2nd IENE Colloquium on "The Geopolitics of Energy Transition" "Giannos Kranidiotis" Auditorium, Ministry of Foreign Affairs, 1 Akadimias Av., Athens, Tuesday March 5, 2019

Introductory Remarks by Mr. John Chadjivassiliades, Chairman of IENE

On behalf of IENE I welcome you to the 2nd Colloquium on "Energy and Geopolitics", under the specific theme "The Geopolitics of Energy Transition", organized under the auspices of the Hellenic Ministry of Foreign Affairs.

Fossil fuels and especially hydrocarbons have been the foundation of the global energy system and main drivers of the global economy. These highly important energy sources, oil and gas, became the main energy sources during the 20th century and continue to dominate in the 21st, while the exploration and the exploitation of hydrocarbons are shaping the geopolitical environment of the modern world.

Our region, characterized mostly by lack of local production, is dependent from oil and gas imports, and some countries are heavily dependent, such as Greece >73%, Turkey 75%, Cyprus >96%, with significant impact on the economy and the security of energy supply.

As tackling climate change becomes more and more critical, the energy sources powering our societies and economies have been undergoing a period of rapid change. Fundamental changes are taking place in the global energy system towards sustainable energy of zero or low CO_2 emissions, which will affect almost all countries with wide-ranging geopolitical consequences.

The energy transformation will be one of the major elements that reshape geopolitics in the 21st century.

Renewables have emerged as a technologically feasible and economically attractive choice that progressively increase their capacity to meet the energy needs of many countries.

The global energy transition to sustainable energy sources will continue to accelerate and this energy transformation driven by renewables could bring changes with significant impact.

The rapid development of renewable technologies and their widespread deployment is certain to have significant long-term effects on geopolitical dynamics.

This global energy transformation is already becoming a major geopolitical force, changing the power structures of regions and states and bringing the promise of energy independence.

Electricity, driven mainly by renewables, is becoming the main energy carrier in Europe and soon globally, with new areas of applications and increasing

demand, almost everything becomes electrified, such as the transport, heating/cooling etc.

Natural gas is another energy carrier in the energy sector and further expansion of its use and domination worldwide during the 21st century should be expected. Significant amounts of natural gas are used for power generation to substitute coal towards low CO2 emissions, in parallel with high penetration of renewables.

Moreover, new uses of LNG in transport and shipping is becoming increasingly important.

Therefore, as SE Europe is close to major eastern oil and gas producers' countries and the East Mediterranean gas deposits, its geopolitical position is unique, acting as energy corridor for the EU.

In addition, there are good prospects for oil and gas deposits in some promising areas in SE Europe and the East Mediterranean, with significant implications for geopolitics.

However, a possible consequence of the energy transformation driven by renewables, will be to reduce the geostrategic importance of oil and gas as tools of foreign policy, because the supply of energy will no longer be the domain of the supplier countries.

The high penetration of renewables will increase electrification and stimulate cross-border trading in electricity. Variable renewable sources of electricity, such as wind and solar, require flexible and resilient power systems.

Large interconnections between countries and regions, both for electricity lines and natural gas pipelines can effectively meet the needs for flexibility and market operation, as well as for security of energy supply, without ignoring their geopolitical implications.

A huge amount of investment is needed during the next decades for the development of the future electricity and gas networks with storage for clean energy and more efficient European network and market operation.

We are moving to a more interconnected world, and the concept of Supergrid and Global Grid, Gas Hub, is at the beginning, with positive influence in the market and the international cooperation.

The energy transition is occurring alongside digitalization of energy with exciting opportunities for clean and affordable energy. However, the growth of digitalization and communication technologies in the energy sector can raise security risks.

Cybersecurity threats to the electric power network have become increasingly serious in recent years and the international cooperation is rendered necessary.

Efforts in technology development may contribute to a more sustainable world in the future. An important aspect of the power sector based on cheap

wind and solar electricity in the future is the transformation of "power to gas" and "power to liquids" for a neutral CO2 emissions world and prosperous future, with profound geopolitical consequences.

The transition will generate considerable benefits and opportunities. It is not so much only a technology challenge, but in parallel a regulatory challenge, for a plan and policy clarity, considering the geopolitical consequences.

Our efforts at IENE is to analyze and give a comprehensive perspective on the future energy system and how the energy transition should be implemented and shape the geopolitical map in the region, which are the most exciting challenges.

Thank you for your attention!!