

Are the foundations of (EU-energy) market driven by regulation or competition policy".

> There are people out there who argue that the (third) package was not needed, and that firm enforcement of the competition rules can fill in the gap. I'm flattered by this, but I have to disagree' (Commissioner N Kroes).

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Abstract –

Since the publication of the European Commission's 'Sector Inquiry Report' in January 2007, the European energy companies have felt the cold wind of competition law - many for the first time. In addition, national competition authorities (NCAs) have been actively pursuing abusive market practices - sometimes making innovative use of competition law in the process. Energy giants have agreed to unbundle their transmission networks - even when their national governments are opposing the inclusion of ownership unbundling in the draft 'third package' of electricity and gas legislation. The third package envisages the creation of a new regulatory agency - ACER - to co-ordinate technical regulatory issues in the internal market. So who will be in the driving seat in the next decade - and will co-ordinated regulated powers be the preferred approach to market design? Will regulatory rules co-exist alongside competition based controls or will the latter gradually supersede the former? This paper will examine these critical issues.

I. Introduction

One of the main objectives of the deregulation and liberalization process of the European electricity market was an increased level of competition. Based on a policy of 'unbundling', European policy makers have focussed on separating transport network activities from generation and supply activities in the market. Network operations, considered to be non-competitive due to the investment costs, were to be organised as separate entities in order to guarantee a stable structure, a high service level and an acceptable degree of security of supply. The generation of electricity as well as the wholesale and retail activities were deemed as being 'competitive'. The main objective of their restructuring was to increase the level of competition in the market and to facilitate the entry of new market players who would contest the position of the incumbent. Secondary positive effects should have led to an increase in efficiency, a better service level for the customers/end users and, in more general terms, the curtailment of a possible abuse of dominant position by certain market players, most of them former vertically integrated monopolists (incumbents).

However, the positive impact of the deregulation is far from being a success story. The generation segment in Europe is highly concentrated and the same, originally vertically integrated, monopolists are now active on various markets. They benefit from large economies of scale and their production portfolio is optimized to a level where they can de facto obstruct the entrance to the market for new players. Are these negative consequences due to a lack of competition at European level? If so, can this lack of competition should be adjusted by EC-competition law – including, for example, Article 82 EC in the case of a possible abuse of a

dominant position?

Given the beneficial effects of the competition regulation in other network economies, like air traffic and telecommunications, the text draws similarities and searches for differences to explain why remedies, often used in these sectors, don't work for the electricity generation segment.

Almost ten years after adoption of the first internal energy market directives, the results of full liberalization were rather limited and even non-existent. By 2005, some electricity markets remained largely national markets, power generation remained highly concentrated and there was little or no room for cross-border trade in electricity to compensate the lack of power generation competition within in country at national level.

This led to the European Commission opening an energy sector inquiry, based on article 17 of Regulation 1/2003. The results, made public in January 2007, showed several structural problems that hindered real competition in the electricity market.

The most recent step in the liberalization process was taken in September 2007, with the Proposal for a „Third Package“ of measures , to fight the fundamental deficiencies that block real competition in an open market. Especially at the level of power generation obstacles remain: there is no diversification of the electricity supply risk due to high levels of concentration; incumbent operators directly or indirectly control domestic production and traded markets are dominated by incumbents.

The interplay between sector regulation and antitrust law

It should be noted that the use of antitrust and regulatory policy as a combined instrument in the energy sector differs significantly from their application in other network industries. In the telecommunications sector for example, the liberalization process started with antitrust measures and was then followed by harmonization rules at regulation level. Unlike the telecom sector, the energy sector liberalization started with the Electricity Directive in 1996 but it took over seven more years before antitrust policy was applied, and even then only in individual cases. But the application of antitrust regulation or sector regulation are not mutually exclusive.

The use of sector specific legislation does not exclude the application of general antitrust policy or the supervision by authorities with powers to control the application of antitrust regulation. This was confirmed in the Ahmed Saeed case in 1988.. The intervention of a sector specific regulator does not exclude the intervention by the Commission if a sufficient degree of competition cannot be guaranteed by sector regulation of intervention.

Taking into account the many structural deficiencies in the generation segment and the simple fact that 900 billion EURO on investments are needed during the next 25 years, a radical change in antitrust policy in the electricity generation market is needed.

II. Some Theoretical Issues

Competition policies aiming at making competition work fully, should be a guarantee for an optimal allocation of scarce resources, an increased level of social welfare and a high(-er) level of economic efficiency. The European Treaty competition provisions and related legislation reflect

the theory of a „workable competition’, : competition policy could be used to re-orientate and adapt the competition process or intervene in suboptimal or over-optimal

Based on the theory developed by the Freiburg School, the new European ordo-liberal theories disagreed with the idea that the market could function without any control. In some cases, a specific regulatory framework for regulation would be needed and competition law would be used to create conditions under which real competition could flourish. The theory of „contestable markets' advocated by Baumol claims that the question whether or not to intervene in a market was not based on the degree of perfect competition but on the degree of contestability of the market. Only in markets that were contestable, was there room for the application of competition policy.

Recent research promotes „an innovative application of general competition law“ and recommends pressure from active consumers, rather than solely holding on to ex-ante regulatory policy and sector regulators“ actions. Academics such as Dieter Helm and to a certain extent, Stephen Littlechild maintain that competition is t is the most effective and perhaps the only effective way to deal with monopoly power but regulatory intervention is still necessary to protect the ‘market’ and to deal the worst cases of monopolistic behavior. Regulatory policy is not a substitute for competition.

The debate over the merits of ex-ante regulation or ex post competition policy continue unabated

This is in part an explanation for the evolution of the theory of the „investment ladder’ in electronic communications. A major objectives of NRF for telecoms is an unregulated, facilities-based competition. But in order to reach this level, it requires prior access to the existing infrastructure, owned and operated by the incumbent. The reasoning behind the investment ladder approach is that, once access to the existing infrastructure has been granted, new entrants can start building a „critical mass“ (of customers) prior to shifting towards investing in new infrastructure they finance and own. The more new entrants start setting up their own infrastructure, the less dependent they are on the assets owned by the incumbent. Once this stage has been reached, the sector regulator can start lifting the obligations as imposed on the incumbent to grant access to his assets. The final objective of this approach is remove the specific sector regulation that was used to make competition work, as soon as there is no longer any risk of abuse of a dominant position by the incumbent and the assets can no longer create a bottleneck to new entrants.

Although this theory may sound very promising , especially in the light of increasing competition in the electricity market, Oldale and Padilla argue that this approach is not workable due to the unwillingness of companies to expose themselves to risks when investing in infrastructure. They conclude that the use of general competition law is the best solution to make competition work in the long-run. Their view is in turn rejected by Frank Wolak

According to Wolak, the electricity market differs from the telecoms market due to its specific technical and economic feature, such as the inelasticity of demand and the constant balancing between supply and demand. These „features“ make it possible for an undertaking to exert unilateral market power. Normally, antitrust law, mainly used to „track and fight“ coordinated

action in the electricity sector, is totally unable to solve problems related to unilateral market power being exercised by a single undertaking. But reliance on price regulation as an alternative, is far from being ideal, because this leads to problems in relation to the profit maximization tendency of undertakings.

This raises the problem of how to distinguish- competition based on merits and - abuse of a dominant position: at which point does profit-maximization become illegal. Wolak suggests a three-stage approach. An exhaustive information obligation upon generators, a framework of rules to support competition in the market and a mechanism punishing any such intentional behavior that is detrimental to system efficiency or system stability, form the three cornerstones of much needed sector specific ex-ante regulation. Wolak concludes that even this proposition is not entirely „competition proof“ , due to a risk of political pressure on the sector regulator and price coordination between undertakings, fed by the free dissemination of (sensitive) information on the market.

