



Case Study

## Automated Energy Optimization Platform for Rio Tinto ISAL

SnerpaPower provides Rio Tinto ISAL with an advanced platform for load optimization, forecasting, and energy market participation, enabling real-time decision-making and improved operational efficiency.

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Improved forecasting accuracy by 15%-25%

By implementing SnerpaPower's automated forecasting and scheduling platform, Rio Tinto ISAL significantly improved prediction accuracy, reduced balancing costs, and unlocked new revenue streams through energy market participation.

## Rio Tinto ISAL

Rio Tinto operates the ISAL aluminum smelter in Iceland, producing low-carbon aluminum powered by renewable energy. As a highly energy-intensive industrial operation, ISAL depends on precise load planning, stable energy supply, and efficient interaction with energy markets.

Prior to the implementation of SnerpaPower, load scheduling was managed manually and sales measurements from the TSO were received on a monthly basis. SnerpaPower introduced automated scheduling, forecasting, and continuous access to updated measurement data.

## Energy Load Optimization & Forecasting

Within ISAL, energy consumption planning and load scheduling are critical to both cost efficiency and operational performance. Historically, these processes were constrained by manual workflows and limited access to timely data.

Sales measurements were received only once per month from the TSO, limiting visibility and reducing the ability to react to market signals. At the same time, manual load scheduling introduced inefficiencies and increased exposure to imbalance costs.

Accurate forecasting and real-time responsiveness are essential in modern energy systems, but achieving this requires continuous data integration, automated decision-making, and scalable computational capabilities.

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*The platform is easy to operate, both the system and the forecasting model. I especially appreciate being able to update orders through the platform, even when accessing it on my phone.*



Helgi Þórdarson,  
Manager of Equipment in  
Electrolysis

## Solution

The SnerpaPower platform provides a fully integrated solution for real-time energy optimization, combining forecasting, automation, and system integration.

The platform features automated daily updates of sales measurements, ensuring continuous visibility into energy usage and market positions. Scheduling, reporting, and risk analysis are fully automated, reducing manual workload and enabling more consistent decision-making.

Real-time forecasting models continuously update expected load and market conditions, allowing seamless adjustments to be communicated to the TSO and power producers when needed.

With the ability to dynamically optimize load and respond instantly to new data, ISAL can operate with significantly higher precision and flexibility.

## Impact

The implementation of SnerpaPower resulted in measurable improvements across both operational and financial dimensions.

Balancing energy and associated costs were reduced through more accurate and responsive load management. Forecasting accuracy improved by 15–25%, leading to direct cost savings.

In addition, ISAL was able to participate in energy markets in an automated manner, generating new revenue streams with monthly revenues of approximately 140–240 EUR/MWh activated.

## Intelligent Energy Solutions

SnerpaPower delivers advanced software solutions for energy-intensive industries, enabling real-time optimization, automation, and market integration.

By combining deep domain expertise in energy systems with scalable cloud-based technology, SnerpaPower supports industrial players in transitioning toward more flexible, efficient, and sustainable operations.



## Intelligent Energy Solutions



Scheduling



Bid Generator



Risk Management



Reporting



Sustainability

SnerpaPower is a leading technology provider on a mission to transform the energy landscape through innovation and an unwavering commitment to sustainability. The company provides power intensive users such as data center operators, aluminum smelters and hydrogen producers with a deep-tech software platform to minimize their electricity costs and maximize their contribution to a net-zero energy system. SnerpaPower is committed to enhancing the competitiveness of green industries and the use of renewable resources.

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