

XLINKS MOROCCO-UK POWER PROJECT

Preliminary Environmental Information Report

Volume 1, Appendix 1.1: Statement of Expertise



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Glossary

Term	Meaning
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
Nationally Significant Infrastructure Project	A Nationally Significant Infrastructure Project (NSIP) is a major project considered by central Government to be of such a scale to be of national significance and importance.
Preliminary Environmental Information Report	A report that provides preliminary environmental information in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This is information that enables consultees to understand the likely significant environmental effects of a project and which helps to inform consultation responses.
Proposed Development	The element of the Xlinks Morocco-UK Power Project within the UK, which includes the offshore cables (from the UK Exclusive Economic Zone to landfall), landfall site, onshore Direct Current and Alternating Current cables, converter stations, road upgrade works and, based on current assumptions, the Alverdiscott Substation Connection Development.
Xlinks Morocco-UK Power Project	The overall scheme from Morocco to the national grid, including all onshore and offshore elements of the transmission network and the generation site in Morocco (referred to as the 'Project').

Acronyms

Acronym	Meaning
BA	Bachelor of Arts
BEng	Bachelor of Engineering
BREEAM	Building Research Establishment Environmental Assessment Method
BS	British Standard
BSc	Bachelor of Sciences
CEng	Chartered Engineer
CEnv	Chartered Environmentalist
CIEEM	Institute of Ecology and Environmental Management
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
HIA	Health Impact Assessment
ICE	Institution of Civil Engineers
IOA	Institute of Acoustics
JNCC	Joint Nature Conservation Committee
IEMA	Institute for Environmental Management and Assessment

XLINKS MOROCCO – UK POWER PROJECT

Acronym	Meaning
MA	Master of Arts
MSc	Master of Science
NSIP	Nationally Significant Infrastructure Project
PEIR	Preliminary Environmental Information Report
PhD	Doctor of Philosophy (Doctorate)
PIEMA	Practitioner of the Institute for Environmental Management and Assessment
UK	United Kingdom
WHO	World Health Organisation

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1 STATEMENT OF EXPERTISE

1.1 Introduction

- 1.1.1 This document forms Volume 1, Appendix 1.1: Statement of Expertise of the Preliminary Environmental Information Report (PEIR) prepared for the United Kingdom (UK) elements of the Xlinks Morocco-UK Power Project (the 'Project). For ease of reference, the UK elements of the Project are referred to throughout as the Proposed Development. The PEIR presents the preliminary account of the likely significant environmental effects that have been identified to date for the Proposed Development.
- 1.1.2 This document provides the statements of expertise for all authors of the PEIR.

1.2 EIA Management

RPS and APEM Group

- 1.2.1 RPS have been responsible for the EIA Management of the onshore elements of the Proposed Development, whereas APEM Group have been responsible for the offshore elements. Both companies are members of the Institute of Environmental Management and Assessments (IEMAs) EIA Quality Mark. This means that both RPS and APEM Group adhere to the following quality mark commitments.
 - EIA Management We commit to using effective project control and management processes to deliver quality in the EIAs we co-ordinate and the Environmental Statements(ES)/EIA Reports we produce.
 - EIA Team Capabilities We commit to ensuring that all out EIA staff have the opportunity to undertake regular and relevant continuing professional development.
 - EIA Regulatory Compliance We commit to delivering ES/EIA Reports that meet the requirements established within the appropriate UK EIA Regulations.
 - EIA Context and Influence We commit to ensuring that all EIAs we coordinate are effectively scoped and that we will transparently indicate how the EIA process, and any consultation undertaken, influenced the development proposed and any alternatives considered.
 - EIA Content We commit to undertaking assessments that include: a robust analysis of the relevant baseline; assessment and transparent evaluation of impact significance; and an effective description of measures designed to monitor and manage significant effects.
 - EIA Presentation We commit to deliver ES/EIA Reports that set out environmental information in a transparent and understandable manner.
 - Improving EIA Practice We commit to enhance the profile of good quality EIA by working with IEMA to deliver a mutually agreed set of activities, on an annual basis, and by making appropriate examples of our work available to the wider EIA community.

