

The 9th IAAE European Energy Conference “Energy Markets and Sustainability in a Larger Europe”

The sustainability of the European Energy system, under its economic, social, technological and environmental aspect, is certainly a topic of great controversy, especially after the recent widening of the European boundaries to include the eastern countries. Whilst the solution at a regulatory and technological profile seems to be close at hand, the efficient and effective implementation of such solutions seems to be still very far; a situation due not only to the market failures but also, and in the first place, to the failures of the political class.

“Energy markets and Sustainability in a Larger Europe” was the theme to the 9th IAAE European Energy Conference organized by AIEE (Italian Association of Energy Economics) at the Grand Hotel Baglioni in Florence, from June 10th to the 13th. The Conference was a proper occasion to evaluate the position Europe is in with regards to the objectives of Sustainability and to define which choices should be pursued in the near future. The more than 350 students, participants and researchers coming from all around the world allowed addressing a number of energy related topics with representation for all the different interests at play.

The first plenary session focused on “Economics of Energy Efficiency”. Chairing this session, **Pippo Ranci**, Director of the Scuola di Regolazione di Firenze, had some very interesting thoughts. Amongst others he mentioned how efforts to improve efficiency in both the energy industry and the final uses lead to certain substantial benefits regarding not only cost reduction, a diminished dependence on energy importation and supply security but also to a greater protection of our environment. Concerning the measures that lead to an increase in energy efficiency of the final uses, given that some of these “pay for themselves”, others need to be subsidized in a way that allows for a simple understanding, an easy administration and adjustability, such that in the long run the incentive may have a stable structure in order to favour the decisions made by the operators.

The potential of energy saving in the various industries, starting with the real estate one, was quantified by **Eberhard Jochem**, Professor for the Centre for Energy Policy and Economics (CEPE) and the ETH Zurich. According to the Professor, the path leading to efficiency is still very long, even if the benefits deriving from a more efficient energy conversion, in most cases, greater than the co-benefits. The latter include the increased efficiency of final uses, the decreased environmental and social costs (as a result of the decrease in public health related problems), the increased opportunity of exporting goods with a high efficiency rate and the low costs of adapting to the climatic changes (especially through co-operation on an international level)

According to **Ana Palacio**, Senior Vice-president of the World Bank, for the construction of a larger Europe energy is not only the most important topic but also a key element in Europe’s future strategic decisions. She stressed how the energy “problem” is always more of international dimensions and yet how it is very hard for the countries involved to reach a common solution; an outcome probably due to the lack of co-responsibility towards such issues. Today, however, it is of great importance to focus our strengths in obtaining an increase in energy efficiency, a necessity in order to face the climatic changes affecting the environment.

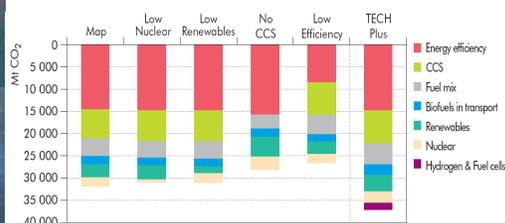
Claude Mandil, General Director of the International Energy Agency, stressed the potential of energy efficiency in neutralizing issues regarding security of supply and CO₂ emissions. According to any scenario of a number taken into consideration by the IEA, development of strategies towards energy efficiency lead to a decrease of at least 50% in CO₂ emissions until 2050.

He also emphasized how in the years between 1973 and 1990, i.e., in the years following petrol-shocks, the strategies activated towards energy efficiency proved to be more effective than those implemented in the following 15 years.

Concluding his presentation Mandil pointed out the need for energy policies considering that certain barriers to the development of energy efficiency call for regulatory intervention in order to “restore the direct link between customer and price signal”. Such effort will require continuous work and systematic analysis of end uses, as well as new technology, policy, and engagement of stakeholders and experts.



CO₂ Emission Reductions by 2050 Where is the Potential?



Energy efficiency is the single largest contributor to CO₂ reductions – and cost-effective

The second plenary session was dedicated to “Security of Supply”. **Richard F. Guarrant**, European Marketing Director for Exxonmobil Gas&Power, and **Massimo Orlandi**, CEO of Sorgenia, both spoke of how through a more liberalized and more competitive GNL market it would be possible to lessen geopolitical risks and increase the level of competition. By opening the market to competition investments would be stimulated, unlike the present situation where clearly there is a lack of such assets throughout the entire GNL value chain, going from the production level to the commercial one.

Particularly, Guarrant discussed the perspective of GNL on a global scale. According to the projections, from now until 2030 an increased capacity of gas importation will be necessary for all regions of the world (USA, Europe, Asia) to cope with a demand growing at an estimated rate of about 1.7% annually, superior to the 1.6% estimated growth rate of demand of primary sources.