The debate on the merits of ex-ante regulatory policy versus ex-post competition policy is applicable in most network economies, but has particular resonance in the energy sector given the following specific features.

- Contractual paths do not run in parallel with physical power flows;
- demand and supply should be balanced at all times;
- generated power can“ t be stored and
- specific generation technologies sometimes require massive investments (as is the case with nuclear energy).

Moreover, it should be noted that technological innovations that drive competition and assist new entrants in conquering market share, as they occur regularly in telecoms , are rather scarce in the electricity market. These specific elements require a somewhat different approach towards regulation and competition. Yet most of the attention (and literature) is on i security of supply, transmission networks, tariffs and cross-border issues.

Is infrastructure competition (rather than the service competition) the only - or the primary - means to sustainable competition? If in electricity markets, generation assets are also key elements for the optimal functioning of the market it is surprising that until recently, relatively little attention has been devoted to the generation market.

III Regulatory developments

In late 2007 the Commission tabled legislative proposals with the aim to formalise and strengthen the existing networks in the energy and electronic communications sectors by conferring on them independent agency status: it has proposed the creation of a European Agency for the Co-operation of Energy Regulators (ACER) and a European Electronic Communications Market Authority (EECMA). While EU independent agencies are the subject of a growing literature, the novel feature of the ACER and the EECMA would be that they are in reality “network agencies”. The existing European regulatory networks (ERNs) are incorporated in the agencies as Boards of Regulators, that will, together with the newly created Directors and

Administrative Boards of the agencies, cooperate with the Commission and the NRAs to further the completion and to ensure the functioning of, respectively, the internal electricity and gas markets and the electronic communications market.

The latest energy and electronic communications legislation will also acquire a greater political and indeed legal independence for the members of the networks -the NRAs- from their national governments. In the opinion of the Commission, inadequate political independence at national level hampers an effective and impartial application of European law. The re-positioning of the networks as network agencies raises particular accountability issues, not only in relation to the powers and duties of the Commission, but also in relation to accountability of the individual NRAs at national level, as the role of European regulatory networks moves beyond formal co-ordination of procedures and the exchange of information towards fostering closer regulatory convergence.

The gradual emergence of these network agencies represents a new stage in European sectoral regulation and involves a triangular, multi-level situation with different lines of responsibility for policy and legal input and output running between the Commission, the regulatory network agency, the Member States and their NRAs.

Necessarily, this structure complicates the allocation of responsibility to, and the eventual accountability of these different actors from a political as well as a legal perspective. Much of the legal and political science literature on 'new governance' has focussed on the accountability deficits of the networks themselves, but in the light of the repositioning of the regulatory networks as European network agencies, it remains equally important to consider to the position vis a vis the Commission in the future, and the division of competences between these new agencies and the Commission itself.

Currently, the ERNs consist of representatives of NRAs that are charged with the day to day application of European law and may act to some extent independently from their governments. With the exception of the European Competition Network (ECN), the Commission is not formally a member of the networks. In most cases the Commission established the networks and their powers pursuant to a Decision. In the light of their tasks to promote competition in liberalised national markets, the individual NRAs are entrusted with substantial powers. For example, the NRAs in the energy sector have the power to implement ex ante forms of regulation on tariffs and on the terms and conditions for third party access to the energy networks. The NRAs in the electronic communications sector have powers to impose specific remedies on a market party having Significant Market Power; a position which equals a dominant position within the meaning of Article 82 EC. The NRAs must co-operate with the national competition authorities (NCAs), having concurrent powers to enforce competition law in regulated sectors.

The networks have contributed to the efficient and effective application of existing EU policy and legislation by the NRAs, e.g. through the exchange of best practices, information and mutual education. However, due to their limited resources and the absence of the power to take binding decisions as well as their dependency on the European Commission for the adoption of their advices, from a formal point of view it would seem that these regulatory networks essentially function as an adjunct to the Commission. Moreover, as a consequence of the informal and

consensus-based character of the ERNs, there are limits to the degree of regulatory convergence they can achieve.

Drawing on the recommendations of the ERNs themselves, the Commission considered three possible options to strengthen regulatory convergence: to expand its own monitoring powers vis-à-vis the national authorities, to create an independent European Regulatory Agency and lastly, to strengthen the role and powers of the existing European regulatory networks. The NRAs (and the Member States) have taken a sceptical stance on the first two options, because they would lose their powers to the Commission and/or to an EU independent agency. However, there is guarded support among the national authorities for the further development of the role and powers of European regulatory networks, in the form of a sort of 'European network plus'. In addition to their national responsibilities, the NRAs are obliged to respect the European interest and to cooperate with the Commission, the EU agencies and their fellow NRAs in exercising their powers. To ensure that they promote the European interest objectively, the independence of the national authorities within their respective political system must be strengthened in a harmonised way.

ACER

The new energy agency (ACER) will have autonomous powers to take specific binding decisions on technical issues in relation to energy networks; they are not subject to approval by the Commission. For instance, it will have the power to decide on the regulatory regime for infrastructure connecting at least two Member States, upon a joint request from the competent NRAs. Moreover, the European Commission may delegate to the ACER powers to take binding technical decisions in specific cases on the basis of general binding measures that will be adopted by the Commission via the Comitology procedures. The proposals do not further specify the subjects which the technical decisions may cover.

The ACER also has been granted powers that may involve policy choices, i.e. powers to grant an exemption for new infrastructures from the third party access rules, involving a balancing of the interest of ensuring free competition in the short term with the interest of safeguarding sufficient investments in infrastructure that will enhance competition in the energy sector in the long term. Therefore, these powers are subject to approval by the Commission.

The proposed agencies will advise both the Commission and the NRAs, through the adoption of opinions or recommendations, on how the Commission or the NRAs should exercise their powers to adopt binding or non-binding acts, which may be general or specific in scope. For instance, the agencies will formulate opinions on the exercise of the power of the Commission to adopt general binding measures that specify the principles of the Directives or the regulations to ensure a harmonized application of European law by the NRAs. The agencies may also formulate opinions to the Commission and/or the NRAs on how the latter should exercise their powers to adopt binding decisions in a specific case. The energy agency will also adopt recommendations, recommending the Commission to take a certain type of decision or action.

According to the original Commission proposals, the agencies would only be attributed the power to take specific decisions on technical issues in an individual case that are binding for the NRAs and/or the market parties. At first reading the European Parliament proposed substantial amendments to the powers of the energy agency and the electronic communications agency.

Ideally it would have liked to confer upon the energy agency extensive discretionary powers, such as the power to adopt general binding measures, so-called guidelines, which are, contrary to what the name may suggest, binding for the European network of transmission system operators when drafting the technical and economic conditions (network codes) governing the rights to network access for market parties. Interestingly, the European Parliament proposed that the agency for the electronic communications sector (BERT) should not be granted any powers to adopt binding measures and amended the Commission proposal at this point.

Revolution or Evolution?

Both the energy agency and the electronic communications agency will continue the current tasks of the European regulatory networks, albeit with a formal basis in the European directives and regulations.

First, the agencies will take over the current horizontal co-operation (regulatory convergence, supervisory convergence and monitoring) between the NRAs within the ERNs. New is that the energy agency may issue specific opinions to the NRAs with regard to the compatibility of draft decisions of the NRAs with the European directives and regulations. However, only the Commission may take a binding decision vetoing the draft decisions of the NRAs.

