STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In re the Matter of Application of Anbaric Development Partners, LLC pursuant to Public Service Law Article VII for a Certificate of Environmental Compatibility and Public Need for the Juno Express Electric Transmission Facility.

22-T-0157

Exhibit 2

Engagement Letter, Budget, and Qualifications of Joel Kimber Ph.D.

HEATH & O'TOOLE
ATTORNEYS

Bridget O'Toole, Esq.

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May 9, 2023

VIA E-MAIL ONLY
Joel Kimber, Ph.D.
jelk3331@gmail.com

Re: Contract for Expert Consulting Services, Case No 22-T-0157, Application of Anabaric Development Partners, LLC for a CECPN for the Juno Power Express Transmission Facility

Dear Dr. Kimber,

Please let this letter confirm that you have agreed to provide expert consulting services to Heath & O'Toole PLLC and the Long Island Commercial Fishing Association ("LICFA"). Your expert services will assist LICFA, and its attorneys Heath & O'Toole PLLC (the "Firm"), in the Article VII proceeding for the Application of Anbaric Development Partners, LLC Pursuant to Public Service Law Article VII for a Certificate of Environmental Compatibility and Public Need for the Juno Power Express Electric Transmission Facility, Case No 22-T-0157 ("Juno" or "Juno Power Express").

LICFA desires your assistance in reviewing and critiquing the relevant application and settlement documents for Beacon Wind of the above referenced proceedings. A summary of your proposed services and a breakdown of costs are outlined below.

1. Provide expert review of the Applicant's studies related to marine impacts and EMF;

2. Provide needed context and scientific rigor to complement the information provided in the Juno Application and revisions thereto;

3. Participate in settlement discussions and provide expert advisory services therefor; and

4. Participate in an evidentiary hearing as relates to marine impacts and/or EMF if needed.

LICFA anticipates that you will conduct relevant research, and to potentially appear at any confidential stipulation conferences between the parties to the above referenced proceedings that might occur. Your written comments may also be required.

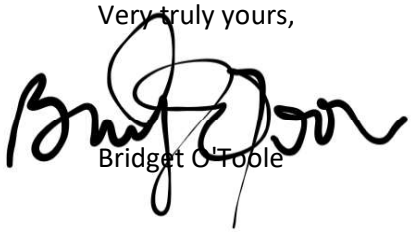
It is our understanding that you will provide the expert services described above to LICFA at the hourly rate of $200 USD.

Intervenor funds have not yet been awarded to LICFA so please do not begin work until instructed to do so. The Firm will submit all quarterly reports and vouchers to the Department of Public Service on LICFA's behalf. Please send copies of your monthly invoices to Jennifer@heathotoole.com for reimbursement. Once vouchers are paid for by the Department of Public Service (typically 30 – 90 days) a check will be mailed to you corresponding to your invoice and the voucher.

Finally, all communications between you and LICFA and/or the Firm are intended to be protected by the attorney-client privilege, and all other applicable privileges. As such, any reports, statements, documents, working papers, and/or other materials prepared for or related to the expert consulting services provided pursuant to this agreement shall not be disclosed to third-parties without LICFA or the Firm's consent. LICFA anticipates that the Firm will be your primary point of contact for this engagement. However, LICFA, and not the Firm, shall be ultimately responsible for paying your invoices.

We look forward to working with you on this matter.

Very truly yours,



Bridget O'Toole

cc: Bonnie Brady (***greenfluke@optonline.net)***

READ AND AGREED TO THIS
10th day of January 2023

Joel Kimber, Ph.D.

1. Marine Biologist Expert Budget - Joel Kimber

Estimated Time	Task	Rate	Cost	Sum
20 hours	Expert review of Applicant's studies related to marine impacts and related submissions including responses to information requests	$200/hr	$4,000.00	$4,000.00
10 hours	Obtain relevant data	$200/hr	$2.000.00	$6,000.00
15 hours	Prepare for and attend issues and procedural conference.	$200/hr	$3,000.00	$9,000.00
15 hours	Attend evidentiary hearing, if necessary	$200/hr	$3,000.00	$12,000.00
15 hours	Participate in and/or assist counsel with any conferences where technical issues related to marine impacts will be discussed.	$200/hr	$3,000.00	$15,000.00
Total	**ESTIMATED TOTAL COST FOR EXPERT SERVICE**			**$15,000.00**

DR JOEL KIMBER

EXPERIENCED AND VERSATILE MARINE ECOLOGICAL CONSULTANT

Nationality **British** *D.O.B.* **16.01.1978**

Phone **+44(0)7886 392508** *Email* joelk3331@gmail.com

Full member - **Chartered Institute of Ecology & Environmental Management**
- Marine Mammal Observers Association
Affiliate - **Institute of Marine Engineering Science & Technology**