Focusing on the Italian situation, Massimo Orlandi emphasized how new pipeline projects that are currently being developed could satisfy the Italian demand increase for natural gas but at the same time make it even more dependant on countries such as Russia and Algeria (from an estimated 61% in 2006 to a 71% in 2015). Also, it would lead to an even more concentrated national market, where ENI, ENEL and Edison already control 70% of it. These predictions highlight the need for new GNL terminals in Italy, with new infrastructures developed by new operators, not incumbents, and new supply deals with other countries may very well contribute to a more open gas market.

In the session “A Wider EU Energy Markets”, **Lord Howell of Guildford** commented through a wider perspective on the most relevant issues on a global scale. In his opinion, the gap between what the different governments of the world claim to be their objectives and reality is so big that in itself it is sufficient for a worsening of the issues at hand. Furthermore, the constant build up of geopolitical tension in certain “hot spots” around the world is certainly a contributing factor.

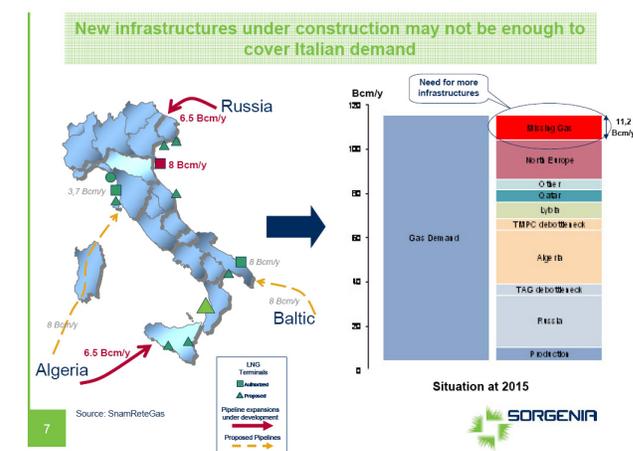
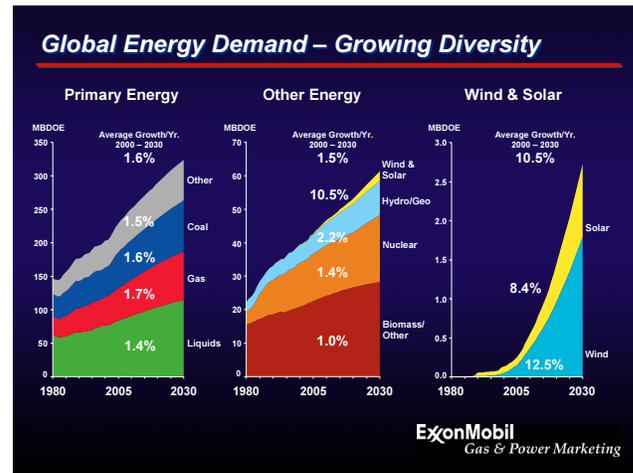
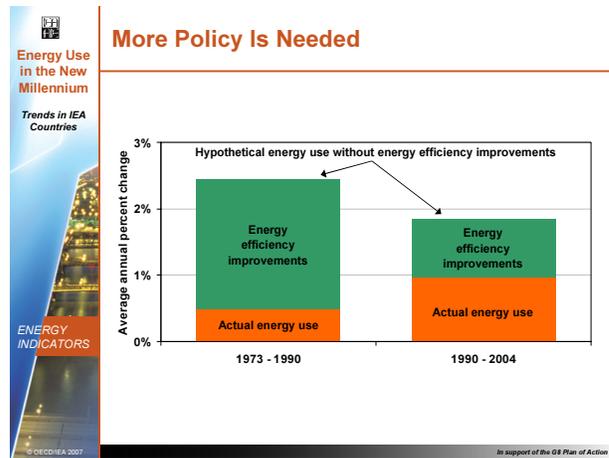
On a more European level, **Alessandro Ortis**, President of the Authority for Energy, expressed his disappointment for the very slow process towards a unified and open market, pointing out those goals that should be pursued: more integration, more harmonization, more efficiency and more sustainability.

Empirically, the lack of important investments in infrastructures, necessary for a better integration between the networks and an increase in storage capacity, furthers the possibility of obtaining a more efficient market, just like the absence of a uniform, harmonized regulation on European level is an obstacle to the creation of one unified market.

With regards to the national market situation Ortis underlined the longing for anti-collusion measures in order to complete the “unbundling” process that was initiated through the liberalization of the markets but that still has not become effective.

Concerning the recent proposals that have been made by the European Commission in the field of energy efficiency, Renewables and CO₂ emissions, he felt it was necessary to recall that in order to reach such ambitious targets it would be necessary for the involved countries to have binding numeric objectives.