Second, like the current ERNs, the proposed agencies have primarily a general advisory role - formulating opinions to the Commission on the exercise of its powers to adopt binding or non-binding measures. The new directives and regulations will extend the Commission's powers to adopt general binding measures, amending or updating non-essential elements of the European directives and regulations, via the Comitology procedures in both the energy and electronic communications sector. The ACER may also adopt recommendations, recommending that the Commission takes a certain type of action, such as the adoption of network codes governing the conditions for network access to the cross border energy networks.

The agencies also advise the European Commission on the adoption of specific binding market review decisions relating to draft decisions of the NRAs, such as veto decisions. A core task of the electronic communications agency will be to formulate opinions to the European Commission on the assessment and vetoing of draft national measures concerning the designation and regulation of undertakings with Significant Market Power on the basis of the Article 7 Directive 2002/21/EC. Only the Commission has the power to take binding veto decisions, but it has to take the utmost account of the opinion of the agency in exercising its powers.

The Energy agency and Electronic communications agency compared

The proposed agencies share important similarities, but there are also some striking differences due to the different market structures of the energy sector and the electronic communications sector. The integration of the energy sector is highly complex technical rules for a smooth functioning and interconnection of the (cross border) energy networks. Therefore, the Commission proposals and the amendments of the European Parliament suggest that ACER will have an important role in ex ante regulation through its involvement in the adoption of technical and economic rules applied by the network operators for the operation of their networks. The electronic communications sector, however, is characterised by deregulation; the gradual abolition of sector specific regulation and the growing importance of the application of European

competition law to deal with market distortions. This explains why the electronic communications agency will have no or limited powers to adopt binding measures and its central task seems to be the ex post control of draft measures of the NRAs applying the electronic communications directives.

Despite the proposed institutional reforms to the present network arrangements, the regulatory network agencies remain hybrids. The dividing lines between the competences of the Commission and the agencies on the one hand and between the agencies and the NRAs on the other hand, remain blurred.

The formation of European network agencies, and in particular in the energy sector, at first sight appears to create a shift towards centralised powers for the adoption of binding technical decisions and/or decisions with potential cross border implications. Importantly, however, economic regulation will to a large extent remain a national competence, albeit that the NRAs, should respect the European interest when regulating on matters such as tariffs or access conditions. Ensuring a clear-cut separation distinction between technical and economic norms (or between those which have cross- border or pure “internal” aspects) may prove elusive in practice. The ex ante regulation of Europe’s gas and electricity networks will involve an intricate process of shared competences.

The picture is further complicated by the fact that in the current proposals the Commission makes virtually no effort to explain in detail what the obligation on NRAs to respect the European interest when exercising economic regulatory powers, should be taken to involve. It cannot be ruled out that NRAs will be confronted with a substantive conflict between the European interest, for example to promote large-scale infrastructure projects of common European interest, and the interests of national end users in holding tariffs down. This also begs the question of who decides which interest should prevail: the Commission, the European network agency, the NRA, and/or the national ministries and parliaments? How should the NRAs deal with such a substantive conflict of interest? The Commission itself is in favour of a further extension of its ex ante monitoring powers, which enable it to block national decisions that frustrate the completion of the internal market. However, it may be doubted whether the Commission’s proposals leave sufficient flexibility to the NRAs to adjust their regulatory solutions to specific national conditions as well as to take into account other national interests, such as the affordability and accessibility of essential services.

A closer inspection of the new regimes suggests that the establishment of European regulatory network agencies can best viewed as the formalisation of a trend towards hybrid new governance structures. Importantly, these networks and agencies have only limited formal powers, even if this could result in a substantial output. It is equally important to stress in the case of ACER , especially as compared to BERT, that its powers are primarily confined to the technical regulatory domain and to ex ante regulation. The Commission retains full competence for the exercise of competition related matters and retains all its powers – both ex post and ex ante – in this respect.

IV. Competition in Generation – an ex post approach?

In comparison to network issues, EU competition policy and even regulatory policy pay very little attention to fostering lively competition in the generation segment, although generation costs represent nearly 65% of the total costs in the power supply chain. A Commission staff working document accompanying the Report on Progress in Creating the Internal Gas and Electricity Market revealed that the degree of concentration in the electricity generation market in 2006, was highly concentrated in countries such as Belgium or France and concentrated in other European states such as Italy, Spain and the Netherlands.

The European Directives on the internal market for electricity assume that the power generation segment is potentially competitive. Although major investments are required and long and difficult administrative and permitting procedures are to be followed, there is no such thing as a „natural generation monopoly“ . The European Directive offers two possibilities to member states to increase competition at the level of electricity generation.

The most commonly used approach is the so-called „authorization“ or „licensing“ , whereby market demand is the main driver. When demand increases, an undertaking can apply and, if authorization conditions are fulfilled, obtain a license to build and operate a power plant. Again, under this regime, the market mechanism of demand and supply is the key driver and undertakings autonomously decide whether or not to meet the demands of the market.

The alternative, „tendering“ , is fully driven by the Member State or any competent body designated by the Member State. The latter has a central function and central coordination/supervision role, whereby he decides on any capacity augmentation by tender. In this case, there is no real competition in electricity generation; there is only competition to build, operate and deliver electric power during the initial tendering stage.

Despite the optimism of the Directives, a wide range of sector inquiries, benchmarking reports and studies identify various key important structural hurdles linked to the inefficiency of competitive powers amongst generators. These include:

- the fact that the electricity generation market is dominated by a relatively small number of players. These undertakings, once called „the Seven Brothers“ still largely maintain their position, despite all efforts paid by national and European competition authorities or sector regulators. In 2007, the European „hit list“ of generators (calculated in total electricity generation capacity) was still composed of the five of the original Seven Brothers. The concentration of market shares of these undertakings in certain national markets is even more alarming. This problem is not just about relative market concentration, based on parameters such as the HHI-index. The position of certain undertakings in specific production technologies or in their respective position due to the composition of their production/generation portfolio is a further cause for concern.

- A second problem is created by the enormous investment costs, needed to build new generation capacity. A strong increase in construction costs can be seen in offshore wind farm construction, or in nuclear power generation. Price/cost increases of 90 % over a two-year period are, in some cases, not exceptional and contribute to slowing down new generation infrastructure projects. From this perspective, „size does matter“ . Large undertakings are in a far better position to reduce costs by centralizing certain activities or can use their multi-project positions to negotiate better prices for new generation infrastructure. Small market players are simply no match for these larger undertakings if they want to attack the latter“ s market share.

- Long and difficult permitting procedures constitute a different problem, but they too delay the construction of extra generation capacity. Some procedures, related to land use criteria, aspects of visual pollution, or other environmental issues, cause long lead and construction times. Complex permitting regulation and municipalities refusal to grant the required permits, inhabitants filing complaints and lobbying by environmental associations sometimes force undertakings to abandon their investment plans in new production facilities.

- Another issue hampering the construction of new generation facilities is the lack of major technical innovations. As the introduction of wireless communications, GPRS, 3D and broadband have shown in the telecom markets, innovative technologies can push along market evolution. These innovations create new opportunities, even for small players in particular fields, allowing them to enter a, sometimes newly created, market segment. In the past, similar technological innovations have driven market evolution in the energy sector. The downsizing of gas fired plants due to new production technologies and the increased production efficiency, all related to the „dash for gas“ , led to important market evolutions in the gas fired power generation. This in turn allowed new players, such as POWEO in France, to build their very own production facilities.

