

## ABL GROUP COMMITMENT TO MARITIME DECARBONISATION

### ABL Group's commitment to actively support the maritime decarbonisation and the energy transition to alternative fuels.

ABL Group have developed specialised in-house capabilities at pace with the evolving market requirements to provide comprehensive advice and technical support, driving the industry's target to reach net-zero GHG emissions by 2050.

Organisation like the IMO and governments globally are increasingly calling for action to be taken, but taking into consideration the wide variety of vessels, their different types and purpose, the solution is not that simple, and the sector is hard to abate.

#### OUR SERVICES

- Emissions audit, assessment & abatement (AAA)
- Alternative fuel and electrification
- Energy storage & cold-ironing
- Global surveyor footprint spanning +300 locations – minimising travel to site
- Shipboard carbon capture and storage (CCS) engineering & consulting

*"Our energy transition consultants are continuously gathering pace in developing our offering to support maritime decarbonisation with work in emissions AAA, climate change risk assessment and adaptation for ports, and alternative fuel engineering. Additionally, we continue to expand our surveyor footprint, adding expertise and new geographies, today spanning over 300 locations, to minimise travel time and reduce emissions."*

**MARK MCGURRAN**  
ABL GROUP MD, MARITIME

#### OUR EXPERIENCE



DESIGN OF EUROPE'S FIRST EMISSION-FIRST HYDROGEN FUEL-CELL SEAGOING FERRY



PORTOS – PORTS TOWARDS ENERGY SELF-SUFFICIENCY



7+ HYDROGEN AND ALTERNATIVE FUEL APPLICATIONS



BATTERY & FUEL-CELL TECHNOLOGY FOR SHIPS



COLD IRONING APPLICATIONS FOR PORTS



BATTERY ENERGY STORAGE SYSTEMS (BESS)





## Ports & Harbours

Ports and harbours are substantial contributors to Maritime's carbon and pollutant footprint, via both their direct and indirect emissions.

ABL – part of ABL Group - has been providing support for ports and harbours to play a meaningful role in the wider industry's decarbonisation, as well as in supporting global climate goals.

From developing a portal for calculating and tracking emissions on a routine basis in collaboration with Shoreham port to assessing solar-powered cold ironing, ABL Group stands at the forefront of decarbonising this key part of the maritime infrastructure.



## Alternative Fuels & Electrification

Through expertise in electrical engineering and marine-based green technologies including hybrid-propulsion, fuel-cell and battery technology, combined with Longitude's long-term vessel design and engineering expertise, group company Innosea's specialist capabilities in feasibility and analysis of marine renewables, ABL Group are highly experienced in supporting with the detailed concept design, engineering, analysis and integration of clean shipping systems for newbuild and existing vessels.

Our services cover support from early advisory and feasibility through to design and build, and subsequently marine and risk assurance.



## Emissions Audit, Assessment & Abatement (AAA) Consulting

ABL Group's global teams include a number of engineers and marine consultants, who specialise in marine emissions, as well as consulting on compliance and initiatives regarding numerous industry frameworks for maritime decarbonisation, as they come into play.

As such we are adept at providing fit-for-purpose advice on timings, solutions, implementation and integration of maritime decarbonisation principles into a company's decision-making, whether that be for a ship owner, charterer, port, shipyard, marine insurer or industry body with a clear understanding of financial factors and decision-making tools for maritime decarbonisation.



## Shipboard Carbon Capture and Storage (CCS) engineering and consulting

Through ABL Group's vast engineering expertise, we have been working on solutions to support shipboard carbon capture and storage as either a short or long-term solution to support the industry's decarbonisation goals.

Our engineering team offers services from feasibility through to design and construction to support CCS engineering and integration through group company Longitude Engineering including hybrid systems between shipboard carbon capture and storage and green fuels.



## Climate Change Adaptation and Risk Assessment

INNOSEA – as part of ABL Group - has been investing heavily in climate change adaptation and resilience, helping clients to de-risk their work across energy and oceans.

