



Appendix A.1: Competency Statements



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Connecting Europe Facility

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Appendix A.1: Competency Statements

1 Introduction

Affric Limited provide the UK permitting support to the NorthConnect project and as such have led the Environmental Impact Assessment Report (EIAR) production, however it has been a team effort. Affric Limited has worked with a variety of consultants to ensure that appropriate experts have contributed relevant technical input to the assessment. Table 1.1 details the lead authors for each of the chapters. In addition, the wider NorthConnect team have provided technical and design input which has informed the EIAR and they have provided content review support. Further information with regard to the experience and expertise of the various companies and personnel who have written sections of the EIAR is provided in Section 2.

Table 1.1 Lead Authors for EIAR Chapters.

Chapter	Lead Author/Main Contributor
1: Introduction	Dr Lucy Quinn – Affric Limited
2: Project Description	Dr Lucy Quinn – Affric Limited
3: Methodology	Dr Lucy Quinn – Affric Limited
4: Consultations	Dr Lucy Quinn – Affric Limited
5: Planning Policy	Dr Lucy Quinn – Affric Limited
6: Cumulative Effects	Dr Lucy Quinn – Affric Limited
7: Seabed Quality	Jonathan Ashburner – Affric Limited
8: Geology and Hydrogeology	Dr Lucy Quinn – Affric Limited Gary McCann – Leapmoor LLP
9: Air Quality	Dr Lucy Quinn – Affric Limited Fiona Henderson - Affric Limited
10: Water Quality (Onshore)	Fiona Henderson – Affric Limited Cornelius Pelka – Affric Limited
11: Water Quality (Marine Environment)	Jonathan Ashburner – Affric Limited Cornelius Pelka – Affric Limited
12: Archaeology	Thomas Rees – Rathmell Archaeology Ltd Peter Klemen – Rathmell Archaeology Ltd
13: Terrestrial Ecology	Dr Lucy Quin – Affric Limited James Bunyan – Tracks Ecology
14: Benthic Ecology	Rachel Anthill – APEM Ltd
15: Fish and Shellfish Ecology	Alex Scorey – APEM Ltd
16: Marine Mammals	Jonathan Ashburner – Affric Limited
17: Ornithology	Dr Lucy Quinn – Affric Limited
18: Electric and Magnetic Fields	Fiona Henderson – Affric Limited Fredrik Rüter – FRECC
19: Navigation and Shipping	John Beattie – Anatec
20: Commercial Fisheries	Eric Houston – Xodus Group Ltd Aimee Smith – Xodus Group Ltd Anne Marie Brazier – Xodus Group Ltd
21: Local Community and Economy	Fiona Milligan Dr Richard Blanchfield – Synergist Projects Ltd
22: Noise and Vibration (In-air)	Jim Singleton – TNEI Services Ltd Ewan Watson – TNEI Services Ltd Mark Tideswell – TNEI Services Ltd
23: Noise and Vibration (Underwater)	Jonathan Ashburner – Affric Limited
24: Resource Usage and Waste	Fiona Henderson – Affric Limited Cornelius Pelka – Affric Limited
25: Schedule of Mitigation	Chapter Leads
26: Conclusion	Fiona Henderson – Affric Limited
Non-Technical Summary	Chapter Leads

2 The Authors

2.1 Affric Limited

Established in 2012, Affric are a growing and highly responsive environmental consultancy business providing a comprehensive range of environmental advice, surveys, planning support, stakeholder and project management services. With a broad and expanding portfolio of clients, they work on a diverse range of projects in the public and private sector from SME's to multi-national energy companies. Affric work with their clients to provide high quality tailored services, to ensure that any given project has the most appropriate expertise, irrespective of the sectors or regions in which they operate. Affric have been imbedded members of the NorthConnect project since 2012, leading the UK permitting. This has included leading the planning application for the Interconnector Converter Station and HVAC Cable Route and the production of the associated Environmental Statement. They have been involved in the HVDC cable corridor selection, marine surveys and associated consenting.