EDUCATION

Year	Degree/Qualification	Institute
2009	**PhD Shark electroreceptive foraging behaviour** (Fisheries Society of the British Isles Studentship)	*Cranfield University & Marine Biological Association of U.K.*
2002	**MSc Tropical Coastal Management** - merit (50% Natural Environment Research Council Studentship)	*University of Newcastle*
2001	**Shark biology internship**	*Mote Laboratory, Sarasota*
1999	**BSc (Hons) Marine Biology** - 2:1	*University of Newcastle*

PROFESSIONAL HISTORY

2017 - Present	- MMT for Total Energy & Simply Blue Group - Gardline for Neo Energy - FUGRO for IOG, Statoil, ENI, Shell, National Grid & Alcatel - NIRAS for Tarmac, TEDA, Tideway, Orsted, Facebook & RWE - AMC Ecological for AECOM, RSK, BV & Mott MacDonald - Fircroft for SEIC - Ocean Ecology for Briggs Marine / SSE & RWE - Pelagica Ltd for Scottish Government - Carcinus for APEM / REPSOL	*Freelance Ecologist*
2014 – 2016	**- Centre for Marine and Coastal Studies Ltd** (CMACS)	*Senior Consultant*
2011 – 2014	" "	*Consultant*
2009 – 2011	" "	*Scientific Officer*
2005 – 2009	**- Cranfield University & Marine Biological Association U.K.**	*Doctorate*
2003 – 2005	**- Cranfield University & Port Erin Marine Laboratory**	*Research Assistant*
1999 – 2000	**- Johnson Matthey** (Quality Control)	*Laboratory Technician*

QUALIFICATIONS & CERTIFICATES

- **Passive Acoustic Monitoring Operator** (Seiche)
- **European Seabirds at Sea Observer** (JNCC)
- **Marine Mammal Observer** (JNCC)
- **Great Crested Newt License** (Natural England)
- **Animal (Scientific Procedures) Act 1986: 1, 2 & 3** (Institute of Biology)
- **Emergency First Aid at Work**
- **Both ENG 1 & UKOG Seafarer Medicals**
- **OPITO accredited BOSIET** (Basic Offshore Safety Induction & Emergency Training with Compressed Air Emergency Breathing System)
- **VHF Radio Short Range**
- **RYA Powerboat Level 2 & Intermediate**
- **PADI Rescue SCUBA diver**

KEY EXPERIENCE

Ecological Project Management

Working either as part of a team, as assistant project manager or as project manager to aid consent and implement monitoring of major marine and coastal developments including renewable energy, electrical transmission, aggregates & ports/marinas. Often with a number of different projects running concurrently and under tight financial and time restrictions.

- Bidding for tenders, project budgeting & invoicing.
- Scoping protected habitats and species (Annex I & II of EC Directive, OSPAR and UK biodiversity frameworks).
- Contributing to EIAs and Environmental Statements.
- Design, planning & management of monitoring programmes, mitigation measures and research projects.
- Formulating risk assessments for field work & ensuring adherence.
- Coordination of survey teams, freelancers, subcontractors, equipment & vessels.
- Coordination of analysts, mappers and technical specialists to ensure efficient delivery of reports.
- Liaison & consultation with statutory authorities to help discharge license conditions (including Marine Management Organisation, Marine Scotland, CEFAS, Natural England, Natural Resources Wales, The Crown Estate).
- Ensuring clients' needs and requests are fulfilled promptly while foreseeing issues early to aid preemptive action.
- Training junior staff in survey and reporting methods.

Reporting

Generating and disseminating a wide range of technical information for a variety of objectives and audiences.

- An understanding of environmental law, relevant EU and UK legislation and the protection afforded to sensitive species and habitats.
- Desk-based collation and interpretation of scientific information and preparation of literature reviews (e.g. for a number of monitoring reports, EIAs, an SEA, & a COWRIE review).
- Reporting the results of baseline habitat & species characterisation surveys
- EIAs: Identifying and assessing scale, extent and duration of potential worst-case scenario impacts of developments. Estimating the significance of effects upon receptors by assessing importance, tolerance, recoverability & hence sensitivity. Identifying data gaps and suggestion of mitigating measures.
- Contribution to Environmental Statements.
- Scientific survey methodology, risk assessments & daily reporting.
- Recording and managing large, sometimes complex data sets & undertaking uni- and multivariate statistical analysis (Excel, Minitab, Primer, Gradistat, Statistica, Genstat).
- GIS mapping (ArcGIS & QGIS) of survey data in relation to developments and protected areas, JNCC biotope assignment & mapping.
- Post-consent mitigation plans for protected habitats and species, distinguishing between natural variance and the effects of development, interpretation of results, interim & final reporting of post-construction monitoring.
- Publication of peer-reviewed papers & dissemination at international conferences.

