Definition of Relevant Market for the Purposes of Protection of Competition on Energy Markets in the Practice of the European Commission*

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Summary: This text deals with the topic of definition of relevant market for the purposes of protection of competition in the energy sector. With the use of examples related to two essential energy commodities, electricity and natural gas, the approach of the European Commission to the use of concepts included in the key Communication of the European Commission on definition of relevant market is illustrated together with position of the European Commission on definition of individual markets for specific activities connected with the above-mentioned commodities.

Keywords: abuse of dominant position – barriers to entry – cartel, competition – competition law – Commission Notice on the definition of relevant market for the purposes of Community competition law – electricity – energetics – European Commission – gas – geographic market – merger – product market – protection of competition – relevant market – SSNIP test – substitutability – time market

1. Importance of definition of relevant market in the competition law

Defining the market relevant for the behaviour assessed in individual cases of competition law application, or at least some level of that defining, is traditionally considered an indivisible part of competition law analysis. Definition of relevant market plays important role for assessment of applicability of both prohibitions

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and possible exemptions from them, in the area of prohibited agreements and abuse of dominant position, and similarly in analysing impacts of concentrations of undertakings. Although a duty to carry out analysis or exact procedure of the Commission in defining the relevant market is not prescribed by any rule of "hard" competition law, direct or indirect references to relevant market and aspects of its definition are contained in number of regulations and "soft" notices of the Commission related to specific areas, with support of rich case law of the Court of Justice of the European Union. The European Commission dedicated one of its notices to the definition of relevant market completely, and the steps that it usually carries out during this definition, summarized in the Commission Notice on the definition of relevant market for the purposes of Community competition law (hereinafter the "Notice")². This document has proven its durability and versatile usability among others by not having been changed once since its adoption in 1997, unlike many other documents of "hard" and "soft" EU competition law. As the Commission communicates in the Notice:

"Market definition is a tool to identify and define the boundaries of competition between firms. It serves to establish the framework within which competition policy is applied by the Commission. The main purpose of market definition is to identify in a systematic way the competitive constraints that the undertakings involved face. The objective of defining a market in both its product and geographic dimension is to identify those actual competitors of the undertakings involved that are capable of constraining those undertakings' behaviour and of preventing them from behaving independently of effective competitive pressure. It is from this perspective that the market definition makes it possible inter alia to calculate market shares that would convey meaningful information regarding market power for the purposes of assessing dominance or for the purposes of applying Article [101TFEU]. [...] The definition of the relevant market in both its product and its geographic dimensions often has a decisive influence on the assessment of a competition case "3

Importance, main steps and practical application of relevant market definition have been summarised in a speech by a former EU Commissioner for Competition, Mr. Mario Monti:

"[...] Increased economic approach to competition policy has put market definition at the centre of the process of application of the EU competition rules. [...]Market definition is not an end it itself but a tool to identify situations where there might be competition concerns. [...] The main objective of defining a market is to identify the competitors of the undertakings concerned by a particular case that are capable of constraining their behaviour. [...]

For their examples see e.g. PETR, M., DOSTAL, O., KREISELOVÁ, I., VAVŘÍČEK, V. Zakázané dohody a zneužívání dominantního postavení v ČR. C. H. Beck, 2010.

² Commission Notice on the definition of relevant market for the purposes of Community competition law (97/C 372/03)

³ Ibid.

The Notice on market definition follows a classical "constrains" approach. In essence, this is based on the notion that the exercise of market power can be constrained by demand substitutability, by supply substitutability and by potential competition. We look first, and above all, at demand substitutability, that is to perfect or near perfect substitutes readily available in the geographic area or in an alternative area, to which consumers or users can actually switch should the price increase. In order to measure demand substitution, we use the hypothetical monopolist test, better known as SSNIP test, as it is referred to in the US horizontal merger guidelines.[...]

Supply substitutability is considered then. It refers to producers who are able to switch production to the relevant products as a response to a price increase. [...]Potential competition is not taken into account for market definition. Instead competitive constraints coming from potential competition will be assessed at a later stage of the process to identify market power.[...] In practice [of the merger control], the starting hypothesis for our analysis is the market definition provided by the notifying parties. [...] Parties are asked to define the relevant product and geographic markets and to provide very detailed additional information to allow the Commission to check that definition. This position is contrasted with the experience of the Commission in the sector as well as with the views of customers and competitors. [...] On the basis of all this information, we are usually in a position to establish the relevant markets concerned by the operation or, at least, the few alternative possible relevant markets. In fact, in view of our limited resources, we define markets only when strictly necessary. In merger cases, for instance, if none of the conceivable alternative market definitions for the operation in question give rise to competition concerns, the question of market definition will normally be left open [...] Before we adopt a final definition that could lead to a finding of competition concerns, the parties always receive a copy of our reasoning (in the form of an statement of objections) and are given the opportunity to reply in writing and orally to it. [...]

