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Director, carl TONKS consulting

Resume of Recent Experience;

Wind Turbine and Wind Farm Development



Carl has considerable expertise in transportation issues associated with wind turbines and wind farm development. This experience has encompassed development sites across the UK and has been focussed on addressing the practical issues arising from proposals to transport large construction components on routes which often exhibit poor geometry and which may be inappropriate for use by vehicles of the size and weight necessary. These routes often include rural roads with geometry constraints including insufficient width and tight corner radii as well as towns and villages where the highway may be tightly abutted by buildings, signs and other street furniture. Issues of traffic congestion also arise on heavily trafficked urban and inter-urban routes.

Carl's wind farm clients have included Renewable UK (formerly the British Wind Energy Association (BWEA)), Renewable Energy Systems (RES), Nuon Renewables, Acciona, SSE Renewables, Empirica Investment, Constant Energy, Peel Renewables and AGRenewables. A range of turbine sizes have been considered, up to 46m blade length, although predominantly for the larger wind farms 42m blades have been promoted as these provide an effective compromise between generation capacity and transport practicality for proposed on-shore wind power developments. Individual (FIT) turbine installations generally comprise smaller equipment, with blade lengths typically of the order of 26m.

Routes have been developed generally in close discussion with officers of the local and, where appropriate, strategic highway authorities in order to maximise the potential for a positive agreement to be reached on highway matters.

Carl has twice appeared at the Renewable UK Cymru Annual Conference; in 2010 when he gave a paper entitled **Tools to Solve the Problem**, referring to transportation difficulties accessing wind farm sites in mid-Wales and in 2011 when he appeared on the Panel of Experts.

In 2005 Carl presented evidence at a Public Inquiry into proposals for development of a large wind farm on heath land near Scunthorpe. Planning permission was granted for this proposal.

Carl is known within the wind turbine development field and has contacts with hauliers experienced in transporting this kind of specialist equipment.

Summary of Relevant Project Experience

Acciona Energy; Carl directed an investigation into the initial feasibility of accessing three wind farm sites in mid-Wales, with AIL's of a size appropriate for construction of large wind turbines. The access routes all required use of minor, rural roads, which were constrained in terms of alignment, as well as carriageway width and clearance height.

AGRenewables; cTc Transport Planning is commissioned to advise on issues of component delivery to AGRenewables significant portfolio of single (FiT) turbine developments at sites throughout England, Scotland and Wales;

Constant Energy; carl TONKS consulting provided Traffic Management Plans in support of applications for construction of wind turbines on under-utilised farmland across England and Wales. This commission included sites in Bedfordshire and Anglesey, along with preliminary advice on a third site in Ceredigion.

Empirica Investment; carl TONKS consulting are commissioned by Empirica to advise on their wind turbine development program at sites throughout the north of England. These comprise single turbine (FiT) developments, typically on farm land and the commission comprises Carl providing initial feasibility advice to the Client team, followed by detailed route assessment, reporting and representation in discussion with the highway authority pursuant to applications for planning permission. This contract has included sites in Cleveland, Cumbria, County Durham, Lancashire, Norfolk, North Derbyshire, Northumberland and Yorkshire.

Nuon Renewables (Vattenfall); Carl directed numerous investigations into identifying routes between port of delivery of construction components and the proposed development site for several proposed wind farms in mid-Wales.

Peel Energy; carl TONKS consulting is advising Peel Renewables on opportunities for erection of individual (FiT) turbines on its industrial land holdings in the North-West of England and Scotland. In a separate Term Commission, **carl TONKS consulting** is appointed to provide transport support for planning applications for individual turbines on agricultural sites across the north of England.

Renewable Energy Systems; Carl presented evidence of behalf of RES to a Public Inquiry into development of the largest land-based wind farm in the UK, in North Lincolnshire. The application was successful and the proposals are now under construction. Carl also represented RES in promoting numerous sites in mid-Wales, on occasions these were joint promotions with adjacent sites for Nuon, although some were stand-alone proposals by RES.

Renewable UK, Cymru (formerly BWEA); Carl directed a project into producing a bespoke tool to address issues arising in planning in mid-Wales, in terms of planning applications being unable to progress due to concerns expressed by local and strategic highways officers, Welsh Government, Highways Agency, Powys County Council, Cheshire County Council and relevant police forces.