



A specialist energy consultancy

Civil engineering  
services

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# Civil engineering services

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TNEI is an independent specialist energy consultancy providing technical, strategic, environmental and consenting advice to organisations operating within the conventional and renewable energy sectors.

## Civil engineering services

TNEI can provide coordinated and comprehensive civil engineering services throughout the development, preconstruction, construction and operational phases of a project, using a combination of technical analysis and project experience. We recognise the specific requirements and scope of works required to help successfully deliver a project, thanks to our extensive experience.

Robust, flexible and value engineered packages of work are tailored to a client's specific needs. Together with our planning and electrical expertise, we can offer holistic solutions to a project and provide continuity of service throughout a project's lifecycle.

### Our range of civil engineering services include:

- Feasibility and constructability assessments
- Principal Designer (under CDM 2015)
- Traffic Impact Assessments
- Traffic Management Plans
- Swept path analysis
- Geotechnical desk studies
- Geotechnical fieldworks
- Geo-environmental studies
- Coal mining risk assessments
- Owner's Engineer / Technical Advisor services
- Asset surveys and inspections
- Failure analysis and remedial works design.

## Case studies

Service: **Coal mining risk assessment**  
Client: **Bryn Banal wind Turbine, Norvento**

TNEI produced a coal mining risk assessment for the proposed wind turbine and associated infrastructure to support the planning application. The document presented information on historic coal mining activities conducted within the site boundaries and made an assessment of the risk posed to the development, including stability of the land.

Service: **Traffic management plans and discharge of planning conditions**  
Client: **Tuckey and Bobbing Solar Farms, Solar Securities**

TNEI assisted the client with the discharge of planning conditions, including production of the Traffic Management Plans which detailed the proposed access routes to site, demonstrated swept path analysis of vehicles and included a schedule of anticipated construction vehicle numbers and their timings. Plans detailing the size, type and location of traffic signs were produced, including a layout of the construction

compounds to demonstrate vehicle turnings, sufficient parking, welfare facilities and material laydown areas.

TNEI also produced the Surface Water Management Plan for Bobbing Solar Farm. The document developed indicative information presented in the Environmental Statement (ES), into construction details including contamination prevention measures, drainage design and operational maintenance regimes.

Service: **National Grid EFR bid support**  
Client: **Confidential client**

TNEI assisted their client with development of a large battery storage project for provision of Enhanced Frequency Response (EFR) services to National Grid. TNEI acted as the Principal Designer, developed the project layout and typical construction drawings, advised on technical matters, and produced the Invitation To Tender (ITT) for the construction of the works including material specifications, employer's requirements, programme, interface schedule, Pre-Construction Information (PCI), Bill of Materials, payment schedule and form of tender. TNEI managed the tender process, including issue of the ITT, fielding technical queries, holding tender interviews and assisting the client with identifying preferred bidders and conducting commercial discussions.

Service: **Geotechnical support and infrastructure layout design**  
Client: **Peel, Mossy Hill Wind Farm**

TNEI were responsible for preparing a Peat Slide Risk Assessment for the proposed onshore wind farm. Works comprised managing a local contractor to undertake peat probing and training them to take and record peat cores. The results were used to undertake a quantitative peat slide risk assessment in accordance with industry standards and best practice. An outline Peat Management Plan was also produced to address the anticipated volumes of peat extracted and present conceptual peat restoration measures. The results were used to inform the Geology, Hydrology and Hydrogeology chapter of the ES. TNEI also developed the proposed infrastructure layout, ensuring that tracks and hardstandings complied with turbine manufacturer requirements, that site entrance arrangements were compliant with LHA requirements and that infrastructure was positioned suitable distances away from sensitive receptors, including areas of medium to high risk of peat slide.

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## Key contact

James Hollender  
Director of Developer Support



James is a Chartered Civil engineer and certified member of the APS with extensive experience as an engineer and project manager in the energy sector. His work has included feasibility studies, detailed designs and project management of onshore and offshore wind, solar, STOR and battery storage projects.

He has worked on site discharging the duties of Owner's Engineer, Bank's Technical Advisor and Principal Contractor. He has also discharged the duties of planning supervisor, CDM Coordinator and, more recently, Principal Designer in accordance with the CDM Regulations.

He has been responsible for managing post-consent works including discharge of planning conditions, specifying and managing geotechnical investigations, managing archaeology and ecology surveys and liaising with landowners and other stakeholders. James has also acted as an expert witness for a wind farm public hearing.

James has been involved in over 2GW of due diligence projects for wind, solar and STOR projects across the UK, Ireland, Brazil, Poland, Bulgaria, Romania, South Africa and Canada on behalf of both vendors and lenders.

Prior to working in the energy sector, James gained wider engineering experience in bridge inspections, analysis and strengthening work, surveying and structural steelwork design.

## Get in touch

We are a specialist, independent company. That's why we can offer a flexible, personal service and help our clients quickly and efficiently, without all the big corporate distractions.

**But most of all, we love to solve problems.**

For more information about our civil engineering services, please contact James Hollender; email: [james.hollender@tneigroup.com](mailto:james.hollender@tneigroup.com) or call: +44(0)191 211 1405.



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For more information about who we are and what we do, please contact: [info@tneigroup.com](mailto:info@tneigroup.com)

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