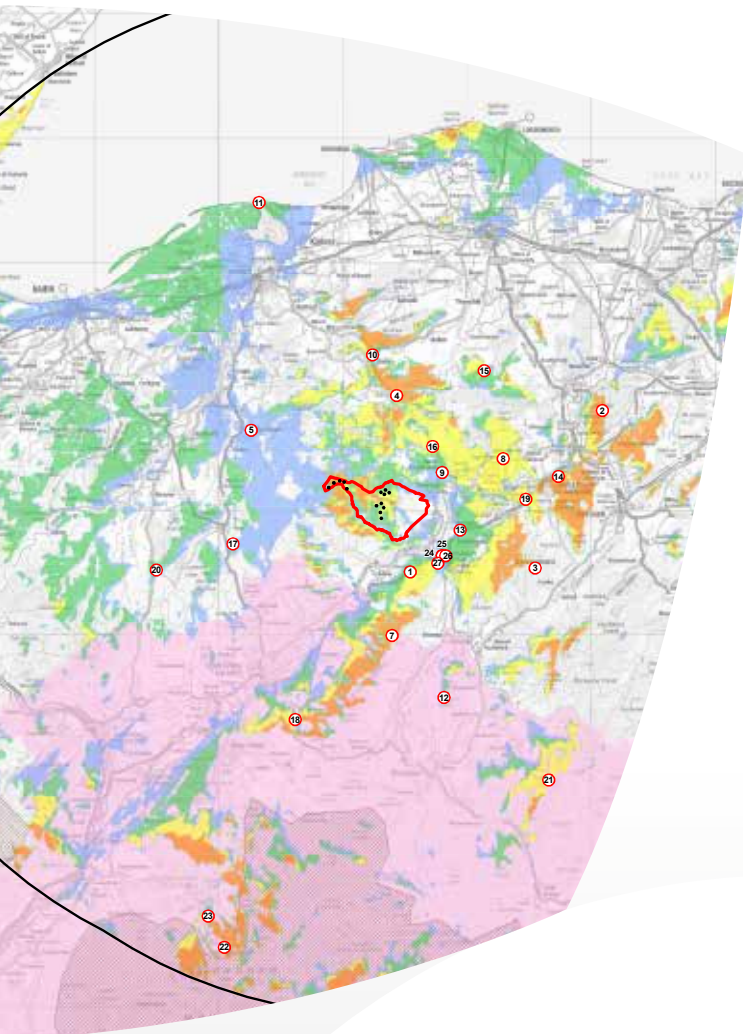




Quality GIS services are an essential component for the successful delivery of renewable energy projects. Over the past 15 years Natural Power has developed a wealth of experience delivering mapping, 3D visualisation and web GIS services to our clients, helping to ensure their projects are delivered as smoothly as possible.



Natural Power Spatial Data Services

Our GIS, CAD and 3D visualisation expertise includes:

- Highest quality cartographic output suitable for site documentation, planning reports and legal plans
- Creation of photo montages showing landscape views with and without proposed features
- Working with 3D data, including subsurface features, volume calculations, modelling 3D layouts and fly-throughs of sites
- Visualisations and photomontages in compliance with relevant local and national guidance
- Experience working with data from many countries and in many different coordinate systems
- Preparation of web based GIS for multi user access of data
- Comprehensive data catalogue, covering site constraints, background mapping, and height data as well as detailed national windfarm site database
- Suite of geospatial tools including ArcGIS, QGIS, AutoCAD and Windfarm allowing high quality output, spatial analysis as well as 3D visualisations and analysis
- Experience with numerous geospatial analysis techniques including visibility analysis, slope calculations and data interpolation
- Skills in modeling and automating data flows to increase efficiency and improve consistency
- Statistical programming using R

15+

years
experience

17

countries

1200+

common
data sets

14,000+

plans
completed

1100+

projects/sites
worked on



Case Study 1 **Site Layout Optimisation for FORL**

Natural Power's GIS team were called upon to use a range of 2D and 3D analysis techniques to assist in updating wind farm site design for one of our client's onshore wind sites. Constraints mapping and wind resource mapping were used in conjunction with ZTV maps and 3D visualisations to produce layouts that could be potentially acceptable to statutory and non-statutory stakeholders. As the review process was iterative, the project benefited from having a staff member from GIS embedded in the project team for the duration of the review.

Case Study 2 **Web GIS for HVDC Route**

Acting as the environmental consultant on behalf of the principal contractor on the Caithness to Moray HVDC project, Natural Power was asked if we could make the mapping available to wider range of key stakeholders. The client was looking for a way of delivering location information over the internet, thereby allowing multiple people from various locations to view the same common dataset. We developed a simple yet effective web map that allowed key members of the project team to access a range of data anywhere they could use a web browser. The internet solution was easy to use, secure and effective at providing the information the users required.



Case Study 3 **Pant y Maen Wind Farm ES Submission**

Natural Power's GIS team regularly provide high quality cartographic output for inclusion in Environmental Statements (ES's) and Environmental Impact Assessments (EIA's) as was the case for the Pant y Maen Wind Farm ES submission completed on behalf of Pant y Maen Wind Ltd. A key aspect in delivering this successfully was having a lead GIS technician coordinating all GIS work, ensuring project managers had a single point of contact for all requests, data queries and cartographic advice. Besides improving the quality and clarity of figures, this approach also results in a more efficient process which reduces both project management and GIS time. This particular submission was commended for its clarity of presentation and high quality in an independent assessment of the application which was carried out on behalf of Denbighshire County Council.

