Focus on 5 signature projects



France Alata

4.4MW solar PV plant coupled with 2.4MW/4.3MWh BESS, used to stabilize plant's output and support local network's operation.



United States Mt. Tom

5.7MW solar PV plant coupled with 3MW/6MWh BESS to mitigate the impact of intermittency and support the local network in Congestion Relief Management.



United States

Virtual Power Plant

32 BESS assets distributed across multiple sites totaling 7MW/14MWh, controlled remotely and 'as one single asset' to reduce Peak Demand Charges to our customers and offer services to Network Operator.

Germany **Pfreimd**

137MW pumped-storage plant coupled with 12.5MW/13.1MWh BESS, providing Frequency Response to the German Transmission System Operator.

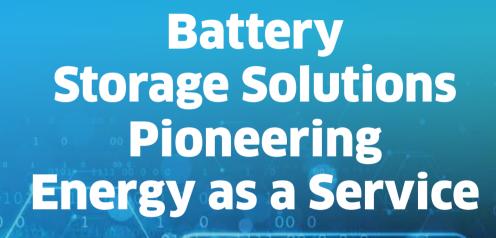


Belgium Drogenbos

7.2MW/6.9MWh BESS providing Frequency Response services to the Belgian Transmission System Operator.











THE REAL FRAME

Enabling a paradigm shift in global energy

Storage: the necessary game changer for renewables

In response to the climate emergency, many countries have begun their energy transition and are committed to reducing CO₂ emissions from the energy sector, while aiming for greater energy independence. To meet this challenge, we must take into account demographic, technological and environmental aspects, while at the same time, reducing carbon emissions and providing access to energy for all. We must go further and reinvent a clean, affordable and reliable energy system. Renewable energy is clearly the solution. and it has, to certain extend, simplified electricity production, but how can we meet a 24/7 electricity demand with intermittent and variable renewable energy? We need a game changer. And we found it: energy storage...

"Storage enables a move from pure energy production to energy as a service."

Storage at the heart of the neutral carbon transition

Energy storage will play a key role in the future of our energy system, namely in supporting the integration of intermittent renewables.

Battery-based solutions in particular, are modular and easily scalable, valuable to match service requirements and/or clients' needs, guick to deploy and with very little site constraints. It is also a high performance solution when compared to other storage technologies.

Moving forward, the Battery Storage Industry will also benefit from the strong uptake of Electric Vehicles across the world, both in terms of decreasing costs and improved operational performance.

Storage is also a missing block of 'Smart Grids', which harness the potential of information and communication technology to effectively integrate new modes of production and consumption.

Although we are in the early stages, the combination of renewables and storage systems will allow a wider range of energy services when compared to energy production alone.

Applications for Battery Energy **Storage Systems**

Batteries can provide multiple services to three stakeholder groups

Services to the Grid

Improving Grid Connectivity

- Network Congestion Relief
- > T&D Infrastructure Investment Deferral

Ancillary Services

- Frequency Response/Regulation
- Voltage Support
- Peaking Capacity
- Capacity Reserves
- Black Start

CES TO CUST

Services to Customers

- Increased self-consumption (coupled with on-site generation)
- Peak Shaving (Demand Charges/Network) Charges)
- Back-up Power/Reliability
- Power Quality (Industrial Processes)

Services to Power Generation

- Energy Shifting
- Capacity Market
- RES Integration
- Power Smoothing/Ramp Rate Control
- Limit Curtailment/Avoid Clipping (for PV)
- > Optimisation of Conventional Generation

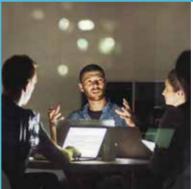


Energy Storage Solutions: why ENGLE?



\times Because experience & expertise

A long-standing, key player across all segments of energy storage, ENGIE has demonstrated experience and deep knowledge of the market. The Group has been involved for many years in the design, production, installation, operation and maintenance of a wide array of storage-related systems and technologies. In particular for Battery Storage, the Group has commissioned projects totaling more than 100 MWh of capacity, positioning itself among the most promising players on the market.



\times Because customer centricity

ENGLE believes that being technology agnostic is a key advantage, and the best approach to address the client's needs. ENGIE partners with reputable OEMs in designing optimal systems using the best-suited technology, which will be tailored to the client's specific requirements. A solid track record testifying to the robustness of our systems, but also to ENGIE's ability to advise and support our clients.



\times Because added value

ENGLE is a global energy player capable of offering integrated solutions to its clients that go beyond Battery Storage. The fact that ENGIE is able to integrate Battery Storage in a wider offer is a clear advantage for our clients. Ultimately, ENGIE is capable of designing, financing, installing and operating fully integrated and complex systems that meet all our client's energy needs.

A glance at our in-house capabilities

ENGIE'S INEO SCLE ENGIE EPS applies ENGIE Storage

esulting from 4 years of R&D

American BtoB storage market. I

ENGIE has share in **KiWi** Power, the Un second-life

ENGLE also holds a TRACTEBEL and **ENGLE Lab** Connected Energy. Laborelec boas Engineering and Consultancy on