Furthermore, barriers and switching costs for companies located in other areas are also considered. [...] Finally, the existence or absence of regulatory barriers (for example, those arising from public procurement, price regulations, quotas and tariffs limiting trade or production, technical standards, legal monopolies, requirements for administrative authorisations, or other regulations), is very important for geographic market definition. "4

2. Importance of definition of relevant market in cases of competition law application in energy sector

Definition of relevant market is one of the main steps in analysing cases of breaking competition law, and there is no reason, for which it should not be so in the energy sector. In Commission practice, however, cases of prohibited agreements and abuses of dominant position in energy sector, especially concerning

MONTI, M. Market definition as a cornerstone of EU competition policy. Speech by Commissioner for Competition Available at: http://ec.europa.eu/competition/speeches/index_speeches_by_the_commissioner.html

electricity and gas, have been regularly resolved by means of so-called commitments decisions⁵, which, also with regard to the fact that they are more negotiation-based, regularly do without more in-depth analysis of the relevant markets. On the contrary, and as an example of a less obvious area, where more detailed relevant market analysis in energetics has been used, the applications of EU member states for exemption from the duty to apply public procurement directives may be presented. Such exemption is conditioned by proving existence of effective competition on the markets with activities that should be exempted from application of the directives. Negotiating with the Commission on the mentioned exemptions has thus been regularly aimed at defining the relevant market, especially its geographic definition and the markets power of the affected undertakings on the market. The focus of detailed relevant market analysis for the area of energetics has moved to the merger control, where nowadays there is rich decision-making practice of the Commission including definitions of various levels of the markets with energy commodities and services. Merger case law is the basis also for this article which serves to briefly illustrate the thinking of the Commission in defining the relevant markets in energetics, its standpoints on essential questions of competition on electricity and gas markets, as well as use of the most important notions of the Notice.

3. Key concepts of relevant market definition in energy sector

Also, in the energy sector the main issues in competition cases concern market power, its existence, strengthening or abuse. Therefore, also in the energy sector I tis necessary to identify first the market in relation to which the power is assessed. Alike other economy sectors, also in energy sector cases the Commission applies its Notice, which, as mentioned above, distinguishes three main dimensions of the relevant market, especially product and geographic dimension while considering also time dimension. The procedure of analysing the relevant market in line with the Notice and certain specifics of this analysis in the energy sector are illustrated by the below-cited cases of concentrations of undertakings on electricity and gas markets.

A relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use. The main tests

Š ČERNÝ, M., PETR, M., DOSTAL, O., ZORKOVÁ, E., PŁONKOVÁ, D., DOHNAL, J., KA-JLIKOVÁ, Z. Výbrané výzvy v právu soutěžním a v českém právu obchodních korporací. Olomouc: Iuridicum Olomoucense, 2017, 187 s.

indicated in the Commission notice on the definition of relevant market for the purposes of Community competition law are demand substitution, supply substitution and potential competition. The relevant geographic market consists of an area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas.

Possible extent of the relevant market is defined by assessing the range of products or services, as well as the territory and time where and when the products and services are offered, which could be considered under certain circumstances as mutually interchangeable. One of the possible ways of assessing the view of consumers and interchangeability of goods or services and the territory where the offer takes place, is, according to the Notice, so called SSNIP test consisting in modelling reactions of consumers to small but significant non-transitory increase in price. The issue under scrutiny can be for example whether a customer would switch to an alternative supplier if confronted with a Small but Significant Non-transitory Increase in Prices.⁸

The variable measured by SSNIP test is price elasticity expressing capability and willingness of the purchasers to switch to substitute products or terminate orders once the suppliers increase the prices above competitive level. Whereas other goods are substitutable or dispensable, electricity is not, in-house production or switching to other energy sources being possible only to a limited extent, very costly and extremely time-consuming. In its past decisions, the Commission has consistently considered that the supply of electricity and gas to end-customers did not pertain to the same product market because these two sources of energy were not seen as sufficiently substitutable. Low substitutability from the customers' point of view is mainly due to (I) the limited number of applications were they can actually be substituted (main water and space heating and cooking for households and limited industrial applications) and (ii) the high equipment costs induced by switching from one source of energy to the other.¹⁰ In other words, electricity should be considered as a relevant product market distinct from the market for gas or the market for other energy sources. From a demand-side point of view, electricity is characterized by the universality of its usages. It is possible to distinguish between the exclusive usages (essentially lighting and the utilization of electricity to get some chemical reactions) and the usages for which there exists, from a technical point of view, a potential substitutability with

Gase COMP/M.2947 – Verbund / Energie Allianz.

Case COMP/M.1673 – VEBA/VIAG.

⁸ Case M.3867 – Vattenfall/Elsam and Energi E2 assets.

⁹ Case M.1673 – VEBA/VIAG.

