

**NOTA DE PROSPECTIVA Nº 34/2015**

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**SUBJECT. EUROPEAN CLIMATE AND ENERGY POLICY: THE CHALLENGES AHEAD**

**Panel: European Union**

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## **FROM LIMA TO PARIS**

The Lima meeting is already over. Again, the script from every climate summit is being repeated: a framework for negotiation has been settled, the basis for future agreements has been laid down, however, decisions are still being postponed. In this case, until the Paris Summit in late 2015. Inter alia, the lack of sensitivity of the United States towards environmental protection, coupled with the failure of the European Union in solving their almost chronic financial, social and political instability crisis, have left the world's environmental protection strategy orphan of leadership. Certainly, a strategic project in the near future of the international community and essential for humanity.

## **CHALLENGES**

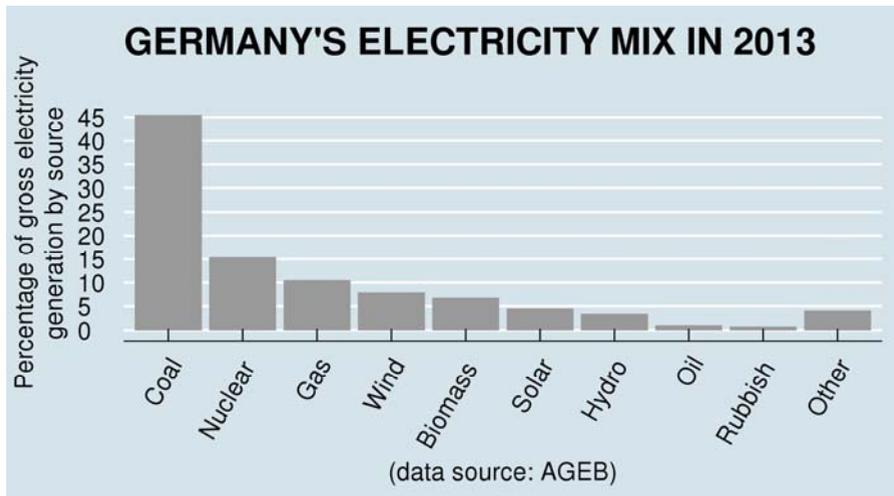
In Europe, 1% of the industrial plants, in addition to thermoelectric and refineries, are generating 50% of the overall pollution in the area. Producing electricity with coal remains the most polluting industrial activity. According to the European Environment Agency, the lack of leadership causes economic losses of 189,000 million Euros in the EU alone. This fact, in addition to the pollution of approximately 200 million vehicles, only inside the borders of the Union, means more than 80% of the total CO<sub>2</sub> emissions and point out towards the future challenges of the European Union in the incoming years:

- 1) Change the current highly polluting high carbon-based energy, highly dependent on foreign sources, that does not provide a secure supply towards a low carbon model based on renewable energies, sustainable, safe and affordable.
- 2) Create infrastructure to help create a "Energy Union" Namely a secure supply of clean, affordable, and secure energy that would eliminate "energy islands", that would foster low-cost and low-polluting public and private transport methods running away from oil.

- 3) Promote a framework to support and encourages investment to create such infrastructures to create adequately remunerated and quality jobs.

Besides, the fact that Europe is one of the most industrialised areas of the world, and therefore one of the largest energy importers of the world, make this mentioned leadership, a condition "*sine qua non*" for the success of the fight against climate change worldwide.

However, the European Union is far from this situation. The targets set for 2020, especially regarding the inclusion of renewable energy systems, are far from being achieved. For instance, the so called German "Solar Revolution" is a good example. After the shutdown of nuclear power stations and their replacement for renewable energy, the energy German mix shows how, despite the boom in renewable energy, in 2013 45% of its energy was still being produced by coal. In addition, half of that coal was lignite, the cheapest coal to extract and the most polluting on the planet.

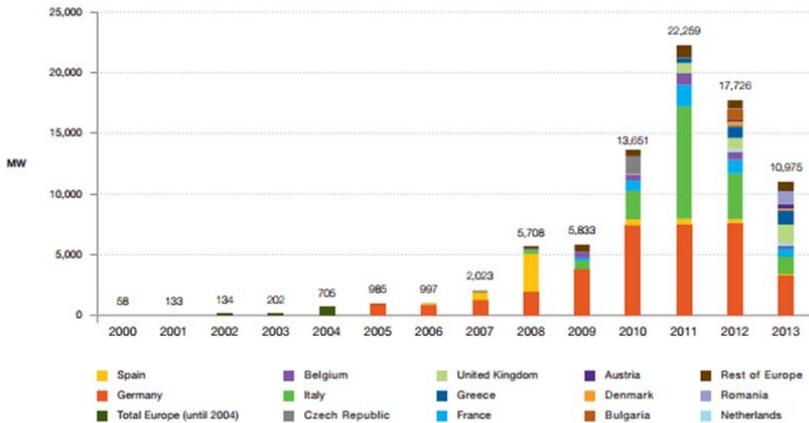


## **PROPOSALS**

It seems clear that European energy policy is inadequate and suffers from a severe lack of coordination. The solutions adopted to reduce pollution by European authorities entail the reduction of energy consumption via energy efficiency, CO2 capture and inclusion of renewable energy systems (solar, thermal, wind and geothermal) in our centralised systems of distribution. However, measures of implementation are very different at the national level. Sometimes they are settled against their own objectives. Furthermore, contradictory energy policies within the same country are being settled (as in the case of the abolition of aid to renewable energies or tax reforms in Spain). This situation generates pernicious dynamics that only promote legal uncertainty, insecurity of supply, and high prices since, an unbalanced oligopolistic relation dealer-customer which only delve into the current economic, energy and social crisis, rather to create a common regulation to help create a genuine European Energy Market.