Electro-magnetic field applied research

A specialist in elasmobranch (sharks, skates and rays) ecology, particularly with respect to interactions between these predators and electromagnetic fields (EMF) generated by subsea cables. I designed, managed and successfully completed a three-year PhD project to improve baseline knowledge relating to elasmobranch electroreceptive foraging behaviour, focussing upon discrimination ability, learning and memory. As a consultant, I designed, managed and undertook a tangle net survey to discern any effects of an offshore wind farm's EMF upon thornback rays (hoping to improve upon largely ineffective trawl surveys). I have written EMF assessments of invertebrates, both elasmobranch and teleost fish (including migratory salmonids and eels), turtles and mammals for a number of HVDC transmission connectors and offshore wind farms and contributed to reviews for COWRIE.

Surveying

Considerable capability and leadership when undertaking a diverse range of terrestrial, intertidal, coastal and open sea survey techniques, sometimes in very challenging environmental conditions, for a variety of industries and clients, including for protected habitats & species, sediments, birds, amphibians & reptiles, invertebrates, teleost & elasmobranch fish & marine mammals. (Please ask for relevant version of CV).

REPRESENTATIVE CONSULTANCY PROJECT EXPERIENCE

Scottish Government (2019 – 2020) Research Project
I worked for Pelagica Ltd on behalf of the Scottish Government. I analysed towed and ROV video footage and still images to record the abundance and diversity of benthic species in a variety of habitats, with particular attention on the tube worm, *Sabellaria spinulosa*, to investigate the status of Annex I biogenic reef and the applicability of current guidance in Scottish waters.

North Sea (IOG, Statoil, ENI & Shell, 2017-19) – Habitat characterisation surveys
Up to month long deployments on survey vessels throughout the North Sea managing and undertaking grab and drop-down camera/video surveys of seabed for a number of oil installations and Hornsea wind farm. The objectives were to identify sediment types, different habitats, protected species and delineate any observed Annex I reef features.

Burbo Bank Extension Offshore Wind Farm (DONG Energy, 2011-2016) – subtidal and intertidal benthic ecology, impact assessment, mitigation, monitoring & reporting
I was Project Manager for benthic ecology, working in close cooperation with my Director and the client's Project Manager with responsibility for planning approach and managing all subtidal and intertidal benthic field work, assessments, reporting, financial management and consultation.
Pre-consent 2011-13: I undertook a thorough desk review of current knowledge concerning the benthic ecology of the Project Area. I then designed, planned and coordinated the sub- and intertidal benthic ecology characterisation survey programme, which involved subtidal grabbing and 2m scientific trawling, and intertidal core sampling and walkover surveys. I then undertook the relevant EIA, wrote the benthic ecology chapter for the Environmental Statement and liaised between the client and authorities to aid consent.
Post-consent 2014–15: Having initially scoped sensitive and/or protected habitats likely to be present at the development site, I designed the pre-construction benthic ecology survey programme and subsequently coordinated the surveys. The objectives were twofold; to review recent geophysical data to update possible presence of protected habitat (especially stony and biogenic reef) and ground-truth any relevant features, and to obtain baseline sediment, in- and epifaunal data using grabbing and drop-down video techniques. I authored an Annex I habitat evaluation and liaised with the client's engineers to advise on mitigation of impacts upon stony reef features identified in close proximity of the planned export cable route. I also analysed baseline data and produced the benthic ecology pre-construction technical report and used both this report and the Annex I evaluation to generate a post-construction monitoring plan.

Western HVDC Link (Intertek for Scottish Power, 2011) & Moyle Interconnector (Intertek for Mutual Energy Ltd, 2013-14) – electromagnetic field impact assessments
I carried out assessments of the potential impacts of electromagnetic field generation associated with the installation of the Western HVDC Link and a reconfiguration of the Moyle Interconnector. This involved liaising with the National Grid and engineers to understand modelled magnetic field generation and electric field induction, comparing this data to the sensitivities of receptor animals and predicting potential detection distances and behavioural and physiological impacts. This information was then used to assess the significance of potential interactions and suggest mitigation. Receptors considered were invertebrates, both elasmobranch and teleost fishes (including migratory salmonids and eels), turtles and mammals.

