

Renewable energy resource assessments

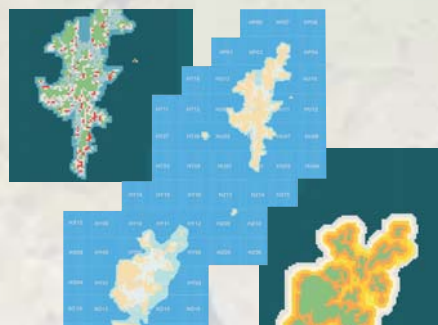
Aquatera has applied over 15 years of experience in modelling environmental management issues to provide a new and innovative approach to renewable resource assessments. The key elements of our approach are:

- Evaluation of large numbers of (100+) parameters relating to energy levels, technical limits, planning constraints and cost/income factors
- Collating data at set resolutions (usually 1km)
- Storing all information in a database for easy updating and manipulation
- Flexible and modifiable models for power production, likelihood of planning approval and development economics that are based upon best expertise and latest experience
- Output options, including GIS, but focused upon web and self contained CD ROM solutions

By adopting this approach Aquatera resource assessments provide a flexible and longer lasting set of results in electronic format. Model results can then be exported into other terrain visualisation and planning tools.

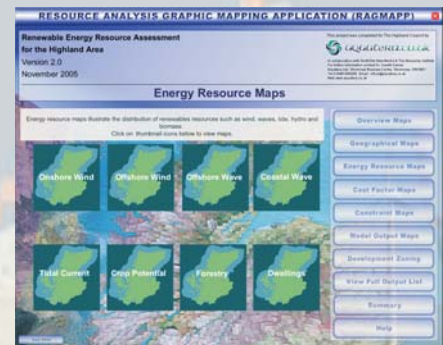
Orkney and Shetland

This study evaluated the renewable energy resources potentially available around the Northern Isles of Orkney and Shetland. The study considered the constraint development potential, cost of developments as well as the likelihood of gaining planning consent. Input and output data for this study are stored in a database enabling different scenarios to be examined.



Highland Area Study

This study builds on the approach followed for the Orkney and Shetland Resource Assessment. Highland was divided into 1 km squares for the analysis. GIS based information was used to populate the input data fields. The resource assessment model and outputs can either be run through the GIS, or a bespoke non-GIS interface with parameters being easily altered as required.



Wave Energy Resource Assessment

This study examined a number of key parameters for coastal and near shore wave technologies along the west coast of the UK and Ireland. The purpose of the study was to quantify the scope for different technologies to be applied along the UK coastline. A new application was developed for this study involving 100km search areas with grid based and satellite image based navigation. This modular approach allows us to deliver packages across wide geographical areas.

Isle of Man Study

This study focussed on the marine renewable potential of IOM territorial waters. It included similar factors to previous models, such as energy levels, constraints and costs, but also utilised new and more sophisticated geographical modelling and analysis of parameters.