

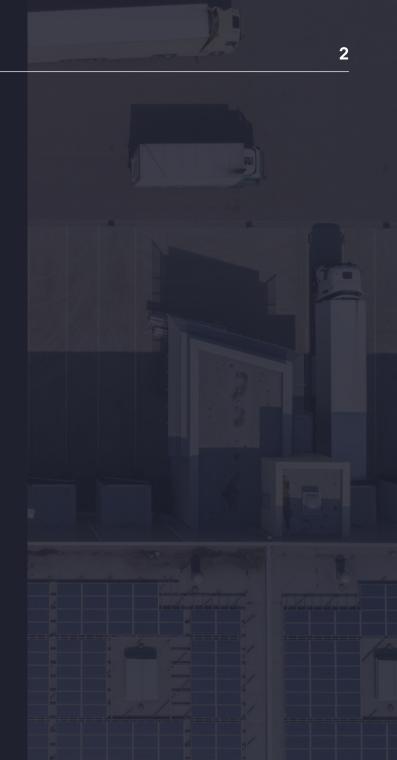
## JOULEN

#### **Powering Logistics**

How Joulen optimises energy across your supply chain

# Powering smarter logistics: How Joulen optimises energy across your supply chain

In today's global logistics environment, efficiency is no longer just about speed, it's about operating smarter, more sustainably, and cost-effectively. The logistics industry faces growing challenges from rising energy costs, environmental regulations, and increasing demand for sustainable operations. For forward-thinking companies, the real question isn't whether to optimise energy, it's how. That's where Joulen comes in.



## PARIS: The energy intelligence platform built for logistics

Joulen's Al-powered energy optimisation platform redefines how logistics companies forecast, manage, and maximise value from their energy usage. Whether you're operating a delivery fleet, managing multiple distribution centres, or coordinating complex, multimodal logistics networks, Joulen offers a unified platform that delivers clarity, control, and performance. It empowers logistics providers to transform energy into a strategic advantage.







### Why energy optimisation in logistics matters

Energy is now one of the most critical and volatile operating costs in logistics. As global energy prices fluctuate and supply risks grow, margins are increasingly squeezed. Meanwhile, sustainability regulations are tightening around the world, with governments mandating aggressive net-zero targets and compliance requirements.

Beyond regulation, there's also commercial pressure. Customers and investors now expect demonstrable progress toward environmental goals. Companies across the supply chain, upstream and downstream are making greener operations a non-negotiable part of doing business.

Fleet electrification adds another layer of complexity. As logistics providers invest in electric vehicles and charging infrastructure, they face new demands for capacity, smart energy distribution, and cost control. On the property side, companies are looking to future-proof assets. Energy-optimised sites

not only deliver operational value but also boost the long-term return on investment from sale and lease-back strategies.

With global events heightening energy security risks, the ability to manage, store, and shift energy to flexibly meet demand has become a key strategic advantage. Yet, energy optimisation across the logistics sector remains fragmented, with many firms still relying on siloed systems and manual tracking. Joulen fills this critical gap.

#### 1. Real-time energy visibility

Joulen offers full visibility into energy usage across your entire logistics network. Whether it's monitoring individual warehouse performance, or assessing real-time usage across multiple sites, our platform delivers a comprehensive, connected view.

Through the PARIS interface, energy data from every location is displayed in a single, intuitive dashboard. This allows logistics managers to make real-time decisions based on accurate and current data. Our Al-driven engine learns and evolves with the load patterns of your operations, optimising how and where energy is used. It ensures that surplus energy is intelligently redirected to areas of higher demand and that stored energy is deployed during peak periods to avoid higher tariffs.

For fleets with EV charging requirements, Joulen analyses usage patterns and intelligently schedules charging based on availability and cost. The platform also tracks savings in real time, giving you a clear and continuous view of your ROI across all energy-related activities.

Many logistics companies have made the decision to deploy solar PV on otherwise unproductive roof space as a sensible means to reducing electricity costs. However, significant cost savings and revenue generating potential remains achievable through the deployment of optimised battery storage systems.

## How Joulen transforms your supply chain

#### 2. Intelligent forecasting and automation

Planning is at the heart of logistics and energy should be no different. Joulen enhances strategic planning by forecasting energy needs based on historical usage, current operational data, future weather outlook and real-time market conditions.

Our Al-powered forecasting engine helps logistics providers anticipate energy demand more accurately. By integrating weather data, especially for solar-powered facilities, we enable predictive decisions about when and how to maximise renewable generation. Joulen also automates routine energy decisions, from shifting electrical loads during peak times to scheduling EV charging when rates are lowest. Our PARIS platform automates all of these energy optimisation decisions so your teams can stay focused on core operations.

## 3. Maximising renewable energy use

Joulen helps logistics companies use more of the clean energy they generate on-site. Rather than exporting surplus solar power back to the grid at low rates, we improve self-consumption by up to 60% by deploying battery storage in conjunction with our weather compensated forecasting engine to create the optimal pathway to increase self-consumption.

This ensures that the business consumes what it produces, reducing dependency on carbon-intensive grid power. Our system directs renewable energy where it's needed most, whether to heat pumps, charging infrastructure, or high-demand warehouse operations. This not only reduces emissions but also significantly cuts operating costs.

## 4. Monetising energy through local market trading

Joulen enables logistics providers to unlock new revenue streams by participating in local energy markets through its Virtual Trading Party status (VTP). Surplus energy that would otherwise be wasted can be traded, generating additional income.

This capability improves the return on investment for renewable technologies such as solar panels and battery storage systems. It also reduces the overall cost of electricity by offsetting grid purchases with locally generated and traded power. By monetising flexibility, logistics businesses can accelerate the payback period for clean energy initiatives and boost overall profitability.



## 5. Cutting carbon and reducing costs

With Joulen, logistics companies can significantly reduce their reliance on fossil-fuelled grid electricity. Our platform identifies inefficiencies, quantifies their carbon impact, and recommends the most cost-effective paths toward decarbonisation.

For operators transitioning to electric fleets, Joulen provides intelligent strategies to optimise charging, reduce peak demand, and treat vehicles as flexible energy assets, essentially, batteries on wheels. Our approach increases the financial return on EV investments while supporting substantial reductions in emissions.

Logistics clients who have engaged Joulen for energy consultancy and financial modelling support are estimating internal rates of return (IRR) of 25–30% on their decarbonisation plans. In many cases, energy costs have been reduced by 60–80%, depending on the volume of renewable energy deployed.

#### 6. Seamless ESG reporting

Joulen simplifies ESG and sustainability reporting through automated, compliance-ready outputs. It provides clear, auditable data on energy generation, consumption, and carbon reductions across individual sites and entire logistics networks.

Each unit of solar energy generated is fully traceable through REGO certification, which not only provides robust auditability but can also be traded on secondary markets to derive additional revenue. With Joulen, logistics companies can produce board-ready ESG insights without the administrative burden. This increases transparency for investors and strengthens stakeholder confidence in your sustainability strategy.





#### The competitive advantage of energy intelligence

As supply chains grow more complex, energy intelligence has become a critical source of competitive advantage. Joulen enables logistics companies to unlock faster returns on decarbonisation investments, improve performance through value accretive energy management, and build deeper trust with investors, customers, and partners by operating transparently and sustainably.

#### Power the future of logistics - today!

Joulen is already helping leading logistics providers cut costs, meet sustainability targets, and build more agile, future-ready operations. Our platform empowers you to make faster, smarter energy decisions, from the first mile to the last.

Book a demo today to discover how Joulen can help you power your supply chain with intelligence and precision.

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