

# Key Challenges for the Integration of the Internal Energy Market

**John Chadjivassiliadis**  
**Chairman of IENE**

## Priorities of the Greek Presidency

- Promotion of the European policies in energy and climate change for the period beyond 2020, discussion in the European Council the 4<sup>th</sup> of March
- The energy prices and the competitiveness of the European economy, should be discussed in the European Council in the 4<sup>th</sup> of March
- The energy cost for the residential consumers and any measures for the vulnerable consumers
- Integration of the internal energy market, to be ready by the end of 2014
- Security of energy supply and energy infrastructure, to be discussed during the informal European council of May in Athens
- International relations in the energy sector, it would be a subject for discussion in the Council of June
- Investigation for possible political agreement on the indirect land use change (ILUC) impacts of first and second generation biofuels
- Adoption of the modification of the Directive for nuclear security, which is now under discussion in the Working Party on Atomic Questions

# Adjustment of European Energy Policy

- The European and Global Strategy in Energy and Environment is dealing with sustainable energy systems of zero or low CO<sub>2</sub> emissions
- The security of energy supply and economic development require the exploitation of the indigenous energy sources, with priority to RES, reducing Europe's dependence from energy imports
- Good example the new strategy in the USA to become autarkic in energy with serious geopolitical, economic, environmental and social benefits
- Europe needs urgently a similar initiative for a sustainable, competitive and secure energy future
- New ideas and innovative technologies combined with skilled human resources may pave the way to a clean and affordable energy for the next generations

# Technological and Economic Dynamics of Natural Gas

- Natural gas is an important energy carrier with impact to electricity price
- The South Corridor could be another route to supply gas to Europe improving the security of energy supply and competitiveness
- Existing gas storage facilities contribute to security of energy supply and prevent high volatility of gas prices
- Big differentiation between prices in the natural gas markets in the EU
- Interconnectors IGB and IGI with reverse flow capability are provided
- IENE initiative for the creation and operation of a **Regional Gas Price Hub**
- The operation of such a gas price hub is expected to contribute towards NG price convergence for the benefit of the consumers
- Good prospects for oil and gas deposits in some promising areas in Europe

# The electricity market with increasing RES penetration

- In Europe, from 21% RES-e today to 34% by 2020 and >80% for 2050
- The interconnected European system consists of the national transmission systems with barriers in transfer capacity and of high network charges
- High volatility of the prices due to solar and wind power of intermittent character and negative impacts to the conventional power units
- Feed-in tariffs or other subsidies combined with obligatory dispatching of RES cause a distortion to the market
- Integration of markets with reliability is an important requirement
- The market coupling platform may lead to the future of Europe's power markets, competition and cross border trade, unification of EU markets
- Norway very helpful with its high hydro potential, acting as a storage battery for Europe to manage the high volume of RES generation

# Future electricity networks and market

- Electricity, main energy carrier in Europe, has a long way to go during the 21<sup>st</sup> century in the transformation of the networks and the market
- The transition needs a reasonable time, avoiding any hurried action to replace immediately the fossil fuels through very ambitious targets
- Flexibility in power generation, in transmission and distribution networks and in demand, forecasting models and management tools
- Large interconnections of regions with HVDC/VSC technologies and storage for the management of RES-e and operation of the market
- Development of transmission markets and policies for Investments, EU level involvement is required
- Huge amount of investment is needed during the next decades for the development of future electricity networks
- R&D actions with more integrated structure, e.g. SunShot in the USA
- Road Map for Infrastructure Investments and market design, congestion hedging, rules for RES-e day-ahead market, hour-ahead market etc

# Conclusions

- European policy should be oriented towards the reduction of Europe's dependence from energy imports
- Europe is running towards a single power market for higher liquidity and competition, reducing barriers to cross-border trade
- ACER, ENTSO and harmonised network rules contribute to a more efficient European network and market operation
- High RES-e penetration require network and market transformation adapted to the dynamics of the electricity, new ancillary service markets covering a wider range of needs
- Road Map for Infrastructure Investments and market design, future grid and concepts for modernization of the network, EU support

# Thank you for your Attention

[chadjiva@gmail.com](mailto:chadjiva@gmail.com)

[www.iene.eu](http://www.iene.eu)