Case M.3448 – Electricidade de Portugal/ Hidroeléctrica del Cantábrico.

other sources of energy utilized by households as well as by industrial operators (traction and the production of heat). This technical substitutability relates only to the non-exclusive usages, essentially the production of heat. It remains very imperfect as electricity is produced from another source of energy and is therefore necessarily more expensive. It is thus utilized only when the characteristics of heat and the technical process require it. Lastly, this substitutability could take place only over a long period of time because it involves different choices of equipment, according to the source of energy chosen. From a supply-side point of view, every source of energy presents some different requirements as far as production, storage and transport are concerned. This distinguishes electricity from other sources of energy as it requires specific and important investments.¹¹

As regards reaction of demand, there are substantial differences between the demand behaviour of large customers and mass customers. Large customers are usually more price-sensitive, and correspondingly more ready to change suppliers than small customers are. Negotiating power and conduct of negotiations are also different. This is reflected in different sales strategies adopted by the energy suppliers and a different level of prices. For large customers value for money and flexibility of supply are the major considerations, while for mass customers there is a further marketing differentiation (for example between, clean energy, especially from domestic hydroelectric sources, and electricity from fossil fuels or nuclear energy), and a qualitative approach to customers. Large customers and mass customers usually take power at different voltage levels, and this too helps to differentiate them. It is true that the voltage at which electricity is supplied is not in itself a barrier to entry, in view of the postage stamp tariff payable for through-transmission. But the lower the voltage at which current is delivered, the higher the share of the entire bill accounted for by the grid itself. The relative advantage to the customer of a change of suppliers is therefore lower at lower grid voltages with higher grid prices. 12

An illustrative example of the Commission considerations in delineating relevant geographic market can be found in the case of the Nord Pool distribution system. There the Commission stated that the structure of the electricity market allows for a very precise answer to the question whether a customer would switch to an alternative supplier if confronted with a Small but Significant Non-transitory Increase in Prices. In the particular case, if the producers in, say, Denmark West were to increase prices above the system price on Nord Pool by submitting higher bids, then customers in Denmark West would automatically and seamlessly – due to the allocation process at Nord Pool – be assigned electricity originating from

Case – IV/M.568 – EDF / EDISON-ISE.

 $^{^{\}rm 12}$ Case M.2947 - Verbund / Energie Allianz.

another region provided that sufficient free interconnector capacity is available. On the other hand, if the interconnectors were to be congested, the customers would not be able to switch and would have no choice but to pay the higher price. In other words: the SSNIP test will give different answers in different hours. It would point to a narrow market in hours where there is congestion and to a wider market in hours in which there is no congestion.¹³

As regards the temporal dimension of relevant market, the Commission observes that electricity is a product, which cannot be stored and must therefore be consumed in the same instant as it is produced. Combined with a limited possibility of substitutability between different time periods different geographic electricity, markets can be distinguished by the time at which the electricity is delivered. In the Sydkraft/Graninge case the Commission stated that congestion on the transmission network can cause the Nordic electricity market to split into separate price areas. This limited the number of suppliers able to supply electricity in a given area and thereby the competitive structure of the market¹⁴.

From the temporal point of view the Commission in the past considered also delimitation of a market with production and wholesale of electricity out of the peak hours, during the peak hours and in the extreme peak hours. As the capacity available on interconnectors is biggest in the time outside the peak hours, electricity import could exert biggest competitive pressure exactly outside the peak hours.¹⁵

3.1. Specifics of the relevant market definition in energetics

According to previous Commission decisions, the definition of the relevant product market(s) must take into account the existing and foreseen degree of opening there-of. This is completely in line with the diction of the Notice, according to which

"[...]the Commission also takes into account the continuing process of market integration, in particular in the Community, when defining geographic markets, especially in the area of concentrations and structural joint ventures. The measures adopted and implemented in the internal market programme to remove barriers to trade and further integrate the Community markets cannot be ignored when assessing the effects on competition of a concentration or a structural joint venture. A situation where national markets have been artificially isolated from each other because of the existence of legislative barriers that have now been removed will generally lead to a cautious assessment of past evidence regarding prices, market

Case M.3867 – Vattenfall / Elsam and Energi E2 assets.

¹⁴ Case COMP/M.3268 – SYDKRAFT/GRANINGE.

¹⁵ Case M.7137 – EDF / Dalkia en France.

¹⁶ Case M.3696 – E.ON/MOL.

shares or trade patterns. A process of market integration that would, in the short term, lead to wider geographic markets may therefore be taken into consideration when defining the geographic market for the purposes of assessing concentrations and joint ventures "17.

Due to the liberalisation process the definitions of relevant market are dynamically developing in the practice of the Commission. In a particular case the Commission has found becoming obsolete of a market definition when it concluded that

"[...]the old distinction becomes increasingly meaningless. There are indications that the market could further be subdivided[...] "18

For example, according to the Commission, as regards the geographical market, those companies involved in the production, transport and distribution of electricity are essentially active on a national basis, so that the structure of supply is different in each country. The regulatory frameworks may evolve, and consequently national markets may develop into wider markets at some point in the future.¹⁹

4. Definition of relevant market in decision making practice of the European commission for activities concerning electricity and gas

4.1. Electricity

As presented by the Commission, electricity is a homogeneous good, and as such is not subject to further technological development. Homogeneous goods, unlike heterogeneous goods, largely possess the same physical or subjective features. Price is the main factor of competition that influences a customer's choice between various power suppliers. Other factors such as quality, research, services, reliability, etc. are of no more than secondary importance when it comes to decisions about purchases.²⁰

The market is subject to far-reaching transparency of production costs and selling prices [...]. Production costs and network use costs, which determine the

¹⁷ Commission Notice on the definition of relevant market for the purposes of Community competition law (97/C 372/03).

 $^{^{18}}$ Case M.2890 – EDF/Seeboard.

