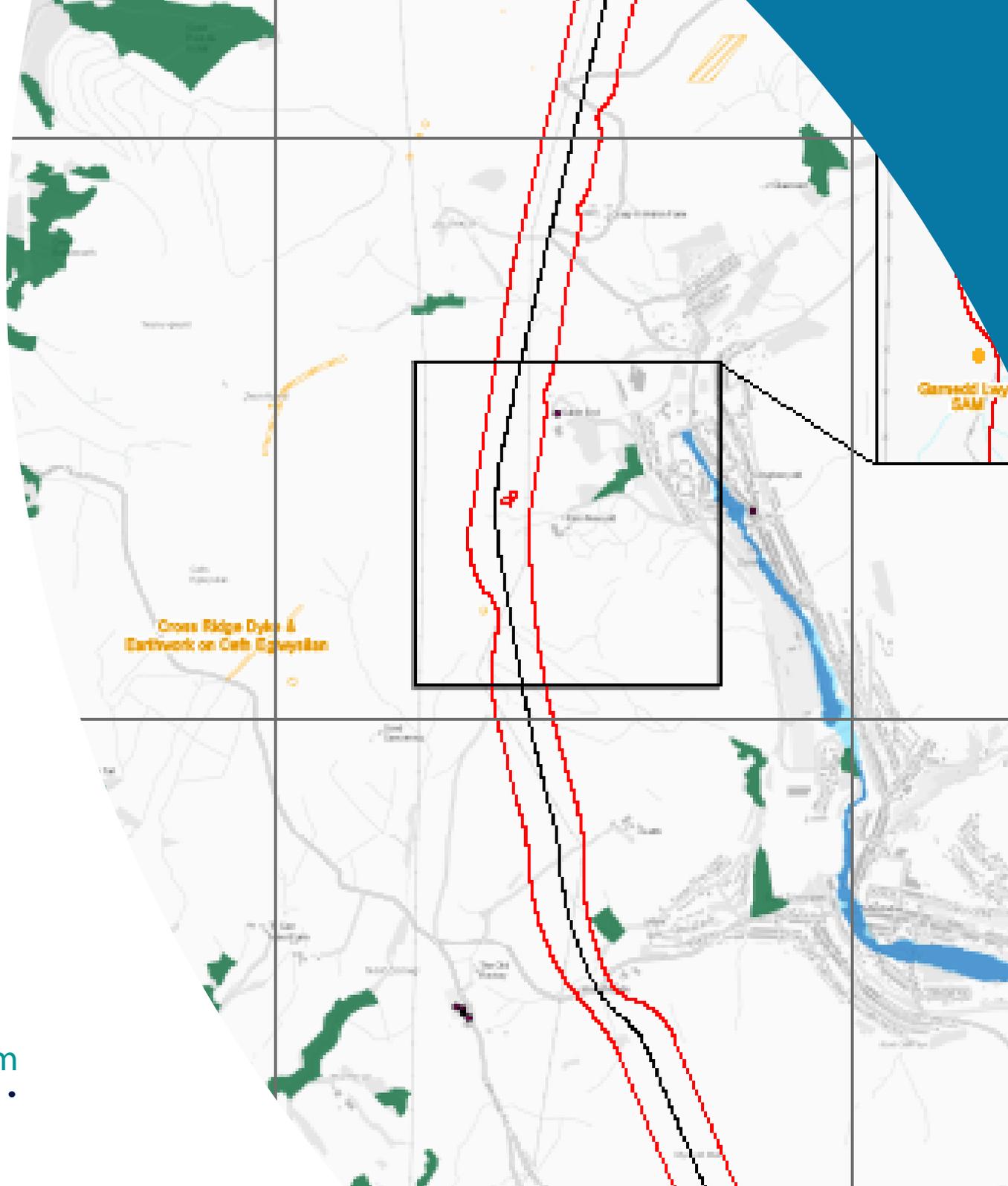




A specialist energy consultancy

GIS and mapping
services

tneigroup.com



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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.

GIS and mapping services

Our team are experienced in developing comprehensive solutions for our clients' needs throughout the entire duration of their projects.

Geographic Information System (GIS)

GIS is a key tool in the visualisation and display of spatial data associated with a client's project. GIS is also a tool designed to capture, store, manipulate, analyse and manage considerable amounts of geographic data.

