# I-1.38: Transmission unbundling as ex ante instrument of structural Regulation of the energy market

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*In order to establish a competitive energy market, the distribution infrastructure, as a monopolistic segment of energy networks, should be demonopolized. Instruments of economic regulation, which are often attributed ex ante character, are put in place to open the market and enable competitive forces. Unbundling is specific for it may also represent an ex post measure of a structural nature, exerted by competition protection authorities.*

*In its broadest setting, this term is used in order to point to further steps in liberalising and establishing competitive markets, and is related to the essential facilities doctrine. A narrow concept of unbundling limits it to a full structural unbundling from any affiliated subjects in the energy chain. There are numerous forms of unbundling, which were introduced by the 2nd Energy package, while the 3rd Energy package introduces alternative models of structural reorganization.*

# 1.Introduction

The achievement of a competitive internal energy market is one of the EU's strategic goals whose fulfillment implies taking a range of measures aiming at proceeding with liberalisation of the respective economic sectors. The energy sector is particularly important for the provision of energy, which is considered to be a service of a general economic interest. The main goals of the energy policy in the EU are, equally, achievement of a sustainable and competitive energy market, and a high level of protection of the security of supply.[1]

At the beginning of 2006 the European Commission had stressed its concern over the existence of a high level of vertical concentrations in the energy sector, and published communications which served as a basis for its further steps in liberalizing energy markets.[2] Within the next few years, on one hand, the activities of the Commission were focused on the establishment of a legislative framework for vertical integrations of the transmission infrastructure, while on the other, its activities were related to other questions important for production of, and trade in, energy.

As a regulatory instrument, unbundling was foreseen in the 2nd generation of energy regulations, namely Directive 2003/54/EC on electricity[3] and Directive 2003/55/EC on gas,[4] where it was emphasized that unbundling did not represent a compulsory instrument. The more stringent regime was introduced by the 3rd generation of energy regulation, aimed at further liberalizing this sector, Directive 2009/72/EC on electricity,[5] and Directive 2009/73/EC on gas.[6] The two Directives of 2003 had foreseen several methods of unbundling in a gradual order, while the third generation contains alternative models, as a compromise between the member states. Although the primary goal of the Commission was to prevent the situation that any energy subject that produces or distributes electricity, wherever in the EU it operates, can own, control as a linked person, or operate the transmission system in any member state, in a legislative process based on mutual balancing of interests of member states and institutions of the EU, in addition to the full structural unbundling the new legislative framework opened the way for the whole range of similar instruments. Such instruments in their essence represent structural reorganization. In this Paper the author attempts to point out the main characteristics of unbundling as the measure of structural regulation, its forms

and models of structural regulation of a similar purpose.

# 2.Measures of ex ante and ex post nature aimed at creating and maintaining competitive energy markets

Competition in the energy market presupposes a solid internal market where freedoms of private parties are guaranteed; vice versa, the internal market only functions at its best if it is competitive, if freedom of entrepreneurship, based on the principle of free competition, is not jeopardized. In addition to its importance for the completion of the internal market, competition policy focuses on business efficiency, achievement and maintenance of the efficient allocation of resources. In addition to this economic goal, upon which economic theory insists,[7] the most important goals of competition policy are the rise in consumer welfare and stimulation/innovation of the technological process.[8] Such goals may not be achieved by those measures prescribed by competition protection legislation, but rather, in a broader perspective, economic regulation which encompasses norms on protection of competition aiming at the prevention of monopolistic tendencies and abuse of a dominant position, as well as the whole range of other measures prescribed by a specific legislation in respective business sectors.[9]

However, economic regulation should be differentiated from structural regulation, which may have the same goal: creating preconditions for the development of competitive markets. While economic in its focus takes a dynamic component of competitors behavior into account, structural regulation relates to statics.