 $^{^{19} \}quad Case-IV/M.568-EDF \ / \ EDISON\text{-}ISE.$

 $^{^{20}}$ Case M.1673 - VEBA/VIAG.

variable costs and hence essentially the prices quoted, are thus known throughout the industry $[\ldots]^{21}$

Where price is the main factor of competition on a concentrated market, this does lead to very intense competition in the first instance. However, at the same time, this also increases the interest of the market participants in avoiding competition, since every time a company undercuts a competitor's prices, this also means a reduction in its own profits. A situation of hidden competition, in which each market participant cannot be certain about the success of its offer, is different. In such a situation, a company is more inclined to make competitive moves, in the hope of winning contracts. The circumstance of competitive moves on prices being immediately felt by all market participants is a factor which in the medium term may reduce price competition.²²

On the electricity market it is necessary to make a distinction between electricity which is produced for the open market and electricity that is produced mainly by industry and municipalities for their own consumption. Since the latter, captive production, has no impact on the conditions of competition on the open market, it must be excluded from the relevant market for wholesale sales of electricity.²³

4.1.1. Distinction of markets in the electricity sector

The Commission has in the past distinguished separate product markets for the generation and wholesale supply of electricity (i.e. production of electricity in power plants and physical import of electricity through inter-connectors and its sale on the wholesale market to traders, distribution companies, electricity exchanges or large industrial end-users); regulating/balancing services; transmission of electricity (via high-voltage grids); distribution of electricity (via medium and low-voltage grids) and retail supply of electricity. On the retail level, the Commission has distinguished between large (industrial) customers and small (small business and household) customers.²⁴

Among the reasons of the Commission for distinguishing separate relevant product markets was that each of these activities could be regarded as constituting a separate product market, as they require different assets and resources, and the market structures and conditions of competition are different for each.²⁵

²¹ Case M.1673 – VEBA/VIAG.

²² Case M.1673 – VEBA/VIAG.

²³ Case IV/931 – Neste/IVO.

²⁴ Case M.3868-DONG/Elsam/Energi E2.

²⁵ Case IV/M. 1606 – EDF / SOUTH WESTERN ELECTRICITY.

From the geographical point of view, in previous decisions the Commission has defined the following product markets as separate markets: (i) generation and wholesale supply of electricity, usually considered nation-wide; (ii) retail supply of electricity, usually considered nationwide; (iii) financial electricity trading and in addition (iv) trading for CO2 emission rights, these last two usually considered broader than national.²⁶

Furthermore, for example the geographic scope of the transmission markets was defined by the Commission as being regional within the limits of the area covered by the respective grid²⁷ (with the same logic applicable to the distribution markets).

Details on the Commission's view to the individual above-mentioned main product markets are presented in the following part.

Production and wholesale of electricity

In past Commission decisions it has been held that electricity generation does not constitute a separate market but that, rather, generation and wholesale of electricity constitutes one single market encompassing the domestic production of electricity at power stations within a certain geographic market (net of exports) as well as the electricity imported into this geographic market. Sales on such a wholesale market consist of bilateral sales and auction-based sales. Whether they contain both captive (i.e. intra-group) and non-captive sales does not need to be answered for the purpose of the current case. Suppliers on such a wholesale market are producers, importers and traders. Customers are primarily operators supplying end-users and Traders.²⁸

Put differently the generation and wholesale supply of electricity are considered one single relevant product market because generation of electricity is not a market activity if the electricity is not sold.²⁹ The Commission has consistently defined a relevant product market encompassing both the generation and wholesale supply of electricity, irrespective of the generation sources and trading channels.³⁰

The generation of electricity involves the production of electricity at power stations as well as all electricity physically imported through interconnectors. Demand comes mainly from electricity suppliers, large industrial and commercial

 $^{^{26}}$ $\,$ Case M.5496 - VATTENFALL / NUON ENERGY.

²⁷ Case M.5154 – CASC JV.

²⁸ Case M.3883 – GDF/CENTRICA/SPE.

²⁹ Case M.7927 – EPH/ENEL/SE.

³⁰ Case M.8660 – FORTUM/UNIPER.

customers who can buy directly on these markets, and traders.³¹ Electricity generation constitutes not a market, but an industrial activity.³²

The Commission distinguished a wholesale electricity market as comprising electricity generation, imports and trading on organised markets (such as the power exchange [...]) or over the counter for both physically and financially settled products.³³

At the same time according to the Commission for the wholesale electricity market no distinction is made between the different sources of electric energy.³⁴

Trading of electricity

In previous decisions, the Commission has found that there is a separate electricity trading market and it may also be possible to distinguish a product market for financial trading from physical trading of electricity. In two more recent decisions, the Commission concluded that the electricity trading market could as well be part of the wholesale electricity market.³⁵ There are, however, several functional differences between financial electricity trading and physical electricity trading which make it doubtful whether they can be regarded as belonging to the same product market. One difference is that all financial electricity trading terminates in a mere financial settling of contracts without any physical delivery of electricity whereas physical electricity trading obliges the supplier to physical delivery of electricity. Even if prices (and price expectations) in both areas mutually influence each other it is thus clear that physical electricity trading cannot be substituted by financial electricity trading. The market investigation also indicates that financial electricity is distinct from the market (or markets) for physical contracts. Physical and financial electricity are not completely interchangeable as regards settlement and time horizon. Financial electricity always has a cash settlement and is not sold on a spot (day-ahead) basis, whereas physical electricity from Elspeth or bilateral contracts is delivered physically and is contracted on a spot basis.³⁶ Electricity can be traded on the wholesale market in a number of ways. At the bilateral market electricity is traded directly between a seller and buyer up to several years before the operating hour.³⁷

³¹ Case M.5224 – EdF/ British Energy.

