



"A sailing ship is no democracy; you don't caucus a crew as to where you'll go anymore than you inquire when they'd like to shorten sail. - Sterling Hayden

Blue Economy - Wave 67

(Series on "Blue Economy" By Capt. Gajanan Karanjikar)



Capt. Gajanan Karanjikar, Blue Economy Social Activist & Multi Modal Logistics Expert

Blue Economy and Ocean Energy (cont..)

Ocean energy systems are at an early stage of development, but technical advances may progress rapidly given the number of technology demonstrations. With the exception of tidal range energy, which can be harnessed by the adaptation of river-based hydroelectric dams to estuarine situations, most ocean energy technologies have not yet been developed beyond the prototype stage. Although basic concepts have been known for decades, if not centuries, ocean energy technology development really began in the 1970s, only to languish in the post-oil-price crisis period of the 1980s. Research and development on a wide range of ocean energy technologies was rejuvenated at the start of the 2000s and some technologies, specifically wave



and tidal current energy, have reached full-scale prototype deployments. Unlike wind turbine generators, there is presently no convergence on a single design configuration for ocean energy converters and, given the range of options for energy extraction, a single device design is unlikely.

Worldwide developments of devices are accelerating with a large number of prototype wave and tidal current devices under development. Government policies are contributing to accelerate the implementation of ocean energy technologies. Some national and regional governments are supporting ocean energy development through a range of initiatives, including R&D and capital grants to device developers; performance incentives for produced electricity; marine infrastructure development; standards, protocols and regulatory interventions for permitting; and space and resource allocation.

Ocean energy has the potential to deliver long-term carbon emissions reductions and appears to have low environmental impacts. Ocean energy technologies do not generate GHGs in operation and have low lifecycle GHG emissions, providing the potential to significantly contribute to emissions reductions. Utility-scale deployments with transmission grid connections can be used to displace carbon-emitting energy supplies, while smaller-scale developments may supply electricity and/or drinking water to remote communities. As shown by a review of a limited number of existing global energy scenarios, ocean energy has the potential to help mitigate long-term climate change by offsetting GHG emissions with

projected deployments resulting in energy delivery of up to 1,943 TWh/yr (~7 EJ/yr) by 2050.

Successful deployment will lead to cost reductions. Although ocean energy technologies are at an early stage of development, there are encouraging signs that the investment cost of technologies and the levelized cost of electricity generated will decline from their present non-competitive levels as R&D and demonstrations proceed, and as deployment occurs. Whether these cost reductions are sufficient to enable broad-scale deployment of ocean energy is the most critical uncertainty in assessing the future role of ocean energy in mitigating climate change.

\$100 per tonne emissions levy put forward by the Marshall Islands and Solomon Islands

NEW DELHI
Sagar Sandesh News Service

Upping the stakes ahead of this year's crunch Marine Environment Protection Committee (MEPC) meeting at the International Maritime Organization (IMO), the Marshall Islands and the Solomon Islands have put forward a proposal to establish a universal, mandatory greenhouse gas (GHG) levy with an entry price of \$100 per tonne/CO₂e with regular upward ratchets following review.

Current proposals to cut shipping's carbon footprint as inadequate

The two countries lashed current proposals being put forward to cut shipping's carbon footprint as inadequate.

R&D proposal works out at an extra \$2 per tonne of bunker fuel for shipping lines.

Wednesday saw a \$5bn



A \$5bn decarbonisation R&D proposal put forward by nine global shipping associations, endorsed by a host of IMO member states including Japan and Singapore works out at an extra \$2 per tonne of bunker fuel for shipping lines.

decarbonisation R&D proposal put forward by nine global shipping associations, endorsed by a host of IMO member states including Japan and Singapore. The R&D concept works out at an extra \$2 per tonne of bunker fuel for shipping lines.

Current measures under consideration by the MEPC are inadequate

"As global GHG emissions continue

to increase, we recognise that the international shipping sector must bear a proportionate responsibility for its share of GHG emissions. Current measures under consideration by the MEPC are inadequate to align the international shipping sector on the trajectory required to limit temperature increase to the Paris Agreement goal of 1.5 degrees Celsius. Our proposal helps to keep this goal in sight," commented the Marshall Islands' ambassador to Fiji, Albon Ishoda.

Marshall Islands and Solomon Islands proposal, cost competitive

The Marshall Islands and Solomon Islands proposal would make decarbonised shipping fuel and technologies cost competitive with business-as-usual emission-based technology options, Ishoda said.

The majority of the funds raised from the levy would help climate vulnerable countries meet different climate change adaptation and

mitigation needs. Another portion of funds would be directed to subsidise the research, development, and deployment of new technologies and fuels administered under the mandate of the IMO.

The proposal to the IMO claims that far more substantive mid-term measures must now be agreed promptly if they are to be defined and "shovel ready" by 2023.

The proposal also took aim at emissions trading schemes (ETSs), something the European Union is leading with others also contemplating this measure for shipping. The proposal hit out at the concept of an ETS as a "patchwork quilt", saying these schemes serve as a "poor substitute for a universal regime" likely to create widening inequity for the most disadvantaged nations and the climate vulnerable in particular.