

SHAKE-UPS AND CONTINUITY IN EUROPEAN ENERGY POLICY

In February 2011, the European Council made a commitment to complete the internal energy market by 2014. This long process started in the early 1990s; till now, results have been somewhat mixed. New challenges have entered the equation: the need for increasing the share of renewables and the necessity to ensure secure supplies. This increased complexity has made a revision of current policies a priority: though liberalization remains the main rationale behind the EU policy, recent institutional changes suggest a move towards a more balanced policy.

It is often said that Europe has no real policy on energy. This is somewhat misleading: since the close of the 1980s the European Commission has been engaged in a specific policy of liberalization of the electricity and gas sector.

Liberalization over the last 20 years

The rationale for a European-wide policy regarding energy matters has been established long ago and can trace its roots to the 1950s with the establishment of the first European institutions (European Coal and Steel Community in 1951, European Atomic Community in 1957). Yet despite these promising grounds, it is only from the Single European Act signed in 1986 that the European Commission derived an adequate legal framework and political mandate to pursue a process of liberalization in the sector of electricity and gas. The main principles of this policy have since remained unchanged: introducing free market principles to a sector that had until that point been marked by a special regime of public control and exception of competition rules.

Three Directives have been adopted by the EU (in 1996-1998, 2003, and 2009) deepening the European commitment to stick to a “canonical model” establishing the conditions for a competitive organization of network activities: unbundling of monopolistic activities (transmission and distribution grid management and development) and competitive ones (generation and supply), instauration of a specific regime to govern third-party access to grids and related essential infrastructures. Regulatory authorities independent from national governments have been established within each member State to implement these principles.

Today, the essential goals of these Directives have been achieved. Independent national regulators with wide-ranging powers are now well established. Transmission grids are operated by independent firms, for the most part ownership unbundled from the incumbent operators (and if not subject to intense scrutiny from regulatory authorities). Finally, as of 1 July 2007 all consumers are free to choose their supplier.

This paradigm shift has been backed by similar evolution in jurisprudence. Any system relevant to the diverse forms of “public services obligations” previously implemented in member States, when in conflict with the application of free-market principles (equalization payments, last resort tariffs, stranded costs compensation schemes), is deemed an infringement to European law unless proven otherwise in advance based on a clear demonstration on how market mechanisms would fail to meet public targets.

Over the last ten years, wholesale energy markets have begun to function on an increasingly Europe-wide scale through the progressive integration of the various domestic markets. They now serve as the trading platform for utilities across the entire EU. This internal market should allow for increased competition and create a level playing field in Europe that would prevent former monopolies from drawing on the economic rents linked to their domination of markets once divided along geographic lines.

Lastly, European policy-makers have expressed their will to complement market integration by a policy of development of European interest infrastructure. As regards energy, this policy has been discreet at best, but some kind of planning tools has recently been introduced in European law with the new ten-year network development plans. The development of this new component of European energy policy has received scant attention despite the fact that it fits in perfectly with the overall project to create a single market for energy.

Mixed Results

At first glance, this outline of European energy policy appears coherent. Yet the actual results have been somewhat mixed. The initial trend toward a reduction in the price of electricity has been reversed: since 2004, prices have been rising rapidly – with important fluctuations – and in a large number of countries they are now higher than they were before market opening. In the face of mounting criticism the European Commission reacted by launching in 2005 an inquiry into whether markets were functioning according to sound economic principles. The result was a fierce criticism of the situation in many member States, still heavily marked by a tendency toward vertical integration and an oligopolistic structure. Accordingly, several competition cases were initiated by the Commission with the clear view of contributing to shaping markets in accordance with the European ideal of creating a level playing field across the entire continent.

In most cases however, such actions fell largely on deaf ears. This particularly is the case in countries such as France and Germany both of whom still rely on the existence of strong national champions in the sector. But the domination of the market by a handful of giants is a characteristic of nearly all European markets, even in countries such as the UK where vertical integration was explicitly banished at the beginning of competitive reforms.

At the same time, several government mandated measures to limit increases in retail energy prices by setting regulated end-user tariffs well below market prices. The European Commission has contested the legality of such policies, which remain today a structural feature of European markets. In France, recent policy regarding electricity has been shaped by the dual need to avoid sanctions on the part of the European Commission (for retaining end-user regulated tariffs so low that market opening cannot in practice occur) and a political background making large increases in the price of electricity difficult (due to the low-cost structure of the historic nuclear generation fleet). As a result, a [bizarre law](#) was passed in 2010 by the French legislature, as an attempt to sort out this vexed issue by allowing all suppliers to tap into the historic nuclear fleet at regulated tariffs. In the UK, the government has been forced to place direct pressure on suppliers (the “Big 6”) to have them more accurately reflect the fluctuations of prices in wholesale markets into their commercial rates. Faced with mounting challenges regarding its energy policy, it has also launched a [comprehensive review](#) of its market arrangements that could lead to a new dramatic change in market design, after that of the early 1990s and the early 2000s. As for Germany, it is following its own isolationist path when it comes to energy policy and its recent decision to shut all nuclear units by 2022 has been made with no coordination whatsoever with its neighbors. In short, national peculiarities are not disappearing, and one cannot help but be somewhat disenchanted with the mixed success of the European energy policy. So what went wrong?