Legal norms referring to respective liberalized segments of the market, within which it is attempted to create a competitive market, supplement competition protection measures. Instruments of economic regulation, often attributed an ex ante character, aim at 'opening' the market and ensuring the existence of a competitive market; while measures imposed in the process of competition protection, as ex post measures, aim at assuring that a competitive market exists in practice.[10] In sectors where the infrastructure is considered a form of natural monopoly, the goals of competition policy are supplemented with other public policy goals such as protection of users, environmental protection etc.[11]

These other goals, goals of a social nature, call for a continuous process of regulation which should ensure that competition is actually happening, not only as a process of competing, but in its static meaning as the acceptable model of the market.[12]

Such other goals may be fulfilled by a range of instruments such as licenses or permits, caps on profit margins and price controls, measures aimed at enhancing the transparency of business and management, equal access to networks and interconnection facilities, the introduction of universal service, and other measures designed to protect the users of services of general economic interest, etc. In the context of specific sector regulation of energy supply, as the service of general economic interest, such protective measures should ensure stable, reliable and safe supply of energy.[13]

In order to ensure continuous provision of services, as well as the trade and provision of energy in the internal market, national markets must open to competition, which means that the possibility of interconnection must be established. In addition to network access, safe and reliable provision of energy assumes investments in infrastructure by the owners or infrastructure operators. Due to big and continuous barriers to entry which do not open the possibility for the fully competitive market to emerge, competition protection measures by themselves do not represent the only solution; sector specific regulations and measures based on them should remain in force in order to ensure the transparency of access and prevent discrimination in infrastructure services, as well as to fulfill those non-economic goals.[14]

The energy sector is a network industry—as are telecommunications, transport, some local services—due to the fact that it is based on a fixed transport and distribution network and integration of other detachable production processes.[15] Within such vertical networks, namely the chain of energy distribution, integration may take on various forms, such as the production of electricity, extraction and processing of gas and its eventual storage, various aspects of energy trading and sale to households. Two main forms of energy, electricity and gas, differ in that the former, as opposed to the latter, as a secondary source, does not require storage. Transmission system operators as well as infrastructure operators actively participate in the chain of distribution, for example by maintaining the power level or pressure in the pipeline. One of the key aspects of competitiveness in this sector are interconnectors that connect various systems of gas and electricity distribution. Energy transport and distribution infrastructure is a precondition for the existence of specialized enterprises in the energy sector. Due to the fact that there is an inherent conflict of interest in the structure of vertical integrations in energy production and supply, which is the main reason for unbundling of ownership,[16] a competitive market will not be created if there is discrimination in that monopolistic segment of a network industry.

In accordance with neoliberals' mantra 'competition whenever possible, regulation only when necessary', it is obvious that markets opening to competition, where there is a big disparity in bargaining power, and where some subjects depend on the infrastructure owned by others, a regulatory framework to ensure the effective functioning of the market and an optimal level of competition should be created. Namely, regulatory instruments create preconditions for the existence of a competitive market, while competition protection measures ensure that the dynamic competitive process is actually occurring.

Mostly due to the ex post character of competition protection measures,[17] should it become evident that such measures do not eliminate market imperfections and contribute to market opening, sector specific regulation would introduce a range of measures with the aim of eliminating market barriers to the establishment of an optimal level of competition, even before the proof of uncompetitive conduct harming competition has appeared. Nevertheless, in addition to an abstract analysis, ex ante measures are often based on historical data on the application of competition protection measures of an ex post nature, and so it is hard to draw the clear line between ex ante regulation and ex post competition protection.[18]

One such measure is the unbundling of energy transmission from production and distribution, but this measure is specific in that it may represent an ex post[19] measure of a structural nature imposed by competition protection authorities as the sanction in cases of abuse of a dominant position.[20] As an ex ante measure, the unbundling of transmission infrastructure assures better certainty and legal security for market participants, although its introduction augments their compliance costs. In addition to this, independent regulatory agencies responsible for the mission of regulating selected market sectors as a rule have the possibility of legislative initiative in relation to the fulfillment of their main goals, as well as a greater choice of measures of the regulatory regime of preventive and proactive nature.