1.3 Topic Authors

Volume 2 - Effects on the Onshore Environment

Onshore Ecology and Nature Conservation

1.3.1 The author of the ecology and nature conservation chapter is Brian Chilcott, who has a Bachelor of Science (BSc) in Anthropology, a Masters of Sciences (MSc) and Diploma in Nature Conservation, and is a Chartered Environmentalist (CEnv). Brian is also a member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Brian has been an Associate Ecologist with RPS Consulting Ltd since January 2007, having worked for RPS since 1996 as an Ecologist. He is a highly experienced ecology project manager, responsible for field surveys, ecological impact assessment, and the design and implementation of licensed mitigation work for protected species including badgers, dormice, great crested newts and reptiles. Brian has delivered numerous sensitive projects through consent into construction, carrying out extensive engagement with stakeholders. He holds protected European Protected Species Mitigation Licenses and has experience as an expert witness at Public Inquiry.

Historic Environment

1.3.2 Mick Rawlings is a Director at RPS, a member of the Chartered Institute for Archaeologists and a Fellow of the Society of Antiquaries with more than 35 years' of professional experience within the historic environment sector in the UK and overseas. This time has provided Mick with an excellent and wide-ranging understanding of the policy and guidance regarding historic environment across all parts of the UK. He has been employed by contracting and consulting organisations that provide archaeological and historic environment services to a wide range of clients. These include transport and infrastructure providers as well as public agencies and private sector developers. He has undertaken EIAs for complex projects across several sectors of development. These include onshore cable connections for offshore wind farms such as Atlantic Array (Devon), Hornsea Project One (Lincolnshire) and Burbo Bank Extension and Mona (both North Wales), as well as interconnectors such as FABLink (Devon and Alderney).

Hydrology and Flood Risk

1.3.3 Jonathan Morley, Technical Director at RPS. Jonathan Morley holds a degree in Environmental Management and has over 18 years' experience undertaking environmental reporting, hydrological assessments, ES and geo-environmental investigations. Jonathan provides expert hydrological and flood risk technical support and advice for a wide range of development applications including; masterplans, energy projects, residential, commercial and industrial. These include Town and Country Planning Act applications, as well as Nationally Significant Infrastructure Projects (NSIPs). During the course of supporting planning applications and associated EIAs, Jonathan has both produced and technically reviewed numerous flood risk assessments and hydrological models, which have been utilised to refine flood zones for development applications and support constraints mapping.

Geology, Hydrogeology and Ground Conditions

- 1.3.4 The principal author of the geology, hydrogeology and ground conditions chapter is Liz Williams (BSc, MSc). Liz is a Principal Consultant at RPS Consulting Ltd and has 20 years' experience specialising in contaminated land assessments to support planning applications. Liz's work includes the assessment of potential impacts of ground conditions on proposed developments, determination of a site's suitability for use, and identifying potential development constraints. She has produced technical reports on Ground Conditions, Hydrogeology and Geology ES chapters for a number of large-scale developments and major infrastructure projects across the UK.
- 1.3.5 The technical reviewer for the chapter is Gary Riches (BSc). Gary is a Principal Consultant at RPS Consulting Ltd and has over 30 years' experience in the planning, implementation and reporting of geo-environmental site investigations, risk assessments and remediation strategies and verification works. He has operated as a consultant providing advice on contaminated land issues, resolution of planning conditions and permit surrender for a wide range of Clients from the highways, residential, commercial/industrial and energy sectors.

Traffic and Transport

1.3.6 The traffic and transport chapter has been prepared by David Archibald (MSc, BSc (Hons)). David is a member of the Chartered Institution of Highways and Transportation, and a member of the Transport Planning Society. David is a Director at RPS Consulting Ltd and has 20 years' experience in preparing transport appraisals, Transport Assessments, EIAs and inputs to ESs for a large range of residential, commercial, energy, wind farm, renewable, waste, landfill and mixed use development sites. This experience includes analysis and impact assessment, the preparation of access strategies with consideration to current national and local planning policy guidance and sustainability issues.

