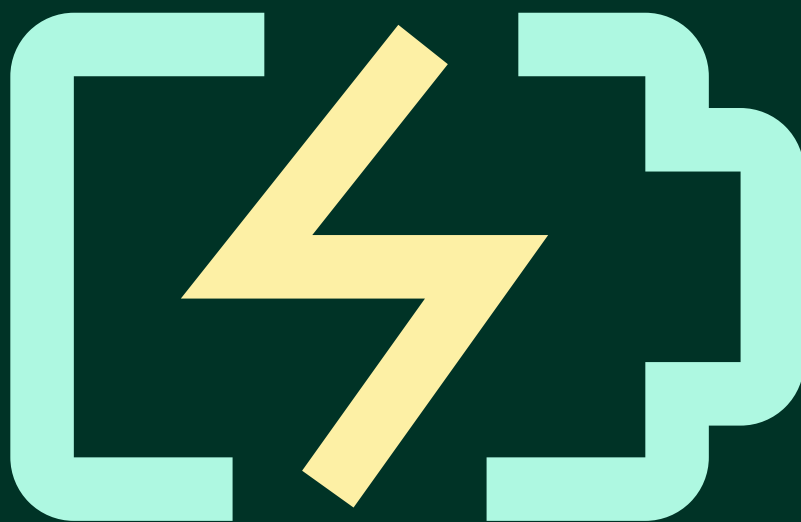# Enhancing grid support in the Dutch market with Battery Energy Storage Systems

A case study of ProfiNRG & Sunvest
with SynaptiQ Asset Operations for storage

3E

ProfiNRG
Renewable Energy Professionals

sunvest
Nature Friendly Agri Solar

Site & stakeholders

3E

Operator

ProfiNRG

Asset type

Battery Energy Storage Systems (BESS)

Owner

Sunvest

Location

Zuidbroek, the Netherlands

Facility's size

21.6 MWh

SynaptiQ application used

Storage Asset Operations

About ProfiNRG

ProfiNRG is a leading renewable energy company in the Netherlands, specialising in the development and operation of solar and battery energy storage systems. With a strong commitment to innovation and sustainability, ProfiNRG plays a key role in advancing the country's energy transition.
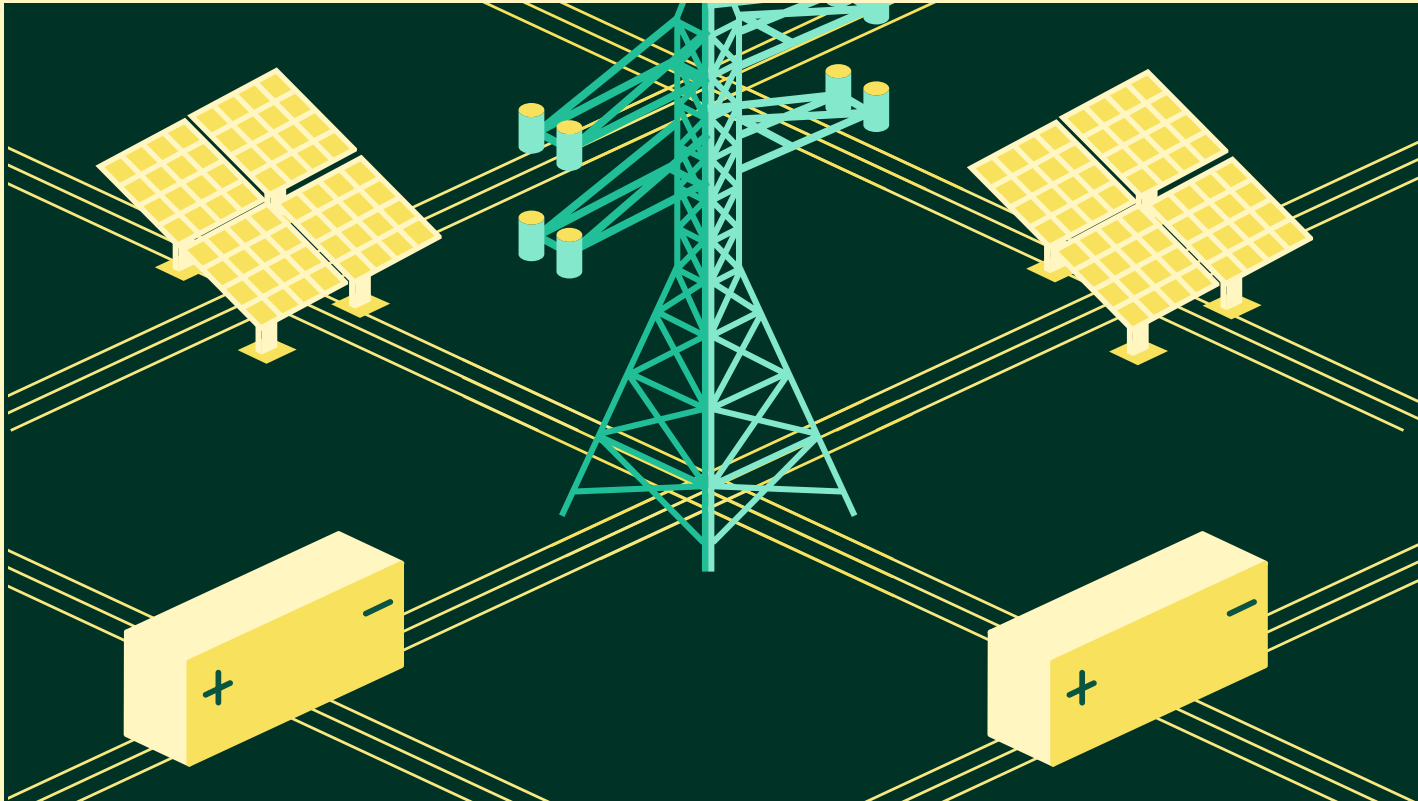
About Sunvest

