eGauge Systems
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Montreal Solutions Implements a Comprehensive Energy Monitoring Strategy at Bloomhouse with eGauge

About Montreal Solutions

Montreal Solutions helps organizations reduce costs and environmental impact by combining advanced monitoring technology with sustainable system design. Their mission is to simplify complex technical data and empower clients to make smarter decisions around energy usage, air quality, and regulatory compliance.

Their approach goes beyond monitoring: they create healthier environments, improve comfort, and support circular strategies—all through a centralized, easy-to-use data platform. Whether it's a school, hospital, retail chain, or commercial real estate project, Montreal Solutions delivers tailored solutions that result in measurable financial and ecological benefits.

About the Project

At eGauge Systems, we're proud to partner with forward-thinking companies that use our technology to drive impactful results. One such partner is Montreal Solutions, a sustainability and technology firm based in the Netherlands. Montreal Solutions has deployed eGauge meters in over 75 projects across Europe, but one of their most impressive applications took place at Bloomhouse, a commercial building in Amsterdam formerly occupied by Booking.com and now home to Unilever's Ice Cream division.

The Challenge at Bloomhouse

Montreal Solutions was tasked with designing and implementing a comprehensive energy monitoring strategy for Bloomhouse, a large commercial facility with a wide range of systems: HVAC, lighting, heat pumps, and floor-level electrical distribution. The building's complexity required a monitoring solution that was both flexible and scalable.

Why eGauge?

eGauge was selected as the primary monitoring solution for the project, and for good reason:

- Multi-channel input: Ideal for monitoring multiple circuits across large systems.
- Compact, easy-to-install form factor: Speeds up deployment and simplifies commissioning.
- Built-in data storage: Prevents data loss during connectivity issues.
- Seamless integration: Works flawlessly with Montreal's Aurora analytics platform and client-facing dashboards.
- Exceptional value: Delivers high-end functionality at a competitive price point.

The Discovery

Insights from a previous project using eGauge's real-time data helped Montreal Solutions determine the best course of action at the Bloomhouse. They identified a significant inefficiency in the building's HVAC system—specifically, a compressor that had been running continuously due to a synchronization issue. This single unit was responsible for a staggering 40% of the building's total energy consumption.
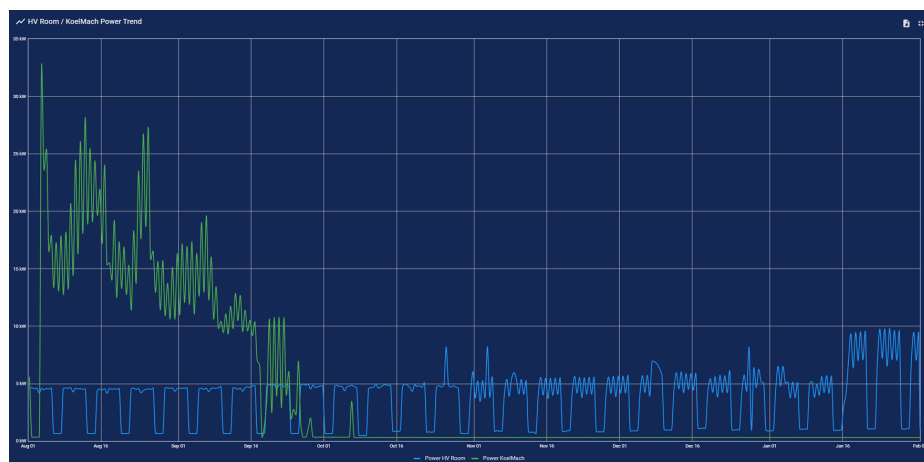
Based on those findings, Montreal Solutions advised the team to correct the system's timing and controls. The results were immediate and impactful: an estimated €40,000 in annual energy savings.
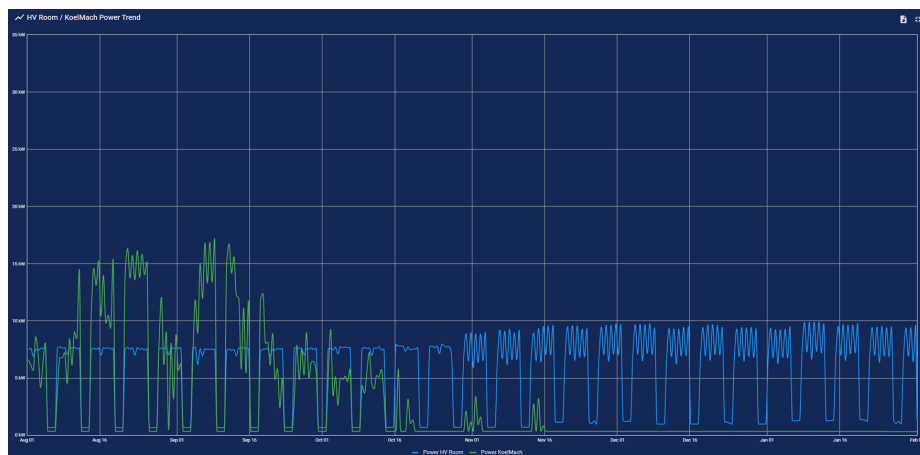
Data

