The IMarEST Position on CLIMATE CHANGE
Climate change and its impacts are now unequivocally recognised by the majority of the global community as represented through the parties to the United Nations Framework Convention on Climate Change (UNFCCC).

Climate change causes long-term shifts in physical and chemical conditions of the oceans and an increase in the occurrence of extreme episodic events changing the marine environment and the ecosystems contained within it.

Climate change affects ocean temperatures, salinity and global wind patterns causing changes to the ocean conveyor belt and surface circulation.

Climate change is causing ocean acidification which is already having a devastating impact on ecosystems, particularly coral reefs.

Climate change is causing sea-levels to rise.

“The IMarEST believes climate change threatens the very survival not only of humanity but all life on earth. The climate has always been changing but the underlying natural processes governing that change are being fundamentally altered by human activities. Emissions of greenhouse gases such as CO$_2$ and land-use changes are exacerbating and accelerating the natural factors forcing climate change.”
Our commitments:

- To explore and deepen our understanding of the impacts of climate change.
- To evaluate and/or devise potential technical or policy solutions to lessen these impacts.
- To advocate through a range of governmental, non-governmental and industry bodies, and in this way inform the development of a meaningful, long-term response that will contribute to global efforts to address climate change.
We will do this by:

**Embedding** an understanding and **acceptance of climate change** throughout all of our professional and technical activities.

**Recognising** that global shipping is a contributor to climate change and to support global efforts to reduce greenhouse gases from shipping.

**Recommending** that the shipping community continues to develop radical solutions in order to move to zero-carbon fuels and technologies.

**Recognising** that effective **biofouling management is a proactive measure** to assist in the reduction of atmospheric greenhouse gases from shipping.

**Recommending** that vessel owners, policy-makers and other stakeholders take full account of the changing landscape as they formulate and take actions, both technical and policy-oriented, aimed at reducing the spread of biofouling species.

**Recognising** the **necessity to protect the marine environment** and to reduce the societal and economic impacts of harmful aquatic invasions whilst also **acknowledging** that this brings an **associated increase in greenhouse gas emissions from ballast water management** systems.

**Recommending** that the development and deployment of **ballast water technology and management approaches** seek to **minimise both invasion risk and energy consumption**.

**Recognising** that **offshore renewable technologies** – primarily wind but also wave and tidal power – **play an important role in reducing the global economy’s dependence on fossil fuels**.

**Recommending** that **policies are put in place to enable advancement of offshore renewable energy** and to overcome the barriers to implementation such as high development costs.
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