Sunvest is a socially committed developer of large-scale, nature-inclusive solar parks in the Netherlands, Belgium and France. With roots in the agricultural sector, the company focuses on integrating renewable energy with biodiversity, landscape preservation and local community benefits. Sunvest often partners with local energy cooperatives to ensure shared value and sustainable impact.

About SynaptiQ by 3E

SynaptiQ is a state-of-the-art software platform designed by 3E to empower renewable energy stakeholders. By combining real-time monitoring, advanced analytics and actionable insights, SynaptiQ optimises the performance of renewable energy assets, driving operational excellence and market success.

The challenge

① **Grid integration**

Managing the Zuidbroek Battery Energy Storage System's (BESS) participation in grid stabilisation while complying with stringent regulatory requirements.

② **Energy market complexity**

ProfiNRG needed to navigate fluctuating energy prices and identify optimal opportunities for arbitrage, frequency regulation, and other grid services.

③ **Data management**

The large number of data points generated by the storage system in comparison to PV installations.
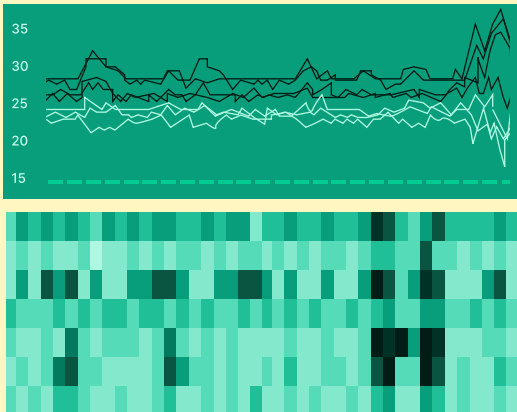
④ **Operational monitoring**

Real-time monitoring of BESS performance and its seamless integration into broader energy management systems posed a technical challenge.
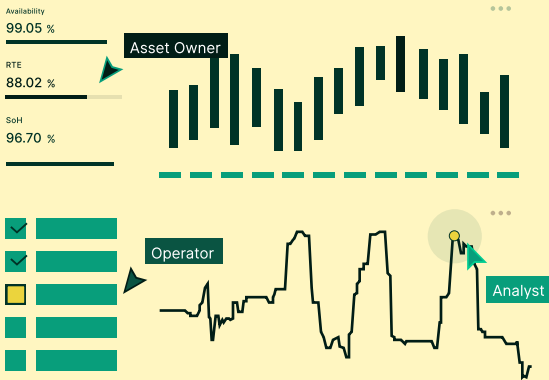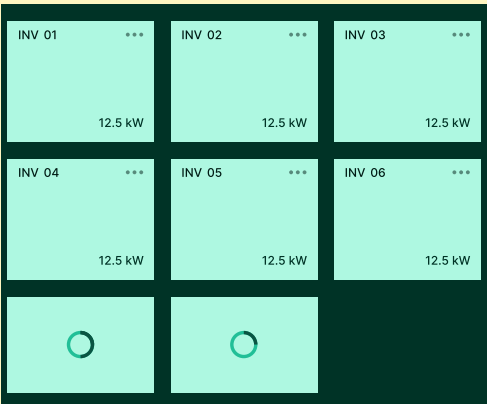
⑤ **Data-driven decision-making**

ProfiNRG required precise reporting and analytics to evaluate asset performance and inform strategic decisions.

