EaaS

Efficiency as a Service
Plugging a new energy model

Case Study

On the road to CO_2-neutral brewing: launch of decentralised electricity storage *at Anheuser-Busch InBev*

As part of its sustainability strategy, Anheuser-Busch InBev is now taking another pioneering step – with the installation of a battery storage solution for the decentralised storage of electricity. The debut was at the Beck & Co brewery in Bremen. Anheuser-Busch InBev has signed a contract with EDF Renewables Deutschland for a period of ten years: EDF Renewables offers a full service package from planning and installation to operation and also covers the investment costs.

Country/Region
Germany

Customer Segment
Industry

Retrofit or new
New

Project size
5 MW

Technology
Batteries

The eEaaS project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 892 499

Overview

The need:

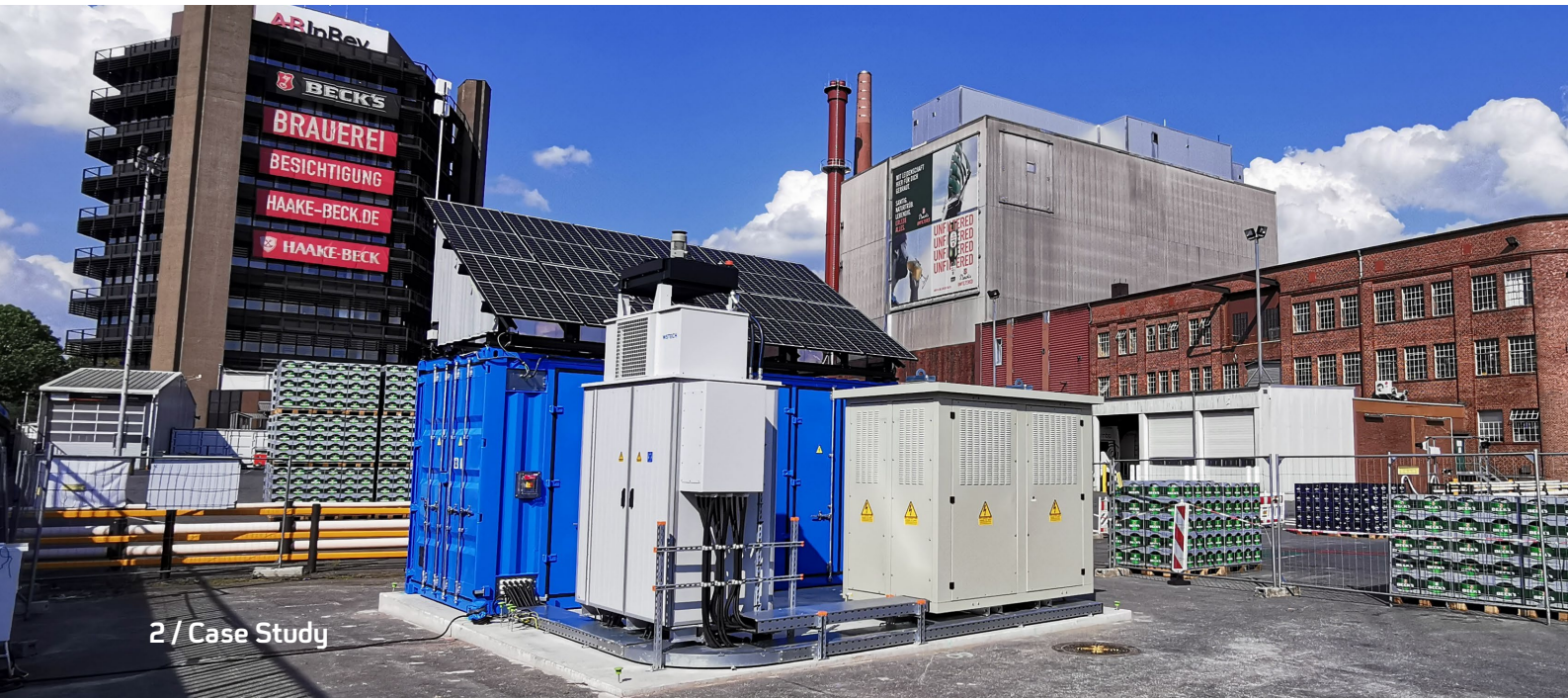
Anheuser-Busch InBev (hereafter AB InBev) is the world's leading brewer with 175 breweries worldwide operating in more than 50 markets. As part of its sustainability objectives, AB InBev has committed to net zero brewing by 2040 across all its value chains. The strategy followed to reach that ambition is that of reduce and replace by which the company is first reducing its energy intensive processes with a focus on heating and cooling processes, thereafter switching to electricity as energy source.