Fiona Henderson: A Chartered Environmentalist with 20 years' experience, Fiona is the UK permitting lead and has been involved in the NorthConnect project since 2012. Her qualifications include a MSc in EIA, Auditing and Management Systems and BSc (Hons) in Environmental Chemistry. Having lead authored the Interconnector Converter Station and HVAC Cable Route Environmental Statement and multiple harbour development Environmental Statements/EIAR's she has knowledge of both terrestrial and marine issues. Her environmental expertise coupled with Fiona's comprehensive understanding of the NorthConnect project which has allowed her to contribute to multiple chapters, and act review the technical content of others.

Jonathan Ashburner: A Senior Consultant is a Marine Biologist with specific expertise in Marine Mammals and underwater acoustics, holding an MRes in Marine Mammal Science. Jonathan has been involved in the NorthConnect project since 2014 and initially contributed to the previous Environmental Statement. Since then he has been heavily involved in the tendering and implementation of the marine survey. Acting as Client Representative and Senior Marine Specialist on board the survey vessels. He therefore has a detailed knowledge of the survey findings, with particular regard to the seabed and benthic ecology.

Dr Lucy Quinn: Is an environmental consultant with a specialism in ornithology. Lucy has led the production of the EIAR. Having over a decade of experience within the ecology sector, she has been well placed to author chapters on topics such as terrestrial ecology, ornithology and land quality. Having recently completed a Habitats Regulation Assessment (HRA) course, Lucy also helped produce the HRA Pre-screening Report to support the assessment.

Cornelius Pelka: Has a first-class BSc (*Hons*) in Environmental Science from the University of the Highlands and Islands. As a Junior Consultant has supported senior staff on a variety of EIAR Chapters and Appendices for multiple projects. Projects including the Invergordon Phase 4 Development and the Kilfinichen Pier development. He has supported the production of a few the EIAR chapters.

2.2 Synergistic Projects

Synergistic Projects provide embedded project management support to the NorthConnect project, specifically leading the Permitting and Agreements work. They provide project management services to large scale projects, then can be involved from project conception and setup or are parachuted in to help trouble shoot struggling projects. They work primarily in the infrastructure sectors of water, grid, renewable energy and transport.

Dr Richard Blanchfield: Richard leads the UK Permitting and Agreements team which covers all aspects of consenting, land agreements, electricity agreements, stakeholder management and enabling works. He has co-authored of the Local Community & Economy EIA Report. He holds an MEng and a PhD from the University of Sheffield, a post-graduate Management Certificate from the University of Bath, and is a Chartered Member of the Institution of Civil Engineers and the Association for Project Management UK. He has worked continuously within infrastructure project development, consenting and project delivery since completing his PhD in 1998, for various large construction clients in Scotland, UK and overseas. Projects in the sectors of flood defence, dams and reservoirs, water and wastewater, transport, electricity transmission, onshore wind and biomass have all involved business case and socio-economic welfare assessment. In addition to consideration of the impacts on local community and economy, as part of the projects' community engagement and needs case for consent applications. In Scotland these have included work for Scottish Water, Edinburgh Council, Scottish Hydro-Electric and various wind and biomass development projects.

Richard was also the principal author for NorthConnect in 2016 of the project's Initial Project Assessment (needs case) submission to Ofgem for regulatory approval of the interconnector. Richard has provided content review support to the EIAR and is the ultimate document approver.

2.3 Leapmoor LLP

Leapmoor are providing embedded civil engineering and project management support to the NorthConnect project focusing on the UK enabling works.

Gary McCann: Gary is a Chartered Civil Engineer with over 22 years' experience working in a variety of sectors including ports, energy, regeneration and infrastructure. Gary also worked in a number of technical and managerial roles overseeing production of various designs, feasibility studies and contracts. Gary's project managed the ground investigations works and has a background in geology and civil engineering this has allowed him to specifically input into the Geology and Hydrogeology Chapter, in addition he has supported the production of the onshore chapters.