The solution

Advanced monitoring

SynaptiQ provided real-time monitoring of the Zuidbroek BESS, including key parameters, such as State of Charge (SoC), energy throughput, Round-Trip Efficiency, Availability and system imbalance and State of Health (SoH).

Data accessibility

SynaptiQ allowed to manage a large amount of data. On top of that, by using an object-based data model, ProfiNRG can analyse high level data at plant level all the way down to cell level for a more detailed technical diagnostic.

Market optimisation tools

SynaptiQ gave ProfiNRG and Sunvest access to data and dashboards to monitor key KPIs and assess how the battery was being steered by a third-party operator.

The solution

Customisable reporting

Automated reports on performance metrics, regulatory compliance, business plan deviations and market activities ensure stakeholders had clear, actionable insights.

Hybrid portfolio optimisation

SynaptiQ provided a centralised platform for monitoring both PV and BESS systems, which operate independently.

The results

By implementing SynaptiQ, ProfiNRG achieved significant operational and market advantages.

① Informed market analysis

ProfiNRG used SynaptiQ to monitor battery performance while relying on external sources for market price data to guide their trading decisions.
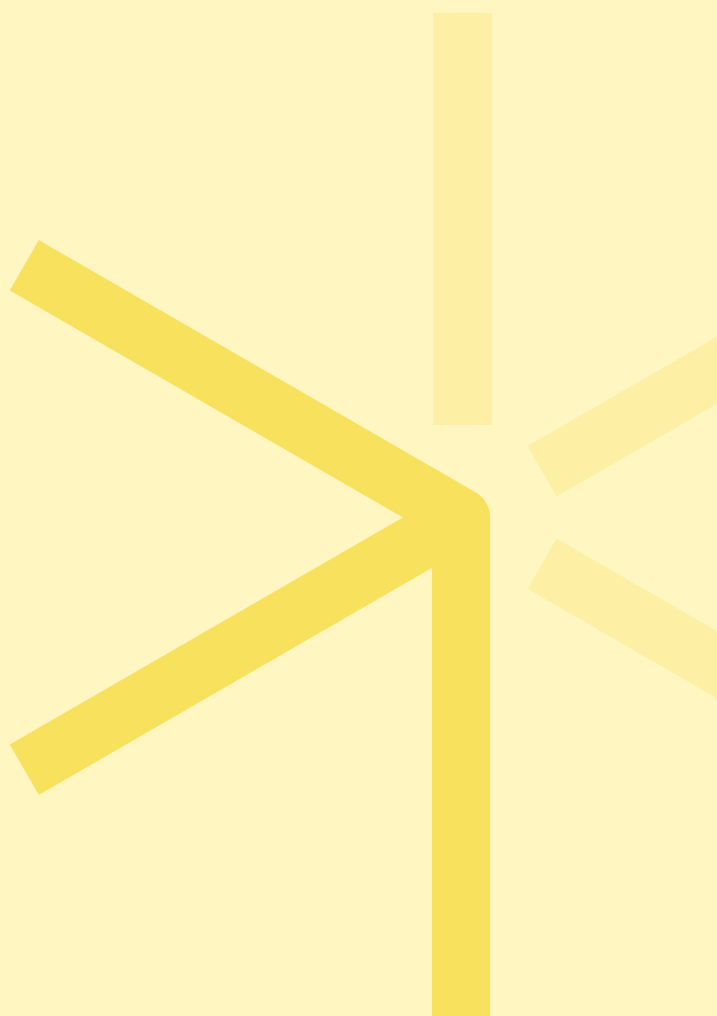
② Improved grid stability

The Zuidbroek BESS contributed to grid stabilisation efforts, ensuring reliable frequency regulation and congestion relief.