- As indicated earlier, there is currently no level playing field in generation if production portfolios are compared. The demand for energy varies over time and according to the demand pattern of the client. That is: some clients require a stable, continuous supply of electricity at all times, while other customers need peak capacity during short but frequent periods of time. A generator directly supplying such diversified type of industrial consumers or supplying retailers, will try to optimize its production portfolio to the specific demand of the markets. Generators who dispose of a wide and flexible variety of production facilities, including both stable base load and flexible peak load, are better armed to meet the requests coming from the market. They are likely to end up with a stronger market position. The „Seven Brothers“ all have this type of flexible and stable, wide array of production facilities. It is obvious that smaller players are simply not able to build the same production portfolio due to a lack of funds or affordable technical knowledge.

The simple fact that some new entrants cannot attain a full size production portfolio also means that they cannot attain the necessary „critical mass“ of customers, required to make any new investment in additional or new generation capacity economically viable. This can lead to more structural problems at national level. With some of the production techniques being controlling by specific players, there is a looming risk of electricity supply growing scantier. In France, EDF, as most important generator, has a total electricity generation capacity of 599 TWh, of which 440

TWh, are solely nuclear fuelled. The gradual build-up of nuclear generation tools, commonly used as base-load capacity, has created a lack of more flexible peak-load generation capacity, to the extent that France now has to invest an additional 1 billion EUR to provide for the much needed gas-fired peak capacity.

- The primary fuel dependency is increasingly becoming a new challenge for generators, as well as new entrants. Both in nuclear and gas fired power generation, there is an ever growing, constant fear about the security of supply. The EC's Second Strategic Energy Review and the IEA's Energy Policy Review both confirm this imminent problem. The current situation, whereby gas and nuclear fuel supply are both in the hands of only few external players, urges the European Union and individual member states (such as Germany, Austria, Belgium or Italy) to take additional measures, commonly by signing long-term agreements with foreign suppliers. Again, members of the „Seven Brothers“ -family are, simply because of their size and position, in a far better position to negotiate the long-term supply of gas and nuclear fuel from external suppliers, when compared to (relatively) small new entrants.

- As the Sector Inquiry of 2007 also confirmed most electricity companies are vertically integrated. Despite all initiatives and actions taken at European level and by national authorities and governments, it remains unclear how vertically integrated companies can offer a 100% level playing field to other suppliers sourcing from the same producers. This again, puts the new entrants in a disadvantage.

- The simple fact that electricity cannot be stored only adds to the list of characteristic challenges for new entrants in the generation market. The equality between supply and demand patterns that must be guaranteed at all times implies that base-load, mid-load and peak-load must be available at all times and in sufficient quantities whenever needed. However, for the reasons explained above, not every generator can offer this pattern due to shortcomings in his production portfolio. So in certain cases, the new entrant must appeal to the incumbent and ask for the latter's help in order to offer the requested profile. In certain circumstances, this could lead to the incumbent abusing its dominant position.

Finally, the lack of cross-border transmission capacity in Europe complicates the problem further. If sufficient cross-border transmission capacity would be available, suppliers would not be obliged to source from the incumbents. They would simply rely on the electricity generated in their „home country“ or in other countries, and import the electricity generated, to the country where their customer is located.

Even taking these features into account, it still is not totally clear why general competition policy and antitrust rules, designed especially to make markets work, and to eradicate any behaviour of undertakings that could harm competition, are so ineffective in the electricity generation market. Why have EC antitrust rules have proven to be relatively ineffective in increasing competition in the electricity generation segment?

V. EVALUATION OF ANTITRUST POLICY AND ELECTRICITY GENERATION

Problems related to the enforcement of antitrust in the electricity generation segment

Whenever trying encouraging competition and increasing efficiency in the power generation market, competition authorities and national sector regulators at national level as well as the European Commission are confronted with preliminary problems complicating their task. Obviously, liberalization in this segment is far from being in a mature stadium. When compared to other network economies that were liberalized, the energy market is only at the early stages of liberalization and the process itself is still ongoing. The application of antitrust rules is, from this perspective, a difficult task, given the ever changing nature of the market.

A second problem confronting competition authorities and sector regulators is the „antitrust dilemma’ - promoting static efficiencies at the risk of dynamic efficiency. Especially in the electricity generation market, this could have far reaching negative consequences. Reports indicate that the generating margins in Europe significantly dropped from 7.6% in 2006 to 5.3 % in 2007. Renewable energy sources only partially compensate this reduction. As indicated, the situation in some segments of power generation markets and in specific countries is even worse. Lower availability of nuclear generation capacity in France and the UK, the nuclear phase-out in some other countries such as Belgium or Germany and the urgently needed 900 million EUR investment program to boost peak load generation capacity in France, are some of the examples that highlight the need to continue encouraging extra investments in backbone or key infrastructure.

National and European competition and energy authorities are inevitably required to „balance“ competition maximization with other objectives of energy market regulation, such as the impact of energy market liberalization on the economy, the need to safeguard the security of supply, the need to guarantee the public service obligations in the market, the assurance that sufficient revenues are being generated in the liberalized market and the certainty that price levels will be maintained in the market. A fundamental question that needs to be answered when analyzing the inefficiency of antitrust policy in the generation segment, is to what extent EC antitrust rules are applicable in the energy sector.

As a general rule, antitrust rules apply to all aspects of the energy sector, as confirmed by the European Court of Justice in *Costa/Enel* as long ago as 1964.

The liberalization process initiated by the Electricity Directives only partially removed various measures originally enacted by Member States to shield their monopolists from competition. With the opening of the markets, there was a risk of incumbents (often the original monopolists) manipulating the market and creating new barriers that would generate similar effects .

Even a cursory analysis of the position of the incumbents, will reveal that these undertakings benefit from the best access to market information, are in the best technical and economic positions, own the best sites for new production facilities, have a stake in the transport infrastructure and other related key infrastructure, signed long term upstream supply contracts, have an important capacity booked over the interconnectors and have the critical mass required to deal with huge investment costs when building new generation infrastructure. For this reason, the liberalization process in most countries is spearheaded by two main instruments: - the application

of pure, behavioural antitrust rules (article 82 EC included) and; - the imposition of quasi-regulatory, structural measures, such as forced ownership unbundling, splitting up of company entities, forced divestiture or forced auctions – so called VPPs auctions

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The role of the European Commission: quasi-regulatory antitrust interventions versus sector-specific rules

The role of the European Commission in the promotion of competition in the electricity generation market has inevitably evolved. Increasingly, the Commission is resorting to quasi-regulatory measures that foster competition under the antitrust interventions. Unilateral commitments by parties involved and/or contractual obligations have, from 1996 until 2004, become part of the devices used by the Commission to restructure the market and promote competition. Confirmation and approval of that strategy was given by the CFI in the EDP/Commission case . More examples can be found in the EDF/EnBW and GDF/SUEZ merger cases.

This approach is further strengthened by the Regulation 1/2003/79. Article 7 confirms the possibility for the Commission to use its powers under antitrust to impose quasi-regulatory measures. In more mature markets, where the differences between national regulatory regimes decrease and there is less risk for „regulatory deficiencies“ , the need for these quasi-regulatory antitrust interventions equally decreases. The Commission gradually is replacing unilateral commitments by parties involved and binding obligations, by more formal decisions.