³² Case M.1673 – VEBA/VIAG.

³³ Case M.5978 – GDF SUEZ / INTERNATIONAL POWER.

³⁴ Case M.5224 – EdF / British Energy.

³⁵ CaseM.5711 – RWE/Ensys.

 $^{^{36}}$ Case M.3867 – Vattenfall/Elsam and Energi E2 assets.

³⁷ Case M.3268 – SYDKRAFT/GRANINGE.

Transmission of electricity

In previous decisions, the Commission identified two separate markets for the transportation of electricity: transmission and distribution.³⁸

The electricity transmission market has been identified as a separate market from the market for the distribution of electricity, i.e. the operation and management of the lower voltage grids. Such a distinction between transmission and distribution is also recognized by Directive [2009/72/EU]³⁹. According to the Directive the transmission system may only include extra-high and high voltage levels but not the medium and low voltage level. The latter levels are exclusively covered by the distribution system. This difference is regularly reflected in a different topology of the networks. Transmission networks cover very few big lines whereas the distribution systems cover usually a high number of smaller lines. In addition, in the Directive [2009/72/EU] transmission is defined as the transport of electricity with a view to its delivery to distributors whereas distribution is defined as the transport of electricity with a view to its delivery to customers. This means that in general production is connected to the level of the transmission networks whereas consumption takes place in general at the distribution level. Finally, according to the Directive [2009/72/EU] different tasks are attributed to the transmission system operators and the distribution system operators⁴⁰.

The consumption and production of electricity must be in balance at every instant, which is achieved by balance control. There is a transmission system operator (TSO) in every country who is responsible for (I) the task of maintaining this balance, and (ii) the national grid.⁴¹

Regarding the operation and management of the high voltage grid (transmission) and the lower voltage grid(s) (distribution), the Commission has consistently found that these activities constitute natural monopolies and that no competition is taking place on this level. If parties owned distribution networks in different parts of the country it was found that these activities do not overlap as each of these grids constitutes a separate market as, for any given customer, distribution through one distribution grid is not substitutable with distribution through another grid.⁴²

According to the previous decision-making practice of the Commission the geographic scope of the electricity transmission market is confined to each

 $^{^{38}}$ Case M.7927 – EPH/ENEL/SE.

³⁹ Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC.

 $^{^{40}}$ Case M.5467 – RWE/Essent.

 $^{^{41}}$ Case M.3268 – SYDKRAFT/GRANINGE.

 $^{^{42}}$ Case M.3440 – EDP/ENI/GDP.

transmission operator's network. A transmission network constitutes a natural monopoly within the area it covers.⁴³

Electricity distribution

Electricity distribution is the conveyance of electricity from the national grid to consumers through a local network.⁴⁴

The core activity of the distribution businesses is the maintenance and operation of the distribution networks which are used to transmit electricity from the national high voltage transmission network (the National Grid) to its point of consumption. These distribution networks constitute the low-tension local cables, switchgear, transformers and other associated assets, which enable electricity to be transported from nodes on the transmission network to its point of consumption.⁴⁵

In the case where interconnection capacities create constraints, the relevant market is not defined beyond national borders.⁴⁶

Regulatory electricity/ancillary services

The supply of electricity differs from most other product markets in that electricity cannot easily be stored and the amount of energy to be supplied is not known with any precision in advance. Consumption forecasts are incorporated into schedules and load profiles. But the forecasts do not as a rule coincide with actual consumer behaviour. Specially generated balancing energy is therefore needed to ensure that the difference between electricity output and load is always met.⁴⁷

Balancing and ancillary services can be defined as services consisting in maintaining the tension in the grid within a very narrow bandwidth. On the market for the provision of these services, transmission system operators ("TSOs") purchase electricity, using balancing exchange or bilaterally, in order to cover deviations between production and consumption within their relevant control areas. In past decisions, the Commission has taken the view that a separate product market exists for balancing and ancillary services. This is since this service cannot easily be replaced by other electricity suppliers on the wholesale market. In previous decisions, the Commission has considered this market to be at most

⁴³ Case M.5467 – RWE/Essent.

 $^{^{44}}$ Case M.2890 – EDF/Seeboard.

⁴⁵ Case M.2586 – CE Electric / Yorkshire Electricity.

⁴⁶ Case M.7927 – EPH/ENEL/SE.

