

CASE STUDY · RIYADH, SAUDI ARABIA · MANUFACTURING

Nova Waters: Cost per Bottle and Power Quality Visibility in Real Time

The client

Nova Waters is a bottled-water manufacturer in Riyadh. Its automated bottling lines run continuously, so electricity visibility is essential for controlling costs, improving operational efficiency and supporting the company's sustainability goals.

Prioritising energy savings and sustainability, Nova Waters engaged IOTech Energy, which developed a tailored proposal to address the factory's specific challenges.

> From one number on a monthly bill to live electricity cost per bottle.

The challenges

- **Continuous operating costs:** bottling lines run 24/7, and without localised metering it was nearly impossible to pinpoint which machinery was inefficient.
- **No cost-per-unit data:** monthly utility bills could not separate general facility power from production line energy.
- **Power factor uncertainty:** heavy inductive loads create reactive power, risking utility penalties without continuous oversight.



Energy and production in one view

Consumption of each bottling circuit is measured second by second and matched with production output, so management sees what every bottle costs in electricity, shift by shift.

1.8 years
Payback period

Per bottle
Live electricity cost per unit produced

Real-time
Power factor monitoring

24/7
Visibility across production zones

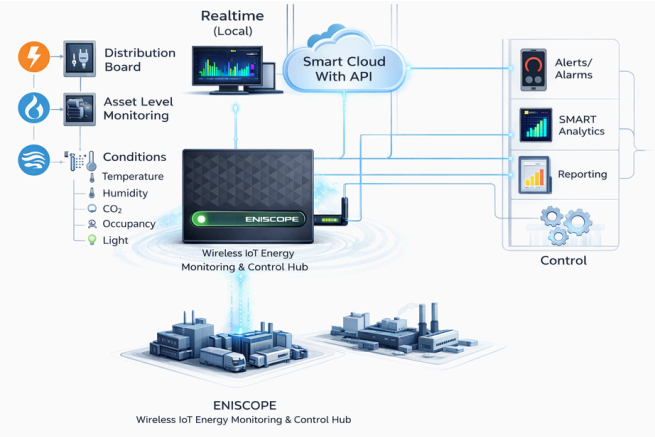
What IOTech delivered

1. **Expert installation** of advanced Eniscope monitoring tailored for industrial applications, with real-time sub-metering on key bottling circuits.
2. **Real-time power factor analytics**, extracted automatically and monitored continuously.
3. **Live cost-per-bottle data**, by integrating production flow metrics with energy consumption.
4. **Cloud dashboards** giving instant visibility of power consumption from second-by-second to daily resolution.

The outcomes

- **Real-time electricity monitoring** across the primary production zones, around the clock.
- **Cost visibility per bottle:** kWh consumed per case of water produced.
- **Power quality oversight** aimed at high efficiency and avoiding utility penalties.
- **Data-driven decisions:** production scheduling adjusted to operational demand curves.
- **1.8-year payback**, a self-funding timeline with strong financial return.
- **Net Zero foundation:** baseline metric profiles for future emission reduction.

How the system fits together



The result

Real-time electricity data now lets Nova Waters identify inefficiencies, optimise energy use and make better-informed decisions about future energy-saving measures. Production decisions and energy decisions have become the same decision.



Eniscope

8 three-phase channels per unit, Class 0.2 metering, second-by-second data in the cloud.

Measure

Second-by-second data on every key circuit and line.

Analyse

Cost per unit, power factor and demand curves in the cloud.

Act

Scheduling and efficiency decisions based on real data.

Run a factory in Saudi Arabia?

Find out what each unit you produce really costs in electricity. Book a free energy assessment.

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