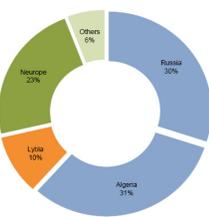
Still defending the emission trading instrument, the president of the Energy Authority made it clear that in order to successfully tackle the climatic changes problem it would be vital for the effort to be not



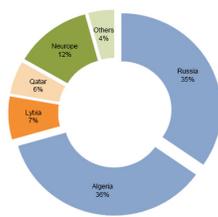
...but will increase geopolitical risk...

Dependence from Russia and Algeria might increase:
Imports from Russia and Algeria increase from 61% to 71%.

Italian Imports 2006



Italian Imports 2015



SORGENIA

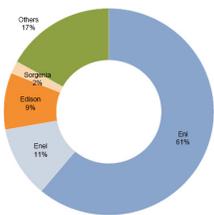
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a price reduction policy, determined by crossed subsidies, does not usually lead to a transparent or fair competition as it usually reduces to inefficiency and lack of investment. Finally, De Luca, emphasized how a mature energy market will not necessarily lead to a perfectly uniform level of prices on the different European markets as the different EU members present themselves with different resources (oil, gas, carbon, nuclear, etc.) and different technologies such that the most appreciable result we can hope for will probably be overcoming energy shortages.

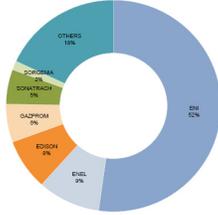
...and will not improve competition in the market

Market will remain concentrated:
ENI+ENEL+Edison will still own 70% of Market Share.

2005 Natural Gas Sales in Italy



2015 Natural Gas Sales in Italy



SORGENIA

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that hefty investments be made during the next decade combined with the effort to lessen the above mentioned barriers. Plenty of obstacles stand in the way of this process, the political inactivity, the opposition coming from certain stakeholders and the bureaucracy. This is why a considerable effort in this direction will have to be made in order to overcome an industry that operates with strategies based on short-term logic.

How is it possible to produce and use energy in an efficient and sustainable fashion, to guarantee security of supply, safeguard the environment and competition? According to **Fabrizio Barbato**, General Director of the DG-Tren of the European Commission, it is vital to keep a long-term vision and a global leadership in order to promote a strong development of renewables and energy efficiency. Actually, the EU set an ambitious target regarding renewables, energy efficiency and CO₂ emissions with a combined target on European level of 20%. However, the single countries are left with the possibility of promoting the most appropriate renewable sources considering their needs. Each country will have to produce a National Action Plan containing detailed objectives, and strategies in order to achieve certain objectives regarding bio fuels and other indicators.

What came clearly to light during the conference was that there is no one shared solution, but rather a number of interesting proposals to be considered. The path to a truly sustainable Europe is still very long and complex. Energy efficiency, environment and renewables will definitely be the pillars of the new sustainable energy system. However, as **Carlo Andrea Bollino**, Conference chairman, did point out: "there are times to think and times to act. Now is the time to act. The aim of this conference was to contribute to a sustainable energy future, and thus we believe to have made a significant step in this direction".

only on behalf of the industrial and energetic sectors. It is only through the consumers, who act on the demand curve, that we may shift towards products with a lower CO₂ emission content, such as to avert the risk of delocalization of production to less restrictive (regarding CO₂ emissions) countries, a scenario that would only add the problem of unemployment to the CO₂ emissions one.

What will be the consequences of a wider and more competitive European market? In **Domenico De Luca's** (CEO to EGL Italia) opinion, the results will be a price decrease for consumers together with all sorts of other positive side effects. Amongst these we will find the limitation of profits typical of vertically integrated firms and a convergence of prices on the various international markets.

What should, nonetheless, be kept in mind is certainly that a price reduction policy, determined by crossed subsidies, does not usually lead to a transparent or fair competition as it usually reduces to inefficiency and lack of investment. Finally, De Luca, emphasized how a mature energy market will not necessarily lead to a perfectly uniform level of prices on the different European markets as the different EU members present themselves with different resources (oil, gas, carbon, nuclear, etc.) and different technologies such that the most appreciable result we can hope for will probably be overcoming energy shortages.

The last session, "Implementing Renewables", was moderated by **Roberto Vigotti**, chairman to the IEA Rewp Group, whom identified the barriers to an increased use of renewable sources. He mentioned the lack and inconsistency of incentives, both public and private, the bureaucratic difficulties of obtaining the appropriate licences, energy systems incompatible with such renewable sources, and lastly a deficiency of qualified personnel as well as an insufficient awareness of the sector.

Seeing the present policies will not lead us to a sustainable energy future, with efficient and clean technologies, it is essential