As a regulatory instrument, transmission unbundling is introduced to strengthen and improve the regime of third party access to transmission infrastructure,[21] and at the same time, to prevent discrimination in using the necessary infrastructure.[22] Namely, in a vertically integrated energy sector, as well as other markets with developed infrastructure, infrastructure may be viewed as a natural monopoly, bearing in mind the fact that large capital investment is needed to produce the energy unit.[23] Subjects controlling natural monopolies often have a dominant position. Therefore regulating access to network not only simulates competition, but enables the overcoming of the absolute advantages, as barriers to entry.[24]

Infrastructure control opens a range of possibilities for the exercise of non-competitive behaviors. Those in need of the infrastructure often have a worse bargaining position and, as a rule, due to the existence of a natural monopoly element, do not have choice. When talking about vertically integrated chains of the energy supply, noncompetitive conduct may take the form of discriminatory conduct such as refusal to deal with competitors, unequal conditions of access to the network, price discrimination in accessing the network, often in the form of predatory pricing. Uncompetitive conduct may relate to users as well, through various forms of unfair business practices.[25] One of the competitive concerns in a vertically integrated chain is the possibility of cross subsidization within the integrated chain of energy supply.

# 3.The notion and forms of unbundling

## 3.1.Broad and narrow concepts of unbundling

In the academic literature on the energy sector in the EU, the notion of 'unbundling' is often used to mark further directions of liberalization of internal energy markets and the strategy of raising competitiveness. Such a broad concept practically equalizes this institute with the practice developed by the Court of Justice[26] known as the essential facilities doctrine,[27] as an enlargement of the prohibition of discrimination in order to encompass the privileged treatment of connected parties to the deterrent of consumers, which limit or prohibit the access to facilities necessary to exercise certain economic activities. Moreover, a broader concept of the unbundling as an institute often encompasses access to network regulation, which is known in the literature as third party access.[28] However, it is important to remark that these are two different institutions. Unbundling of the transmission from the remainder of the energy supply chain is exactly the result of inappropriate regulations aimed at ensuring network access. This is, primarily, a structural reorganization of the network infrastructure, including facilities for the storage of natural gas.

A narrower notion of this cathegory is not only used in the context of energy sector, but also in other infrastructures of services of general economic interest. The OECD clarified this institute notion as statutory interference with the freedom of entrepreneurship; the restructuring of a vertically integrated chain of supply in activities based on the infrastructure, so that the infrastructure necessary for supplying the end users may be used not only by state monopolies and enterprises authorized to exercise a legal monopoly, but as well new subjects following liberalization of the market.[29]

The extent of interference with the freedom of entrepreneurship depends on whether it relates to a narrow concept of unbundling or the alternative models having the same purpose, which represent the alternative to full structural unbundling.

A narrow conception of unbundling assumes the prohibition for an energy subject participating in the production and supply to own or operate the transmission system.[30] It means structural separation through the change of ownership of infrastructure by its transfer to third persons, fully independent from other subjects in the supply chain, as well a ban on connected persons from exercising direct or indirect control over the subjects operating the transmission systems, or from influencing their decisions.[31] Although in the European Commission's official documents there is no explicit explanation that this relates to the 'narrow' conception, such a concept may be referred to as full structural unbundling.[32]

Full structural unbundling therefore refers to separation from the group of connected subjects within the chain of energy supply. As a form of ownership separation, this is clearly the most interventionist mode of interfering with the freedom of entrepreneurship. It has been said that this was the best way to eliminate the potential danger that parts of a previously integrated system could continue to cooperate.[33]

The most interventionist instrument of the achievement of full structural unbundling is nationalization or expropriation.[34] Here the enterprise taken over by the state becomes a publicly owned enterprise, or the state transfers this enterprise to third parties not connected with subjects performing activities related to energy. The alternative to nationalization and expropriation, with almost identical goals, is the forced sale to unrelated third parties. However, if the owner of the transmission system has not been acknowledged the right to choose the buyer, and is not authorized to negotiate a price, forced sale does not differ from expropriation. In this sense, structural unbundling does not only assume formal separation of ownership, but also the prohibition of control of, or exercise of significant influence over, the operation of transmission systems.

One organizational form is the creation of a national operator of transmission networks system, but the right to ownership is, as a rule, limited to networks infrastructure. The transmission network is therefore in the regime of public ownership, state or municipal. If there is a possibility that existing operators may become shareholders of the national operator of transmission networks, this form is known as club ownership,[35] within which the existing owners practically loose control and decision making rights in relation to core elements of the functioning of transmission systems. One possibility, which does not envisage state ownership, is the authority, based on the law[36] or contract, authorizing the national transmission system operator to obtain selective control rights, to substantially limit rights of owners in terms of functioning of the system. This brings the concept of unbundling closer to alternative models of independent operators, which will be addressed further in the text.

