



britishpower[™]
international

Civil and Structural design

design and advisory solutions to the power sector

E. info@bpienergy.com
T. +44 (0)845 168 6040
F. +44 (0)845 168 6002

www.bpienergy.com

Please contact us at:
British Power International
7 Phoenix Square
Wyncolls Road
Colchester
Essex CO4 9AS
United Kingdom

Other offices in:
Warrington
Birmingham
Deeside
Newcastle
Stafford
Belshill

The development, planning and civil/structural design of electrical substations, buildings and other infrastructure takes great care and understanding. At british power international our highly experienced team can ensure that all the requirements in a modern project environment are met without compromise. **Our expertise is energy. Our focus is power. Our reach is worldwide.**

Environmental, ecological, sustainability, land drainage, local planning, architectural, operational and safety are some of the sometimes seemingly conflicting requirements which must be satisfied to the exacting requirements of stakeholders. Our team of self-motivated and highly qualified engineers use their many years of experience to ensure that every issue is answered.

Our teamwork

Having individually and collectively executed many successful projects, our Civil and Structural Design team have the flexibility to help progress projects by working with you in areas which may be new to you, or where your own team may need temporary strengthening. Here, we can recommend and use current or agreed appropriate codes and standards, and will be pleased to advise and integrate work with your own QA and project management systems.

Our strengths

One of the strengths of our in-house team is the cooperation and support between the civil/structural and various electrical specialist teams. This close relationship gives us a special strength when working on electrical projects. It also helps us avoid problems and facilitate quick, efficient, effective and safe projects, with the ability to design, commit and deliver.

Over the years, we are proud to have built a strong reputation with our clients for delivering solutions which have satisfied their exact requirements, as well as those of all stakeholders.

Our civil structural consultancy services:

- Structural Design and structural surveys for all major materials including structural steel, reinforced concrete, masonry and timber, earthworks and foundations
- Building detail design for all industrial buildings
- Specification and management of surveys;- including Geotechnical, topographical and when necessary, environment noise impact etc.
- Design of specialist structures such as bunds, gantries, electrical support structures, drainage, roads
- Feasibility, conceptual design, planning drawings, value engineering, flood assessments, SHE reports and other technical reports

Case studies

Arbury Substation, Cambridge

british power international was appointed by UK Power Networks to provide project management, detailed civil and electrical design, and site quality assurance for a new 132/33/11 kV substation.

Working closely with local organisations, our Civil/Structural Engineers produced an elegant building with a wave shaped curved roof, in harmony with buildings on the adjacent Cambridge Science Park. Appropriate and sympathetic materials were used, together with environmental sensitive landscaping to complement this prestigious engineering project.

Thanks to our innovative approach the building's footprint was reduced to around one quarter of that required for a conventional substation of similar capacity.

The project was awarded two Certificates of Merit by the Institution of Civil Engineers for Technical Excellence and Innovation & Physical Achievement.

Transmission Design in Netherlands

British power international was awarded a contract to design a major new 380kV Substation at Oudeschip in the north of The Netherlands. Our team of engineers delivered high level integrated substation architecture and design which included the preparation of layout drawings, as well as detailed electrical and civil drawings, plus three dimensional views of structures. In total, the design work for this project took over 3 man years.

Gunfleet Sands Wind Farm, Essex,

british power international provided the onshore design for supporting a new wind farm at Gunfleet Sands. The project involved the design and detailing of reinforced concrete retaining walls, foundations and steel design of a new plant room. The diverse range of projects carried out by our in-house team all require quick and structurally sound solutions. This one was no exception, with our designers consulting with contractors to provide buildable and efficient results.