



wattXplorer

A Smart Energy Management System That Visualizes Energy Costs and Helps Reduce CO₂ Emissions

Transform Energy Data into Business Value

As energy costs continue to rise and carbon neutrality becomes a growing priority, simply monitoring monthly electricity bills is no longer enough for many businesses.

Do you face any of these challenges?

- Not knowing which equipment consumes the most electricity
- Inability to identify where energy losses occur within production processes
- Difficulty accurately tracking and managing CO₂ emissions
- Inability to calculate energy costs for individual products
- Lack of reliable data to support GX and ESG initiatives

wattXplorer is a real-time energy monitoring and analytics platform developed to address these challenges.

What is wattXplorer?

wattXplorer is an energy management system that measures electricity consumption at the equipment and production-line level in real time, enabling centralized management of energy usage, costs, and CO₂ emissions.

The system utilizes **clamp-on sensors**, making installation on existing equipment simple and non-intrusive. No major construction work or production downtime is required.

Collected data is visualized through an intuitive dashboard, allowing users to monitor and understand the factory's overall energy performance in real time.



Key Features of wattXplorer

1. Easy Installation with No Construction Required

Measurement can begin simply by attaching clamp-on sensors to existing power cables.

- No wiring modifications required
- No production line shutdown required
- Existing equipment can continue to be used
- Fast and easy deployment

This minimizes installation burden while enabling immediate access to energy data.

2. Real-Time Power Consumption Monitoring

wattXplorer continuously monitors electricity consumption in real time at multiple levels:

- Equipment level
- Production line level
- Process level
- Factory level

This allows users to quickly identify high-energy-consuming equipment and abnormal energy usage, enabling timely improvement activities and energy-saving initiatives.

3. User-Friendly Dashboard

All collected data is displayed in real time through an intuitive dashboard.

Users can easily perform:

- Equipment-to-equipment comparisons
- Production line comparisons
- Factory-to-factory comparisons
- Historical data analysis
- Energy trend analysis

The system is designed to be easy to use for everyone, from shop-floor operators to executive management.

4. Automatic CO₂ Emissions Calculation

Based on electricity consumption data, wattXplorer automatically calculates CO₂ emissions.

This provides the data required for:

- Carbon footprint calculations
- ESG reporting
- GX (Green Transformation) initiatives
- Net Zero strategies
- Emissions management by Scope categories

By combining environmental management with operational improvement, organizations can achieve sustainability and business performance goals simultaneously.

5. Accurate Energy Cost Analysis

In addition to monitoring power consumption, wattXplorer enables detailed analysis of:

- Cost per kWh
- Energy cost by equipment
- Energy cost by product
- Energy cost by production process

By accurately understanding energy costs, businesses can develop more effective cost-reduction strategies and improve profitability.

Benefits of Implementation

Reduce Electricity Costs

Identify energy waste and implement more efficient operational practices.

Improve Production Efficiency

Gain visibility into equipment performance and energy consumption to enhance productivity.