2.4 FRECC

FRECC are embedded into the NorthConnect project as HVDC and Power Cable specialists.

Fredrik Rüter: The Engineering Lead for the whole NorthConnect project has a MSc in Applied Physics and an MSc in Engineering Physics, he has over 30 years' experience working in major HVDC projects. He has specifically completed EMF and heat calculations in support the project in addition he and his team within NorthConnect have provided technical and design input to the EIAR.

2.5 Independent

Fiona Milligan: Is embedded within the NorthConnect project as the communications manager and has lead the Pre-Application Consultation process. A specialist marketing and communications consultant, Ms Milligan has worked in the renewable energy sector for seven years, having previously worked as a marketing specialist in tourism and economic development for the Cairngorms National Park Authority and in a variety of private industry sectors.

Over the past 7 years, Ms Milligan has managed the consultation process for over a dozen renewable energy schemes in Scotland, reporting on all that have subsequently been submitted to the relevant planning authorities. Her work with local communities has allowed her to understand the social issues and hence input to the Local Community and Economics chapter.

2.6 Rathmell Archaeology Ltd

Rathmell Archaeology Ltd, established in 2003 are a leading provider of commercial archaeological services. The company, supported by a strong graduate workforce that bring academic rigour, expert knowledge and range of specialism, allowing the company to offer services of different types. All of Rathmell Archaeology Ltd operations comply with best practice and conform to standards as specified by the Chartered Institute for Archaeologists (CIfA). Rathmell supported the converter station Environmental Statement also.

Thomas Rees: The co-author of the Archaeology and Cultural Heritage EIAR Chapter is Mr Thomas Rees, Consultant Archaeologist with Rathmell Archaeology Ltd. He holds a MA (Hons) in Archaeology from the University of Edinburgh, is a Member of the Chartered Institute for Archaeologists and a Fellow of the Society of Antiquaries of Scotland. He also holds membership of a number of regional archaeology and historical societies in Scotland.

He has worked continuously within the heritage sector in Scotland since graduating in 1993 holding posts with both commercial consultancies and local government. He has authored numerous commercial reports, academic papers and publications; these publications include a Technical Advice Note for Historic Scotland and a Burgh Survey for Fife Council. He is currently a member of the Scottish Strategic Archaeology Committee, hosted by Historic Environment Scotland.

Peter Klemen: The co-author of the Archaeology and Cultural Heritage EIA Report is Dr Peter Klemen, Senior Archaeologist with Rathmell Archaeology Ltd. He holds a BA (Hons) and Masters in Archaeology from the University of Southampton, a PhD from University College London and is an Associate Member of the Chartered Institute for Archaeologists.

He has worked within the heritage sector in Scotland since 2011 and heads Rathmell Archaeology's east coast operations which opened in 2013. Since joining Rathmell Archaeology he has undertaken excavations, monitoring, building recording and evaluation contracts across Scotland. Peter has a particular interest in supporting community archaeology and undertaking public outreach.

He has authored numerous commercial reports and was the lead archaeologist and co-author of the *Kilrenny, Anstruther and Cellardyke Burgh Survey*. Peter was also the lead on the previous EIA chapter for the NorthConnect Project covering the Interconnector Converter Station and HVAC Cable Route.

2.7 Anatec Ltd

Anatec Ltd were founded in 2001 and are a market leader in risk-based decision making and providing consultancy services in a variety of sectors including onshore, offshore, marine, shipping and renewables. Their success within the UK and internationally was achieved through their vast experience, with senior personal each having over 20 years of experience of working within the marine and offshore safety sector.

John Beattie: The author of the Navigation and Shipping Assessment is Mr John Beattie, Principal Risk Analyst with Anatec Limited. He holds a BEng (Hons) in Chemical Engineering and an MSc in Information Technology Systems from the University of Strathclyde.