Breweries face particular challenges: due to strict regulations and mandatory process sequences, including chemical processes that must be completed fully, a constant supply of electricity is essential. Furthermore, cooling and heating processes create consumption peaks which put the electricity grid system under tension. In Germany, around a fifth of AB InBev's electricity costs are attributable to the grid fees charged by grid operators which are in part determined by the consumption peaks. Such peaks need to be reduced to relieve the tension on the grid and allow for a larger integration of renewable energy sources in the electricity grid.

The solution:

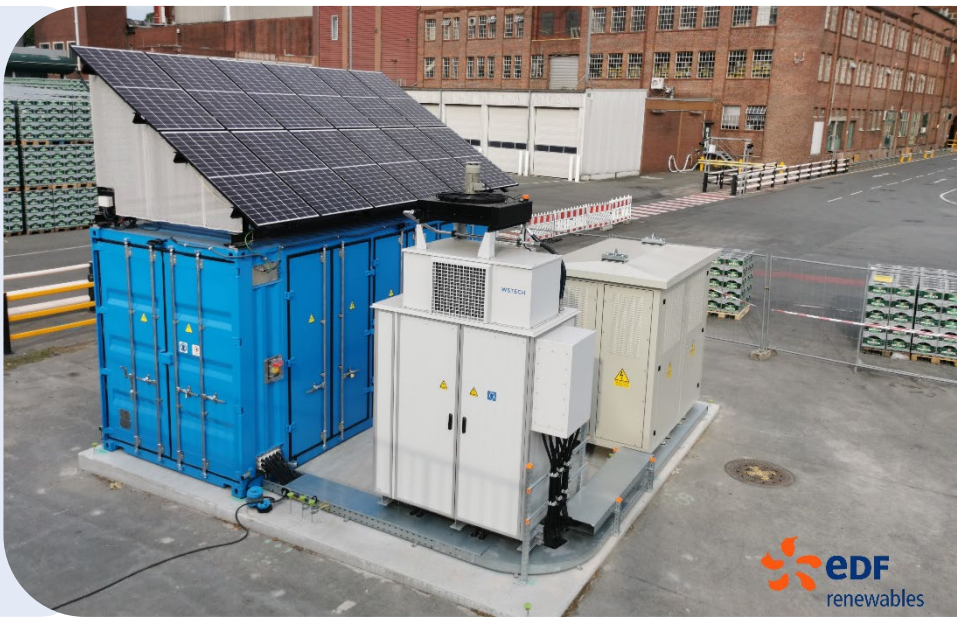
To make the power supply for AB InBev's German breweries more secure, cost-efficient and sustainable, EDF Renewables Deutschland (hereafter EDF Renewables) is providing intelligent battery storage systems. These systems will alleviate peak loads on site during the grid operator's high-load windows, thereby relieving the local power grid and reducing electricity costs.

The battery systems are supplied as-a-service (BaaS), with EDF Renewables having full responsibility over the entire life cycle, from designing, sizing and permitting of the battery system to their installation, operation and maintenance. AB InBev then pays a monthly fee that is defined by the energy costs savings enabled by the BaaS. EDF Renewables is tracking the power consumption of the brewery on a continuous basis. When the consumption reaches a defined level, the power stored in the battery system is injected into the brewery grid to reduce the consumption at the grid connection point. The continuous tracking of the system allows EDF Renewables to swiftly intervene in the event of any issue. In addition, EDF Renewables carries out regular maintenance on all components.



