Energy Market of the European Union: Common or Segmented?

The European energy market operates on the premise of open and competitive markets among its 27 member states. But the gas and electricity market dynamics and levels of competitiveness vary enormously across the EU 27. Among the issues are unequal implementation of electricity and gas directives, a lack of independent energy regulators, the absence of proper and full unbundling, and discriminatory third-party access to the infrastructure.

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I. General Remarks

The creation of the common (internal) energy market based on open and competitive markets among 27 member states represents great challenges for the European Union if it is to have the kind of a direct impact on European industry and economic activity as well as on the welfare of many European citizens that have been envisioned. For decades a unified European energy market existed solely in theory. Rather, it remained an economic sector dependent on and under the control of different national governments. It did so for two reasons. First, because these nations attached very high importance to energy matters, which they perceived as strategic to their national economies, they wanted to exercise close control. Second, the very high cost of the energy infrastructure kept the national energy markets dependent on their respective national governments. Not surprisingly, it is only recently that the segmented European energy markets are being combined in the name of an
internal energy market as a key part of EU energy policy. Although Europe is on the right track, the process of unification is still far from being complete. One has to bear in mind that the creation of a common European energy market, one that would take under considerations many different member states’ policies, cannot occur all at once but will occur only over time. After all, it involves a complicated process of political negotiations, decision-making, the passage of specific legislation, and massive market adaptations. It should be also clear that the necessary political involvement will not end with the decision to liberalize or with the completion of the legislative work required to establish a market framework. Continued political involvement will be required to create a competitive European internal energy market as well as to monitor and regulate the exercise of monopoly powers by independent national regulators.

Does Europe really need a common energy market? Yes. First, an integrated energy market is essential for enhancing trade in energy products among member states. Second, it is also important for diversifying and integrating the different domestic energy markets and therefore for securing supply across the EU. Third, the growth of certain industries in the EU as well as of the EU economy in general depends largely on competition, and an internal energy market is essential for that to occur. Although competition can expose market players to the risk of losing market share if they are not sufficiently efficient and innovative, it is also a force that benefits customers in the form of lower prices, lower costs, and better service. As a result, competition in the common energy market should be seen as an essential apparatus to enhance Europe’s competitiveness, especially since energy is an essential input for European industry competing on the world market. Fourth, in this regard only competitive markets generate the right investment signals, offer fair network access for all potential new comers, and thus provide effective incentives to both system operators and generators to invest billions of euros in infrastructure. Fifth, a competitive and efficient energy market is a precondition for tackling climate change. With a well-functioning market it is possible to develop an effective emission trading mechanism and renewable energy industry.

To achieve these objectives the Community institutions must foster the observance of the EU competition law and harmonize the domestic energy markets through Directives and Regulations. For the purpose of harmonization, the Community has introduced legislation at three different times. The first occurred in the 1990s and included laws to end legal monopolies in the electricity and gas sectors. Unfortunately, the legislative framework established by the first electricity and gas Directives—which aimed at allowing large industrial users to freely choose their supplier, at granting access to independent third parties, and at separating the operations of the vertically integrated companies—did not prove as beneficial as envisaged. In response, the Community adopted a second legislative package. It looked toward further liberalizing the energy sector by unbundling vertically integrated activities of the electricity and gas conglomerates and reducing their horizontal concentration, by introducing competition in wholesale generation market and retail supply, by monitoring transmission and distribution networks by mandating regulated third-party access to the energy infrastructure, and by introducing fixed access tariffs, which were to be established and approved by national regulators that member states were also obliged to set up. The third wave of energy legislation came just recently, in August 2009, and member states are required to bring into force the provisions necessary to comply with the third package of
Directives\(^5\) by Mar. 3, 2011. As a result, it is difficult to judge how close member states will come to achieving these objectives, though it is possible to argue that the steps already taken are insufficient to construct a fully operational common energy market in the EU. Forces at play, such as member states’ sovereignty, protectionism of national industries, monopolization of national markets, different patterns of energy consumption and thus different sources of supply; discriminatory practices concerning third-party access, lack of independent domestic regulators in member states and unequal transposition of Directives in general, all pose obstacles to establishing a common EU energy market. This variation, which is both historical and structural, among the respective energy sectors of the EU 27 has created the current variation in openness to competition and most probably will continue to hamper the emergence of a truly coherent energy market for a number of years.