John has worked on numerous shipping and navigation assessments for a range of offshore developments in the UK and worldwide over the past 20 years including subsea cables, oil & gas installations and offshore renewable energy installations. He has been an expert witness on shipping and navigation risk at Scottish Parliamentary Committees and PINS (Planning Inspectorate)

Examinations. John has also been involved in research projects for Marine Scotland, the Maritime and Coastguard Agency and the Health and Safety Executive on topics related to shipping and navigation and maritime safety.

2.8 Xodus Group Ltd

Xodus Group Ltd formed in 2005 provide expertise engineering and advisory services to the oil and gas, LNG, renewables and utilities industries around the world. Drawing upon vast number of experts in engineering, design, environment, risk and project management, which allowed Xodus to expand their company worldwide.

Eric Houston: The project manager of the Commercial Fisheries Chapter is Eric Houston, EIA Project Manager with Xodus Group Ltd. He holds a BSc (Hons) in Marine Biology from Swansea University and is a Chartered Biologist and Member of the Royal Society of Biology.

Over the last eight years Eric has built a reputation as a recognised expert in marine consent delivery of submarine cables projects. He is currently providing environmental assessment and consents support to a number of Scottish and Southern Energy interconnector projects for both existing Distribution infrastructure as well as the existing Distribution network. Recently Eric was the Project Manager for provision of marine consultancy services to the Viking Link interconnector between Denmark and the UK. He was responsible for management of the route optimisation, marine survey support, fisheries liaison services management and marine licensing/permitting file preparation and submission including EIA in Denmark, Germany, Netherlands and UK. Previous to this Eric was Project Manager for the marine consultancy framework providing specialist support on the installation of the replacement marine conductors and marine licensing requirements for the Moyle Interconnector between Northern Ireland and Scotland. On this project Eric was seconded as a specialist team member into the Belfast team over a period of two years providing specialist environmental support to the delivery of the consenting and installation of the Moyle replacement. This secondment included management of fisheries liaison and attendance at multiple meetings with fishermen's organisations in Northern Ireland and Scotland. Eric was also EIA and consents Project Manager for a number of other projects including North Sea Link between the UK and the UK/Norwegian median line, East West Interconnector between Ireland and Wales and Western Link between Scotland and England. He has also provided technical advisor support to the FabLink project between France-Alderney-Britain as well as the routing and survey stages of the Celtic Interconnector between Ireland and France and GreenLink between Ireland and Wales."

Aimee Smith: The co-author of the Commercial Fisheries Chapter is Aimee Smith, consultant with Xodus Group Ltd. Aimee has a strong environmental background having achieved a first-class degree in Biological Sciences (Zoology) and an MSc in Sustainable Development with distinction in dissertation. She has three years environmental consultancy experience and during this time at Xodus has provided technical support on commercial fisheries and fish ecology for various projects. Aimee recently completed the fisheries impact assessment for the Minesto Deep Green project which involved gathering and analysing key data on fishing activity around Holy Island and Anglesey in order to assess potential impacts of the project on the local fishing industry.

Aimee also wrote the fish ecology impact assessment chapter for the Minesto Deep Green tidal energy project and prepared the impact assessment chapters on commercial fisheries and fish ecology for the DP Energy Fair Head Tidal Array (Northern Ireland), Brims Tidal Array (Orkney), the Torr Head Tidal Energy Project off the coast of Torr Head in Northern Ireland, and for the Hywind Pilot Park Project, a floating wind energy project in the Buchan Deep to the east of Peterhead. For all these projects Aimee collected data on fishing activity in the area of interest, including cable routes to shore, to inform the baseline. She also discussed fish populations in the projects areas, highlighting sensitive fish species

and behaviours, such as conservation concerns and spawning seasons. She used this information to carry out the impact assessments. For her master's dissertation Aimee studied mixed demersal fisheries in the North Sea. To do this Aimee interviewed fishermen to gain some insight into the disparity between their experiences in the industry compared with the portrayal in various policies at different governmental levels.