In addition to full structural unbundling, as the narrow conception of this instrument, unbundling may also be exercised within the group making the chain of energy supply, which practically means that it is not necessary to transfer the ownership of infrastructure assets, but rather to transfer decision making rights to the subject who will govern the system of transfer in respect of the functioning of the network. In this sense there is also 'economic' unbundling, when the operator of transmission system is not the owner, but practically governs the network and is fully independent from the owner of assets comprised in the transmission network.[37] Of a similar effect is the possibility that shares of a vertically integrated enterprise, owner of the infrastructure, are held by an independent third party.[38] This is done in order to prevent the possibility that shareholders of a vertically integrated group govern the infrastructure. This would essentially represent so called 'operational unbundling' as it relates to the separation of ownership and control,[39] but as such

opens a number of questions in the domain of company law.[40]

Therefore it may be concluded that unbundling, in addition to its narrow concept known as full structural unbundling, also assumes limitation of governance as one of the main rights of owners. Before discussing the alternative models prescribed by European legislation, which have the same goals as full structural unbundling, several main models of structural unbundling according to the level of interference into the freedom of entrepreneurship should be presented.

# 3.2. Division of unbundling in relation to the level of interference with the freedom of entrepreneurship

a) Unbundling of the accounts

Unbundling of the accounts is the lowest level of interference with the freedom of entrepreneurship. This type of unbundling assumes the duty to keep separate accounts for the activity of transmission, as well as distribution,[41] as in case of enterprises owned by different owners, in order to enhance the transparency of decision making and especially to eliminate the possibility of cross-subsidization among connected subjects. The existing organizational form shall not change, but only the method of accounting, in order for the income statement and balance sheet to specifically state the profit from energy transmission.[42] Unbundling of accounts, however, refers to internal accounting, and not the duty to provide separate annual accounts, which must be done in the regime of corporate (legal) unbundling.[43]

b) Functional (organizational) unbundling

Organizational or functional unbundling does not assume ownership restructuring, but such internal restructuring through the separation of specific activities, the detachment of transmission operation from other activities. As a rule, this form is an upgrade to the unbundling of accounts. Functional unbundling does not require the transmission system to be formally divided into appropriate organizational forms (e.g. subsidiaries), those may be as well decentralized through separate divisions within the same organizational body and governed by the same management. That is why this form is known as 'pseudo structural regulation'.[44]

Functional unbundling is often followed by informational unbundling, taking into account those requirements which are often prescribed in accordance with rules or business practices related to the confidentiality of information on the operation of transmission systems. This requirement aims to prevent the possibility that other organizational units acquire insider information, which would eventually serve as a basis for discriminating against third parties wishing to get access to the network.[45]

c) Legal (corporate) unbundling

Legal, or otherwise known as corporate unbundling,[46] assumes the organizational restructuring from a formal legal perspective, that is to say unbundling through the establishment of a new subject which is organized as a separate legal entity and independent from other subjects of energy activities. The network operator and the network may be in the ownership of the distributor, but the network operator must neither produce nor distribute the energy within the same company, nor own shares in the same. This form encompasses the unbundling of accounts as well, but does not refer to internal accounts, but rather to the duty to submit separate accounting reports for the unbundled legal entity, allows for the application of different methodologies. Predominantly focused on the form, this model does not remove the possibility of other companies' management influencing the business of transmission.[47] To prevent this concern, corporate unbundling is often implemented alongside operational unbundling. These two instruments are complementary, they do not overlap, but are often introduced together.

d) Operational unbundling

Corporate unbundling is thus just a formal requirement to conduct the activities of energy transmission within a separate legal form, formally differentiated from other subjects in the energy system. Operational unbundling encompasses all the other measures aimed at achieving the independence of operators in terms of a greater institutional, personal and operational independence, including human, material and financial resources.[48] The essence of operational unbundling lies in the fact that managerial decisions on network operation should not be formulated under the influence of connected companies, but assumes shareholders' possibility to determine the strategic business decisions such as dividend payoff, share disposal etc. However, operational unbundling often requires corporate unbundling, mostly due to the fact that without it, limitations on the management in vertically integrated systems would be difficult. In short, operational unbundling encompasses all measures whose goal is to attain internal separation of activities and to establish a clear line of responsibility for certain activities.