Customer benefits:

- Reduction in electricity costs
- Security of electricity supply
- No investment costs
- Outsourcing of storage system management
- Outsourcing of operation performance risks
- Supporting the sustainability strategy



Comprehensive service package from A-Z

DEVELOPMENT
Analysis of load and location including battery sizing

FINANCING
Coverage of all investments in the battery storage system

INSTALLATION
Battery procurement and commissioning of the storage system

OPERATION & MAINTAINANCE
24/7 monitoring

RECYCLING

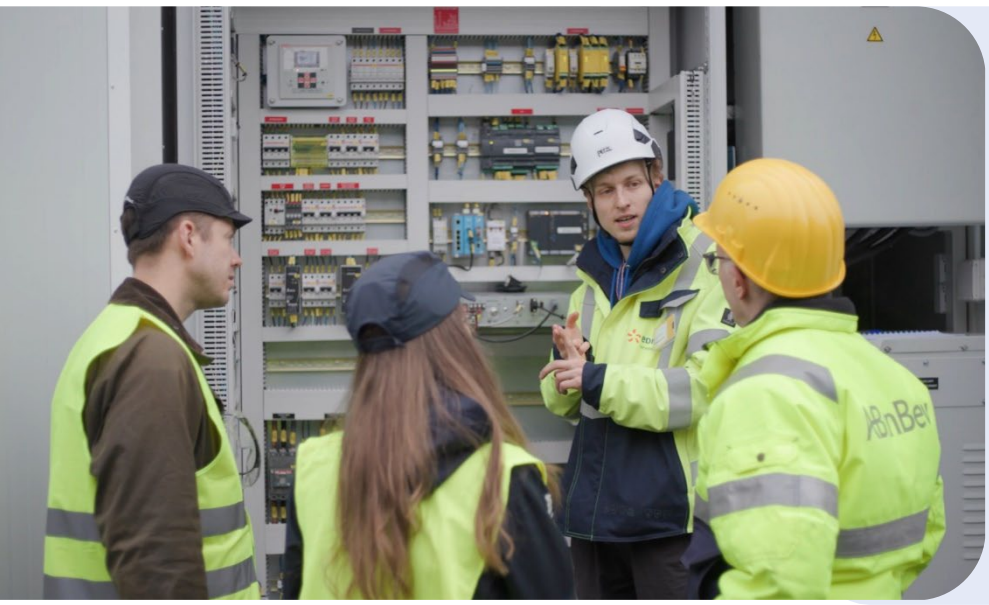
Project description:

The first battery storage system with a power of 1.6 megawatts (and capacity of 1.4 megawatt hours) started operating at the Bremen Beck & Co. brewery beginning of November 2023.

The 20 feet battery modules container has been equipped with an inverter and a transformer to convert the power from DC to AC and to the necessary voltage level to feed into the brewery grid. The whole system is installed behind the grid connection point. EDF Renewables took care of the technical planning, permitting, construction and integration of the battery system in the brewery.

Setting up of the BaaS required a close collaboration between EDF Renewables and AB InBev on work safety, environmental matters and the technical integration of the BaaS. Furthermore, as the battery strategy may change over the years, the two companies discuss on the best set points to reduce the power consumption for the following year. In the event of an increase in electricity consumption due to the electrification of processes, or increasing electric mobility, EDF Renewables will also have the possibility to carry out further load shavings.

In addition to the Bremen site, EDF Renewables is setting up three further battery storage facilities. In Munich at Spaten-Löwenbräu and at Hasseröder in Wernigerode, the storage facilities will have a power of up to two megawatts. A third storage facility with a power of 300 kilowatts is also planned at Diebels in Issum. These battery storage systems will as well be commissioned over the course of 2024.



"Storage is a very critical part of the energy transition. If we want to bring the energy transition forward, we need to provide industrial companies with the necessary tools to enable them to become an active player.»

Rebekka Schuster, Chief Commercial Officer Storage and C&I at EDF Renewables.

EaaS provider description:

EDF Renewables Deutschland develops, constructs and operates projects in the areas of onshore and offshore wind energy as well as photovoltaics for its own portfolio. EDF Renewables offers battery storage solutions for industrial companies. **https://www.edf-re.de/**

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