Gabbard Offshore Wind Farm (SSE, 2009-13) – Post-construction monitoring & reporting
Having been involved with the offshore grab, camera and trawl surveys that formed part of the pre-consent characterisation programme, I subsequently helped manage the Year 1 post-construction programme. The programme included monitoring benthic sediments, infauna and epifauna using Hamon grab, drop-down camera and 2m scientific trawl techniques. I coordinated two shifts of biologists to operate on a 24-hour basis alongside geophysicists and crew whilst liaising with both clients and head office. Part of the remit was to establish the prevalence of the biogenic reef-forming Ross worm, *Sabellaria spinulosa*. Results were compared to both pre-construction characterisation and baseline data in an attempt to elucidate natural variation and determine any effects of the construction and operation of the wind farm upon benthic ecology. I also managed an ROV survey designed to investigate colonisation of the monopile foundations and identify any invasive non-native species (INNS). I analysed data, oversaw mapping and authored technical reporting.

Cranfield University (2005 – 2008) and CMACS Ltd (2009 – 2016) – Data management and statistical analysis
As part of my PhD at Cranfield University, I recorded a huge amount of data from elasmobranch behavioural experiments (multiple individuals, single and mixed-sex groups, numerous replicates and controls) over the course of two years, involving careful and methodical management. Following completion of experiments, I worked with a statistician to manipulate the data into optimal formats and undertake complex multivariate analysis using Genstat and Statistica software. Then, while working for the Centre for Marine and Coastal Studies, I recorded large data sets for benthic, fish, ornithological and marine mammal surveys, which also required meticulous management (particularly when gathered from historical sites previously surveyed by other companies, where data was merged to factor time and development vs natural variability). I utilised Excel, Minitab and PRIMER to analyse the data.

COWRIE (Cranfield University, 2004) - Literature review
I undertook a large-scale review of literature relating to the ability of marine organisms (invertebrates, elasmobranch and teleost fish, reptiles and mammals) to detect and utilise electro-magnetic fields (both anthropogenic and natural). The information was used to support a review of the potential effects of subsea cables associated with offshore wind farms upon sensitive organisms.

SELECTION OF PROFESSIONAL TECHNICAL REPORTS & PEER-REVIEWED PUBLICATIONS

- Pearce, B. & Kimber, J. (2020) The Status of *Sabellaria Spinulosa* Reef off the Moray Firth and Aberdeenshire Coasts and Guidance for Conservation of the Species. Scottish Marine & Freshwater Science. 11 (17): 100pp.

- 2016 – Gwynt y Mór Offshore Wind Farm. Investigation of the distribution of thornback rays, *Raja clavata*, in relation to wind farm intra-array and export cabling pre- and post-construction. 81pp. Prepared for RWE NPower.

- 2015 – Burbo Bank Extension Offshore Wind Farm. Annex I habitat mitigation and benthic ecology post-construction monitoring plan. 48pp. Prepared for DONG Energy.

- 2014 – Moyle Interconnector. Replacement metallic return conductors. Impact assessment of EMF upon subtidal marine ecology. 43pp. Prepared for Intertek Energy & Water Consultancy Services.

- 2013 – Greater Gabbard Offshore Wind Farm. Final post-construction monitoring report – sediments, benthic invertebrates & fish. 201pp. Prepared for SSE.

- 2013 - Burbo Bank Extension Offshore Wind Farm. Environmental Statement. Vol. 2 Chapter 12: Subtidal & Intertidal Benthic Ecology. 112pp. Prepared for DONG Energy.

Gill, AB, Gloyne-Phillips, I, Kimber, JA & Sigray, P (2014) Marine renewable energy, electromagnetic fields and electromagnetically sensitive marine organisms. Chapter 6 in: Marine renewable energy and the interactions with the environment (eds. MA Shields & AIL Payne). Humanity and the Seas series. Springer: 61-80.

Kimber, JA, Sims, DW, Bellamy, PH & Gill, AB (2014) Elasmobranch cognitive ability: using foraging behaviour to demonstrate learning, habituation and memory in a benthic shark. Animal Cognition. 17 (1): 55-65.

Kimber, JA, Sims, DW, Bellamy, PH & Gill, AB (2011) The ability of a benthic elasmobranch to discriminate between biological and artificial electric fields. Marine Biology 158 (1): 1-8.

Kimber, JA, Sims, DW, Bellamy, PH & Gill, AB (2009) Male-female interactions affect foraging behaviour within groups of small-spotted catshark, *Scyliorhinus canicula*. Animal Behaviour 77 (6): 1435-1440.

Gill, AB & Kimber, JA (2005) The potential for cooperative management of elasmobranchs and offshore renewable energy development in UK waters. Journal of the Marine Biological Association of the U.K. 85: 1075-1081.

Gill, AB, Gloyne-Phillips, I, Neal, K & Kimber, J (2004) COWRIE 1.5 The potential effects of electromagnetic fields generated by sub-sea power cables associated with offshore wind farm developments on electrically and magnetically sensitive marine organisms – a review. COWRIE-EM FIELD 2-06-2004. 128pp.