⁴⁷ Case M.2947 – Verbund / Energie Allianz.

national in scope but potentially being regional or limited to the relevant TSO's control area.⁴⁸

Retail supply of electricity

Retail supply of electricity consists of the sale of electricity to final consumers. On the supply side, operators active in this market include the retailers, which may be vertically integrated with electricity generators and source electricity from a parent company, or acquire it on the free wholesale market, through bilateral contracts or on the [power exchange]. On the demand side, this market would include all eligible customers.⁴⁹

Electricity supply involves the sale of electricity to the final consumer and includes billing services.⁵⁰

In its past decisions, the Commission defined the relevant product markets for the retail supply of electricity to end users based on categories of customers. The Commission has identified these customers groups based on the relevant regulatory framework applicable to them and their consumption profile.⁵¹

In previous decisions, the Commission identified two different product markets for the retail supply of electricity based on customer size: (I) the market for retail supply of electricity to large industrial customers that are connected to the high and medium voltage grid ('half-hourly metered') and (ii) the market for retail supply of electricity to small industrial and residential customers that are connected to the low voltage grid. Customers were differentiated by whether they were measured on a continuous basis or not, as this highlighted the different purchasing power of clients.⁵²

In previous decisions, the Commission has considered this market to be national in scope for large industrial customers, provided that the market is fully liberalised and if the conditions of competition are found to be uniform throughout the relevant territory. As for end-customers connected to the distribution system, the Commission has generally considered the geographic market to be national.⁵³

4.1.2. Examples of barriers to entry to the electricity supplies market

An important aspect in analysis of relevant market is in practice definition of barriers to entry to the market. The Commission in its decision-making practice

 $^{^{48}}$ Case M.7927 – EPH / ENEL / SE.

 $^{^{\}rm 49}$ Case M.4368 – Edison / Eneco Energia.

 $^{^{50}}$ Case M.2890 – EDF/Seeboard.

 $^{^{51}}$ Case M.3696 – E.ON/MOL.

 $^{^{52}}$ Case M.7927 - EPH / ENEL / SE.

⁵³ Case M.7927 – EPH/ENEL/SE.

for the area of electricity supplies stated that electricity supplies demand for example: generating capacity; a liquid trading market; green and CHP certificates; infrastructure such as power transmission and distribution systems. The difficulties of gaining access to these factors are major entry barriers for competitors wishing to penetrate the electricity market. 54

4.2. Natural gas

4.2.1. Distinction of markets in the natural gas sector

According to the Commission's decision-making practice, the following activities constitute separate product markets:(I) exploration/production of oil and natural gas; (ii) gas wholesale supplies, including a separate market for LNG and the necessary gas import infrastructures, (iii) gas transmission (via high pressure systems), (iv) gas distribution (via low pressure systems), (v) gas storage, (vi) gas trading, (vi) gas (retail) supply, comprising several separate markets.⁵⁵

A detailed definition of the above-mentioned markets is presented in the following part.

Exploration for crude oil and natural gas and upstream production and sales of crude oil and natural gas

Exploration i.e. the finding of new hydrocarbon reserves, constitutes a separate product market. In terms of market definition, no distinction is to be made between the exploration for oil on the one hand and exploration for natural gas on the other, as the contents of underground reservoirs cannot be known at the stage of the exploration. The exploration market is defined as worldwide in scope as the companies engaged in exploration do not tend to limit their activities to a particular geographical area. Upstream production and sales of gas involve the exploitation of the developed hydrocarbon reserves for crude oil and unprocessed gas. The Commission considered in previous cases that as gas and crude oil have different applications and are subject to varying pricing behaviour as well as cost restraints, it is appropriate to define separate product markets for the upstream production of crude oil and another relevant market for the upstream production of natural gas. Unprocessed gas often requires transportation by pipeline to a facility at which it is processed by separating the gaseous and liquid constituents. Although the owners of natural gas fields require both transport and processing to be able to market their gas, clearly pipelines and

⁵⁴ Case M.4180 – Gaz de France/Suez.

⁵⁵ Case M.6477 – BP/Chevron/Eni/Sonangol/Total/JV.

processing facilities fulfil different functions and therefore the Commission considered it appropriate to separate the transport and processing markets to reflect the differing competitive conditions. Crude oil can be transported from offshore fields by ship or pipeline; contrasting the position of natural gas which is generally transported by pipeline. For similar considerations as those for gas, the transportation of crude oil and crude oil onshore processing are considered as different product markets.⁵⁶

Wholesale market of gas

Wholesale market of gas includes gas sales made by importers (and re-importers) and producers to resellers and traders.⁵⁷ The Commission has in previous decisions considered the market for the wholesale of natural gas to be no wider than national.⁵⁸

In previous Commission precedents, the market for downstream wholesale supply of gas (comprising the activity whereby wholesalers procure gas from producers for resale to other wholesalers or downstream distributors) has been considered a separate market from the market for the upstream wholesale supply of gas (comprising the development, production and upstream supply of gas to large importers/wholesalers). As to the geographic scope, the market for the downstream wholesale supply of gas is generally delineated along existing (regional) grid areas.⁵⁹

In the past the Commission has in some cases defined the market for the wholesale supply of gas to encompass various grids, if there are no bottlenecks or other obstacles, which might restrict free competition in 'balancing zones'.⁶⁰

Transmission of natural gas

On the market for transmission (via high pressure systems) of gas, TSOs offer physical gas transportation services to gas wholesale suppliers that aim to resell their gas either to other gas wholesalers, to distributors, or to large industrial customers that are directly connected to the gas transmission network. The Commission has consistently considered gas networks as natural monopolies. As to the geographic scope, the market is generally taken to be national. However,

 $^{^{56}}$ Case M.5585 - Centrica / Venture Production.