At TNEI, we understand that GIS and data management are integral to a project's success and as such we have developed bespoke systems to store, manage, utilise and distribute project data efficiently and clearly to relevant stakeholders.

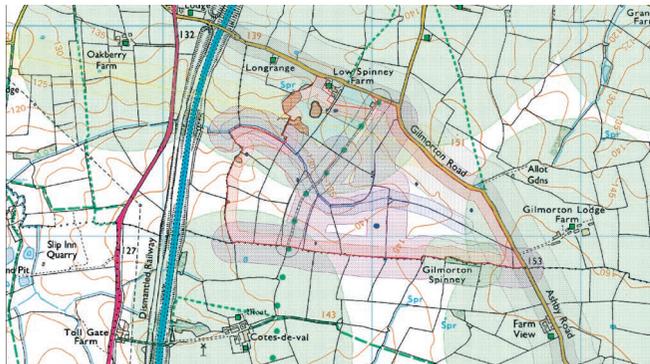
TNEI has provided specialist advice to the energy sector for the past 20 years, and from this experience our team has been able to develop a bespoke and comprehensive environmental and technical database from which we are able to provide our clients with a wealth of data and information to support their projects.

Computer Aided Design (CAD)

TNEI is proficient in the use of CAD and can fully integrate GIS and CAD datasets to provide comprehensive mapping services. This can be used to inform the site design process and produce a range of plans as well as Single Line Drawings for use in planning and grid applications.

TNEI has undertaken site and component design for a range of wind, gas and battery storage projects using CAD to produce detailed layouts based on a variety of environmental factors and client needs.

TNEI is also able to perform Swept Path Analysis using AutoCAD vehicle tracking, having undertaken assessments for a range of routes and vehicles, including swept path for the delivery of turbine blades to wind farm sites. In addition to GIS and CAD, TNEI utilises a variety of other software packages to ensure a flexible approach which enables us to adapt to the needs of our clients.



Our Skills

Our services include:

- Mapping and visualisations;
- Spatial data analysis and modelling;
- Environmental assessment;
- Interactive WebGIS Solutions;
- Data collation and geodatabase management;
- Data conversion and integration;
- Strategic analysis;
- Site selection, feasibility and constraints analysis; and
- Design of bespoke GIS tools.

Examples of where we have applied our GIS and CAD services include:

- Cable and pipeline routing – from high level design to micro-routing;
- Feasibility and constraints mapping;
- Site selection;
- Visualisation of modelling results;
- Site design; and
- Swept Path Analysis.

Case study

Service: [Transmission reinforcement routing study](#)
Client: [The Crown Estate](#)

TNEI was appointed by The Crown Estate to assist with delivery of a project to identify consenting considerations and challenges for the delivery of the onshore transmission reinforcements throughout Great Britain necessary to deliver the volume of offshore generation expected in UK waters.

The key project objectives were to identify the specific nature of the onshore reinforcements required, identify and assess the consenting challenges and to understand and quantify the risks to the timely delivery of offshore generation resulting from the delivery of the required onshore reinforcements. Therefore a fundamental element of this project was to undertake an optioneering exercise to identify transmission route corridors and substation locations.

This was commenced by undertaking GIS-based analysis to identify any potential high level constraints to development and establish broad routeing options. Landscape, cultural heritage, ornithological and ecological designations were identified and plotted. Potential route constraints were identified and reference made to the Holford rules and technical constraints for determining corridor(s) of least constraint. Holford rules provide a valuable tool in the selection and assessment of potential route options as a part of environmental assessment.

Once the options were identified, initial constraint plans were produced

to assist in the appraisal of a range of planning and environmental considerations and to provide a risk rating on the level of risk to achieving planning / development consent.

Key contacts

[Jack Reay](#)
Technical Consultant



Jack has experience in GIS and CAD, producing figures and plans for a range of projects for submission as part of planning applications, including onshore wind, offshore wind, gas peaking plants, battery storage, solar and electric vehicle charging.

He has conducted a number of site finding and feasibility assessments, as well as inputting into Environmental Impact Assessments.

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 GIS and mapping services, please contact [Jack Reay](#); email: jack.reay@tneigroup.com or call: +44(0)191 211 1440.



Contact

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For more information about who we are and what we do, please contact: info@tneigroup.com

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