KEY FEATURES OF OUR ENERGY MANAGEMENT SOLUTION

edgemethods

Digital Twin Technology

Digital Twins are comprehensive virtual replicas of your manufacturing environment, enabling precise monitoring and optimisation. Additionally, Sustainability Digital Twins focus on analysing energy flows, inferring consumption, and calculating GHG emissions and associated costs.

Plant Digital Twins

Virtual Replicas: Create virtual models of your manufacturing environment, encompassing high-level views to detailed individual asset components.
Enhanced Insight: Gain deep insights into operational performance, enabling precise monitoring and optimisation of processes.

Sustainability Digital Twins

Energy Flow Analysis: Understand and infer energy consumption by analysing different energy types and pairing them with specific assets or processes.
GHG Emissions Insight: Accurately calculate GHG emissions and associated costs, facilitating targeted energy optimisations and sustainability improvements.

Virtual Energy Meters

Virtual Energy Meters are software-based tools that use advanced algorithms and data analytics to estimate energy consumption across various assets and processes without the need for physical meters. They enable you to achieve:

Precision Monitoring

Real-Time Measurement: Continuously monitor energy consumption across various assets and processes with high precision.
Instant Insights: Quickly identify areas of energy inefficiency and implement immediate improvements.

Cost-Efficient Data Bridging

Data Gap Filling: Address data gaps where physical meters are absent, reducing installation costs while enhancing visibility into energy consumption.
Enhanced Data Accuracy: Seamlessly integrate with existing meters and sensors to ensure accurate and comprehensive energy data.

Flexibility and Scalability

Easy Integration: Integrate effortlessly into existing systems without extensive hardware installations, enhancing scalability and flexibility.

Advanced Analytics & Reporting

Real-Time Monitoring

Immediate Improvements: Identify energy inefficiencies instantly and receive actionable suggestions for immediate operational improvements.
Continuous Optimisation: Maintain optimal performance through continuous monitoring and real-time adjustments.

Predictive Analysis

Forecasting: Predict future energy usage and implement proactive maintenance strategies to prevent inefficiencies and downtime.
Proactive Management: Stay ahead of potential issues with predictive insights and data-driven decision-making.

Energy Cascade Models

Visual Representations: Visualise energy flows and losses, providing clear insights into where energy is consumed and wasted.
Targeted Optimisations: Use detailed visual models to pinpoint and address specific areas of energy inefficiency.

Dynamic & Static Energy Loss Reports

Comprehensive Insights: Gain detailed insights into energy inefficiencies using an ISO50001 and STRUCTese aligned approach.
Tracking & Reporting: Track all energy losses comprehensively with dynamic and static reports, enabling precise energy management.

Why Choose EdgeMethods?

EdgeMethods offers industry-leading expertise in smart factory energy management solutions, providing dedicated customer support and continuous improvement, along with seamless integration with your existing data sources and infrastructure. Here's why you should trust us to be your energy management partner:

Award-Winning Innovation
We were voted a top IoT Solution Provider in 2024 for our cutting-edge smart factory solutions.

Government Endorsement
Our solutions have been endorsed and supported by Innovate UK through the Smart Sustainable Factory initiative.

Proven Impact
Our energy management solutions have a proven impact in optimising energy consumption, reducing costs, and helping you achieve your sustainability goals.

Let's Get Started!

Take the decisive first step towards more efficient and sustainable manufacturing operations...

Contact us for a free consultative session and discover how our energy management smart factory solution can help your company achieve its operational efficiency and productivity goals.

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