## **SHIPPING REGIONAL**



"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.

## Blue Economy - Wave 68

(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..)

diverse range of potential applications Afor marine energy naturally fall within two thematic areas:

- 1. Providing power at sea to support offshore industries, science, and security activities, fitting the theme of Power at Sea
- 2. Meeting the energy and water needs of rural coastal and island stakeholders, fitting the theme of Resilient Coastal Communities.

Five of the applications identified in, are focused on providing power at sea



in off-grid and offshore locations. Three are concerned with meeting energy and water needs of remote, island, and rural communities (and military bases), on or close to land. For each market within these themes, a dedicated chapter investigates power requirements, market trends, incumbent technologies, geographic relevance, the value proposition for marine energy, and further research needs to be undertaken.

The RE resource in the oceancomes from six distinct sources, each with different origins and requiring different These sources are:

- 1. **Waves**, derived from the transfer of the kinetic energy of the windto the upper surface of the ocean;
  - 2. Tidal Range (tidal rise and

fall), derived from the gravitational forces of the Earth-Moon-Sun system;

- Tidal Currents, water flow resulting from the filling and emptying of coastal regions as a result of the tidal rise
- Ocean Currents, derived from wind-driven and thermohaline ocean circulation;
- 5. Ocean Thermal Energy Conversion (OTEC), derived from temperature differences between solar energy stored as heat in upper ocean layers and colder seawater, generally below 1,000 m;
- 6. Salinity Gradients (osmotic **power),** derived from salinity differences between fresh and ocean water at river
  - 7. Marine biomass

-production of biofuels from seaweed and/or algae

Sustainable Energy Triad

The potential of ocean energy is in absolute terms, it is not related to a certain period. It is what we think could be the maximum deployment of the technology.

All ocean energy technologies, except tidal barrages, are conceptual, undergoing R&D, or are in the pre-commercial prototype and demonstration stage. The globally distributed resources and relatively high energy density associated with most ocean energy sources provide ocean energy with the potential to make an important contribution to energy supply and to the mitigation of climate change in the coming decades, if technical challenges can be overcome and costs thereby reduced.

## RoRo services In Odisha soon; agreement signed

NFW DFI HI Sagar Sandesh News Service

hose who prefer to commute in an economical way will be able to do so as the Odisha government today signed a memorandum of understanding with the Inland Waterways Authority of India (IWAI) to launch roll on/roll off (RoRo) vessel services.

As per the MoU, RoRo vessel MV Bhupen Hazarika will operate between Satapada under Krushnaprasad block and Janhikuda in Puri district. The agreement was signed during a programme at Kharvel Bhawan in Bhubaneswar today afternoon.



The MoU was signed between IWAI Chief Engineer SVK Reddy and Director of ports Padma Lochan Roul

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Commerce and Transport Minister during the occasion.

Padmanabha Behera, IWAI Chairperson Amita Prasad, Secretary Madhusudan Padhi and senior officials were present