Support ESG and GX Initiatives

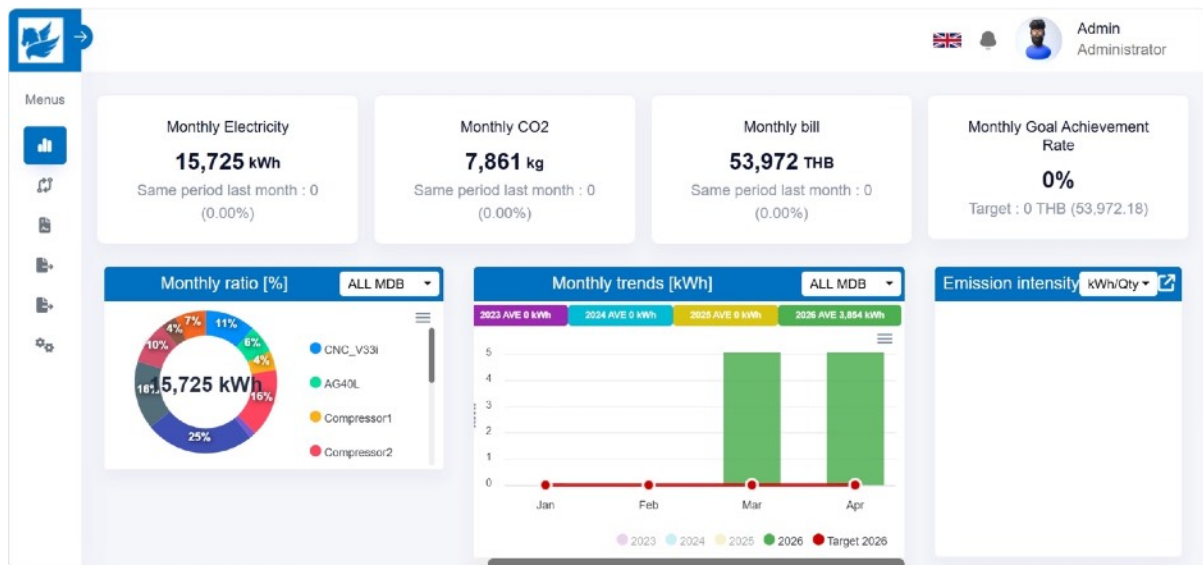
Manage environmental data quantitatively and support sustainable business management.

Accelerate Carbon Neutrality Efforts

Visualize CO₂ emissions and take the first step toward decarbonized operations.

Recommended For

- Manufacturing companies
- Food processing plants
- Agricultural facilities
- Warehouses and logistics centers
- Office buildings
- Hotels
- Hospitals
- Organizations promoting GX and ESG initiatives



Available in Both Cloud and On-Premises Versions

Cloud Version

With an internet connection, users can access and monitor energy data anytime, anywhere through the cloud platform.

On-Premises Version

For organizations with strict security requirements, wattXplorer can be deployed on an internal server, allowing all data to be managed within the company's own infrastructure.

Businesses can choose the system configuration that best fits their operational policies, security requirements, and IT environment.

[illegible]

■©2025 Kyokko Electric Co.,Ltd. ■特許出願中 ■製品構成は本体と電流センサです。ACアダプタとUSB電源ケーブルは付属致しません。

	課題	wattXplorerで解決
算定方法	機械ごとに 電力消費量を算定 電力消費量とプロセス・部品の紐づけ 後から纏めて算定	機械ごとに設置 時間軸で消費電力量の分解、 統合が可能 クラウド、Grafana、CSVデータ
生産現場 への導入	機械を止めずに 算定機器を設置 導入が簡単	電流センサを電源線に クランプするだけ 電流センサは後からサイズ変更可能 省スペース、省配線 既存Wi-Fiネットワークに接続 (専用GW不要)
システム ・ 可視化	クラウド (SaaS) SCADA連携 スタンドアローン	UI、UX、クラウド運営は 実績のある協業先 MQTT・Modbus・CSV Grafana (旭光電機製) Node-RED (お客様で構築/フリーソフト)

	課題	wattXplorerで解決
算定方法	機械ごとに 電力消費量を算定 電力消費量とプロセス・部品の紐づけ 後から纏めて算定	機械ごとに設置 時間軸で消費電力量の分解、 統合が可能 クラウド、Grafana、CSVデータ
生産現場 への導入	機械を止めずに 算定機器を設置 導入が簡単	電流センサを電源線に クランプするだけ 電流センサは後からサイズ変更可能 省スペース、省配線 既存Wi-Fiネットワークに接続 (専用GW不要)
システム ・ 可視化	クラウド (SaaS) SCADA連携 スタンドアローン	UI、UX、クラウド運営は 実績のある協業先 MQTT・Modbus・CSV Grafana (旭光電機製) Node-RED (お客様で構築/フリーソフト)