Even if the European Commission is still using its powers under the antitrust policy to impose quasi-regulatory measures, there are several arguments being used to discourage this approach. It is suggested that the knowledge about technical aspects, which are truly sector specific in the case of electricity markets, is lacking within the antitrust authorities. One could argue that competition authorities could work together with sector regulators, who manage all technical aspects. This however, in turn, raises questions about the exchange of sensitive information between competition authorities and specific sector regulators. Another argument often used to condemn quasi-regulatory interventions by the European Commission, is the predictability of the regulation. If restructuring is almost completely based on ex post-intervention, based on individual cases and sometimes leading to semi-structural measures, it creates an unpredictable regulatory framework for other players in the market. In the electricity generation market, with its huge investment costs and long lead times, this discourages investment behaviour. Finally, the question is raised if competition authorities have the necessary resources and time to invest into the monitoring of quasi-regulation based on antitrust. It seems that this task is better left to sector specific regulators, mastering every technical aspect of the electricity sector.

Assessment of the abuse of a dominant position in the Electricity generation market

The analysis and evaluation of a possible abuse of a dominant position in the market requires the definition of the relevant market. This in turn calls for the definition of the product and the relevant geographic market.

Definition of the relevant market

The European Commission relies heavily on the definition of a relevant market, when assessing the abuse of a dominant position. The emphasis on this definition criterion causes several problems for competition policy in the electricity generation market.

- First, the electricity market, as indicated earlier, is characterized by constant changes and evolutions, mainly due to the process of liberalization. The liberalization process initiated a series of structural changes, to evolve from a state-oriented monopolistic market to an open, competitive and dynamic

market. As a consequence, the definition of a relevant market, a geographic market and the product also evolve and undergo changes.

- Second, defining a relevant market is mostly based on a specific case that is being dealt with. This is a problem, as indicated earlier, given the fact that there are currently only very few cases of antitrust (abuse of a dominant position) in the electricity generation market. This means that one often has to refer to merger cases, to find definitions of the relevant market.

Definition of the product market

The European Commission has described and defined electricity as a homogenous product. There is no real distinction between types of current, although a distinction between base-load, mid-load and peak-load can be important.

Sourcing of the electricity generation and the location of the production are not considered being key criteria, as opposed to the price paid for the power generated and the degree of flexibility offered⁸⁵. The Tractebel/ Distrigas case confirmed that electricity is a separate product market, as switching costs from electricity to other generation sources entail important costs. The relevant market Based on the merger cases, the European Commission identifies several activities. The main components are: the supply of energy (electricity), the transmission of electricity generated and the services offered for the well-functioning of the market.

The supply market, as relevant product market, includes several activities. These activities are: the generation of electricity, the import of electricity produced elsewhere and the wholesale market; the sales to distributors; the sales to industrial customers and the sales to residential customers. In some cases, the Commission made a distinction between price-oriented customers and service oriented customers as two separate product markets. In other cases, a distinction is being made between over-the-counter-trade, the trade of physical products and the trade of related financial derivatives, as separate trading markets. The sale of electricity generated, by producers and traders, and the sales of electricity imported over the interconnectors are considered being part of the wholesale market. The production and sales of electricity are part of the supply market.

Assessment of abusive practices in the electricity generation market: competition in merits versus abuse of a dominant position

The objective of article 82 EC is to guarantee undistorted competition in an open, competitive market. Any behaviour by an undertaking that amounts to an abuse of a dominant position is considered being contra productive to competition and is therefore sanctioned. A clear distinction should however be made between an undertaking who has a dominant position in a relevant market based on merits, as a pure result of a well defined business strategy, and a generator who is acting illegally by abusing its dominant position. A company who has a dominant position and is not considered acting in a way that the position is abused, is not regarded as acting illegally.

Nevertheless, the Commission argues that these undertakings bear a special responsibility, the scope of which should be considered according to the circumstances of every individual

Here we touch the very question of the relationship between pure competition policy and sector regulation. An undertaking who, in an attempt to maximize profits, succeeds in maintaining and elaborating its dominant position in the market could block the entrance of new players (and potential competitors). One could ask the question whether, taking the impossibility of new players to enter the market as an example, such position can be considered as an „abusive practice’. If left untouched, it could hamper real competition. If, by contrast, a political decision is taken to tackle this problem, then a specific regulatory regime will be needed (given the fact that the situation is not being regarded as illegal under article 82 EC). This regulatory intervention will replace or supplement the existing antitrust framework..

The assessment of market power: a dominant position

Illegal conduct under article 82 EC in the electricity sector mostly takes the form of abusive exclusionary conduct by a dominant undertaking, rather than pure exploitative abuses.

The criterion to define whether an electricity undertaking (in this case a generator) enjoys a dominant position (which it could abuse), is similar to the approach used in other sectors, such as telecommunications, chemicals or airlines. A firm is dominant if:

- It has a position of economic strength;
- It can prevent effective competition;
- It can behave independently of its competitors, customers and consumers⁹⁵.

A position of economic strength

Under the traditional approach, the Commission regards a company that is capable of increasing price levels above a level, considered being competitive, for a significant period of time, as dominant. The traditional approach also assumes that a 40% market share in a relevant market is a indicative ceiling and acts as a warning sign for possible abuse of a dominant position. The electricity market features pose a specific problem here. As indicated earlier, the demand for electricity is inelastic due to the impossibility to store generated power. This means that generators could find themselves in a position that is described as „dominant”, even while they have a market share that is significantly lower than the 40 % market share ceiling, used as an indicator for a possible dominant position. Furthermore, without even taking into account the market share, a generator could exercise a dominant position in an abusive way during only a very short period of time, and thus not during a significant period of time. This is for instance the case with generators provide peak load generation capacity.

Several examples of this „evolving” assessment of a dominant position can be found in Europe. To cope with the assessment of abuse of a dominant position, several alternative approaches were suggested.

The Federal Energy Regulatory Commission FERC in the US used the so-called „Supply Margin Assessment” . A generator is capable of demanding high prices (and could be in a dominant position) if (part of) the generation capacity is needed in order to meet the market peak demand. The FERC describes the position the generator is in under these circumstances as „pivotal” .

-A slightly different approach was used by the Dutch regulator in the Nuon/Reliant case. Here, the assessment of a dominant position is based on the combination of the evaluation of peak markets, the analysis of the ranking of production facilities under the merit order and the doctrine of unilateral effects in mergers.

The European Commission also applied the doctrine of collective dominant positions in the Almelo case.

The Commission has also indicated a preference not to rely on market shares as an indicator of market power. In a study, prepared by London Economics in February 2007 on the structure and performance of six European wholesale electricity markets, it is suggested to use more innovative and advanced techniques. The London Economics study uses a three layer- approach to analyze how competitive electricity markets outcomes have been.

- o In a first step, structural measures of market concentration are measured, using the traditional „ (HHI) indices and concentration measures (CR(n)), for wholesale markets in specific European countries.

- o The second stage involves the calculation of electricity specific measures of market structure. The indicators used for this end are the Residential Supply Index (RSI) and the Pivotal Supplier Index (PSI).

- o Subsequently, the market outcome measures are expressed in standard economic measures of competitiveness of the market. Therefore, Lerner Indices (LI) and Price-cost Mark-Ups (PCMU) are applied. The results show highly concentrated markets in some countries.

Analysis of the PCMU and the LI showed that the largest generators in the studied countries had, in most cases, significant margins. Interesting to mention from the investment perspective, is the evaluation of the contribution to the fixed costs. As shown earlier, incumbents with a sufficient „critical mass“ benefit from a position in the market giving them a de facto competitive advantage over new entrants (potentially turning into direct competitors) and smaller, existing players. One of the advantages they benefit from, is the ability to cover fixed costs. This is a good indication of their ability to maintain operations and the capability to invest into new infrastructure. The study showed that all major players could benefit from significant, and increasing, contributions to the fixed costs. It also indicates that, under the assumption that they sell the generated power at competitive prices, they recover their costs.