# 3.3.Similar models of structural reorganization

The initial proposal of the European Commission advocating the introduction of full structural unbundling had been severely criticized both by academia and authorities of the member states, particularly because the EU lacks the explicit mandate to regulate the energy sector, as well as because such forms of restructuring are not in line with the freedom of private ownership, which is a constitutionally protected right in all member states. That is why EU institutions were forced to reach compromise through negotiations and cooperation with member states and independent experts in the process of drafting the legislation.[49] In addition to more detailed rules on the forms of unbundling regulated in the second generation directives, several models of structural reorganization that represent an alternative to full structural unbundling were another result of this regulatory cooperation. What needs to be stressed is the fact that these alternative systems might be chosen only if the relevant operator was part of a vertically integrated system until the the two 2009 directives entered into force (September 3, 2009).

Independent System Operator – ISO is an alternative to full structural unbundling with quite similar effects. One might say that the independent system operator and full structural unbundling, following the publication of the third generation of energy directives, represent the two main models of transmission unbundling.[50] It appears that the text of these directives is clear in this sense, as article 13(4) of the Directive 2009/72/EC and article 14(4) of the Directive 2009/73/EC emphasize that the independent system operator acts as the transmission system operator.

Article 13 of the new Energy Directive and article 14 of the new Gas Directive prescribed that the owner of the transmission system shall submit the request for establishing the ISO, which must be approved by national regulator should the requirements relating to resources, activities and investments into the infrastructure, as foreseen by directives, be met. This is a prerequisite for the European Commission to agree.[51] Vertically integrated subjects remain the owner of assets belonging to the network and have the right to a controlled profit, but the network is managed by the subject, which must be entirely independent from the vertically integrated company and which must exercise all functions attributed to the transmission system operator.

Those directives prescribe, in detail, the duties of asset owners towards independent system operators, and as well towards the national regulator who has granted a license for the ISO and its relationship with users, as well as the internal relationship with the owner of assets.

Essentially, the ISO model is a limitation of ownership rights of the owners and an upgrade to the established regime of third party access. Even within this model of structural reorganization, enterprises active in the production and supply of energy to users should not exercise control over the independent system operator. However, it is disputable whether the effect of such functional independence of the independent operator is appropriate. Should the same be able to exercise wide authorities of network governance, including investment, not been the owner of the infrastructure, the risk would still be assumed by the owner. It might be said that within this model of reorganization rights of infrastructure owners, the latter are practically limited to their rights as investors, even without the possibility to adopt key decisions, including the possibility for their eventual duty to invest in infrastructure, which is contrary to the freedom of establishment. Therefore, the ISO model assumes both legal and functional (organizational) unbundling.[52]

By the beginning of 2008, upon initiative of several EU member states led by France and Germany, the 'third approach' had been suggested, which is essentially a more complex form of corporate unbundling. This proposal gained support from the Council of Energy Ministers and the European Parliament,[53] and is known as Independent Transmission Operator – ITO. [54] As an alternative to absolute unbundling, this model allows a vertically integrated subject to maintain its transmission network, manage it as a connected company and have financial independence, in order to protect the interests of vertically integrated persons. However, different activities of energy supply, especially transport, should be provided by different legal entities, so the enterprise managing infrastructure needs to transform into closed company (or, eventually, another form) including further requirements set with regards to the conduct of business aimed to ensure its independent position in relation to vertically integrated subjects. For this reason this system is also known as the Deep Independent System Operator.[55] From the standpoint of its personal substrate, this assumes separate management and supervisory boards, but the new regime has allowed some members of the management to be connected with the mother company and/or other daughter companies within the same group. But in return, the supervisory role of national regulators has been enhanced. On the other side, with respect to its material substrate, the model of the independent transmission operator presupposes that such a dependent company is the owner of all assets necessary for the functioning of the transmission network, and the network itself. The parent company may not exercise control over the everyday operations of the dependent company; the management of a dependent company is authorized to decide on financial affairs, adopt annual and long term financial plans and agree on duties towards shareholders.[56]