We have the relevant experience and capabilities to play a role in identifying what risks climate change poses to maritime infrastructure, and the related risk management to achieve the necessary climate resilience for future generations.



⚡ Feasibility Study on solar powered cold-ironing at Port of Mombasa



Investigation of two possible brownfield sites for the installation of solar photovoltaic (PV) plants to generate renewable energy powered shore power – or ‘cold ironing’ – at the Port of Mombasa, Kenya.

⚡ ABL to support maritime decarbonisation in the Maldives



ABL has been appointed by the World Bank to carry out a nation-level study on the strategy, regulatory framework and roadmap for decarbonising the maritime sector of the Maldives.

⚡ Longitude Engineering Helps Power New Greenpeace Vessel



Longitude Engineering has completed a project to provide alternative fuel systems engineering for a groundbreaking new vessel design by Dykstra Naval Architects, for Greenpeace International.

⚡ Green Hydrogen production barge concept for Harbour use



ABL Group conducted an innovative research and development project to develop a green hydrogen barge under the Clean Maritime Decarbonisation Competition (CMDC).

⚡ Hydrogen fuel-cell vessel project design



ABL Group was appointed by Caledonian Maritime Assets Ltd. to partner in designing an emission-free hydrogen fuel cell sea-going passenger and car ferry – a first for Europe as part of HYSEAS III, a horizon 2020 funder project.

⚡ PORTOS – Ports Towards Energy Self-Sufficiency



ABL Group has supported the European research and development (R&D) project PORTOS – Ports towards energy self-sufficiency, with its ‘Adaptation to Climate Change’ expert services. The aim of the project was to explore solutions to decrease greenhouse gas (GHG) emissions and air pollution at ports by integrating local marine renewable energy systems, whilst also increasing a port’s resilience for the future.



*“ABL Group has long been evolving its technical offering to support maritime stakeholders in meeting IMO2050’s objectives. Our comprehensive service portfolio in energy transition reflects our commitment to safeguarding and driving sustainability across the sector, from pioneering projects in designing zero-emissions vessels, to our proprietary software solution for emissions AAA monitoring and abating in ports and harbours. We are the industry’s trusted partner in decarbonisation.”*

**STEFANO SCARPA**  
ASSOCIATE DIRECTOR,  
MARITIME DECARBONISATION

# ABL Group

**ABL Group ASA – a global brand family combining energy, marine and engineering excellence to offer technical advisory, consultancy, and software solutions, driving safety and sustainability throughout the lifecycle of an asset or project.**

**ABL: The Energy & Marine Consultants.** Global, independent energy, marine and engineering consultant working to de-risk and drive sustainability across projects and assets in renewables, marine and oil & gas.

**Longitude Engineering: The Engineering Consultants.** Independent engineering, design and analysis consultants working across marine markets, renewables, oil & gas, maritime, small craft and defence, and infrastructure.

**OWC: The Renewable Energy Consultants.** Dedicated engineering, technical advisory and consultant for the commercial development of offshore and onshore renewable energy.

**AGR: The Energy & Software Consultants.** Multi-disciplinary engineering consultancy and software provider specialising in wells and reservoirs. We have the experience, agility and creativity to deliver a compelling solution that solves today and tomorrow's energy challenges.



## Global Partner. Local Expert.

Managed from our 4 central H&M hubs: London, New York, Dubai and Singapore, we offer local knowledge coupled with a truly global casualty response service, providing a service that is tailored to reduce the cost of the claim and of the casualty management.

With offices in 42 countries, every major maritime and energy hub worldwide, and a survey footprint in more than 300 locations worldwide, we are able to deploy a surveyor with the relevant competency to site in a moment's notice, anywhere in the world.



 **>42**  
COUNTRIES

 **>300**  
LOCATIONS GLOBALLY

 **>1500**  
PEOPLE

 **>2500**  
MARITIME INSTRUCTIONS  
ANNUALLY