Noise and Vibration

1.3.7 The noise and vibration chapter has been prepared by Alex Stronach, a Principal Consultant at RPS Consulting Ltd. Alex holds a Doctor of Philosophy (PhD) in Acoustics and a Post Graduate Diploma in Acoustics and Noise Control from the Institute of Acoustics. He has four years' experience and has been a committee member of the Association of Noise Consultants since 2022. Alex has a wide range of experience in environmental and architectural acoustics having project managed both large and small scale projects across various sectors, including, commercial, residential, industrial, education and worship spaces.

Air Quality

1.3.8 The air quality chapter has been prepared by Will Hunt, BSc (Hons), a Senior Air Quality Consultant at RPS Consulting Ltd. Since joining RPS in September 2019, Will has worked on numerous projects including assessing construction and operational effects of proposed developments, air quality neutral assessments for developments in London, modelling traffic emissions for site suitability and impacts on existing receptors. He has modelled point source emissions for short term operating reserve facilities, energy from waste facilities and back-up generators for data centres, assessing both the impacts on human and ecological

- receptors. Will has also undertaken monitoring of suspended and deposited dust from construction sites, monitoring of meteorological conditions and "sniff testing" for odour assessments.
- 1.3.9 The technical reviewer for the chapter is Kathryn Barker, who is an Associate Director of Air Quality at RPS Consulting Ltd and has worked at RPS for 8 years. She has an MSc in Environmental Pollution Control and a BSc in Environmental Science. Kathryn has extensive experience, she has modelled point source emissions for energy from waste facilities, short term operating reserve facilities and mixed-use developments with energy centres. She has conducted assessments for construction phase effects, operational effects and site suitability for proposed developments.

Land Use and Recreation

The land use and recreation chapter has been prepared by Julia Tindale, a Senior 1.3.10 Director of EIA & Sustainability at RPS Consulting Ltd holding a BSc (Hons) and is a member of the British Society of Soil Science. During her 30-year career. Julia has specialised in land evaluation work throughout the UK, including soil resource assessment, agricultural land classification survey and farm holding evaluation. She has experience of carrying out survey work and agricultural and soil assessments in connection with proposals for onshore windfarms, elements for several offshore wind farm projects, mineral extraction proposals and restoration schemes, road schemes and other developments. Julia has considerable EIA experience and has an excellent understanding of wider environmental issues including ecology, hydrology and ES co-ordination. She has acted as Environmental Coordinator on Major Infrastructure Projects. Julia's experience extends to the consultation process with both statutory and nonstatutory consultees. She has appeared as an expert witness at public inquiries, hearings and Development Consent Order (DCO) examinations for major UK projects.

Volume 3 – Effects on the Offshore Environment

Benthic Ecology

- 1.3.11 The principal author of the benthic ecology chapter is Rachel Antill BSc (Hons) Marine Biology; MSc Oceanography; and holds an IEMA Certificate in Environmental Management (PIEMA). Rachel is a Principal Marine Consultant, having worked for APEM since 2014 and has over 17 years of experience. She is an experienced marine ecology project manager, assessing impacts on the marine environment, specialising in benthic ecology. She has experience of a variety of industries including High Voltage Direct Current cables, the renewable energy sectors and aggregate dredging, and onshore and offshore oil and gas sectors as well as the public sector. Her project experience includes UK and Ireland coastal and offshore projects and onshore and offshore projects internationally including Europe, Middle East and Africa. Rachel has an excellent understanding of the regulatory compliance requirements for UK and Irish coastal and offshore projects as well as having experience of the requirements in other regions globally.
- 1.3.12 The technical reviewer of the benthic ecology chapter is Dr Marc Hubble who is an Associate Director and Head of the Marine Consultancy team at APEM. Marc

has worked in the field of marine ecology research/consultancy for 18 years. He has an excellent knowledge of consenting risks for marine infrastructure projects, protected species and habitats and relevant policy/legislation, and a detailed understanding of the ecology and conservation requirements of all marine biological groups with particular specialism in benthic habitats/species. He has conducted numerous scoping studies and worked on/managed EIAs, Strategic Environmental Assessments (SEAs), Habitats Regulations Assessment (HRA), Water Framework Directive and Marine Consenting Zone assessments for a diversity of marine developments including DCO applications for NSIPs. He has worked on many linear infrastructure projects encompassing tunnels, outfalls and subsea cables including interconnectors. He has a full understanding of key potential impacts on benthic ecology receptors and appropriate mitigation/compensation measures and has extensive experience of stakeholder engagement.