Proposals for the third generation energy directives from 2007 had foreseen the so called share split, which seems to be accepted in adopted directives of 2009.[57] This measure was suggested by the Commission in order to accommodate some member states, notably Germany. From the shareholder standpoint, unbundling of shares should practically represent a reorganization of the shareholder capital, until its value remains unchanged; while structural ownership unbundling might be performed by a forced sale in certain situations. Namely, for their shares in vertically integrated energy subjects (including networks) the owners would receive different shares in new and entirely

independent companies, as well as companies active in the production and supply of energy. Should this result in a situation where someone has acquired control as defined in competition protection rules, a certain amount of shares must be sold.

# 4.Short retrospection upon the competence of EU institutions and some important economic effects of unbundling

While competition protection rules and the competence of the Commission are based on a founding Treaty, as the primary source of EU law, and such rules have a horizontal effect targeting all sectors; sector specific regulation is based on secondary legal sources (regulations and directives) adopted by the institutions of the EU on the basis of the Treaty and targeting selected sectors.[58]

Having in mind the fact that the whole European competition protection policy is based on just few articles of the Treaty, including several secondary legal sources, energy regulation, based on few Treaty provisions, is much more dispersed.[59] In comparison with other activities based on network infrastructure, it might be said that in the domain of structural measures the energy sector is subject to much more detailed rules than other sectors. Although consciousness of the need to foresee a common energy policy was already evident by the 1950s, this segment of economic policy had not found its place in the Treaty of 1957. The first important steps towards common energy policy were made in late 1980s, when the Commission initiated the Program for a Single European Energy Market.[60] The creation of this market is, albeit, linked to the White Paper, 'An Energy Policy for the European Union' of 1995,[61] when the first generation of directives emerged, directives which made the first steps in market liberalization and established minimal standards.[62]

However, the Commission is criticized for its regulatory competences, notably with regards to unbundling, which interferes with the freedom of ownership and freedom of entrepreneurship. It was obvious when Commission strove to alleviate public pressure by initiating the process of coordination and implementing better regulation principles, to level the differences through transnational networks of national regulators, the scientific community, users, and the regulated subjects.[63] In addition to prescriptive rules, technical standards are also formulated using the process of coordinating activities and measures, through various for a and networks of national regulators.[64] Technical standards often become mandatory through annexes to regulations.[65] Even when they are not compulsory, standards and guidelines enacted through such cooperation have significant impact on the practice of national regulators and legislation in member states.

As a segment of the EU energy policy, although measures in the energy sector are mentioned in the Treaty,[66] the competence of the EU in this domain was not explicitly foreseen,[67] and the failure to adopt a Constitution for Europe has jeopardized the formal establishment of competences of the EU.[68]

Due to the fact that even from the first attempts to liberalize the market, the role of European institutions has been controversial,[69] as member states fought to maintain their competences, voicing the strategic importance of this sector, it seems that this was the reason that pushed the

Commission to enable the process of coordinated regulation. It might be said that member states had tacitly accepted the Treaty basis for energy market regulation: articles 47(2), 55, 94, 95 and 308.[70] However, in relation to structural unbundling, the fact that the EU competence based on article 295 of the Treaty signifies that it should not encompass measures that would be contrary to member state rules on the protection of private ownership. Even if article 95 of the Treaty were to be interpreted in a sense that EU institutions should have competences in the energy market, including structural measures, the legitimacy of such measures should be judged in line with the subsidiarity principle and must be proportional to its goals.[71] With other words, EU institutions might be competent only if member states could not reach these goals by their own means, or if national rules represent or might represent serious barriers to the functioning of the internal energy market.

Full structural unbundling and the range of alternative mechanisms therefore represent a compromise between the Commission, and institutions of the EU and member states, which have a range of choice between various modalities of unbundling. However, the success of this third generation of energy regulation shall be subject to revision in two years after they have been implemented, as the 2009 directives foresaw the revision clause. The question of unbundling of ownership and breaking up of vertical structures is obviously a political question, but economic analysis should not be neglected.