Of importance for the evaluation of the dominant position under the „traditional“ approach, is the outcome of the RSI and PSI index. Both parameters measure the „role“ and the significance of an individual generator in the supply build-up to meet demand. The more an individual player is needed to meet demand, the more important (the more „pivotal“) will be his role and the more power a generator has to raise prices. Again, the results of the London Economics Study are quite impressive here and show structural deficiencies in certain countries. In Belgium and France for example, the largest generators are indispensable at any time. The difference with the pivotal role of other generators is quite dramatic.

Relating the market structure variables to the market outcomes led to the testing of the hypothesis that pivotal generators have market power. The European Commission regards an undertaking,

capable of increasing price levels above a level, considered being competitive, for a significant period of time, as dominant.

The next step in the 2007 analysis was to compare prices with price levels, being considered competitive. The most important outcome of this study is the suggestion that prices in the EU wholesale markets were indeed higher as they would have been under 100% competitive circumstances, due to the indispensability („pivotal role”) of specific players in some markets. These generators are the largest and strongest actors in the market and in some cases, they are fully out of reach of competitive influence from any other player.

The outcome of the 2007 London Economics Study is fully in line and reconfirms the findings of the European Commission” s 2007 Sector Inquiry, stating that the market structure in some cases, and for a significant number of hours, could incite to anticompetitive behavior by some market actors. Earlier, we indicated the intrinsic difficulty for competition authorities and sector regulators to define the „competitive price” . As the ability of a generator to raise and manipulate prices forms an indication of a dominant position, the determination of the competitive price level will be decisive. Several approaches have therefore been used. We hereby give a short overview of the different views.

- In the Elsam case in Denmark, the competition authority used a cost plus approach, comparing profits margins with marginal costs. Another example of this policy can be found in the Thüringer Energie AG case in Germany.
- Another line consists in comparing prices in a specific geographic area with prices applicable in another, similar geographic area. An example of this method can be found in the Stadtwerke Mainz case¹. The technique is also used by regulators in an attempt to squeeze margins. An example is the benchmarking strategy used by the Belgian federal energy regulator CREG to reduce distribution network costs.

Competitive structure of the market

When assessing the dominant position of an undertaking in the market, the Commission takes into account several criteria that are linked to the competitive structure of the relevant market. Three elements are regarded as being critical: 1. the position of the undertaking under survey and its competitors 2. the entry and exit or expansion of potential competitors and 3. the power of customers.

- We refer to the previous paragraph for an analysis of the undertakings’ position. It is generally accepted that, the higher the market share and the longer the dominant position is held, the stronger the indication that there might be a possible abuse of a dominant position. In the electricity generation market, we see extremely concentrated markets and dominant positions held by undertakings over long periods. The Belgian and French markets are typical examples of this situation.
- Another feature of the assessment of dominant positions is the possibility for entry or expansion of other market players that could tackle the incumbents” dominant position. For this to happen, the expansion or entry must be swift, at a considerable scale and profitable for the undertaking

involved. These barriers to expansion or entry are, at a large scale, present in European electricity generation markets. Some generators benefit from economies of scale, they have the necessary capital resources and have the critical mass of customers, they benefit from an almost exclusive access to resources (both intellectual and primary fuel resources), they maintain an unmatched technological advantage and are able to invest massively into new generation infrastructure, at levels that are far beyond the limits of their potential rivals.

- Finally, there is the position of the customers. Under certain conditions, specific customers obtain countervailing buying power which makes generators dependent of the former. Some utilities apply a specific strategy whereby they navigate members of their Board into the Board of large industrial customers, who could potentially obtain a countervailing buying power position. As there is no regulation on Chinese walls between generators and large industrial customers, the membership of the customers' board acts as an indirect instrument to „redirect“ buyer power.

Anticompetitive foreclosure

The European Commission identifies anticompetitive foreclosure as customer harm due to the hampering or complete elimination of effective access of potential or actual competitors to the market. This situation results in a market growing scantier, allowing the dominant undertaking to increase prices. To assess whether there is anticompetitive foreclosure, the Commission uses several criteria, which can also be applied to the electricity generation market. Using these parameters, the Commission compares the actual situation in the relevant market, influenced by the alleged abusive conduct with a situation whereby the conduct in question is not present. The criteria used to evaluate the anticompetitive foreclosure, as could be applied to the electricity generation segment, are:

- The pure position of the dominant player/generator. As indicated earlier in this article, studies have shown that some generators keep an absolute dominant position in the relevant market.

- The conditions for entry and expansion in the relevant market. Some electricity markets are characterized by large economies of scale or barriers in the upstream or downstream markets. This is especially the case for the nuclear generation segment and the gas fired power plants. Major European generators keep expanding their nuclear production portfolio or merge with gas supply companies in an attempt to control the security of supply of gas for power generation. In both ways, they consolidate their dominant market position.

- The position of other competitors. As indicated earlier, analysis shows that large European utilities in some countries keep an all time „pivotal role“, making them indispensable at all times. The „pivotal gap“ between the absolute number one and the number two generators is sometimes dramatic, hereby leaving no realistic, effective and timely strategy options open for potential new entrants. The French and Belgian markets are typical examples hereof.

- The position of customers. This feature is particularly important in the generation segment, due to the supply and demand of electricity. As electricity cannot be stored and demand patterns vary significantly between customers, some generators are able to offer a far better „tailor made supply solution“ to large industrial consumers, with a specific demand profile. The more diversified and flexible a production portfolio is, the better a generator will be able to offer a specific supply pattern. This partially explains why, in highly concentrated markets, it is difficult for large industrial consumers and transmission system operators, to leave their „historic supplier“ and switch to a new entrant.

All this makes the customer largely dependent of the dominant supplier/generator and leaves no other options for switching over to the customer. The attempts by Belgium's second largest generator SPE, to get access to nuclear production capacity of Electrabel, in order to be able to offer competitive packages to all customers, is a typical example of this situation.

- Finally, the Commission normally bases its assessment on the total sales volume, the duration of the abusive conduct, the frequency of the conduct or the evolution of the market shares. Sources of direct information, gathered during surprise visits, supplemented with indirect information, can all be used to provide evidence of these criteria.

However, one should mention the fact that, due to the specific technical features of the generation market, the collection of this information is more complicated than in other sectors. As shown earlier, some generators could be in a position to abuse a dominant position during relatively short periods of time (peak generation capacity) or in very specific segments (balancing capacity). This further complicates the task of the Commission.

Price based exclusionary conduct

Under normal market conditions, price competition generates positive effects to the customer but in specific cases however, this price based conduct can lead to anticompetitive foreclosure.

In earlier cases, the European Commission decided that: "Such prices can drive from the market undertakings which are perhaps as efficient as the dominant undertakings, but which, because of their smaller financial resources, are incapable of withstanding the competition waged against them".

The problem also occurs in the electricity market. This issue was heart in the Belgian generation segment in the past. The number two generator SPE argued that it was simply unable to compete with Electrabel in the market, due to the below-cost pricing of the incumbent. According to SPE, the origin of the problem was the nuclear production capacity, totally written-off and fully in the hands of Electrabel. SPE claimed that this allowed Electrabel to apply below-cost pricing when offering large, diversified supply packages to industrial customers. Strangely enough, even when claiming having sufficient reliable data to prove this anticompetitive foreclosure, SPE never took this case to court. When solely focusing on the supply of electricity, a price-based exclusionary conduct can turn into an exclusive dealing agreement, which in turn can be considered as a specific form of abuse of a dominant position. Again, this can be the case with electricity generators who are in such position that only they are able to provide part of the customer's demand. Countries where the incumbent is the sole player capable of supplying balancing services could, under certain conditions, fall within the scope of exclusive dealing agreements.