Fish and Shellfish Ecology

- 1.3.13 The author of this chapter is Edward Rickard (BSc, MRes) who is a Senior Consultant at APEM. Edward has over 5 years of experience in the consultancy industry. He has a strong background working on a diverse range of marine fisheries projects, including fish and shellfish Scoping and EIA chapters, pre and post construction baseline characterisation / monitoring surveys of fish, shellfish and benthic assemblages, shellfish stock assessment surveys, desk based acoustic tracking data analysis / reporting and port sampling of commercial fish and shellfish catches.
- 1.3.14 The technical reviewer of the chapter is Nicola Teague (BSc, MSc, CBiol). Nicola is a Divisional Director at APEM responsible for APEMs fisheries division. She has extensive experience of undertaking all types of environmental assessment including EIA's, HRA's and SEA's. She has been involved in such assessments for numerous large developments in the UK including Willington Power Station, Hinkley Power Station, Mersey Tidal Power Study and Argyll Array offshore windfarm. Additionally, she advises on conservation measures for the protection of fish species and other areas of aquatic ecology and is actively involved in the process of condition assessment monitoring including the development of new sampling techniques and management measures.

Commercial Fisheries

- 1.3.15 The principal author of the commercial fisheries chapter is Sarah MacNab Bachelor of Arts (BA) (Hons) and MSc. Sarah is a Member of The Institute of Marine Engineering, Science and Technology and is a founding Director of NiMa Consultants Ltd. NiMa Consultants Ltd is marine environmental consultants who specialise in offshore renewables and commercial fisheries. Sarah has over 17 years' experience in EIAs and consenting of marine and coastal developments, including specific experience in appraising the impacts of subsea cables on commercial fishing. She has undertaken commercial fisheries impact assessments for a number of major infrastructure projects in UK waters.
- 1.3.16 The technical reviewer of this chapter and commercial fisheries EIA stakeholder engagement lead is Fiona Nimmo (BSc) and Bachelor of Engineering (BEng). Fiona is also a founding Director of NiMa Consultants Ltd and has over 17 years' experience in marine fisheries and aquaculture consulting. Fiona has extensive experience in evaluating the effects of offshore energy developments, specifically

upon commercial fisheries, and supports projects from site selection and feasibility stages through to consent application and examination and post-consent. Currently, she is actively involved in impact assessments for offshore renewables projects in the North Sea, Irish Sea, and West of Scotland.

Marine Mammals and Sea Turtles

- 1.3.17 The principal author of the marine mammal chapter is Joana Torres (MSc). Joana is a Principal Consultant in the marine mammal consultancy team at APEM. Joana has 15 years' experience in marine mammal science across government, environmental consultancy, industry (with a focus on renewable energy and oil and gas) and academia. Her experience has been gained working on projects worldwide (covering UK, Europe, North and South America, West Africa, Australia and New Zealand). Joana's expertise includes marine mammal ecology and behaviour, impact assessments, understanding of underwater noise impacts, proficiency in marine mammal legislation and mitigation procedures, and stakeholder engagement. Joana is also an accredited marine mammal observer in the UK Joint Nature Conservation Committee (JNCC), US Bureau of Ocean Energy Management, New Zealand Department of Conservation and approved trainer by JNCC and DOC.
- 1.3.18 The technical reviewer of the marine mammal chapter is Ross Culloch (PhD) Ross is an Associate Director of APEM and is head of their marine mammal consultancy. He leads a team of eight expert consultants working on multiple projects involving the quantification, assessment and interpretation of the effects of marine activities on marine mammals. Ross is a recognised expert with over 20 years' experience in marine mammal science with over 30 peer-reviewed publications on a diverse range of topics including impacts of construction, shipping and underwater noise. His career has spanned academia, government and environmental consultancy, over which time Ross has gained extensive experience in stakeholder engagement, including provision of guidance and advice to regulators, statutory nature conservation bodies, and industry, which puts him in the unique position of having first-hand experience of the consenting process for major infrastructure projects from the perspective of key stakeholders. Ross has sat on international expert and advisory panels, which included, in his former role, representing Scottish Government at the International Council for the Exploration of the Sea (and the Oslo and Paris meetings and workshops. Ross has a wide range of practical, analytical and management skills and has led numerous projects considering the impact of major infrastructure developments on marine mammals, with experience working in the UK, Europe and Asia.