DR JOEL KIMBER - EXPERIENCED AND VERSATILE MARINE ECOLOGIST

Available for short & long-term deployments in the U.K. & overseas for benthic/environmental, MMO/PAM, fish, ornithology & intertidal surveys

Nationality **British** *D.O.B.* **16.01.1978**

Phone **+44(0)7886 392508** *Email* joelk3331@gmail.com

Full member - **Chartered Institute of Ecology & Environmental Management**
Associate - **Institute of Marine Engineering Science & Technology**

EDUCATION

2009	**PhD Shark electroreceptive foraging behaviour** (Fisheries Society of the British Isles Studentship)	*Cranfield University & Marine Biological Association of U.K.*
2002	**MSc Coastal Management** (50% Natural Environment Research Council Studentship)	*University of Newcastle*
2001	**Shark Biology Internship**	*Mote Laboratory, Sarasota*
1999	**BSc (Hons) Marine Biology**	*University of Newcastle*

PROFESSIONAL HISTORY

2017 - Present **Various clients** *Freelance Ecologist*

- MMT (OI) for Total Energy and Simply Blue Group Ltd
- FUGRO for IOG, Statoil, ENI, Shell, Alcatel, National Grid & Cairn Energy
- NIRAS for Tarmac, TEDA, Tideway / Ørsted, Amitié, Subcom, RWE & BT
- AMC Ecological for AECOM, RSK, Black & Veatch & Mott Macdonald
- Fircroft for SEIC
- Ocean Ecology for Briggs Marine / SSE & RWE
- Carcinus for APEM / REPSOL
- Pelagica Ltd for Scottish Government
- Gardline for Neo Energy

2014 – 2016	**- Centre for Marine and Coastal Studies Ltd** (CMACS)	*Senior Consultant*
2011 – 2014	" "	*Consultant*
2009 – 2011	" "	*Scientific Officer*
2005 – 2009	**- Cranfield University & Marine Biological Association U.K.**	*Doctorate*
2003 – 2005	**- Cranfield University & Port Erin Marine Laboratory**	*Research Assistant*

QUALIFICATIONS & CERTIFICATES

- **Passive Acoustic Monitoring Operator** (Seiche & MSEIS)
- **Marine Mammal Observer** (JNCC)
- **European Seabirds at Sea Observer** (JNCC)
- **Great Crested Newt License** (Natural England)
- **Animal (Scientific Procedures) Act 1986: 1, 2 & 3** (Institute of Biology
- **BOSIET with CA-EBS** (OPITO)
- **Both ENG 1 and UKOG Seafarer Medicals**
- **Emergency First Aid at Work**
- **Rescue SCUBA diver** (PADI)
- **Health & Safety for Operatives** (CSCS)
- **Powerboat Level 2 & Intermediate & VHF** (RYA)

KEY SURVEY SKILLS

- Leading toolbox talks & health & safety briefings, ensuring risk assessment & mitigation adhered to, efficient survey execution & adaptation, field reporting.
- Geophysical data review to identify Annex I habitats & identify ground-truthing targets.
- Seabed grab sampling for sediments, fauna & contaminants – Day, Hamon & Van Veen.
- Camera/video surveys: drop down, towed, clearwater, ROV & baited remote (BRUV) systems.
- Sub-sampling of ROV pushcores and vibrocores.
- Megafauna observation – marine mammals (inc. passive acoustic monitoring & theodolite tracking), sharks & turtles.
- Water column sampling: Niskin bottles, Valeport profiler & zooplankton trawls.
- Fish surveys: 2m scientific epifaunal & juvenile fish trawling, 4m beam & otter trawling, trammel & gill nets, long-lining.
- Shark tag & release population studies and sonic tracking.
- Ornithology – both vessel-based & terrestrial bird surveys.
- Intertidal habitat surveys (muds, sands, rocks, saltmarsh) – Phase I walkover, sieving for invertebrates, sediment coring.
- Snorkel & SCUBA diving surveys of coral reef habitat, organisms & fish eggs.
- Great crested newt (bottle trapping, torch, refuge, eggs & eDNA), reptile refugia & bat emergence & return to roost surveys.

RECENT SURVEY EXPERIENCE (2017-present)

Sept 2022 Three weeks off Peterhead, Scotland, aboard the Northern Franklin for MMT (Ocean Infinity) on behalf of Simply Blue Group Ltd undertaking reconnaissance drop down video and Day grab survey to support consent application of the Salamander Floating Offshore Wind Farm & feed into the EIA process.

July 2022 A month off northern Scotland aboard MV Relume for MMT (Ocean Infinity) on behalf of Total Energy undertaking marine mammal mitigation during reconnaissance geophysical investigation of the West of Orkney Offshore Wind Farm site.