Although for such a young regime there is still no significant proof on the efficiency of structural unbundling, many authors are skeptical with regards to the use of such forms of sanctioning non-competitive conduct as ex post measures imposed by the competition authorities,[72] while others think that usefulness of the enforcement of this measure, predominantly of ex ante character, will improve competitiveness and decrease the risk of state intervention, that is to say ensure better legal certainty.[73] As an ex ante measure, it will undoubtedly decrease the potential for discriminatory practices towards competitors, but it may also have an impact on the rise in horizontal integrations; incite competitiveness, but also lead to increased requirements for monitoring and control by national regulators.

In its analyses and documents accompanying proposals for the third generation of regulations, the European Commission has emphasized as its reasons the fact that unbundling of ownership prevents discrimination against third parties in accessing the network, which should contribute to solving the problem of price formation on the wholesale markets. The Commission was of the opinion that long term supply contracts often represented a form of dominant position and market segmentation.[74] To justify the restrictive regime of unbundling, the Commission has often pointed out the fact that there was a systemic conflict of interest attributed to vertical integration of energy supply and network maintenance, which is manifested through the lack of motives of a group of connected companies to invest in infrastructure, due to potential increase of competitors who may use this system.[75] This is how better supply of energy may be achieved. Favoring full structural unbundling of infrastructure over energy production and supply, the Commission has stressed that unbundling might cause real incentives for new infrastructure and augment interconnection capacity.[76]

However, some argue that the Commission has failed to provide significant empirical data, although interdisciplinary legal and economic analysis has been emerging.[77] Economists often emphasize that full structural unbundling is not economically justifiable and remark that the expectations in terms of achieving a higher level of competitiveness and better interconnection capacities are not justified; that costs which the unbundling of ownership would cause might exceed the benefits of introducing of this tool of regulation. Hence the overall conclusion of some studies is that legal unbundling is more efficient than structural unbundling.[78] Moreover, some say that full structural unbundling may lead to a lower adjustment in investments, so networks might become overburdened due to wrong assessment or tardy actions.[79]

# 5.Conclusion

From the above text it may be concluded that the term 'unbundling' has various meanings, as does the unbundling of transmission as the mechanism of structural reorganization. This term is often used in the literature on the EU energy sector in order to mark further steps in the liberalization of the internal energy market and the strategy of stimulating competitiveness. However, this instrument is about restructuring vertically integrated chains of supply in activities that assume the existence of infrastructure so that this infrastructure, necessary for the supply to users of services of general economic interest, is open not only to state monopolies and subjects which had a legal monopoly in the sector, but as well to new subjects that appear after the market liberalizes.

Despite strong efforts by the Commission to introduce full structural unbundling, the emergence of the third generation of energy legislation was marked by a shift in the regulatory process and has stressed the impact of lobbying by stronger member states. In relation to unbundling of energy transmission, as an instrument of structural regulation in the energy sector, there is still not enough empirical data to predict whether models of the alternative nature would lead to a decrease in noncompetitive behavior of vertically integrated operators in some member states.

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[2] Communication from the Commission, "Inquiry pursuant to Article 18 of Regulation (EC) No 1/2003 into the European gas and electricity sectors (Final Report)", COM(2006) 851 final, Brussels, 10.1.2007; Communication from the Commission, "An Energy Policy for Europe", COM(2007) 1 final, Brussels, 10.1.2007.

[3] 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, 37.

[4] Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC, OJ L 176, 57.

[5] Directive 2009/72/EC of the European Parliament and the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, OJ L 211, 55.

[6] Directive 2009/73/EC of the European Parliament and the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (OJ L 211, 94.

[7] SCHMIDTCHEN, D. (2005) "Efficienz als Leitbild der Wettbewerbspolitik: Für einen 'more economic approach'", German Working Papers in Law and Economics, 3: 39-40.

[8] In this sense see in particular: BRODNEY, J. (1987) "The economic goals of Antitrust: efficiency, consumer welfare, and technological progress", New York University Law Review 62: 1020-1053. On the other goals of competition protection and the conflict of goals see for example: MOTTA, M. (2004) Competition Policy: Theory and Practice, Cambridge: Cambridge University Press, p.17-26.