Shipping and Navigation

1.3.19 The principal author of the shipping and navigation chapter is Dr Lucy Campbell who is a Principal Risk Analyst and Head of Subsea Risk at Anatec Ltd, with over 13 years of technical experience working in marine risk assessment for the marine, offshore renewables and oil & gas industries. She has authored numerous shipping and navigation ES chapters and Navigational Risk Assessments for subsea cable projects. Lucy specialises in subsea risk assessment and has been heavily involved in the research and development of models used to calculate risk related to subsea infrastructure, particularly subsea cables and pipelines, including anchor dragging, emergency anchoring, foundering, dropped objects and fishing gear interaction and has had extensive

experience in producing cable and pipeline risk assessments in UK and international waters. This includes authoring and managing numerous Navigational Risk Assessments and Cable Burial Risk Assessments for interconnectors, telecommunication cables and export cables associated with offshore renewables developments and a number of pipeline decommissioning risk assessments for the oil & gas industry.

Other Marine Users

- 1.3.20 The principal author of the other marine users chapter is Connor May who is a Marine Consultant in the Environmental Management and Assessment team at WSP. He is a practiced consultant in marine and coastal consenting, specialised in EIA coordination of multiple specialist disciplines, whilst contributing to stakeholder engagement, and identification of environmental pressures and impacts. Connor is a Practitioner member of the IEMA and is also a Registered Environmental Practitioner. Connor has three years of industry experience, working on projects in the UK and internationally.
- 1.3.21 The technical reviewer for this chapter is Nigel Coulshed who is the Technical Director for Offshore Wind Consenting at WSP. Nigel has over 25 years' experience in the marine sector initially in ports and harbours then in the offshore renewables sector working on round 2, 3, and 4 ScotWind projects. Nigel is the Project Director for both floating and fixed base offshore wind farms in the ScotWind leasing round, and was part of the successful Kincardine offshore wind farm project team during the section 36 variations as well as acting as Marine Scotland's Ecological Clerk of Works during the cable installation phase carrying out vessel audits. Nigel recently undertook the full technical review of the Rampion 2 offshore wind farm chapters prior to the successful DCO submission and has previously authored Other Marine Users Chapters for offshore renewable EIA Report chapters.

Marine Archaeology and Cultural Heritage

- 1.3.22 The joint principal authors of the marine archaeology and cultural heritage chapter are Ashley Blair (Senior Consultant, Master of Arts (MA) and BA Hons) and Csenge Markus (Assistant Consultant, BSc, MA). Csenge is a practitioner for the Charted Institute of Archaeologists (ClfA). Ashley and Csenge are both part of the Cultural Heritage and Archaeology team at WSP.
- 1.3.23 Ashley has over 14 years of experience in the heritage sector and she has produced extensive heritage planning documentation such as desk-based assessments, ES chapters, DCO applications, Heritage Constraints reports, Written Schemes of Investigation, and Design Manual for Roads and Bridges Webtag Worksheets. Ashley has delivered numerous projects through consent into construction, carrying out extensive engagement with stakeholders. Most recently, she has contributed to the PEIR report for the HyNet DCO pipeline.
- 1.3.24 Csenge has over five years of experience in the heritage sector. She has managed several projects overseeing procurement, finances, fieldwork, and managing subcontractors. Csenge has also contributed to the delivery and authored heritage planning documentation such as Written Scheme of Investigations, Environmental Appraisals, Technical Due Diligence Reports, Constraints Appraisals, Heritage Statements, and scoping chapters for a number of large-scale developments and major infrastructure projects across the UK.