③ Operational efficiency

Real-time monitoring and automated processes reduced manual interventions, increasing operational efficiency.

④ Actionable insights

ProfiNRG's access to precise, automated reporting facilitated data-driven decisions, improving performance and long-term planning.

Why SynaptiQ?

Comprehensive operational intelligence

SynaptiQ's analytics and monitoring capabilities offered ProfiNRG the insights needed to thrive in the dynamic Dutch energy market.
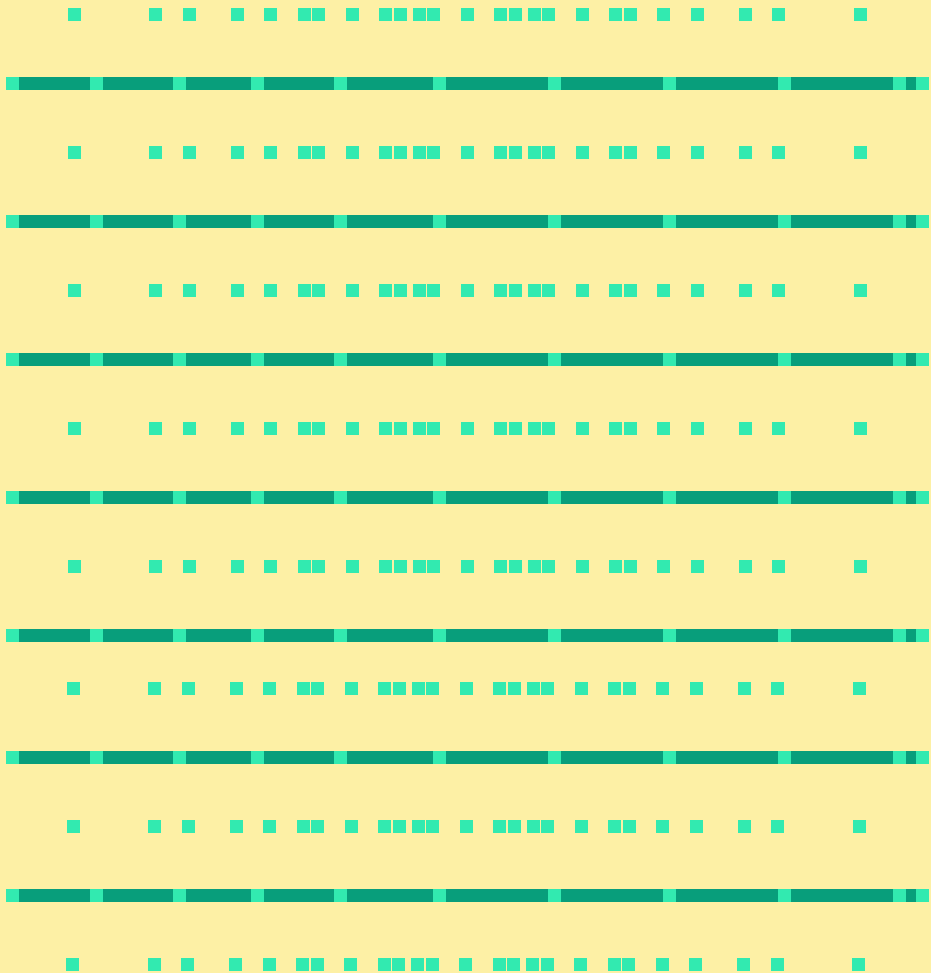
Scalability and integration

The platform's flexibility allowed for seamless integration with existing systems and scalability to accommodate future projects.

Proven performance

SynaptiQ demonstrated its ability to enhance performance and efficiency for complex energy storage systems like Zuidbroek BESS.

About 3E

3E is a market-leading SaaS and advisory company for the renewable energy sector

Our team of over 180 experts works with developers, asset managers, operators, investors, public entities, EPC contractors and IPPs. Our job is to enable them to make informed decisions across the full lifecycle of their projects – whether that's solar, wind or energy storage.

Based on our 25+ years of global experience, we provide both digital solutions and expert advisory services, which is unique in the sector. Our SynaptiQ platform offers a comprehensive suite of SaaS solutions that optimises the development and operations of renewable assets.

In parallel, our advisory team delivers technical, engineering and strategic advice to ensure bankable projects.

Powered by collaborations with universities and industry pioneers, we drive innovation and deliver the industry's most advanced energy intelligence solutions.