Nevertheless EU’s third energy package looks to ensure that all European citizens can take advantage of the numerous benefits provided by a truly competitive common energy market. Consumer choice, fairer prices, cleaner energy, security of supply, independent regulation, nondiscriminatory third-party access, and proper unbundling are at the centre of the third energy legislative package. Additionally, two other legislative acts provide for structural changes in the regulatory framework of the electricity and gas sectors. Regulation 1228/2003 of the European Parliament and Council as amended by Regulation No. 714/2009,\(^6\) which stipulates the conditions for access to the network for cross-border exchanges in electricity (hereinafter “Electricity Regulation”), and Regulation 1775/2005 of the European Parliament and Council as amended by Regulation No. 715/2009\(^7\) which lays out the conditions for access to the natural gas transmission networks (hereinafter “Gas Regulation”), envisage setting non-discriminatory rules for cross-border trade of electricity and gas. Although these regulations which envisage establishing harmonized principles and methodologies for calculating tariffs and for setting both nondiscriminatory rules (for access to transmission systems, capacity allocation, and congestion management) and balancing rules, are equally important in creating a common energy market, they are beyond the scope of this article and will only be discussed when necessary.

II. Shortcomings of the Current Energy Market Framework

Many national electricity and gas markets in the EU still suffer from a lack of liquidity and transparency, conditions that hinder the efficient allocation of resources and that block new entrants. Currently, incumbents in, for example, Germany, France, and Poland, are responsible for the greatest part of electricity and gas flows, own major portions of the infrastructure assets, and generally have more and better access to information and clients than new entrants. As a result, in many countries competition is still significantly hampered. In fact, the major difficulties that member states currently face in creating the operational European internal electricity and gas market involve\(^8\):

- Insufficient independence of the regulatory authorities, which shall monitor market behavior of incumbents;
- Abuse of the dominant position in the market by the national champions;
- Insufficient unbundling of transmission and distribution system operators such that their non-discriminatory operations cannot be guaranteed;

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\(^5\) By Mar. 3, 2011.


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- Insufficient independence of the regulatory authorities, which shall monitor market behavior of incumbents;
- Abuse of the dominant position in the market by the national champions;
- Insufficient unbundling of transmission and distribution system operators such that their non-discriminatory operations cannot be guaranteed;
• High vertical integration of energy companies such that vertical integration of generation, supply, and infrastructure favors incumbents (through lack of equal access to infrastructure and key market information, for example);
• Price regulation in some markets that tends to distort competition (there is still considerable concentration caused by vertical integration, a fact that permits incumbents to continue to influence prices and prevent the entry of new market players);

There are also problems of a technical nature, such as the lack of transmission capacity, especially cross-border transmission capacity, which retards the development of cross-border trade and creation of common energy market. Also, high and still-rising prices for cross-border capacities, as established by capacity auctions, severely restrict trade. As a result, many markets remain segmented along national borders. In 2007, for example, cross-border flows of electricity stood at around 10.7 percent of total consumption, which is an increase of only around 2 percent compared with 8–9 percent in 2000. Lack of electricity and gas infrastructure not only slows down the development of the efficient internal energy market but also brings the risk of shortages of supplies across the EU; such shortages, of course, would have extremely negative consequences for the whole European economy.

Unfortunately, European energy networks, not to mention the interconnections among them, are operating at close to their physical limits with the risk of temporary supply interruptions. With only 200 million euros of annual investments in cross-border grids, the situation seems to be particularly grim for the electricity sector, as more than 60 percent of the European projects confirmed by the Council and

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European Parliament face significant delays. Europe also faces the prospect of market segmentation by virtue of the concentrated influence of a small number of companies as well as of those dominant incumbents in some member states that have no interest in developing the networks, since doing so might aid competitors. To counteract anticompetitive features of the energy industry, the member states must first strengthen their commitment to instituting the provisions of the Directives and Regulations leading to creation of the common energy market. To this end they must foster competition by an aggressive approach to unbundling. Unless ownership is separated, the current unbundling rules will not remove the incentive for a company’s cross-subsidization of itself or for discriminating against those competitors seeking third-party access (by creating unnecessary technical barriers, maintaining artificially small balancing zones, or not making unused capacities available). Here, member states must prohibit discriminatory practices. Member states must also find ways to prevent distortion of investment incentives, since current unbundling developments do not provide for this. Vertically integrated network operators simply have no incentive to develop the networks in the interests of other market participants who are not linked to the vertical integrated company. To the contrary, they base their investment decisions on the needs of their supply and/or generation affiliates, once again hampering the efforts of new entrants to the market. Here, the most feasible solution for getting system operators to manage and develop the networks in the interest of all market players would be ownership unbundling. Ownership unbundling should be also seen as a powerful instrument in a battle against concentrated markets where concentration tends to be one of the main obstacles to competition. Ownership unbundling, although not mandatory, has been already
voluntary introduced in several member states and the evidence suggests that it is successful in promoting the efficiency in the market e.g., in the UK. Drawing on this evidence, the European Commission in a 2007 press release affirmed that in the next legislative acts its preferred option of unbundling would be ownership unbundling.

