



CASE STUDY
15534

Marlborough College

New Grid Connection – Infrastructure



Major design considerations:

And, as if by magic... Powersystems engineers designed the 880m cable route around the mound where the legendary wizard Merlin is purported to have been buried dating back to 2400BC.

The Marlborough Mound has been one of the biggest mysteries in the Wessex landscape, used as a castle and then became an important fortress for the Norman and Plantagenet kings meant that the Powersystems team gave tremendous consideration to the routing of the underground cables to ensure this beautiful site was preserved.



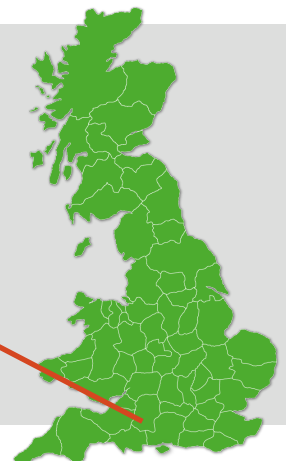
Marlborough College

Powersystems were responsible for the design, installation, testing and commissioning of the electrical infrastructure associated with this project. This consisted of a new electricity 1000KVA HV & LV connection from SSE point of connection to the new Norwood Hall utility building.

Marlborough College is a co-educational independent school for day and boarding pupils located in Marlborough, Wiltshire. Founded in 1843 for the sons of Church of England clergy, it is now fully co-educational.

The site of Marlborough College was formerly occupied by Marlborough Castle, first mentioned in documents of 1138, although it is thought to have been built soon after 1066. Recent radiocarbon dates taken through the Marlborough Castle mound show the main body of it to be of Neolithic origins. The grade II park and garden is registered under the Historic Buildings and Ancient Monuments Act 1953 within the Register of Historic Parks and Gardens by Historic England for its special historic interest.

The electrical work was undertaken in partnership with Stepnell on behalf of the client, Marlborough College.



11
KV

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How Powersystems helped:

As a Lloyds accredited contractor, Powersystems were appointed to design, supply, install, test and commission a new 11kV connection from the SSE point of connection to the new 1000KVA substation with LV connection to the new utility switchboard.

In August 2018 Stepnell appointed Powersystems to carry out ICP contestable works including all the civil and electrical works to facilitate a complete installation which SSE would adopt.

Civil works included some 880m of buried ducting with cable joint pits run underneath the Marlborough College grounds and road network.

Powersystems managed the Section 50 notices, licence bonds and traffic management for the Pewsey road crossing to the point of connection.

Scope of works:

The major items of electrical plant that Powersystems designed, supplied, installed, and commissioned were:

- ▶ 1000KVA 11/0.4kV transformer and ancillary plant
- ▶ 11kV Trident FRMU Mk2
- ▶ 1600A Aculok transformer mounted LV distribution cabinet complete with auxiliary terminals and metering current transformers
- ▶ Envico GRP enclosure
- ▶ CoP3 metering cabinet
- ▶ Earthing system at the substation
- ▶ Cable laying of 880m of 11kV
- ▶ Testing and energisation of the sub-station in accordance with Powersystems Electrical Safety rules until handover to the client.



The results:

- ▶ Following some legal (Wayleaves) Marlborough College (Norwood Hall) grid connection and works was energised during the Easter shutdown in April 2019
- ▶ The SSE point of connection tie-ins and all final testing took place over 1 day
- ▶ Powersystems successfully moved the Norwood Hall facility at Marlborough College from a temporary generator to a permanent grid supply and was handed over to SSE for integration into their network

Project facts and figures:

- ▶ Total installed capacity: 1.0MW
- ▶ Length of 11kV underground cabling: 880m
- ▶ 1000KVA 11/0.4kV transformer and ancillary plant
- ▶ Powersystems are a Lloyds registered (NERS) approved independent connection provider (ICP)
- ▶ Merlin was buried here!



For more information

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