V. DISCUSSION

Article 82 EC is normally used against any abuse of an individual dominant position with a view to protect real workable competition rather than the interest of individual customers. However, when applied to the electricity generation market, the competition fostering effect seems absent. As the 2007 European Commission Sector Inquiry, the London Economics Study and several smaller studies by sector regulators or competition authorities revealed, various structural deficiencies in the competitive structure remain in the market and article 82 EC has generated very little in the way of ground-breaking results.

We can identify four structural reasons, directly related to the nature of article 82 EC, that hamper its effectiveness: o European antitrust rules, especially article 82 EC, don't allow to break up a monopoly if there is no violation of a competition rule. As a result, the incumbent with a historically grown dominant position who is de facto blocking market entrance or expansion of new or existing players, cannot be sanctioned.

Some argue that tougher measures such as maximum market share ceilings or forced divestiture are needed to break the dominant position of specific monopolists. But caution is required. The electricity generation market is characterized by specific technical features, such as the impossibility to store the power generated or the need to balance the grid or to provide the best suited supply profile to a customer. These elements are not always present in other network economies. Moreover, this again touches the difficult question whether to „punish“ an undertaking who has a dominant position in a market without abusing it, simply because it is based on merits. The question is highly political and controversial, but should a utility who has a 90 + % market share in a generation and wholesale market, as a result of decades of strategic company policy, be split up? If this approach seems difficult due to the nature of antitrust regulation, it seems wiser to create a regulatory framework that fosters the entrance of new potential competitors in the market.

o Another problem related to article 82 EC is the protection ex novo of new power generation capacity. More and more, we see nuclear generators and generators owning and operating gas fired power plants working together. Even if this type of cooperation definitely creates synergies and adds to the increased efficiency in the market, such simple cooperation can also block the entrance to the market for new players. Again, article 82 EC seems powerless and not suited to solve this problem. But not every co-operation agreement violates Article 81 EC.

o A third problem with the use of article 82 EC as an instrument to increase market competition, is the simple fact that it is not able to solve more complex and refined abusive conduct in the market. A new player that originates from the merger between a trader and an electricity generator, is capable of manipulating the market by auctioning off part of the bottleneck capacity. Even without influencing price levels, the new player acquires a dominant position and could maximise it during specific periods.

o Finally, there is a structural problem with article 82 EC due to the simple fact that the article is only used as an ex-post instrument, once there is a negative impact due to the alleged abuse of a dominant position.

The fundamental question should be raised if an ex-post instrument is an ideal solution to avoid abusive conduct AFTER the situation is in place and the negative effects start to emerge.

Opponents of this approach who are in favour of the exclusive use of article 82 EC as a competition booster, argue that the liberalization of electricity production was, from the start, never a green field situation, simply because of the existing monopolistic supply situation in almost every European country.

- The results of the application and implementation of article 82 EC in the electricity generation segment are very poor. Even if we start seeing some beneficial effects of antitrust policy and regulation, there still is no major competition breakthrough. Progress is slowly being made with

the follow up to the 2007 Sector Inquiry and the opening of some formal proceedings against single undertakings, but the benefits of these actions are not yet visible.

Although limited success has been realised through the use of binding commitments and quasi-regulatory settlements in individual cases this does not resolve the structural malfunctioning of the market as a whole and simply leaves the full dissuasive effect of antitrust regulation unused. Moreover, the lack of clear legal precedent creates extra uncertainty for market players, which could -in turn- endanger the development of the market or the investment behaviour of generators.

VI. CONCLUSION

This paper has highlighted the major difference between the application of antitrust in the electricity market, as compared to other network industries such as telecoms. In the latter, the liberalization process started with the antitrust rules and was later supplemented by sector harmonization rules. Liberalization in the electricity sector began with sector regulation and now slowly moving towards the assessment of abusive or exclusionary conduct by undertakings, based on article 82 EC.

In this context, the paper described the changing role of the European Commission, supporting the introduction of structural remedies towards the implementation of antitrust remedies as pro-competitive measures. The traditional approach used by the European Commission when assessing alleged abusive exclusionary conduct was used, to analyze the effectiveness of antitrust policy in the generation market. An in-depth analysis of possible forms of dominant positions of generators revealed that refined „tactics“ can be used to keep a pivotal role in the market.

It is highly questionable if article 82 EC is suited as an antitrust policy instrument in the generation market.. Furthermore, the current results of the application of article 82 EC are virtually non-existent. Antitrust policy is done on an ad hoc base in individual cases, creating a semi- vacuum for the undertakings concerned.

These conclusions have obvious implications for the future regulation and EC competition policy. Article 82 EC can be applied but in parallel with regulatory rules Both should have a more complementary role. A parallel can be drawn with the basis for the Electronic Communication s Framework of 2003 in the telecoms. Competition policy and the sectoral regulatory framework should both be in line and integrated into a wider liberalization process, taking into account the influences and evolutions the sector is subject to. When applied in individual cases, the evaluation of an alleged abusive conduct should be economics- and effect-based. More than ten years after the first steps on the path of liberalization, positive results are scarce. The approach of article 82 EC should be modified, that is: antitrust regulation should be more proactive and structural. Defining relevant markets and calculating market concentration indicators based on more specific criteria could, in a proactive way, eliminate abusive conduct.

It follows that a closer cooperation between regulatory authorities and competition authorities is needed, given the fact that sector rules do not exclude the application of general antitrust regulation. This requires a substantial strengthening of the regulatory system. But as Section II of

this paper has suggested, the creation of the new Agency – ACER – may lead to further bifurcation and not consolidation, given that the Commission will retain its ‘monopoly’ over competition issues while ACER will be required to deal with the development of technical regulation of networks.

Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC, OJ L 176, 15.07.2003, p. 37–56.

Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, OJ L 1 of 4.01.2003, p. 1–25. 7 Communication from the Commission - Inquiry pursuant to Article 17 of Regulation (EC) No 1/2003 into the European gas and electricity sectors (Final Report), COM/2006/0851 final and DG Competition report on energy sector inquiry, SEC(2006)1724, 10 January 2007. 8 Proposal for a Directive of the European parliament and of the council amending Directive 2003/54/EC concerning common rules for the internal market in electricity, COM(2007) 528 final

HILDEBRANDT, D., (1998), *The Role of Economic Analysis in the EC Competition Rules*, p. 137, European Monographs 17, Kluwer. 10 SCHMIDT, I., RITTALER, J., (1988), *A critical evaluation of the Chicago School of antitrust analysis*, p. 14, Kluwer. 11 SMITH, A., (1776), *An inquiry into the nature and causes of the wealth of nations*, p.12-20, in *Monopoly and Competition Policy*, SCHERER, F.M., (1993), Edward Elgar Publishing, Aldershot. 12 SCHMIDT, I., (1993), *Wettbewerbspolitik und Kartellrecht: Eine Einführung*, p.3, =4th revised edition, G. Fischer, Stuttgart, 1993. 13 MESTMÄCKER, E.-M., (1963), *Probleme des Bestmöglichen in der Wettbewerbspolitik*, in BECKERATH-GIERSCH (ed.), *Probleme der Normativen Ökonomik und der Wirtschaftspolitischen Beratung*, p. 305, Duncker & Humblot, Berlin, 1963. 14 CLARK, J.M.,(1940), *Towards a Concept of Workable Competition*, in: *American Economic Review*, Vol.30, (1940), p.241.