The data shown on the next page illustrates the impact of strategic system adjustments across three periods—insights that later reinforced decisions at the Bloomhouse. In Period 1, there was no synchronization between the HVAC system and the Airco compressor, resulting in inefficient energy usage. During Period 2, the systems were synchronized to prevent operation during nights and weekends, leading to a 70% reduction in off-peak hour consumption and an 18% decrease in annual costs compared to Period 1. In Period 3, additional fine-tuning was implemented to further reduce peak Airco consumption by minimizing the pump's reaction time.
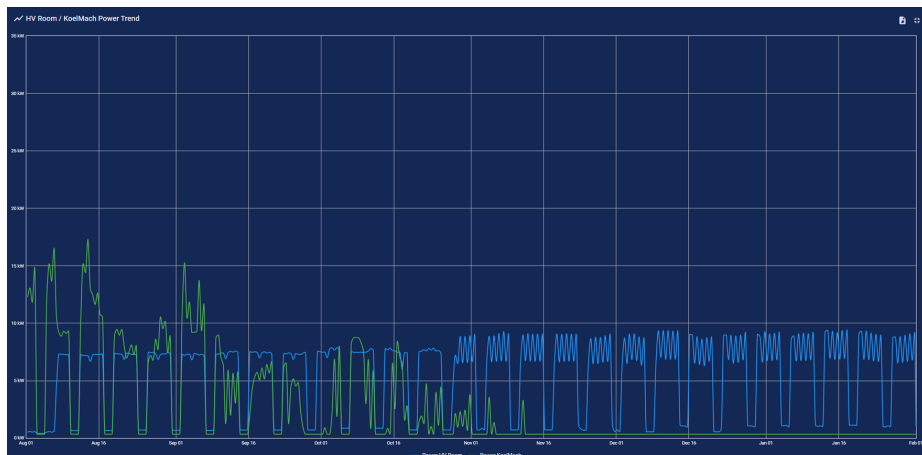
Period 1: Aug 2022-Jan 2023
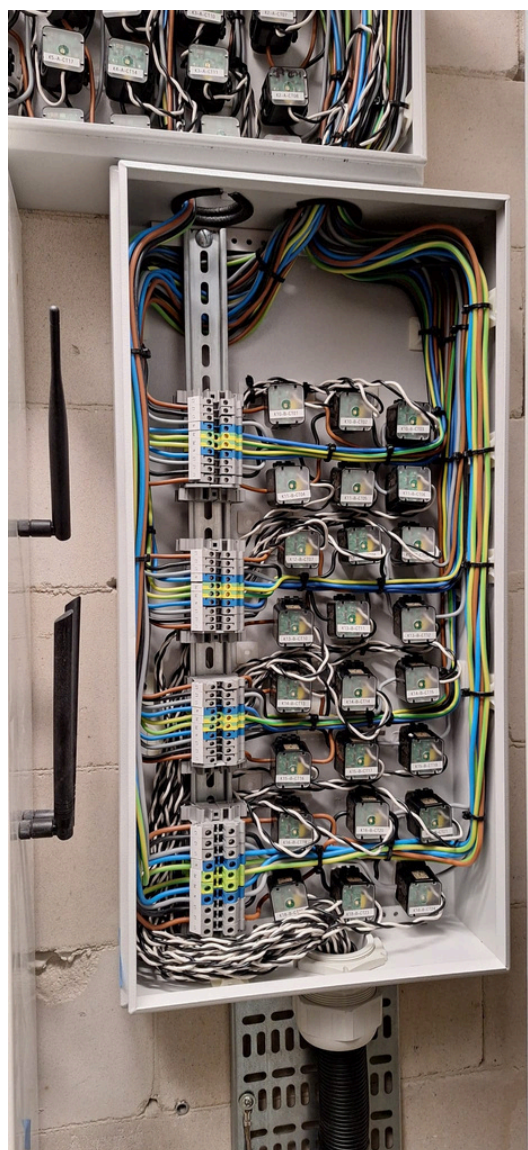

