

# EnerSense Analytics

## Empowering Energy Intelligence

**EnerSense Analytics** is a forward-thinking energy consultancy dedicated to helping organizations achieve sustainability through data-driven insights, intelligent monitoring, and predictive automation.

Our mission is simple: **turn energy data into action** — enabling businesses to reduce costs, enhance efficiency, and move confidently toward a greener future.

## Who We Are

Founded by a multidisciplinary team of engineers and data scientists, EnerSense bridges the gap between **industrial IoT systems** and **artificial intelligence**.

We specialize in transforming raw sensor data into meaningful performance indicators that support smarter energy decisions.

Our headquarters are based in **Beirut, Lebanon**, serving clients across the Middle East and Europe through hybrid on-premise and cloud analytics platforms.

## Our Mission

“Measure. Analyze. Optimize.”

At EnerSense, we believe that sustainability starts with visibility.

We help clients **measure** energy performance in real time, **analyze** inefficiencies using AI-driven models, and **optimize** operations through automation and actionable recommendations.

## What We Do

### 1. Energy Auditing & Reporting

We conduct detailed facility-level energy assessments and generate automatic reports that identify waste, quantify savings, and benchmark performance against industry standards.

### 2. IoT Sensor Monitoring

EnerSense integrates seamlessly with existing industrial devices, acquiring real-time data through protocols such as **Modbus**, **MQTT**, and **Sparkplug-B**. Our monitoring platform ensures continuous visibility over temperature, current, voltage, and environmental sensors.

### 3. Rule-Based Alerts and Predictive Maintenance

Our proprietary **Alert Engine** detects anomalies and potential equipment faults before they escalate — such as chiller temperature deviations, excessive current draw, or abnormal vibration patterns.

### 4. Sustainability Dashboards

We provide live dashboards that visualize energy KPIs, CO<sub>2</sub> reduction, and cost trends, helping organizations communicate sustainability impact transparently.

### 5. Consulting & Optimization

Our engineering team delivers tailored consulting for energy retrofits, demand-response planning, and renewable integration.

## Our Technology

EnerSense leverages a blend of:

- **Machine Learning Models** for anomaly detection and consumption forecasting.
- **Cloud-based Analytics** for scalable energy data processing.
- **Secure IoT Gateways** for industrial connectivity and data ingestion.
- **Automated Reporting Pipelines** for daily and weekly performance summaries.

Our systems are designed to be **interoperable**, **secure**, and **compliant** with industry standards, ensuring seamless deployment in both legacy and modern infrastructures.

## Our Team

- **Dr. Mira Al-Sayed — Chief Executive Officer**  
Former energy systems researcher at MIT, Mira leads EnerSense's strategy on sustainability analytics and innovation.
- **Carlos Dominguez — Chief Technology Officer**  
IoT architect with expertise in industrial data pipelines and Sparkplug-B messaging. Carlos designs our end-to-end energy monitoring architecture.

- **Hadi Melhem — Head of Artificial Intelligence**  
Responsible for developing predictive models for equipment health and optimization, Hadi bridges AI and real-world operations.
- **Sara Khalil — Operations & Client Success Lead**  
Ensures smooth project delivery and long-term customer satisfaction.

Together, our team brings over **20 years of combined experience** in energy analytics, data science, and industrial engineering.




## Our Promise

We don't just monitor energy — we **empower efficiency**.  
Every EnerSense engagement aims to deliver measurable results:

- **10–25% reduction** in energy costs within the first year,
- **Improved reliability** through proactive maintenance,
- **Enhanced sustainability reporting** aligned with ISO 50001 and ESG goals.

## Contact Us

**EnerSense Analytics**  
Smart Energy. Sustainable Future.

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