1.3.25 The technical reviewer for the chapter is Toby Gane has a Master of Philosophy and is a member of the ClfA and the Institute of Leadership. Toby is the Marine and Coastal Cultural Heritage and Archaeology Lead at WSP and is an experienced marine and coastal specialist and archaeologist with 20 years' experience in the heritage sector. He has worked on an assortment of marine infrastructure schemes including offshore wind farms, interconnectors, nuclear power, ports and harbours and marine aggregate extraction and is capable of managing the complex balances required between client, curator and regulator in marine cultural heritage work. Toby is currently providing expert advice on multiple offshore wind farms that are in the early planning stage.

Physical Processes

- 1.3.26 The principal author of this chapter is Sophie Bingham MEng (Hons) a Chartered Engineer (CEng) and a member of the Institution of Civil Engineers (ICE). Sophie is a Chartered Principal Engineer in the Sustainable Water Management Coastal and Scour team at WSP. Sophie has 10 years' experience and specialises in coastal engineering, with a large focus on environmental constraints, impacts and mitigation. As part of her work, Sophie has authored many Coastal Process ESs (including Sediment/Water Quality) for various large-scale coastal developments around the UK.
- 1.3.27 The technical reviewer for this chapter is Simon Burchett BEng (Hons) CEng and member of the ICE. He is a Chartered Engineer and Technical Director of the WSP UK Coastal/Scour group with over 25 years' experience in the coastal, maritime, waterfront and flood-risk sectors, gained on projects worldwide. Simon is a member of the British Standards Institute committee responsible for British Standard (BS)6349 'maritime works' and UK Expert for the preparation of a new Eurocode covering coastal structures.

Offshore Ornithology

- 1.3.28 The principal author of the offshore ornithology appendix is Matt Rea (BSc, MSc) who is a Senior Ornithology Consultant at APEM and an Associate Member of the CIEEM. Matt has over eight years' experience in consultancy with experience in leading ornithological aspects to support the delivery of large-scale renewables projects. Matt is a highly experienced project manager who is responsible for survey design and management, consultation, baseline reporting and analysis including Collision Risk Modelling, and undertaking EIA/HRA. Matt has worked on over 40 onshore wind projects in the UK and Ireland and has experience of working on offshore wind and onshore cable connection projects. Matt will lead on management of offshore ornithology aspects of the Proposed Development and will author technical reports.
- 1.3.29 The technical reviewers of the appendix will be APEM Principal Ornithology Consultants James Spencer and Matt Boa who have worked on numerous offshore ornithology assessments for offshore wind developments and will provide technical oversight including review of all deliverables. James has over 14 years consultancy experience and has been responsible for client liaison, assessment, survey design and EIA/HRA implementation and review for a range of intertidal and offshore projects and is an author of the Waterbird Disturbance Toolkit used to inform HRA. Matt Boa is an experienced marine ornithologist who has been with APEM for seven years and leads on offshore ornithology EIA and HRA including pre and post consent work for the Hornsea Four Offshore Wind Farm.

Volume 4 – Effects on the Combined Onshore and Offshore Environment

Climate Change

1.3.30 The climate change chapter has been prepared by Andrew Tasker, an Associate Director of EIA & Sustainability at RPS Consulting Ltd and has been with RPS since 2015. Andrew holds a Geography and Environmental Sciences BSc (Hons), Sustainable Cities MSc and BREEAM UK New Construction Assessor. Andrew has comprehensive experience and technical knowledge in the principles of Sustainability and advising clients across a range of sectors covering BREEAM Assessments, Sustainability Statements and Strategies, Corporate Responsibility and EIA. He provides advice and technical expertise across all work stages from strategy, detailed design to in-use supporting the development through key stages to ensure a sustainable development.

