

4th International Seminar on Energy and Shipping, IENE/Posidonia
Metropolitan, Friday 8 June 2018, 12.30-16.30 (Seminar Room Central)

Opening Remarks by John Chadjivassiliadis, Chairman of IENE

Dear Colleagues, Ladies and Gentlemen, Good Afternoon!

On behalf of IENE I welcome you to the International Seminar on “**Energy and Shipping**”, organized in cooperation with “Posidonia”.

The European and Global Strategy in Energy and Environment is dealing with sustainable energy systems of zero or low CO₂ emissions in the fight against global warming. Therefore, the energy is in a dynamic situation in all sectors due to the transformation to sustainable energy and has a long way to go during the 21st century. In the shipping industry, energy is the moving force with the fuel by far the largest cost in its services. The evolution from the wind and human power to the industrial revolution with steam engine and then diesel engine leads today to modern and advanced propulsion technologies.

In addition, shipping has a strong involvement in the energy sector worldwide by transporting within and between continents large amounts of coal, crude oil and oil products, LNG and others, with very important role in the security of energy supply for the destination countries.

In these services of shipping, the impressive results in the protection of the marine environment and marine life should be emphasized.

For thousands of years shipping is the main contributor for trade and culture among the people globally. Maritime transport has been the key tool for economic development and prosperity throughout the history, and the significant contribution of shipping to the Greek economy should be underlined.

Shipping, the most efficient transport mode, is the cornerstone of global trade, enabling import and export on a great scale. Today, around 90% of world trade is carried out by the international shipping industry. Moreover, an increase in demand for maritime transport is projected due to population growth and the expected global economic development.

According to “Paris Climate Agreements” and the global need to reduce CO₂ emissions, the formulation of a global CO₂ reduction strategy may pave the way for greener and low-emission shipping to reduce the ecological footprint of the shipping industry by 2050. Although shipping industry contributes with a small percentage to the total global emissions of CO₂, around 3%, the shipping industry recognizes the need to have a global CO₂ reduction policy, well below the 2008 level, although an increase of maritime transport is projected.

Last April an agreement reached by the IMO, the International Maritime Organization, provides that global shipping must at least halve its CO₂ emissions by 2050. Negotiations during the next five years will lead to a package of measures to fulfil the target, delivering a final strategy in 2023 in the light of new technology developments, while at the same time safeguarding the role of shipping in the world economy.

Towards the target for reduction of CO₂ emissions, the improvement of energy efficiency of the fleet to save fuel, especially for newbuild vessels, should be the first step, providing continuously monitoring. New ideas and continued innovations combined with skilled human resources are the driving forces for CO₂ and cost reduction.

Efforts in the development of innovations for greener and low-emission shipping are dealing, among others, with the use of LNG as fuel in the fleet, which offers a low-emission and environmentally friendly alternative to conventional fuels in shipping. Natural gas is a new energy carrier in the energy sector and further expansion of its use and domination during the 21st century should be expected.

In this aspect there are continuously actions by the manufacturers to introduce the LNG in the engines and solve the escape of methane problem reducing methane slip. Moreover, infrastructures for LNG transfer and supply in the ports should be developed.

The Sulphur content of the bunker fuels should be reduced further from 3,5% global cap today to 0,5% from January 2020. The successful implementation of the new global cap in SO₂ will bring benefits to the environment and the population especially in the coastal areas, improving the quality of life. Sufficient quantities of compliant fuel should be produced by the refining industry and be available in time to the shipping industry worldwide. However, the new global cap in SO₂ has significant economic impacts due to additional fuels costs.

The reduction of the NO_x emissions is regulated by the IMO in some areas, introducing severe regulation for newbuilds from 2021. In the agenda of IMO is also the regulation of the black carbon emissions.

Electricity, which is in transition, is becoming the main energy carrier with new areas of applications, almost everything becomes electrified, such as the transport. New technologies in power generation by wind and solar with competitive cost, combined with storage facilities, lead to clean and sustainable energy systems.

Thus, there are new challenges to power the shipping industry by electricity, the electric propulsion by the batteries, environmentally friendly with low cost. Recent applications for coastal services in some countries show the way for sustainable maritime and low cost. Some integrations of renewables in ships are already in use for coastal lines. Photovoltaic applications and small wind turbines produce electricity and charge the batteries to cover the energy needs when the ship is in the harbor, without the service of the diesel engines and partly to contribute in propulsion.

Following the new rules, it seems that shipping industry is in transition for a long period regarding the energy use for propulsion and higher cost. In this transition the appropriate measures are needed to safeguard the competitiveness of the Greek and the European shipping industry.

New and advanced energy technologies and information and communication technologies, the ICT, must be introduced progressively in the shipping industry, towards the 4th industrial revolution, while encouraging further R&D activities in the field for better economic and environmental results. Moreover, the education for skills in new technologies for shipping should be emphasized.

The shipping community has the capacity to contribute for a sustainable world and global economic development in the new environment, considering some initiatives and for the appropriate measures, adopted for global applications.

Thank you for your attention!