



*Opening Address by **Mr. Michalis Verroioopoulos**, Secretary General for Energy and Mineral Resources, Ministry of Environment and Energy, Greece*

First of all, may I wish to thank IENE for the invitation. It is commonplace to say that we are now in the midst of a transition in the global energy sector. What is not commonplace, but surprising is the speed at which this change is currently taking place, a speed that “tracks” the challenge of Climate Change and, consequently, the policies required to reduce the consumption of fossil fuels. This will primarily benefit those states that will be able to create and have innovative technologies in energy production, storage, management and consumption. In the near future, the consumer will be at the epicenter of the energy system and not the producer. And the consumer will be enhanced by a smart information network. Therefore, the need for the establishment of Greece’s national energy roadmap is obvious on the basis of explicit parameters such as the security of supply, the social consensus, the environmental sensitivity, the development prospects and the affordable energy costs, among others.

Allow me today to highlight some aspects of Greece’s energy reality. This includes issues that are of high importance for the newly formed National Committee for Energy and Climate Change (ESEK) and the related energy planning process. Undoubtedly, over the last three years, Greek energy landscape has demonstrated great achievements and strong initiatives for the required reforms. Among others, these include: the new RES supporting scheme, the new dynamism for hydrocarbon exploration and exploitation, the creation of energy communities, the imminent establishment of four new electricity markets, based on EU’s Target Model, which will support the newly

created Energy Exchange, the liberalization of retail gas market, the privatization of the Independent Gas Transmission System Operator (DESFA), the unbundling of the Independent Power Transmission Operator (IPTO) and the implementation of the successful “Energy Saving at Home” energy conservation programmes.

But there are few other aspects. On the strength of current data, energy demand will not increase at least until 2023-25, mainly as a result of the modest economic growth and the deterioration of the country's demographic position. The mild energy demand growth rate, combined with energy saving measures, appears to prevent the large-scale investments in energy production at least on a short-to-medium term. This should make us think very carefully of the most efficient way in order to use the already invested capital in existing energy infrastructure, whether it concerns production units, networks or refineries or even our building stock. In practice, this means careful and correct timing in the setting up of new RES installations, a factor that will take into account the cost of all different energy technologies. It thus appears that RES will dominate electricity generation, but gradually and linearly throughout the 2020-30 period.

Also, the support for existing thermal power plants, either gas- or lignite-fired, is necessary. Let's be realistic, thermal power plants should be rewarded for the services they offer, whether they concern power availability or system flexibility and resilience. The reward for these services must be and will always be competitive and economically viable for the market. The careful planning of the gas market and the rigorous regulatory supervision is necessary, especially now that DESFA to be privatized. The rapid construction of gas distribution networks in the country's major cities, where the use of natural gas generates added value, as well as the careful and well-balanced decisions for future infrastructure investments is more than essential.

Geopolitical upheavals, combined with the possibility of a trade war, should make us think about two key issues regarding natural gas. First, to what extent do we want the gasification of our energy system, given that Greek hydrocarbons have not been exploited so far? Second, what is the best gas mix in terms of route and origin? How much of this mix is influenced by political developments and how much of it is suitable for commercial purposes?

With the exception of RES and perhaps electric mobility, the majority of the global energy investments over the next time period will be directed to smart energy management, savings and networks. From this investment “wave”, Greece must benefit as much as possible in terms of local added value. However, the likely increase of this added value is not enough and that is why relevant policies are required to be described in detail and introduced in the national energy planning. Let me mention two of them. As IEA’s Executive Director Dr. Fatih Birol said, first priority is the energy efficiency and energy savings, in which, as we all know, the country has considerable expertise. Therefore, the bulk of the investments should be directed in these sectors. Greece’s current energy planning refers to a radical energy upgrade of 25,000 homes per year. However, this is not enough to meet EU’s 30% target, let alone 32%. It is required from 2025 at the latest, the rate to be increased at 50,000 homes per year and this practically means investments of more than €1 billion per year, with 90% of them to be invested in the country. Secondly, large and far-reaching investments in networks can be easily financed through loans. However, investments in traditional or smart grids must also contribute to increasing local added value. It is unbelievable that throughout this process of global energy transition our country will simply become a recipient of energy products imported from the abroad! Hence, energy companies, including operators, will be encouraged and supported in developing structured research projects and innovative products and services in cooperation with our

universities and high-valued small- and medium-sized private companies that have related experience.

Over the next decades, the dominant fuel will be derived from our decisions and plans of today. Looking ahead, I believe that Europe and the US will move slowly away from internal combustion engines since large parts of their economies rely on them. So, we should not be surprised if the penetration of electric vehicles does not happen as fast as it is now expected despite the fact that they will definitely be the future. The intensity of the energy transition does not seem to be in line with Brussels' targets. From Greece's point of view, although a significant part of our energy sector and our economy is linked to the refining and trading of petroleum products, we must not forget that our gain as a country is undermined to a certain degree from the lack of a corresponding industrial base. Nevertheless, the electrification of heating, combined with electric mobility, will constitute a major shift in the global energy landscape. This means that before 2030 we need to have sufficient power generation capacity and networks in order to meet the needs of rising demand. Our refineries, if they want to survive, should become innovative centers of production of all kinds of energy; from the production of advanced biofuels to the production of batteries, hydrogen cells, alternative fuels, etc. As much as they are planning to invest in their extrovert approach, which is right, and by becoming more competitive in new markets, this alone is not enough if it is not combined with their ability to provide new innovative products beyond the traditional petroleum products.

Ladies and gentlemen, the global energy landscape is now changing. The question for our country is whether we will be able to act in unison by considering above all our energy security, the need for affordable energy, a cleaner environment, economic growth and prosperity of the society, in general.

With these words, I would like to thank you once again for today's invitation.