June 2022 A fortnight in southern North Sea undertaking a large benthic grab survey aboard the Wessex Explorer for NIRAS consulting Ltd on behalf of SSE as part of the third (10yr) post-construction monitoring programme for Greater Gabbard Offshore Wind Farm.

Feb 2022 A month off northern Qatar aboard MV Pacific Grouse for FUGRO on behalf of Shell undertaking a large baseline monitoring programme (video, Van Veen grab, zooplankton trawls, Niskin water samplers & Valeport water profiler) for three proposed wells in the North Field.

Jan 2022 A week in southern North Sea aboard Cerys Line for NIRAS & A2Sea on behalf of BT undertaking a video survey to ground truth seabed types and locate Annex I habitats, particularly *Sabellaria spinulosa* reef.

Sept 2021 A month in central North Sea aboard Ocean Resolution for Gardline on behalf of Neo Energy undertaking marine mammal mitigation, habitat assessment & baseline monitoring (video & Day grab) along proposed Affleck to Talbot pipeline & Leverett site.

Aug 2021 A week at Sofia Offshore Wind Farm aboard DSV Curtis Marshall for Ocean Ecology on behalf of RWE undertaking clearwater lens camera, Hamon grab and BRUV (baited remote underwater video) pre-construction surveys.

2021 Four months (Apr-Jul) in Worcestershire for AMC Ecological on behalf of Mott MacDonald undertaking great crested newt habitat assessment & eDNA sampling for Habitat Assessment & mitigation programme for HS2 high-speed railway.

April 2021 A fortnight off Devon aboard Wessex Explorer for NIRAS on behalf of Subcom undertaking a video survey to locate pink sea fans to aid diver translocation prior to installation of a telecommunication cable.

Feb 2021 A month in central North Sea aboard Galaxy for FUGRO on behalf of Cairn Energy undertaking marine mammal mitigation, benthic habitat assessment & baseline monitoring prior to drilling operations.

Nov 2020 A month off NE England & SE Scotland aboard Venturer for FUGRO on behalf of National Grid undertaking marine mammal mitigation, benthic habitat assessment & baseline monitoring for the Eastern Link HVDC cable installation project.

Oct 2020	A month at Gwynt y Môr Offshore Wind farm aboard Aquatech Surveyor for NIRAS on behalf of RWE undertaking clearwater lens camera and Hamon grab survey as part of monitoring programme.
2020	Five months during Spring & Summer in Midlands for AMC Ecological on behalf of Black & Veatch surveying great crested newts and bats as part of the Habitat Assessment & mitigation programme for HS2 high-speed railway.
Jul & Aug 2020	Three separate projects off Devon and Isle of Man aboard Severn Guardian & Wessex Explorer for Niras & Fugro on behalf of Amitié, Subcom & Alcatel respectively undertaking video surveys to assess presence of pink sea fans, fragile sponges, mussel beds, maerl & scallops along fibre optic cable routes through MCZs.
Sept 2019	One month in Central North Sea aboard Skandi Hera for Carcinus on behalf of APEM & REPSOL. A large Oil & Gas decommissioning Habitat & Drill Cutting Assessment & baseline monitoring program (7 sites; 214 stations; >800 samples). Dual Van Veen grab (DVV), geoROV puschore & vibrocore samples, and ROV video analysis.
May 2019	One month off Orkney & Jura aboard Olympic Intervention for Ocean Ecology on behalf of Briggs Marine & SSE as lead MMO using Vanishing Point PAM. Marine mammal mitigation during ROV repair of subsea electrical cable.
Mar 2019	One month off Shetlands & Southern North Sea aboard Venturer for FUGRO on behalf of Total (MMO & Seiche PAM mitigation during geophysical surveys) & Shell (a large Habitat & Drill Assessments & baseline monitoring at 3 sites; 36 stations; ~350 samples using DVV grab & drop down camera) for the Oil & Gas sector.
Jan 2019	One week at Hornsea Offshore Wind Farm aboard MV Seazip for NIRAS on behalf of Tideway & Ørsted undertaking clearwater lens camera survey of export cable route.
Nov 2018	One week in Southern North Sea aboard Venturer for FUGRO on behalf of Shell as lead MMO, Seiche PAM & environmental scientist (DVV grab & drop down camera) undertaking an Oil & Gas Habitat Assessment.
Oct 2018	One week in Thames Estuary aboard Aquadynamic for NIRAS on behalf of TEDA undertaking environmental monitoring of an aggregate site using RSMP methods (mini-Hamon grab & clearwater lens camera).
Jun-Aug 2018	Two months on Sakhalin Island, far NE Russia for Fircroft on behalf of SEIC undertaking shore-based theodolite tracking of marine mammals using Mysticetus software. Combined research & mitigation program supporting 4D seismic oil & gas exploration.
Mar 2018	One month in Southern North Sea aboard Galaxy for FUGRO on behalf of IOG undertaking a large Oil & Gas Habitat Assessment & monitoring program. MMO & Seiche PAM during geophysical surveys & DVV grab & clearwater lens camera surveys.
Nov 2017	One month in Central North Sea aboard Galaxy for FUGRO on behalf of Statoil & ENI undertaking MMO & Seiche PAM during geophysical surveys & DVV grab & drop-down video surveys for Habitat Assessments and Monitoring.