WOLAK, F.A., (2004), *Managing unilateral market power in electricity*, in ‘‘The Pros and Cons of Antitrust in Deregulated Markets’’, p. 78-101, Konkurrensverket, Swedish Competition Authority, 2004

Proposal for a regulation of the European Parliament and of the Council establishing an Agency for the Cooperation of Energy Regulators (ACER), COM(2007)530 final. The Commission has also put forward proposals for the amendment of the energy directives and regulations: See

HYPERLINK

"http://ec.europa.eu/energy/electricity/package_2007/index_en.htm"http://ec.europa.eu/energy/electricity/package_2007/index_en.htm.

Proposal for a regulation of the European Parliament and of the Council establishing the European Electronic Communications Markets Authority (EECM), COM(2007)699rev2. The Commission has also put forward proposals for the amendment of the electronic communications directives. See: http://ec.europa.eu/information_society/policy/ecomms/library/proposals/index_en.htm.

See G. Majone, *Dilemmas of European Integration, The Ambiguities & Pitfalls of Integration by Stealth*, Oxford: Oxford University Press 2005, p. 93-94, E. Vos, ‘Agencies and the European Union’, in: L. Verhey & T. Zwart (eds), *Agencies in European and Comparative Perspective*, Antwerp-Oxford-New York: Intersentia 2003, p. 113, M. Thatcher & D. Coen, ‘Reshaping European Regulatory Space: An Evolutionary Analysis’, *West European Politics* 2008a, no. 4, p. 806-836, R. Dehousse, ‘Delegation of Powers in the European Union: the Need for a Multi-Principals model’, *West European Politics* 2008, no. 4, p. 789-805 and R. Dehousse, ‘EU Law and the Transformation of European Governance’, in: C. Joerges & R. Dehousse (eds), *Good governance in Europe’s Integrated Market*, Oxford: Oxford University Press 2002, p. 218.

For a detailed conceptual analysis of the notion of accountability, see: M.B. Bovens, ‘Analysing and Assessing Public Accountability. A Conceptual Framework’, *European Law Journal* 2007, no. 4, p. 447-468.

In most Member States NRAs should follow the policy lines formulated by the legislator and the government, but they are independent in applying European law in an individual case. The actual and formal independence of the NRAs of their governments may vary across

the different Member States. See e.g. the several articles in: R. Caranta, M. Andenas & D. Fairgrieve, *Independent Administrative Authorities*, London: British Institute of International and Comparative Law 2004.

However, the Commission does attend all meetings, plays an active part in them and provides the secretariat for the ERG, the ERGEG and the ECN.

European legislation leaves the detailed design of the networks to the Commission.

ECJ, joined Cases C-359 and C-397/95P, *Ladbroke* ECR [1997] I-62225.

D. Coen & M. Thatcher, 'Network Governance and Multi-Level Delegation: European Networks of Regulatory Agencies', *Jnl Publ. Pol.*, 2008b, p. 49-71.

See the letter from Commissioner Reding to the Chairman of the ERG, Request for advice of the European Regulators Group in the context of the Review of the Regulatory Framework for Electronic Communications Networks and Services, D(2006)2685, Brussels, 20 November 2006.

ERG, Advice in the context of the Review of the Regulatory Framework for Electronic Communications Networks and Services, 27 February 2007 and ERGEG's response to the European Commission's Communication "An Energy Policy for Europe", ref. C06-BM-09-05, 6 February 2007. See also Thatcher & Coen 2008a.

ERGEG, '3rd Legislative Package Input, Paper 2: Legal and Regulatory Framework for a European system of Energy Regulation, An ERGEG public document', Ref: C07-SER-13-06-02-PD, 5 June 2007 and ERG 2006.

See Articles 7 and 8 of the proposal for the amendment of Directive 2002/21/EC, Article 22b of the proposal for the amendment of Directive 2003/54/EC and Article 24a of the proposal for the amendment of Directive 2003/55/EC.

Article 3 of the proposal for the amendment of Directive 2002/21/EC, Article 22a of the proposal for the amendment of Directive 2003/54/EC and Article 24a of the proposal for the amendment of Directive 2003/55/EC.

Article 7, par. 7 of the proposed Regulation on ACER. See also: H. von Rosenberg, 'No Ace to Win the Trick-the Proposed ACER and its Influence on EC Competition Law', *E.C.L.R.* 2008 no. 9, p. 512-522.

Article 7, par. 1 of the proposed Regulation on ACER.

Article 8 of the proposed Regulation on ACER.

In this contribution the term general measures refers to measures that have general applicability and that apply to an unidentified group of cases/persons. The term specific or individual measures refers to measures that relate to a specific situation and that have specific addressees.

European Parliament legislative resolution of 18 June 2008 on the proposal for a regulation of the European Parliament and of the Council establishing an Agency for the Cooperation of Energy Regulators, A6-0226/2008, Amendment 76.

European Parliament legislative resolution of 24 September 2008 on the proposal for a regulation of the European Parliament and of the Council establishing the European Electronic Communications Market Authority, A6-0316/2008, Amendment 57.

See Article 7 of the proposed Regulation on ACER.

Article 5 of the proposed Regulation on ACER and Article 4 of the proposed Regulation on EECMA.

Articles 2a to 2h of the proposal for the amendment of Regulation 1775/2005 and Articles 2a to 2h of the proposal for the amendment of Regulation 1228/2003. See also amendment 32 of the EP resolution of 18 June 2008 on the proposal for amending Regulation 1228/2003, A6-0228/2008.

See for energy: Article 7, par. 4 of the proposed regulation on ACER.

See Article 4 of the proposed Regulation on EECMA, in conjunction with Article 7 of the proposed Directive amending Directive 2002/21/EC and amendment 52 of the EP resolution of 24 September 2008.

For example, in the energy sector the NRAs will retain the power to regulate the tariffs for access to the national energy networks.

The example of the 'gas roundabout affair' of the Dutch Energy Regulator (DTe), for instance, showed that it can on the one hand be in the European interest for the transit of gas through the Netherlands to be encouraged as far as possible and that the Dutch consumer connected to the energy networks should help pay for the investments in the transport network needed to achieve this. On the other hand, however, it may be in the national public interest for the consumer not to be confronted with increases in end user tariffs leading to unaffordable energy prices. See DTe 22nd September 2006, Informele zienswijze uitbreiding H-gas transportsysteem, kenmerk 102259/39.B828.

Commission Staff Working Document, Accompanying document to the Report on Progress in Creating the Internal Gas and Electricity Market, Commission of the European Communities, Brussels, April 15th 2008, SEC(2008)460. HHI-index or Herfindahl-Hirschman Index is being calculated as the sum of squares of individual companies in the power generation segment. For an overview of the advantages of large undertakings, see: OECD Competition Law and Policy, 2005 Round Table Paper, Barriers to Entry, DAF/COMP (2005)42.

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Second Strategic Energy Review, An EU Energy, Security and Solidarity Action Plan, Brussels, 13.11.2008, COM(2008) 781 final

IEA Energy Policies Review: The European Union 2008, IEA, 2008.

Commission Staff Working Document, Accompanying document to the Report on Progress in Creating the Internal Gas and Electricity Market, European Commission, 15.04.2008, SEC (2008) 460.

UCTE, System Adequacy Report 2008, see: <http://www.ucte.org/resources/publications/systemadequacy>.

Case T-87/05, EDP/Commission, pt. 96.

For Belgium, the dominant player has a 100% pivotal role, the number two has only a 5% pivotal role.
For France, the dominant player has a 100% pivotal role, the number two has a 0,5% pivotal role.

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