

APPENDIX E - STATEMENTS OF AUTHORITY

“The EPA Guidelines on information to be contained in Environmental Impact Statements (2002) advise that the experts who carry out the relevant sections (and in particular their qualifications and experience) be identified. This doesn’t appear to have been forthcoming in chapters 5, 6, 7, 8 and 10.”

Response:

CHAPTER 5 – FLORA & FAUNA

Dr Brian Madden BA (Mod.), Ph.D., MIEEM

Brian Madden graduated in Natural Sciences from the University of Dublin in 1984 and earned a Ph.D. degree in 1990 from the National University of Ireland for his research on ecosystem processes in raised bogs. Since then he has carried out botanical surveys and habitat assessments for most terrestrial habitats which occur on the island of Ireland. The consultancy BioSphere Environmental Services was established in 1994 and specialises in environmental impact assessment. Wind farm developments, often affecting peatland sites and the breeding and wintering habitats of important bird species such as hen harrier and whooper swan, form an important component of the work of the consultancy.

CHAPTER 6 – SOILS & GEOLOGY

John Whiteford has more than 15 years of experience in the field of earth sciences, geotechnical engineering and management. His academic qualifications are a BSc with Honours in Geophysics from Edinburgh University, with memberships of The European Association of Geoscientists and Engineers and The European Environmental Engineering Group. Commencing work with Kirk McClure Morton (Consulting Engineers) in Belfast in 1993 he has been engaged in full-time consultancy for the past 15 years and since 1996 trading as Whiteford Geoservices Ltd. The company has a staff of more than 15 professional and technical personnel and has completed in excess 700 contracts for clients within the construction and mineral exploration sectors where

they have built up a recognised level of specialist experience, particularly in the field of Wind Energy. Working at home, in Europe and worldwide the company has been involved in more than 60 wind power projects where our services have been sought in relation to foundation design, peat slide risk assessment, geophysics, electrical earthing design and thermal resistivity analysis.

CHAPTER 7 - WATER

Hydro-Environmental Services (HES) has extensive wind farm drainage and general peatland drainage experience relevant to this project. Wind farm environmental impact assessment in respect of geology, hydrology and hydrogeology has and is a core business area for HES.

HES are currently working on 25 no. wind energy projects that are being constructed or are proposed on blanket peat across the Republic of Ireland and Northern Ireland. A number of these sites are also adjacent to or upstream of Natura 2000 sites.

HES have completed hydrological assessments for the following wind energy projects:

County	Wind Farm (WF) Development*
Galway	Shanakeever WF, Lealetter WF, Lettergunnet WF, Letterpeak WF, Lettermuckoo WF, Arderry WF, Buffy WF
Clare	Slievecallan WF, Coor West WF, Doo Lough WF, Cahermurphy WF, Glendine WF, Glenmore WF
Mayo	Bunnyconnellan WF, Maghermore WF, Cloontooa WF, Ballykinave WF, Oweninny WF
Tyrone	Crockagarran WF, Thornog WF Ext, Gronan WF, Crighshane WF, Meenakeeran WF, Lishnahenry WF, Slieveard WF, Meenablagh WF
Donegal	Crilly WF, Altnagapple WF, Straboy WF
Leitrim	Garvagh Glebe WF, Faughery WF, Tullynamoyle WF, Tullynamoyle II WF
Cork	Fioladaun WF, Esk WF, Dromleena WF, Dromkeeveen WF, Cleanrath WF, Shehymore WF, Boggeragh Wind Park
Roscommon	Sliabh Bawn WF
Sligo	Blacklough WF
Kerry	Knocknagaum WF

*some sites have had multiple phases of development and assessment.

HES have also completed the following peatland hydrology related projects:

County	Peatland Development*	Assessment Type*
Kildare	Mouds Bog	Hydrological Assessment of peat harvesting site
Offaly	Raheenmore Bog / Clara Bog All Saints Bog	Research studies – hydrological/hydrogeological/ geotechnical Hydrogeological impact assessment
Tyrone	Sluggin Moss	Peat Harvesting site – reinstatement drainage plan
Donegal	Tievebrack Sub-station	Surface water drainage and treatment options for development in pearl mussel catchment
Kilkenny	Newpark Fen & Lough Macask	Hydrogeological impact assessments
Waterford	Fenor Bog	Hydrogeological impact assessment
Mayo	Corrib Onshore Pipeline Glencullin Upper cSAC	Peatland Hydrology Impact Assessment, environmental monitoring, water quality controls Hydrological review and analysis of long-term post construction monitoring data
Cavan	Belturbet By-pass – Annagh Wood cSAC	Construction method statements development and review
Galway	Tonabrocky Bog Seanafeistin Bog	Hydrogeological impact assessment – Galway Outer By-pass Reinstatement plan for telecoms mast development
Westmeath	Coole & Clonsura Bog	EIS for peat harvesting development for an IPPC licence application

*some sites have had multiple phases of development and assessment.

Michael Gill (B.A., B.A.I., M.Sc, Dip. Geol, MIEI) is the managing director of HES, and he has completed the EIS Chapter 7 along with David Broderick. Michael is an Environmental Engineer and Hydrologist/Hydrogeologist with over 15 years environmental consultancy experience. Michael has completed numerous (50+) hydrological and hydrogeological impact assessments in relation to wind farms in Ireland and Northern Ireland. Many of these sites are adjacent to or upstream of Natura 2000 sites.

David Broderick (BSc, H.Dip. Env. Eng, M.Sc) is a hydrogeologist with 8 years environmental consultancy experience. David has completed numerous (30+) Soils and Geology Sections and Water Sections for Environmental Impact Statements (EIS) for large scale wind farm developments of up to 112 turbines.

CHAPTER 8 – AIR

The original air chapter was prepared by Mr David Kiely, Mr James Conlon and Mr Sean Molloy, Director and Project Engineers of Jennings O'Donovan & Partners Consulting Engineers respectively.

Mr Kiely is a Chartered Civil Engineer, a Fellow of Engineers Ireland and has a Masters Degree in Environmental Protection. Mr Kiely has some 29 years professional experience of which the last 14 years has been in the wind energy industry. Mr Kiely has acted either as Project Manager or Project Director in all of the firm's wind energy projects of which 18 have been fully constructed.

Mr Conlon is a Chartered Engineer with six years' experience in the design and environmental assessment of wind farm projects. Mr Molloy is an engineer with three years' experience in the design and environmental assessment of wind farm projects.

CHAPTER 10 – SHADOW FLICKER

The original shadow flicker chapter was prepared by Mr David Kiely, Mr James Conlon and Mr Sean Molloy, Director and Project Engineers of Jennings O'Donovan & Partners Consulting Engineers respectively.

Mr Kiely is a Chartered Civil Engineer, a Fellow of Engineers Ireland and has a Masters Degree in Environmental Protection. Mr Kiely has some 29 years professional experience of which the last 14 years has been in the wind energy industry. Mr Kiely has acted either as Project Manager or Project Director in all of the firm's wind energy projects of which 18 have been fully constructed.

Mr Conlon is a Chartered Engineer with six years' experience in the design and environmental assessment of wind farm projects. Mr Molloy is an engineer with three years' experience in the design and environmental assessment of wind farm projects.