However, a heated debate over ownership unbundling, which constitutes one of the key amendments (although not mandatory) proposed in the European Commission’s third legislative energy package, signifies that the issue is a controversial one. In the view of the Commission and such member states as the UK and the Netherlands, the most radical option for ownership unbundling would increase competition and clear the path for greater energy sustainability and security of supply. However, the push for ownership unbundling has brought strong opposition, not only from the companies affected, such as E.ON and RWE or EdF and GdF, but also from the governments of Germany and France. Due to the structure of their industries and the strong national orientation of the sectors, Germany and France have rejected ownership unbundling.

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article 345 of the EU Treaty, which states: “This Treaty shall in no way prejudice the rules in Member States governing the system of property ownership.” Some interpret this article as prohibiting the Commission from offering any proposal for ownership unbundling. In this regard Hancher argues that Article 345 of the EU Treaty, which recognizes the right to property, casts doubt on the legality of any proposal for ownership unbundling from the Commission with regard to gas and electricity network industries. Further on, Germany considers that the division of assets will destroy the existing harmonious system of operation of the German energy sector which is based on the mutual arrangements and obligations of private energy companies. In fact, Michael Glos, Germany’s Minister of Economics, and Kristin Legard, France’s Minister of Finance, derided the Commission’s initiative as pure bureaucracy, having declared their intention to prevent the obligatory sale of network assets. Additionally the two countries also argued that ownership unbundling may not be compatible with the relevant constitutional laws and the free movement of capital across the EU.

The idea of ownership unbundling, however, is not to take away properties or harm the affected companies, but to foster competition in those segments of the market in which natural monopolies have arisen. Ownership unbundling does not necessitate the nationalization of the properties in question. To the contrary, the unbundling that has been envisaged would rely on competition law—in particular, on the analogy to the provisions concerning mergers and acquisitions, whereby the transfer of ownership would go through only if certain conditions or remedies are met. Similarly, in ownership unbundling the legislation would demand the selling of transmission or distribution assets to another company, which would entail negotiating a fair-market selling
and purchasing price. In addition, in the present globalized business environment, ownership unbundling might not entail a pure separation of transmission or distribution assets. Instead, ownership unbundling might involve more sophisticated arrangements. For example, ownership unbundling might permit a generation/supply company to have a certain non-controlling share (a minority interest of perhaps up to 15 or 20 percent of shares) in a transmission or distribution system operator. Such a minority shareholder would not have blocking rights in the operator, it could not appoint members of the operator board, and it could not have any of its own people serve as a member of the board of the operator.\(^2\) In other words, the precise way in which unbundling occurs can be quite varied. The key is to prevent the conflicts of interest which are visible in functional or even legal unbundling.

Nevertheless, countries such as France and Germany have resisted this course of action. Due to the structure of their energy industries and the strong protectionist orientation of their energy sectors, these two countries advocate the so-called Scottish model of unbundling that relies on independent system operators (ISOs). In the ISO approach, vertically integrated companies might retain ownership of their network assets, but the network itself would be managed by an ISO.\(^2\) This ISO would have to be legally and functionally separated from the vertically integrated company and empowered to perform all the functions of a network operator. The Scottish model could serve as a compromise between those calling for large energy groups to be divided and those in favor of less radical action. However, some countries which already have implemented ownership unbundling might perceive this compromise to be unfair. The reason why is that, in order to accomplish their ownership unbundling, the companies in question were obliged to sell their assets, an action that decreased the capitalization of the overall company. Finally, given the nature of political negotiations in Brussels, with their multi-party compromises, it may also turn out that the ISO approach will end up in practice not quite independent as envisaged.

Lastly, one may conclude that markets in which there is less than ownership unbundling—France or Poland—require more detailed and complex regulation in order to prevent discrimination than do markets where ownership unbundling has been introduced.