In addition to her specialism in fish ecology and fisheries, she also writes other chapters for EA/EIAs and has developed a specialism in the assessment of impacts on other sea users, including other infrastructure, offshore renewables, oil and gas and military activities etc.”

Anne Marie Brazier: The co-author of the Commercial Fisheries Chapter is a consultant with Xodus Group with over seven years of consultancy experience. Prior to this she provided environmental support at Orkney Island Council in the Development, Planning and Regeneration Team. Anne Marie has a BSc (Hons) in Zoology from the University of Glasgow and an MSc in Environmental Management from the University of Stirling. Anne Marie has a good working knowledge of the EIA process and much of her Xodus experience has been EIA focussed. Anne Marie has a range of aquaculture experience including a number of project management roles for EIA support for proposed fin fish developments. She has undertaken early environmental sensitivity assessments for potential aquaculture sites in Orkney which involved consultation with local fishing organisations and fishing operators.

Anne Marie has written numerous commercial fisheries baselines to support oil and gas developments and was involved with the fisheries consultation process for the MeyGen development in the Pentland Firth.

Anne Marie has written a range of EIA chapters including other sea user, atmospheric emission, terrestrial ecology and seabed disturbance impact assessments. She has also coordinated and been the primary of author for a number of EIAs for aquaculture developments.

2.9 APEM Ltd

APEM Ltd is leading independent environmental consultancy specialising in freshwater, marine ecology and aerial surveys. Their success is demonstrated by employing over 120 staff in eight offices in the UK, Germany and the US. APEM Ltd also strongly believe in corporate responsibility and aims to act responsibly by being committed to the environment and society by engaging the local communities in which they operate.

Rachel Antill: Author of Chapter 14: Benthic Ecology holds a BSc and an MSC. Rachel is a marine ecologist with APEM Ltd. She is also a Practitioner Member of the Institute of Environmental Management and Assessment (IEMA). Rachel has over 10 years' experience of Environmental Impact Assessment (EIA) in the marine environment, specialising in benthic ecology and underwater noise assessments. She has managed baseline and condition assessment surveys, prepared shellfish management plans and authored many Environmental Statements and other environmental reports.

Rachel has EIA experience across a variety of industries including onshore and offshore oil and gas sectors (exploration, pipelines and full field development), renewable energy and power sectors and aggregate dredging. Her project experience includes coastal and offshore projects in the UK and Ireland as well as onshore and offshore projects internationally throughout Europe, the Middle East and Africa.

Alexander Scorey: Alex is a fisheries scientist with APEM Ltd and author of Chapter 15: Fish and Shellfish. He is also a Chartered Environmentalist (CEnv), Full Member of the Institute of Environmental Management and Assessment (MIEMA) and Registered Member of the Institute of Fisheries Management (MIFM). He has undertaken Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) for all scales of infrastructure projects in both the terrestrial and marine environment, working both in a consultancy setting and directly for public- and private-sector developers.

Alex has EIA experience from authoring technical chapters and assessments as well as wider project management and EIA coordination. He has worked on EIAs from project inception and feasibility studies, to discharge of conditions or requirements prior to construction, through EIA screening, EIA scoping, preparation of Environmental Statements (ES) and Preliminary Environmental Information (PEI) reports and determination/examination procedures.

2.10 Tracks Ecology

Tracks Ecology formed in 2014 provide ecological consultancy, wildlife research and UAV services. All works undertaken by the company follow the strict Code of Conduct set by the Chartered Institute of Ecology and Environmental Management.

James Bunyan: Author of the NVC and Protected Mammals reports which informed Chapter 13, Terrestrial Ecology. James has over 15 years ecological experience within both the academic and consultancy sectors working on a wide range of research and development projects requiring high quality ecological surveys. Through a number of roles James has worked on projects relating to large Ecological Impact Assessments for wind farms, single turbine projects and other development schemes including biomass, hydro-electric, housing and highways. His expertise is centred on protected species and habitat surveys with extensive experience in initial scoping reports, baseline assessments and focused species surveys along with skills in impact assessments, mitigation and enhancement strategies. Since going independent in 2014, James has developed his independent consultancy wider to provide aerial survey (CAA qualified and fully insured use of UAVs) and GIS services with a particular emphasis on environmental applications. He works within the CIEEM Code of Conduct and provides unbiased advice through a strong evidence-based approach.

