion by 2029, representing a compound annual growth rate (CAGR) of 8.1%. Our projection accounts for regional disparities in adoption rates, macroeconomic influences, and technology-driven shifts to deliver a comprehensive and realistic market outlook.

Data centers account for an outsized proportion of market revenues relative to their floorspace, representing 11.4% of overall HVAC optimization software revenues (\$449 million) in 2024. HVAC cooling can account for up to 40% of a data center's total energy use, making efficient HVAC management crucial.

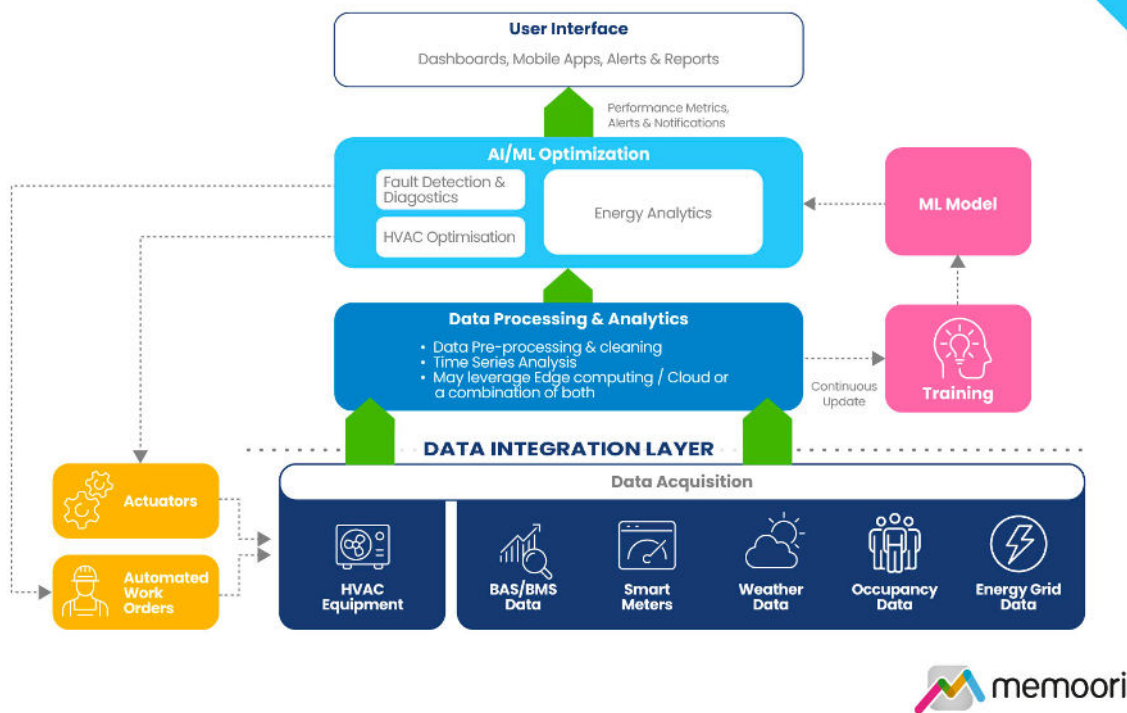
AI-driven HVAC solutions in data centers can dynamically adjust cooling outputs based on real-time data such as server load levels, external weather conditions, and internal temperatures.

The market for Energy Management Software for HVAC Optimization in Commercial Buildings is poised for significant growth over the next five years, driven by technological advancements, regulatory pressures, and increasing awareness of the need for energy efficiency.

Who Should Buy this Report?

The information contained in this report will be of value to all those engaged in managing, operating, and investing in Commercial Buildings (and their Advisors) around the world. The report aims to help stakeholders make informed decisions that will drive the future of HVAC optimization and energy management.

AI-Enabled HVAC Optimization Technology Stack



Our infographic above visualizes the flows of data that occur between different technologies to enable the AI-enabled HVAC Optimization Technology Stack. By integrating AI, IoT, and data analytics, this system can dynamically enhance HVAC performance, reflecting the core concepts discussed in this report.

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The report is priced at **\$3,000 USD (Enterprise License)**. It is delivered as an electronic file download, via email.

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