PREVIOUS SURVEY EXPERIENCE SUMMARY (pre-2017)

Marine megafauna survey	Marine Renewables	Burbo Bank Extension (DONG) - MMO for mitigation aboard installation vessel during substation piling Lead MMO & assistant PAM operator for mitigation aboard secondary vessel during turbine installations: • Gwynt y Mór (NPower) • Lincs (Osiris/Centrica) • Walney I & II (DONG)
	Research	• Oceania humpback whale research (Hervey Bay, Australia) • Whale Shark Research Group (Placencia, Belize) • Basking Shark Society (Peel, Isle of Man) • Great White Shark Research Group (Cape Town, South Africa)
Benthic grab survey	Marine Renewables	• Burbo Bank (DONG) - Day • Burbo Bank Extension (DONG) - Day • Gwynt y Mór (NPower) - Hamon • Gabbard (SSE) – Hamon • Beatrice (SSE) - Hamon • Rhyl Flats (NPower) - Day • Walney & Ormonde (RSK) - Day • Lincs (Osiris/Centrica) - Hamon • Rhiannon (DONG/Centrica) - Hamon

	Oil & gas	Liverpool Bay (OSIRIS & EOG) – Day
	Nuclear	Ribble Estuary (Environment agency) – Van Veen
	Aggregates	• Hilbre Swash (ERM) – Day • Southern Irish Sea (Tarmac) - Hamon
Camera/video	Marine Renewables	• Walney & Ormonde (RSK) & Walney Extension (DONG) – Drop down • Gabbard (SSE) – Drop down & ROV • Lincs (Osiris/Centica) – Drop down & towed • Rhiannon (Centrica/DONG) – Drop down & towed • Burbo Bank Extension (DONG) – Drop down & towed
Fish survey	Marine Renewables	• Rhyl Flats (NPower) – 2m • Gwynt y Môr (NPower) – 2m • Aberdeen (OSIRIS) – 2m • Burbo Bank (DONG) 2 & 4m • Burbo Bank Extension (DONG) – 2m • Walney & Ormonde (DONG) – 2m • Irish Sea R3 (Centrica) – 4m beam • Gwynt y Môr (NPower) - Trammel nets
	Coastal Development	Nigg Bay, Aberdeen Harbour (FUGRO EMU) – 2m trawl
	Aggregates	Hilbre Swash (ERM) – 2m trawl
	Research	• Plymouth (Marine Biological Association of the UK) - Otter trawl • Port Erin Marine Laboratory (Cranfield University) - Gill nets • Various Florida locations (Mote Marine Laboratory) - Gill nets & long line
Intertidal survey	Marine Renewables	• Burbo Extension offshore wind farm (DONG) – sand Phase 1 & coring • Skerries Marine Current Turbine (MCT) – rocky Phase 1
	Coastal Development	Humber Sea Terminal (Simon Storage Ltd) – mud coring & saltmarsh boundary mapping
	Research	• Mersey Estuary SPA, RAMSAR & SSSI (Natural England) – mud & saltmarsh Phase 1 • Pegwell Bay, Ramsgate (The Environment Partnership) – sand coring • *Henricia* starfish identification study, NE British coast (University of Newcastle) – extreme low tide sampling
Ornithology	Marine Renewables (all vessel-based)	• Burbo Extension (DONG) • Barrow (DONG) • Ormonde (RPS/Vattenfall) • Walney Extension (DONG) • Walney I & II (DONG) • West of Duddon Sands (DONG)
	Coastal Development	• Humber Sea Terminal (Simon Storage Ltd) – shore-based • Birkenhead (Cammell Laird docks) – shore-based
	Conservation	Fowlmere, Cambridgeshire (RSPB) – river & woodland
Snorkel & SCUBA survey	Research	• Coral, algae & urchin cover; Jamaica (University of West Indies) • Fish reproduction study; Jamaica (University of West Indies) • Coral health; Tobago (University of Newcastle, Buccoo Reef Trust)
Water & physical	Coastal Development	Current & salinity monitoring at Humber Sea Terminal (Simon Storage Ltd) – long term, quarterly programme

