



Case Study

Hawkers Hill



Summary

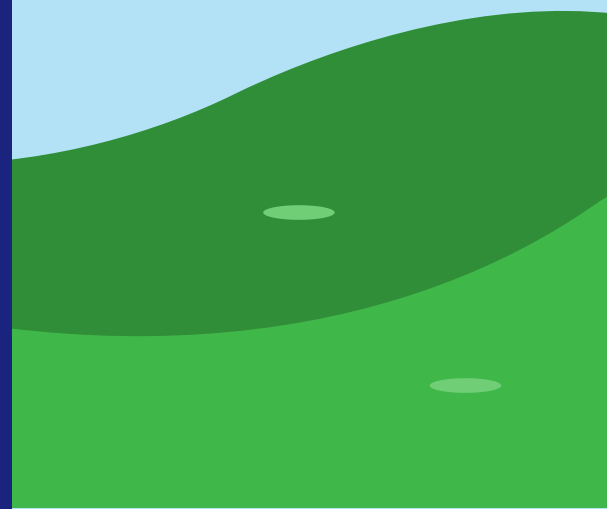
- **Location:** England, Shaftesbury
- **Capacity:** 20MW/40MWh
- **Type:** Battery storage and transformer
- **Developer:** EvoEnergy, Tag Energy, Tesla
- **Owner:** EvoEnergy & Tag Energy
- **Equipment:**
TESLA MEGAPACK
TRANSFORMERS: 8X 2.8MVA
33KV MW SWITCHROOM
- **Completion date:** February 2023



EvoEnergy is the UK's leading renewable energy company. We offer a range of complementary services and technologies to secure our client's energy future and carbon targets. We consult, develop, design, construct, monitor and maintain projects to deliver financial savings and renewable energy for leading brands all over the country.

tagenergy

TagEnergy is a clean energy enterprise for a new cycle in the renewable energy industry. It was formed in 2019 to accelerate the energy transition by developing and investing in competitive and clean power stations in order to compete directly and actively on the energy markets.



Overview

The 20MW/40MWh battery system at Hawkers Hill was developed to support the UK national grid enabling greater penetration of renewable energy into homes and businesses. This was a great project showcasing our ability to deliver utility scale Battery Storage.



Project Summary

Following a competitive tender process, we were awarded the project due to our vast experience and renewable energy expertise. The project's objective was to support the UK's national grid playing an important role in boosting the country's ability to capture, store and release renewable energy for a more reliable and regular supply.

Outcomes/Solution

In order to begin construction, the site required excavation works. Our team excavated the site, created foundations, and constructed a new road to allow access to the project and the installation of the 33kV switch room, transformers and the Tesla Megapack.

What's more, as the site is in close proximity to the national grid, infrastructure and the site had to be rotated slightly during the construction design phase to ensure cable bending radius could be maintained and sit within tight boundaries.

Due to the complexity and size of the project, detailed technical drawings were required by our in-house design team. The site also had sophisticated security with CCTV and fire detection through the use of thermal cameras.



Site security was of upmost importance to us. Therefore, during the construction period the area was fenced and guarded by 360 VideoGuard to ensure intruders didn't access the area and were deterred. The sites infrastructure had to be upgraded to accept a new 33kV connection through new DNO grid connection dedicated to the project. Furthermore, a new DNO switch room was built adjacent to the site.

We also discovered an old stone wall drain which wasn't suitable for drainage connection and had to find an alternative connection point.

Result

Our team worked to a tight programme to ensure the project was operational by the end of September and that the contract to provide grid services was in place and available during the much-needed winter period. The site will use Tesla's Megapack batteries, which can be charged up in just two hours. The facility will also use Tesla's Autobidder AI software for real-time trading and control. Flexible technology systems like Hawkers Hill will form part of the UK's smarter electricity grid, supporting the integration of more low-carbon power, heat and transport technologies.

Local Benefit

Job Creation: The project generated employment opportunities during the construction phase, providing job security and income for local workers. Skilled professionals, including engineers, technicians, and construction workers, were engaged to bring the project to fruition, stimulating the local economy.

Infrastructure Development: The project necessitated the construction of new roads, foundations, and switch rooms, leading to improved local infrastructure. These upgrades not only facilitate project operations but also enhance accessibility and connectivity in the area.

Enhanced Grid Stability: By supporting the national grid, the project improves local grid stability, ensuring a reliable and uninterrupted energy supply for local homes, businesses, and critical infrastructure. This stability helps avoid power outages, minimizing disruptions and associated economic losses.

Community Benefit

Environmental Impact: The project's focus on renewable energy and battery storage contributes to reducing greenhouse gas emissions and improving air quality. By enabling greater penetration of renewable energy sources into the grid, the project actively supports the transition to a low-carbon energy system, benefiting the community by mitigating climate change impacts.

Sustainable Energy Supply: The increased availability of renewable energy from the battery storage project contributes to a more sustainable energy supply for the community. This enables local residents and businesses to access cleaner and greener energy, reducing their carbon footprint and supporting the development of sustainable practices.

Economic Growth: The project's integration of renewable energy technologies and the associated infrastructure upgrades can attract sustainable industries and businesses to the area. This can create opportunities for local businesses and entrepreneurs, leading to economic growth and job creation beyond the construction phase.

Community Resilience: The project enhances the community's resilience to potential energy disruptions. By providing a reliable and regular energy supply, even during peak demand or adverse weather conditions, the battery storage system ensures the community's essential services, critical infrastructure, and emergency response capabilities remain operational.



Learn more about what's happening at Emtec Energy at www.emtecenenergy.co.uk



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