## **INCENTIVES**

Many of these problems are generated by the intergovernmental character adopted in Europe on energy policy, infrastructure, and as previously stated in terms of public aid and investment framework. The EU accuses the lack of tools to implement its own policies, and influence government's actions -maybe focused on political and ideological revenues- and thus, achieve its objectives. Due the financial and political crisis, investment -and therefore the production of renewable energies- is experiencing a significant decline in recent years.



EPIA. GLOBAL MARKET OUTLOOK FOR PHOTOVOLTAICS 2014-2018, page 21. Graphic courtesy of Pedro Prieto.

Being within the range of austerity policies promoted by the European Commission, aid to develop this policies has been under the spotlight by traditional energy lobbyists (strongly rooted within the leading European political families). Therefore, subsidies has been criticised due to their economic costs on rates and their weight on the EU budget.

However, the Spanish association of clean energy (APPA) recently revealed in a report that "renewable energy generated savings in 2013 in the electrical system amounting to 9.197 million euros. Of this, 5.871 million euros corresponded to savings for its entry into the daily market, 3.142 million in savings in fossil fuel imports and 184 million savings by reducing CO2 emissions. "The savings generated are 2,484 million Euros more than the subsidies received. The Renewable Sector as a whole, also contributed in 2013 in 9.496 million euros to the Spanish Gross Domestic Product (GDP). It made a net fiscal contribution of 1,163 million euros, improved by 3.073 million Spanish energy balance, invested 248 million euros in I + D + i, prevented imports 7.309 million euros, saved 252 millions in allowances, and employed a total of 93,415 workers, according to the association.

## INFRASTRUCTURE

Other symptom of the inadequacy of the current European energy model is the existence of the so-called "energy islands". In the case of the Iberian Peninsula, the lack of access to central and northern Europe energy platforms, as well as the North African ones, increases energy prices and produces a negative impact on consumption and households' disposable income and consumption to hinder the overall situation economic. The proposed measures should include more and better -intra and extra EU- interconnections to meet the structural requirements for each country within a solidarity-based model. In addition, alternating external energy suppliers could tackle instabilities in supply caused by external agent, such as that experienced after the diplomatic crisis with Russia and Ukraine. It dramatically threatened to reduce the supply of gas and therefore, firing the rates in Europe. This fact undoubtedly conditioned the response to mentioned crisis.

Due to constant improvisation in energy policy -both European and national level- authorities are aiming to transform the energy model without doing the same with the energy market. Despite the energy oligopoly interests, this evolution -which could be better understood within a European Union which cornerstone is the common market- is inevitably heading to self-consumption. Most of the newly developed renewable technologies (photovoltaic and thermal solar panels, biomass boilers, geothermal systems, small wind turbines, etc.) are getting cheaper and cheaper, allowing for a decentralised energy distribution. A replay of the current centralised oligopolic model into the new renewable system could be an irreparable mistake. The benefits of technology will not transcend at citizens level but will remain exclusively in hands of big corporations. Further developing the decentralised model will not only strengthen the democratic and individual sovereignty through self-consumption, but also complement the production of renewable midsize plants linked to local consumption. In this sense there are already new business initiatives promising energy independence with installation costs amortized in 8 years.

## **GOVERNANCE**

Initiatives of decentralised storage and interconnection with advanced control of the network of producers, storage containers and consumers could get a much fairer market respectful with the environment, democratic and innovative; affordable and competitive rates that could become a driver of sustainable growth and a priceless reservoir of skilled employment.

This decentralised electricity market could pave the way for a network of electric transport that could grow without limitations. In fact, although still more expensive than traditional sources, taking advantage of the lowering of costs, Manufacturers such as Tesla Motors are already starting to develop storage methods for electric cars that could jump to households, and thus further enhancing self-consumption, competing on price and performance with hydrocarbons.

The European Union must seize these opportunities that technology provides and lead the transformation of the electricity market in the way of decentralisation, networking, control energy and sustainability. To do so, the EU must also seize cheaper technology, and especially provide itself with sufficient tools in regulation to shape the future scenario. Steps in this direction must be taken if the European authorities want to achieve the objectives in reducing emissions in addition to legitimise their research policy, Horizon 2020 and its leadership in sustainability, energy efficiency and savings worldwide.

Las Notas de Prospectiva son análisis breves que alertan sobre cambios sociales, políticos o económicos, que están teniendo lugar bajo la superficie de los acontecimientos; cambios susceptibles de afectar a la acción exterior de España y/o la Unión Europea.



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