In fact, enhancing the role of national regulators is another subject matter in fostering the creation of the common energy market. In particular, regulators must be kept independent not only from the energy business but also from governmental authorities and shall be given sufficient authority to act. The studies of the member states conducted by the Commission\(^2\) and the research of the author in previous publications\(^2\) indicate that in some EU countries regulatory duties are split between a specified energy regulatory authority and the ministry or other body that oversees competition. In many cases, the affected agencies act at cross-purposes, without coordination among them, a circumstance that makes it difficult for the regulator to formulate and put into effect decisions on access tariffs, gas storage issues, unbundling provisions, and so on. Inter-agency conflict impedes the work of the regulators and retards the development of competition in the energy markets. For these reasons the Commission, in its explanatory memorandum on its third energy package,\(^2\) argued that regulatory authorities need additional powers to monitor and intervene in matters pertaining to (1) all aspects of third-party access, (2) unbundling, (3) balancing mechanisms, (4) market

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surveillance of power exchanges, (5) the extent to which competition authorities open markets to effective competition, (6) cross-border matters, such as the management of congestion and interconnection, (7) consumer protection, including any end-user price controls, and (8) transparency obligations.

To move toward a common, operationally functional electricity and gas market, member states also need to make sure that their regulators address the ongoing problems of inconsistencies between national systems with regard to tariff structures, capacity allocation rules, trading timetables, and security of supply measures, all of which have led to fragmented domestic markets. In order to ensure that the decisions of the national regulators are conducive to the development of the common energy market rather than impeding it, the Commission has proposed strengthening the coordination of regulators at the EU level. Drawing on the ERGEG and Commission proposal, the Community has issued Regulation No. 713/2009 of the European Parliament and of the Council of July 13, 2009, establishing an Agency for the Cooperation of Energy Regulators (ACER). This Agency shall complement the national regulatory authorities at the European level by providing (1) a framework for cooperation among the national regulators, (2) regulatory oversight of cooperation among transmission system operators, (3) decision-making powers so that individual regulators could take appropriate action in handling cross-border issues (such as facilitating cross-border energy trade), and (4) adopting a general advisory role. Along these same lines the European Parliament, in a report prepared by the ITRE Committee, proposed a significant increase of powers for the national regulators and rules of transparency, disclosure, and accountability. The major weakness of the Community model of ACER is the limited authority of the Agency to have its decisions be legally binding for the energy parties involved. Neither the Treaty on European Union nor the Treaty of Lisbon provides such autonomous powers and essential legal basis for the ACER to take legally binding decisions. Therefore, simply establishing ACER without making necessary changes in the Treaty will not produce the required effect. Currently, such autonomous powers given to the Commission by the Treaty exist only with respect to the rules of competition. Yet the repeated questions about the trend towards the European Commission becoming a kind of EU energy regulator are not a novel thing.

Most commentators, however, agree that the new market-oriented regulation that emerged in 2003 for network industries already require the active roles of independent regulatory authorities in the member states (subject of practical implementation). For this reason it is unlikely that member states would accept the establishment of the EU regulator with Commission adopting a role analogous to that of the Federal Energy Regulatory Commission (FERC) in the U.S., which regulates interstate energy transmission. For instance, Germany’s chancellor, Angela Merkel, at one of the EU summits bypassed the issue of granting energy regulatory powers to the Commission and instead focused on the need to diversify energy sources by opening up the energy grids and fostering much closer relations with countries from North Africa and the Middle East.

What the member states have so far accepted is a significant transfer of powers from their national governments to their respective national regulatory authorities, a transfer that has entailed institutional changes in their domestic legal order. In this regard, it is important to keep in mind that the energy sector is a
strategic economic sector that is very important to national policymakers. These people have only reluctantly and in piecemeal fashion ceded some of the national sovereignty in energy matters, what involved in some cases constitutional changes. The upshot is that the process of establishing a common energy market with coordinated regulation means that the Commission must cooperate closely with the regulatory authorities of the member states in order to actualize the legal framework of the liberalized gas and electricity markets.

The domestic regulatory authorities also need to be independent, legally and functionally separate from any other public or private entity; moreover, their employees as well as decision-makers need to act independently of the interests of any particular market player, any government body, or any other public or private entity. For this reason, the national regulatory authorities need to have legal, personnel, and budgetary autonomy as well as appropriate human and financial resources to act autonomously.