⁵⁷ Case M.6068 – ENI/ACEGASAPS/JV.

⁵⁸ Case M.5740 – GAZPROM/A2A/JV.

 $^{^{59}}$ Case M.6984 - EPH / STREDOSLOVENSKA ENERGETIKA.

⁶⁰ Case M.7228 – CENTRICA / BORD GAIS ENERGY.

the region covered by the physical infrastructure grid constitutes the narrowest possible delineation of the geographic market.⁶¹

The transmission of gas constitutes a natural monopoly. From the perspective of geographical extent of the network the Commission further distinguished for example product markets with supra-regional and regional transportation of natural gas. The market for supra-regional gas transmission includes the import of natural gas from foreign gas producers and its subsequent transport through overland pipelines to regional gas companies. Like the regional gas companies, the supra-regional gas companies mainly supply special-rate industrial customers, electricity generators and local gas distribution companies. Supra-regional gas transmission forms a separate market. The peculiarity of this activity, which is undertaken by supra-regional gas companies, is that it entails the import of large quantities of gas from producer countries. These companies have correspondingly long supply contracts with producers and the installations required for import, long-distance transport and services to customers (e.g. storage). Supra-regional gas companies transport and services to customers (e.g. storage).

Distribution of gas

On the market for distribution (via low pressure systems) of gas, DSOs offer gas transport services to distributors. Previous Commission decisions define this product market as encompassing the distribution of natural gas through a medium/low pressure pipeline network to final customers. As to the geographic scope, the market can be either taken to be national or local depending on the national regulatory framework of the Member State concerned. The region covered by the physical infrastructure grid in fact constitutes the narrowest possible delineation of the geographic market.⁶⁴

According to the Commission practice, the market for the distribution of gas can be either national or local in scope depending on the national regulatory framework of the Member State concerned.⁶⁵ The distribution of gas constitutes a natural monopoly given that the distribution grid cannot be duplicated in any economically viable manner.⁶⁶

⁶¹ Case M.6984 – EPH / STREDOSLOVENSKA ENERGETIKA.

⁶² Case M.3696 – E.ON/MOL.

⁶³ Case M.1673 – VEBA/VIAG.

⁶⁴ Case M.6984 – EPH / STREDOSLOVENSKA ENERGETIKA.

 $^{^{65}}$ Case M.6068 - ENI/ACEGASAPS/ JV.

⁶⁶ Case M.8358 – Macquarie / National Grid / Gas Distribution Business of National Grid.

Storage of gas

The Commission has consistently defined gas storage as constituting a separate relevant product market. At the same time, the Commission has considered distinguishing between so-called "pore" and "cavern" storage facilities as well as between storage facilities that are suited for H-gas on the one hand and for L-gas on the other. As to the geographic scope, the Commission has previously delineated national and regional product markets, whilst keeping reasonable account of a potential future broadening of the relevant geographic market in line with a further liberalisation of the European gas markets. 67

Gas trading

Regarding the trading of natural gas, the Commission has in the past considered the existence of separate relevant product markets for: (I) the upstream wholesale supply of gas (comprising the development, production and upstream supply of gas to large importers/wholesalers); (ii) the downstream wholesale supply of gas (comprising the sale by non-integrated wholesalers to other wholesalers or downstream distributors); and (iii) the retail sale of gas.⁶⁸

A special instrument for wholesale gas trading is a gas-trading hub (which) is a liquidity instrument that provides services to facilitate exchanges between actors on a market. Schematically, a hub facilitates trade between gas buyers and sellers, enabling them to find, at short notice, sufficient volumes of supplies or to sell excess capacity. In addition, trading at the hub differs notably from supply to retailers in that generally traders act as buyers and sellers.⁶⁹

Gas supply/Retail

According to prior decisional practice, the gas supply activities have to be sub-divided in five markets, i.e. supply of gas to (i) dealers, (ii) gas-powered electricity plants, (iii) large industrial customers, (iv) small industrial customers, and (v) household customers. The distinction between these groups has been made according to certain factors such as their use of gas, profile and volume of consumption, connection to transmission networks and the purchase price.⁷⁰

 $^{^{\}rm 67}$ Case M.6984 - EPH / STREDOSLOVENSKA ENERGETIKA.

 $^{^{68}}$ Case M.8660 - FORTUM / UNIPER.

 $^{^{69}}$ Case M.5585 – Centrica / Venture Production.

 $^{^{70}}$ Case M.5220 - ENI/ DISTRIGAZ.