2.11 TNEI

TNEI's Planning & Environmental (P&E) Group provides a range of commercially focused consenting, technical and environmental services, critical to the delivery of new development projects in the energy and infrastructure sectors. Their noise team are competent in a range of acoustic disciplines with specialist knowledge of environmental noise assessments, having worked on a wide variety of schemes including transportation, residential and commercial developments, oil and gas facilities, renewable energy developments (wind farms, solar, hydro and biomass) and a number of other sectors.

Jim Singleton: The author of the In-Air Noise Chapter is Mr Jim Singleton, a Principal Technical Consultant at TNEI Services. Jim has also undertaken the QA of the noise propagation modelling.

Jim carries out environmental noise modelling, assessment and reporting for a wide range of sectors, with particular expertise in industrial, commercial and energy projects. Recent projects of note include energy from waste plants, capacity mechanism schemes, port activities, electrical infrastructure and road, rail and aircraft noise. He leads projects for IPPC permitting, planning applications, conditions

discharge, EIA, and noise control and management. He is experienced in noise and vibration monitoring (including blasting), construction and decommissioning work, occupational noise assessments and architectural acoustics.

Jim is a full Member of the Institute of Acoustics (IOA), holds a first-class BSc (Hons) and the IOA Diploma in Acoustics and Noise Control.

Ewan Watson: Noise propagation modelling for the In-Air Noise Chapter has been undertaken by Mr Ewan Watson, a Technical Consultant at TNEI Services.

Ewan undertakes noise modelling and on-site noise monitoring for TNEI, with particular experience in the energy sector. Related projects of note that Ewan has worked on include the modelling of a number of large substations, the Port of Cromarty Firth (Phase 4) expansion, the construction of Great Coates EfW plant and the phased construction of a number of Scottish wind farm projects.

Ewan holds a BEng (Hons) in Energy and Environmental Engineering from Edinburgh Napier University and holds a Technician Membership for the IOA.

Mark Tideswell: The production of figures and all GIS work for the In-Air Noise Chapter has been completed by Mr Mark Tideswell, a Technical Consultant at TNEI Services.

Mark provides GIS support for TNEI, ranging from the production of figures and technical drawings to data management and analysis. Related projects of note that Mark has worked on include the provision of all supporting plans and figures for the consented Bankend Rig Wind Farm Extension planning application, a country-wide site finding feasibility assessment for ZNShine Solar, and the production of GIS mapping data for the WPD grid network across the south-west of England. Mark holds a BSc (Hons) Music Technology and the IOA Diploma in Acoustics and Noise Control and is an Associate Member of the IOA.

2.12 Undersea Cable Consultancy Limited

Undersea Cable Consultancy Limited is an independent organisation specialising in submarine cable projects (telecom & power) and associated matters. Undersea Cable Consultancy Limited provides the reliable expert technical support necessary for the effective control of stakeholders' risk, and for the assurance of high quality project delivery.

Eckhard Bruckschen: Expert technical input to all environmental topic specific chapters have been provided by Eckhard Bruckshen, a Director of Undersea Cable Consultancy Ltd.

Eckhard is a Master Mariner and MBA with over 35 years' experience relating to the offshore submarine cable industry. Eckhard brings operational experience of plough and trenching/ROV operations; fibre optic, power, umbilical and flexible pipe installation; remedial works; burial and bridge operations. His onshore experience includes project construction and installation management, equipment development, together with, system support and engineering. Eckhard Bruckschen installed and project managed approx. 40,000 km of submarine fibre optic cables and 2,500 km of submarine power cables. He was actively involved in the longest HVDC submarine power cable in the world, NorNed.