FURTHER EXPERIENCE OVERVIEW

Ecological project management & reporting	Considerable experience assisting or overseeing program management to aid consent and implement monitoring and mitigation for major marine and coastal developments, including submitting tender bids, budgeting, scoping protected species and habitats, planning methodology, coordination of survey teams and liaison with clients and statutory authorities. Generating and disseminating a wide range of technical information for a variety of objectives and audiences, including literature reviews, fieldwork methodology and risk assessments, data analysis, biotope assignment, GIS mapping, monitoring interpretation and reporting, impact assessments, contributing to Environmental Statements, mitigation plans, peer-reviewed papers and presenting at international conferences.
Electro-magnetic field applied research	A specialist in elasmobranch (sharks, skates and rays) ecology, particularly with respect to interactions between these predators and electromagnetic fields (EMF) generated by subsea cables. I designed, managed and successfully completed a three-year PhD project to improve baseline knowledge relating to elasmobranch electroreceptive foraging behaviour, focusing upon discrimination ability, learning and memory. As a consultant, I designed, managed and undertook a tangle net survey to discern any effects of an offshore wind farm's EMF upon thornback rays (hoping to improve upon largely ineffective trawl surveys). I have written EMF assessments of invertebrates, both elasmobranch and teleost fish (including migratory salmonids and eels), turtles and mammals for a number of HVDC transmission connectors and offshore wind farms and contributed to reviews for COWRIE.
Laboratory work	• Sediment particle size analysis (PSA). • Intertidal invertebrate taxonomic sorting and identification using stereo microscopy. • Sample preparation and analysis with a variety of equipment and machinery & handling dangerous substances such as formalin & liquid nitrogen. • Shark stomach content analysis. • Shark foraging behavior studies.

SELECTION OF PROFESSIONAL TECHNICAL REPORTS & PEER-REVIEWED PUBLICATIONS

- 2022 – Salamander Offshore Floating Wind Farm. Baseline Reconnaissance Environmental Field Report. 37pp. Prepared for Simply Blue Energy Ltd.
- 2016 – Gwynt y Mór Offshore Wind Farm. Investigation of the distribution of thornback rays, *Raja clavata*, in relation to wind farm intra-array and export cabling pre- and post-construction. 81pp. Prepared for RWE NPower.
- 2015 – Burbo Bank Extension Offshore Wind Farm. Annex I habitat mitigation and benthic ecology post-construction monitoring plan. 48pp. Prepared for DONG Energy.
- 2014 – Moyle Interconnector. Replacement metallic return conductors. Impact assessment of EMF upon subtidal marine ecology. 43pp. Prepared for Intertek Energy & Water Consultancy Services.
- 2013 – Greater Gabbard Offshore Wind Farm. Final post-construction monitoring report – sediments, benthic invertebrates & fish. 201pp. Prepared for SSE.
- 2013 - Burbo Bank Extension Offshore Wind Farm. Environmental Statement. Vol. 2 Chapter 12: Subtidal & Intertidal Benthic Ecology. 112pp. Prepared for DONG Energy.

Pearce, B. & Kimber, J. (2020) The Status of *Sabellaria Spinulosa* Reef off the Moray Firth and Aberdeenshire Coasts and Guidance for Conservation of the Species. Scottish Marine & Freshwater Science. 11 (17): 100pp.

Gill, AB, Gloyne-Phillips, I, Kimber, JA & Sigray, P (2014) Marine renewable energy, electromagnetic fields and electromagnetically sensitive marine organisms. Chapter 6 in: Marine renewable energy and the interactions with the environment (eds. MA Shields & AIL Payne). Humanity and the Seas series. Springer: 61-80.

Kimber, JA, Sims, DW, Bellamy, PH & Gill, AB (2014) Elasmobranch cognitive ability: using foraging behaviour to demonstrate learning, habituation and memory in a benthic shark. Animal Cognition. 17 (1): 55-65.

Kimber, JA, Sims, DW, Bellamy, PH & Gill, AB (2011) The ability of a benthic elasmobranch to discriminate between biological and artificial electric fields. Marine Biology 158 (1): 1-8.

Kimber, JA, Sims, DW, Bellamy, PH & Gill, AB (2009) Male-female interactions affect foraging behaviour within groups of small-spotted catshark, *Scyliorhinus canicula*. Animal Behaviour 77 (6): 1435-1440.

Gill, AB & Kimber, JA (2005) The potential for cooperative management of elasmobranchs and offshore renewable energy development in UK waters. Journal of the Marine Biological Association of the U.K. 85: 1075-1081.

Gill, AB, Gloyne-Phillips, I, Neal, K & Kimber, J (2004) COWRIE 1.5 The potential effects of electromagnetic fields generated by sub-sea power cables associated with offshore wind farm developments on electrically and magnetically sensitive marine organisms – a review. COWRIE-EM FIELD 2-06-2004. 128pp.