The supply of gas to traders, RDCs and large customers is often referred to as "wholesale" supply, while the supply of gas to small customers is referred to as "retail" supply.⁷¹

As regards gas supply activities, following the opening of competition of the European gas markets, the Commission has also drawn distinctions between eligible and non-eligible customers, and between customers according to their annual gas consumption and their type of activity (e.g., power plants).⁷²

Alike electricity, also for gas the Commission has distinguished market for eligible customers and non-eligible customers, as those markets are characteristic by different conditions of competition and are subject to different legislation.⁷³ Other segmentations have however also been considered depending on the specific circumstances of each country.⁷⁴

As regards caloric value of natural gas, the Commission considers that the activities of (I) supply of H-Gas and L-Gas to dealers, (ii) supply of H-Gas and L-Gas to producers of electricity, (iii) supply of H-Gas and L-Gas to large industrial and commercial customers, (iv) supply of H-Gas and L-Gas to small industrial and commercial customers and (v) supply of H-Gas and L-Gas to household customers constitute separate product markets.⁷⁵

The Commission considered that it is necessary to distinguish between L-Gas and H-Gas in all supply markets for final customers, since they (i) require the use of separate delivery infrastructures, both for transmission and storage, (ii) do not have the same characteristics or properties, and (iii) are not interchangeable for both customers and suppliers.⁷⁶

In its previous decisions, the Commission has always held that the geographic markets for gas supply were not wider than national.⁷⁷

The market of gas supplies to dealers in a particular case dealt with by the Commission was found to include the supply of gas to local authority utilities and third-party retailers, including national and international companies obtaining gas supplies that are subsequently sold to their final customers.⁷⁸

The market for the supply of gas to electricity plants differs from other supply markets in that the competitive conditions are different, among other things

⁷¹ Case M.3696 – E.ON/MOL.

⁷² Case M.3696 – E.ON/MOL.

⁷³ Case M.3410 – Total/GDF.

Case M.5183 – Centrex/ZMB/Enìa/JV.

⁷⁵ Case M.6389 – ENI / NUON BELGIUM / NUON WIND BELGIUM / NUON POWER GEN-FRATION.

⁷⁶ Case M.5549 – EDF/Segebel.

⁷⁷ Case M.5220 – ENI/DISTRIGAZ.

⁷⁸ Case M.6389 – ENI / NUON BELGIUM / NUON WIND BELGIUM / NUON POWER GEN-ERATION.

because of the far larger and more variable consumption of gas by electricity plants than by big industrial customers. ⁷⁹ Large power generators constitute a customer category with unique demand requirements in terms of gas quantities and consumption patterns. ⁸⁰

The market for the supply of gas to electricity plants differs from other supply markets in that the competitive conditions are different. Electricity plants consume far more gas than even the large industrial customers do. Moreover, the electricity plants are often directly connected to the transmission network, which distinguishes them from the small industrial and commercial customers and from the residential customers who are connected to the distribution network. Electricity producers can be distinguished from the large industrial customers by their consumption profile: whereas the large industrial customers have a relatively stable demand throughout the year, electricity plants' demand is subject to greater variation, particularly in function of the season. Consequently, electricity producers have flexibility needs different from those of other final customers.⁸¹

In an individual case the Commission indicated that a large power plant has a capacity of more than $50~\text{MW}.^{82}$

Large industrial and commercial customers differ from other industrial and commercial customers and from household customers, in particular in the volume of their demand, which largely exceeds the volumes required by the other types of customer. Accordingly, large industrial and commercial customers generally obtain lower prices and are often connected directly to the transmission network.⁸³

Distinction between large industrial customers and small customers was carried out by the Commission in a specific case according to whether their annual gas demand exceeded 2 million cubic meters or were under this threshold.⁸⁴

According to the Commission it is relevant to distinguish between small and large industrial customers, due to distinct consumption profiles and commercial relationships. In particular, the category of large customers is specifically targeted by new entrants.⁸⁵

The market for the supply of gas to small industrial and commercial customers differs from the market for large industrial and commercial consumers due

⁷⁹ Case M.6389 – ENI / NUON BELGIUM / NUON WIND BELGIUM / NUON POWER GEN-ERATION.

 $^{^{80}}$ Case M.3696 – E.ON/MOL).

⁸¹ Case M.4180 – Gaz de France/Suez.

 $^{^{82}}$ Case M.4238 – E.ON / Pražská plynárenská.

⁸³ Case M.6389 – ENI / NUON BELGIUM / NUON WIND BELGIUM / NUON POWER GEN-ERATION.

⁸⁴ Case M.5740 – GAZPROM/A2A/JV.

⁸⁵ Case M.3696 – E.ON/MOL.

to the volume of consumption and to the fact that small undertakings are not connected to the transmission network but rather to the distribution network11. At the same time, the market also seems to differ from supply to household customers as to the quantity purchased and the degree of fidelity to the default supplier usually characterizing these markets after liberalization.⁸⁶

As regards gas supply to households, the Commission found that competition in this market – despite liberalization – has developed differently from other supply markets, including the market for small industrial and commercial customers. This was mainly due to the major role played by the default suppliers, to which all former customers of the local authority utilities who had not chosen any supplier were transferred once they became eligible and that many smaller industrial and commercial customers changed supplier than did household customers.⁸⁷

4.2.2. Barriers to entry to the gas market

In practice the Commission distinguished as barriers to entry to the gas market for example complete booking of import capacities, very small volume of storage capacity available on the market, significant investment costs of building up a client base and requirements for composition of bank guarantees.⁸⁸

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⁸⁶ Case M.6389 – ENI / NUON BELGIUM / NUON WIND BELGIUM / NUON POWER GEN-ERATION.

⁸⁷ Case M.6389 – ENI / NUON BELGIUM / NUON WIND BELGIUM / NUON POWER GEN-ERATION.

⁸⁸ Case M.5467 – RWE/ESSENT.

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