

WSP – SUPPORTING ENERGY PROJECTS

From concept to realisation

www.wspgroup.com/renewables

WSP is a reputed international design, engineering, environmental and energy consultancy. We advise parties on all sides of the table for renewable energy, power generation and transmission schemes, working through all stages of the project development cycle.

WSP – A SNAPSHOT

We're big. We have over 9,000 people working from 200 offices around the world, so we have the strength to support any scale and type of project, wherever that may be. But we cultivate the kind of innovation and depth of expertise that you might expect of a small consultancy. And we're proven. We have worked on some of the most challenging projects around the world. And we are delighted to have been voted the 2010 Environmental Advisor of the Year and the Engineering Consultant of the Year – and we've been shortlisted for the Sustainable Consultant of the Year Award too.

WHY WSP?

- WSP is technology neutral. We'll assess all the options and advise you on the best approach.
- Our breadth of expertise means we can anticipate all the major challenges on the project timeline, from inception to operation, and advise on minimising risk.
- We develop integrated solutions for our clients. Renewable energy supply can be intermittent; peak generation and peak demand don't always overlap. We'll advise on integrated, multi-technology solutions.
- Our global capability means we can draw on best practice from across the world.
- We've worked on city-scale systems, integrated solutions for individual buildings and stand alone utility-scale schemes such as wind and solar farms.
- We're a business that prides itself on having people who listen to our clients, are innovative, commercial and driven in delivering great solutions.

FROM CONCEPT TO REALISATION – SERVICES

PRE-FEASIBILITY

Policy/regulatory studies
Master planning
Regional planning strategies
Local Authority strategies
Planning support
Technical
Environmental constraints
Site constraints
Market review

FEASIBILITY

Outline design
(technical & cost)
Yield/resource evaluation
Environmental permitting
Design review
Fuel market study
Front end engineering
Design

PROJECT DEVELOPMENT

Concept design	Risk assessment
Costs estimates	Technical, environmental, commercial DD
EIA	Technical design
Permits	Contracts
Procurement (EPC, O&M, Spec, Contracts)	Costs
FSA	Programme
Yield analysis	Environmental impacts
Project management	Financial syndication support

CONSTRUCTION

Review contractors' work
Site supervision
Cost management
Project management
Environmental management
H&S

OPERATION

Monthly / quarterly reporting
Draw downs
Take over

PROJECTS EXAMPLES

400KV TRANSMISSION LINE - SCOTLAND

WSP prepared a number of technical submissions to support the proposed Beaully-Denny 400kV transmission line project to provide a new network from the Highlands to Central Scotland, unlocking significant capacity. We undertook parts of the Environmental Statement, carried out geotechnical research, delivered transport analysis work associated with the construction phases and produced environmental assessments of proposed sub-stations. WSP is now engaged to support the environmental compliance of the project during construction.



WIND FARMS - ROMANIA

WSP undertook a gap analysis for EBRD/IFC compliance for two wind farms being developed in Romania by EDP Renovaveis. The work entailed reviewing the Environmental Impact Assessment, Public Consultation process and developing an ESIA disclosure package, inclusive of cumulative impact assessments and non technical summary (NTS) to meet EBRD's Environmental and Social Policy and Public Information Policy for A category projects and developing a Stakeholder Engagement Plan (SEP).

BIOENERGY FACILITY - SCOTLAND

Dalkia are undertaking their prestigious energy development with Diageo at Cameron Bridge with WSP providing design, engineering, procurement and project management services. This new facility at Diageo's distillery will use biomass feedstock for the combustion system. Diageo will radically reduce their carbon footprint with the plant, which will generate gas and solids for fuel from spent wash: a mixture of wheat, malted barley, yeast and water which is produced during distillation. This will replace 80% of the electricity and 98% of the natural gas that Diageo buys.



OFFSHORE WIND FARMS – GERMANY

Multiconsult was commissioned by Aker Solutions, a leading offshore contractor, to provide its engineering team with detail engineering support regarding the design of 48 deep water offshore wind jackets. Multiconsult engineers are fully integrated into Aker Solutions' team to complete the work. The substructures will be delivered to Aker Solutions' fabrication yard in Verdal during the period October 2011 to July 2012 as part of an EPC foundation contract awarded by RWE for its Nord See Ost 295MW offshore wind farm in Germany.

WIND FARMS – SCOTLAND

On behalf of Burcote Wind, WSP has undertaken purchaser due diligence, assessing a large number of potential sites for proposed wind farm developments of up to 90MW, right across England, Scotland and Wales. We undertook: resource evaluations, including installation of wind masts and wind data analysis; technical constraints analysis, including grid connection; Environmental Impact Assessments (EIAs), transport assessments; and regulatory and stakeholder engagement. We are now conducting full EIAs on the three chosen sites.



Working in partnership with:



With 40 years of experience from Offshore Oil & Gas and 100 years in the renewables industry, Multiconsult provides independent and technology neutral project management, engineering and consulting services for the next generation of offshore wind developments. Multiconsult is a leading Norwegian consultancy with more than 1100 staff located in Norway and abroad.
www.multiconsult.no