Explaining Failures

In other sectors, EU liberalization policies have met with some success. Telecommunications embodies this success story as competition policies have not only led to lower prices but also been accompanied by a booming of available services. Yet, within the electricity and gas sector, the development of such a form of competition is unlikely. True, there is certainly some room for innovation beyond the meter, but in the electricity and gas sector, the quality of service depends on transmission and distribution system operators, i.e. the monopolistic segment of the industry, and not on the competitive part of the industry. As a result, competition on quality is very limited within the sector and suppliers compete on prices. Furthermore, those prices have little to do with the supply part of the business itself (essentially marketing to customers): in electricity and gas, fully 90% of costs can be attributed to production and grid operation. Suppliers thus separate themselves along price lines upon which they in fact have very little influence. Room for competition is therefore somewhat limited for suppliers. This picture has an important consequence: liberalization is assessed regarding its impact on prices for final consumers.

In theory, liberalization policies should not necessarily be viewed as a route to lower prices: well-functioning markets are supposed to achieve more efficient allocation of resources and the augmentation of the overall social welfare. There is no denying however that when more open markets were proposed to the public over the course of the 1990s an implicit promise was made

that they would lead to lower prices. Yet these promises were made in a global energy landscape altogether different, that has since undergone profound changes. The price of oil for example remained low throughout most of the 1990s in the glut that followed the conservation policy of the late 1970s, the increase in energy efficiency in the early 1980s and the collapse of oil prices in 1985-86. It began to rise sharply by the end of the decade due to strong Asian demand and stagnant supplies capacities, driving gas and electricity prices up. The effects were felt across the entire energy industry: policies from this point on have had to assume an increasingly bullish energy market.

Moreover, the energy sector was generally thought as a quasi-mature industry, a hasty evaluation when one thinks of the considerable challenge of presiding over the transition to a low carbon future. While liberalization policies prove efficient to sweat existing assets, they have yet to prove their worth when it comes to encouraging the massive investment that will be necessary in the coming years to move towards a decarbonized energy mix.

Finally, energy security is back on the agenda, a sharp change with the 1990s period dominated by Fukuyama's reflections about the ["end of history"](#).

A triangular model for energy policy

Shifting contexts, new challenges, revision of previous goals: European energy policy has certainly become more complex. It is often represented as a triangle of which liberalization represents but one point (competitiveness), the other two being the policy implemented to combat climate change and the need to ensure secure supplies of energy. But these goals are addressed very differently at the European level, depending on the political will and legal bases provided by the treaties.

The first point of the triangle is about the single market for energy – under the name of competitiveness – and is the heir of the aforementioned policies coined during the early 1990s. Its rationale has not changed, even though [the last directive](#) brought a number of major innovations. Although limited in scope and only nascent in spirit, first tools for network planning at a truly European level have been introduced, and set the stage for further development of the European grid. In addition, a new framework for deriving legal norms encompassing a wide range of subjects (network codes) has been established, creating new institutions (an [Agency for the Cooperation of Energy Regulators](#) and two associations for transmission grid operators: [ENTSO-E](#) and [ENTSO-G](#)) and providing for the coordination of these institutions with the European Commission.

The second point of the triangle, climate policy, has its own drivers, key objectives and legal framework. Established in the wake of commitments to the Kyoto Protocols, the European policy today mostly consists in the so-called [“20-20-20 by 2020”](#) policy (reducing greenhouse gas emissions by 20%; reducing energy consumption by 20%; increasing the share of renewables into the overall energy consumption to 20% by 2020). Instruments to achieve this policy were adopted in 2008 and notably consists in national quotas for renewables.

Finally, [security of supplies has been an emerging concern for the EU](#) since the early 2000s, and also relies on distinct tools (e.g. the European neighborhood policy).

Will things change in the near future? As of 1 December 2009 the EU has had at its disposal the institutional legitimacy to conduct a truly unified energy policy. Among other changes, the Lisbon Treaty added [a new article to address energy policy](#). Those revisions represent an important step toward a more integrated European policy, but they are not without ambiguities as member States still bear responsibility for their own individual policies and energy security. The desire for shared responsibility in the matter of energy at a truly European level would still seem some way off.