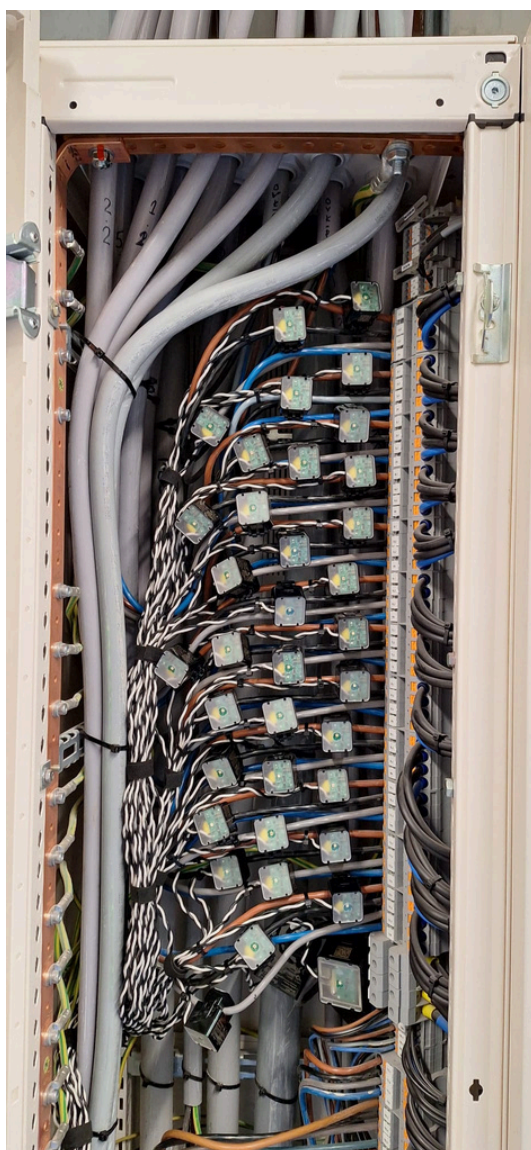
Period 2: Aug 2023-Jan 2024

Period 3: Aug 2024-Jan 2025

Installation

At Bloomhouse, the primary installation is housed in the basement, where it connects to all essential utility lines to ensure a stable and dependable supply throughout the building. The rooftop installation—pictured below—monitors and manages all air conditioning units and HVAC systems, providing comprehensive oversight across the facility.

A Broader Strategy Powered by eGauge

This project is just one example of how Montreal Solutions leverages eGauge across its client base. Their team uses eGauge to:

- Analyze monthly usage trends and deliver energy-saving recommendations
- Track performance across HVAC, lighting, renewables, and electrical systems.
- Integrate third-party data (like utility meters) via pulse or Modbus signals.
- Offer visualizations and reports through custom dashboards.

They also benefit from eGauge's robust features like CTid, reliable offline storage, and compatibility with future technologies.

Conclusion

The Bloomhouse project in Amsterdam is a shining example of what's possible when real-time data, expert analysis, and client collaboration come together. As a new build, Bloomhouse had the unique opportunity to prioritize efficiency from day one. By implementing eGauge meters as the backbone of their monitoring solution, Montreal Solutions is helping to ensure optimal performance from the start, enabling the team to detect and prevent costly system inefficiencies before they occur.

Backed by Industry Expertise

While Montreal Solutions operates as a nimble, specialized firm, it's supported by two major shareholders: a leading electrical installation company and a climate equipment specialist. This gives them unique access to engineering expertise and implementation capabilities, allowing them to design smarter systems from the ground up.

"eGauge is a priority product—it's our main unit for all projects. We recommend it for all types of monitoring needs."

-Richard Clark, CTO

MONTREAL SOLUTIONS