The third legislative package is about to strengthen national regulatory agencies, giving them independence of the legal person and budgetary autonomy. Further, the package will specify the competencies of national regulators in how they should exercise monitoring of implementation of Directives on energy liberalization, analyze the investment plans of transmission network operators, observe for the transparency of the market and competition, and protect consumers. All these measures aim to equip regulators with legal, functional, and financial independence.

Finally, in response to the increasing demand for energy, additional infrastructure must be built to strengthen the existing networks and ensure the development of cross-border markets, in what would likely improve the security of supply, guarantee a high level of public service, maximize the benefits expected by consumers, and lay a tangible foundation for a common energy policy. In the energy sector, most investments are likely to come from private capital and financial institutions. The important thing is to create a favorable climate for that investment. Therefore, if the actions of the natural monopolies (infrastructure) on the energy market are to be regulated in order to enable investment, the competitive sectors of the market (generation and supply) should not be subject to price controls, which might discourage new investments. Price regulation in general may be used to avoid market opening, to discriminate among suppliers, or distort competition. Therefore, the role of the state is to establish the political and legal frameworks needed for the network to be developed, in particular by promoting major gas supply infrastructure projects such as liquefied natural gas both in the European Union and also it.

III. Conclusions

Six years after the obligation to transpose the second set of electricity and gas directives on July 1, 2004, the nature and number of infringement cases across the European Union clearly reveals the insufficiencies of the current EC energy legal framework leading to the creation of a common energy market. So, too, does the disappointing pace at which the European electricity and gas markets have been opened to competition and harmonized across national borders. What are the main obstacles to healthy competition in both gas and electricity markets? They include highly concentrated markets, the protectionist policies of domestic governments, varying degrees of reliance on imports, the vertical integration of supply, generation, transmission and distribution, infrastructure obstacles to equal
third-party access, and insufficient investment in infrastructure. They also include domestic markets that are dominated by national champions, which seek further consolidation rather than market opening, as with EdF and GdF in France and RWE and E.ON in Germany. These corporations are domestic monopolies that are also among the largest vertically integrated gas and electricity companies in the EU. Further consolidation on their part would not promote but interfere with competition in the domestic and common European market. In this regard the merger of Gaz de France and Belgium’s Suez may well create a global player able to compete across all European markets and expand overseas; however, it is also likely to reduce competition in the companies’ respective home markets.

To overcome the dominance of national interests, the EU not only needs to complete the establishment of the internal energy market, it also requires a common energy policy and a system of energy solidarity, especially in the case of supply problems. The present practice of individual member states making important energy-related decisions without consulting or assessing their impact on other member states hampers the coordination of the energy policy and the setting of common objectives for the internal energy market. Another important issue is the varying endowment of member states with natural resources. Some of the countries are producers, such as the UK and Netherlands, while the majority are energy-importing countries. As a result there is a great variation in the level of import dependence among EU countries, which, apart from the disparity between Russia and member states, creates a rather difficult obstacle to energy market integration. Other significant issues impeding the common approach in energy market integration are differences in the energy mixes of the member states of the EU and differences in the structure of national energy sectors. This predetermines different national energy priorities and sets the pattern for respective energy policies such as protectionism. The protectionist trends are the most visible in France and Poland. The former fears that, in an open market, it could lose its national champions, while the second fears that its energy sector will end up under...
Russian control, putting its energy security at risk.

The Lisbon Treaty among other things should bring provisions to the primary law, which refers to the principle of energy solidarity anticipated by Poland as well as other new member states. However, in order to enable energy solidarity, the EU will not only have to develop rules for strategic stocks and crisis management mechanisms for fossil fuels, but it also will have to support the construction of a storage and network infrastructure. Perhaps in combination with a real internal energy market, such developments will enable member states to have comparable energy mixes and import dependencies and therefore similar interests in the field of external energy policy.

Endnotes:


8. For more on this see B. Nowak, WEWNĘTRZNY RYNEK ENERGII W UNII EUROPEJSKIEJ (INTERNAL ENERGY MARKET IN THE EUROPEAN UNION) (CH Beck, 2009) at 90-92 and 178-180.


16. B. Nowak, supra note 8, at 236-238.

17. In fact the Commission’s proposal of ownership unbundling has been criticized by eight countries: France, Germany, Austria, Bulgaria, Latvia, Luxembourg, Slovakia, and Greece. For more on this see S. Goldberg, Recent Developments in the European Union Energy Sector, in European Energy Review published by Herbert Smith LLP in association with Gleiss Lutz & Stibbe, 2008.


26. B. Nowak, supra note 8, at 227-234.