Political Tensions

Tensions exist between the three points of the triangle, and energy policy generally consists in deciding over the optimal trade-offs between potentially conflicting objectives. Tension between climate policy and competitiveness for instance will test the willingness of policymakers to support renewables in the face of dwindling public finances, while consumers in a general atmosphere of economic uncertainty will be less willing than ever to support higher prices. Throughout Europe feed-in tariffs for producers of renewable energy are currently being revised downward, particularly in the photovoltaic sector. In France, last December a moratorium on solar power development was decided as a speculative bubble appeared to be developing due to over generous feed-in tariffs, and was followed by a general review of support mechanisms. In Germany, the world leader in the development of the photovoltaic industry, criticisms have been voiced around the €17bn bill of 2010 dedicated to supporting green energies (about half was devoted to the photovoltaic sector): even if some of these critics have been tuned down in the aftermath of the decision of the federal government to shut down nuclear facilities by 2022 and to speed development of renewables, German consumers pay on average 40% more for their electricity than the rest of Europe. In Spain, one of the most advanced countries in terms of wind turbine development, conditions for renewable energy payments have also been revised downward.

Another point of contention arises from concerns over energy security and its potential impact on the competitiveness of the energy sector. Europe has progressively increased its dependence on natural gas, considered in the 1990s as the “fuel of choice” to generate electricity. Nowadays, markets are still encouraging this trend as most new investments in non-subsidized generation are still being directed toward gas. As gas increases its share of the EU’s overall energy mix so does dependence on external actors such as Russia. In an atmosphere where energy security has moved to the forefront of the policy agenda and winter gas crises become a recurring problem, a change of tack has been advocated. Reversing this trend would require favoring most expensive fuels (e.g. coal) that could be detrimental to the competitiveness of the European industry and would lead to another conflict with climate policy.

Tensions may indeed also exist between the desire to increase security of supplies and climate policy, and not only regarding the “external” dimension of security of supplies. Subventions to the green energy sector create new market conditions which conventional power generating facilities have to adapt to, reducing production when there is sufficient wind or solar generated power or increasing it when the contrary is true. Faced with these new conditions, gas and coal powered utilities are looking for ways to compensate for lower profit margins through capacity payment mechanisms, or threaten to withdraw: there may be a trade-off between granting additional subventions and experiencing some decline in the continuity of energy supplies in some situations. Part of these problems could be technically alleviated by the development of [smart grids solutions](#), but there is something more fundamental at stake. Yet it seems difficult to envision how such trade-off can be implemented at the European level while member States themselves have difficulties doing so at their own level.

Finally, even in the case when there is no trade-offs between the internal market, climate policy and securities of supplies policy, other forms of tensions could arise. The development of grid infrastructure is at the same time an enabler for creating the internal market (it allows running the most competitive units regardless of their country), a prerequisite for climate policy to succeed (greater integration of renewables means new infrastructure to collect energy and handle new resulting power flows) and the core of security of supplies policies (increasing robustness of existing networks). Yet such a development is largely resisted by locals. Germany, due to its pioneering position as regards supports to renewables, has already had to begin addressing this issue: [a new law to facilitate network expansion](#), the second in a three year period, has been approved this summer. Other countries will soon need to follow. At the European level an infrastructure package is under discussion even if the principles of subsidiarity that makes market permitting procedures a national matter and not a European one may prevent decisive progress in that field.

On all the aforementioned points the actions of the European Commission have demonstrated that the powers of the EU still lack real teeth to lead a European energy policy. At this point individual member States retain sovereignty in decision making over structural choices and it is currently left to the markets to maintain some kind of coherence (complementarity among generation units throughout Europe is without doubt the primary justification for a more coherent European policy toward electricity generation).

Minimal Federalism

Is this to say that greater harmonization in the sector is just a fantasy? One cannot be that positive: the current policies have to a certain degree already created a more federal structure for energy policy despite the lack of an authority at the European level to formulate and implement such policy with discretionary powers. Comparing institutional arrangements for energy policy in Europe and the United States makes sense and could draw some fruitful conclusions, but such a comparison may cast some doubts in the minds of euro-enthusiasts. Yes, the United States has an energy policy and institutions to implement it. But States have kept important powers when it comes to the organization of the energy sector, notably in the electricity one. Only roughly one-third of them have completely liberalized the sector and the rest, especially after the ill-fated deregulation in California, have taken a somewhat wait-and-see attitude with sometimes a bizarre cocktail of regulation and markets, of cost regulation and open competition. It is only along the country's northeast corridor and in Texas where policies of liberalization have been fully realized and even there, for the most part without a true opening of the retail market. Individual states remain largely autonomous in the way they organize their market as well as in the tariffs they charge to end users.

In comparison the European approach would actually appear to be more homogenous: the directives impose the same standards for liberalization and have led to the creation of national regulatory authorities shaped along the same lines and that are supposed to go the same way. Member States retain a degree of sovereignty but the European Commission has defined a template to be adhered to in all matters relating to energy policy. Accordingly, legitimate economic and political questions (how to share the nuclear rent, to handle winners/losers) that are addressed at such in the United States must in Europe wear the clothes of this template (strict adherence to competition rules, primacy of the rules pertaining to the internal market, etc.). This may actually appear as the main result of the European energy policy: while not going as far as dictating the choices of individual member States, it has created a mandatory lexicon and a common framework for addressing energy issues. Within this "federalism light", discretionary powers for member States are effectively reduced, and wholesale markets serve as the shared reality and achievement of the European policy so far.