Landscape, Seascape and Visual Resources

1.3.31 The landscape, seascape and visual resources chapter was prepared by Corinna Demmar BA (Hons) Landscape Architecture and Diploma in Landscape Architecture (Hons). Corinna is a Senior Director at RPS Consulting Ltd and is one of RPS' leading landscape consultants with over 30 years' experience in landscape architecture and landscape planning. During her career she has gained considerable experience in the preparation of Landscape and Visual Impact Assessments for ESs. She has also undertaken impact assessments for seascapes and historic landscapes for NSIPs. These include more than 20 years' experience on energy projects, in addition to other work on schemes for leisure, residential, commercial, National Health Service and mineral extraction projects.

Socio-economics and Tourism

1.3.32 The socio-economic assessment has been led by Simon Cleary. Simon is the Economics Director at BiGGAR Economics and has been at the company for 10 years. He has led multiple projects considering the offshore wind sector supply chain in Scotland, including as part of the Scotwind process and assessments of the Beatrice, Seagreen and Inch Cape Offshore Wind Farms. He has also assessed the economic impacts of the development of port side infrastructure and has given evidence at hearings concerning energy developments and tourism.

Human Health

1.3.33 The principal author of human health chapter is Katie Hirono who is a Principal Consultant in the Health and Social Impact team at RPS Consulting Ltd. She is an academic researcher and public health practitioner specialised in public health policy, health inequalities, health impact assessment (HIA), and public participation. Katie is an Advisory Board Member for the World Health Organisation (WHO) Collaborating Centre on Investment for Health & Well-being Directorate at Public Health Wales. She has over 10 years' experience working in Scotland, the US, Australia, Latin America and the wider UK and is considered a global expert in her field. Katie works with the private and public sectors to integrate health into decision-making, including for environmental assessments.

Katie also advises professional bodies on good practice and has led capacity building for Public Health Authorities. Her thesis is titled: Participation for Health Equity: A comparison of citizens' juries and health impact assessment. She is Past President of the Society of Practitioners of Health Impact Assessments (HIA).

1.3.34 The technical reviewer for the chapter is Ryngan Pyper who is the Director of Health and Social Impact at RPS Consulting Ltd. Ryngan is first author of the IEMA health in EIA guidance 2022 and the Institute of Public Health (IPH) HIA guidance 2021. Ryngan is also first author of the WHO 2021 review of international practice on health in EIA and SEAs. Ryngan is a registered public health practitioner with the Faculty of Public Health, as well as an Honorary Research Fellow and Member of the WHO Collaborating Centre on Health in Impact Assessments at the University of Liverpool. Ryngan has over 18 years' experience as a professional consultant, with a public health, environmental science and legal practice background. Ryngan is chair of the health section of the International Association for Impact Assessment. Ryngan is experienced with renewable and linear projects, as well as many other sectors. As an expert witness Ryngan has demonstrated robust health assessment at Public Inquiry.

Technical Assessments

Underwater Noise

- 1.3.35 The principal author of the underwater noise assessment is Josh Wilson (BSc) and member of the Institute of Acoustics (IOA). Josh is a Senior Acoustic Engineer at WSP and specialises in the assessment and prediction of underwater noise propagation and the subsequent impacts on marine fauna. Josh has 9 years' experience specifying, managing and delivering projects in various sectors including provision of inputs to EIAs for planning and DCO applications. Josh has been a contributing author to an offshore industry research project and subsequent guidance document on acoustic deterrent devices for the JNCC, and has also provided expert witness evidence for underwater noise applications on behalf of private sector clients. Josh has produced and peer-reviewed technical assessments and reports for underwater noise applications, for projects in the UK, Europe, Middle East and Asia.
- 1.3.36 The technical reviewer for the underwater noise assessment is Louise Beamish (BSc), a corporate member of the IOA and a board member and the vice chair of the Association of Noise Consultants. Louise is a Director and the Head of Profession for the acoustics team at WSP with 23 years' experience in acoustics consultancy. Louise has led a wide range of projects, including technical assessments for large scale EIA and DCO applications.