[9] DE BIJL, P., VAN DAMME, E., LAROUCHE, P. (2005) Regulating Access to Stimulate Competition in Postal Markets. Tilburg: TILEC Discussion Paper No. 2005-026, p. 4.

[10] FRISON-ROCHE, M.-A. (2006) " Le couple Ex Ante - Ex Post, justificatif d'un droit spécifique et propre de la régulation", In: M.-A. Frison-Roche (ed), Droit et Economie de la Régulation, vol.4, Les engagements dans les systèmes de régulation. Paris: Presses de Sciences-Po & Dalloz, p. 33-48.

[11] WHISH, R. (2003) Competition Law. London: Dayton Ohio LexisNexis, p 18. Sometimes it is not easy to differentiate competition protection measures from sector specific regulation. See: M. Motta. op. cit. at xviii, LAROUCHE, P. (2004) "Coordination of European and member state regulatory policy. Horizontal, vertical and transversal aspects", Competition and Regulation in Network Industries, 5(3-4): 277-294.

[12] FRISON-ROCHE, M.-A. (1995) "L'État, le marché et les principes de droit interne et communautaire de la concurrence", Les petites affiches, 59: 4.

[13] Communication from the Commission, "An Energy Policy for Europe", COM(2007) 1 final, Brussels, 10.1.2007.

[14] LAROUCHE, P. (2002) "A Closer Look at Some Assumptions Underlying EC Regulation of Electronic Communications", Journal of Network Industries, 3: 129-149, at p. 141.

[15] JOSKOW, P., NOLL, R. (1998-1999) "The Bell Doctrine: Applications in Telecommunications, Electricity, and Other Network Industries", Stanford Law Review, 51: 1249-1315.

[16] POLLITT, N. (2007) "Ownership unbundling of energy networks", Intereconomics, 42(6): 292-296.

[17] At the EU level the Commission approves concentrations in the energy sector, which may, albeit not entirely, be attributed an ex ante character.

[18] P. Larouche op. cit. (2002).

[19] It might be taken as ex ante voluntary unbundling, in order to evade structural unbundling measures. To illustrate, the Commission's activities in estimating competitiveness of energy markets in the EU during the first half of 2008 had led to the voluntary sale of several transmission measures for electricity and gas in Germany (EON and RWE), which was actually a reflection of the similar situation that took place in Great Britain in 1990s, when British Gas voluntarily divested several subjects from its group, in order to escape a situation in which the body in charge of competition protection might have imposed sanctions, or to avoid the passing of legislation which would have substantially limited its operations.

[20] When articles 81 and 82 of the Treaty are infringed, the Commission has the possibility of deciding on behavioral measures (those targeting certain prohibited behavior), or structural measures which ought to be proportional to the infringement and necessary to eliminate the distortion of competition. It must be noted that structural measures might be applied if there are no equally efficient behavioral measures, or if such measures might cause a greater burden for the respective subject in relation to the structural measure. Structural measures are considered proportional only if there is a risk of significant and repeating infringement arising from the inner structure of subject which has committed the infringement. The proportionality principle assumes the test based on an analysis of the effect of gradually set measures.

[21] Which, in essence, represent the measure targeting the behavior, with significant structural effects.

[22] With regards to this rules on cross-border access were adopted: Regulation (EC) No 1228/2003 of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity, OJ 2003 L 176/1, 15.7.2003.

[23] TIROLE, J. (1998) The Theory of Industrial Organization. Cambridge: MIT Press, 19-21.

[24] P. de Bijl, E. van Damme, P. Larouche, op. cit., at p. 11.

[25] On sanctioned vertical agreements and the abuse of a dominant position in energy markets: KJØLBYE, L. (2007) "Vertical Agreements", In: C. Jones (ed), EU Energy Law, Volume II - EU Competition Law & Energy Markets. Leuven : Claeys and Casteels, Part 3, Ch. 3, and VAN DER WOUDE, M. "Article 82 EC - Abuse of a dominant position", In: C. Jones (ed), op. cit., Part 3, Ch. 4.

[26] Although not related to integrated structure, the question of a refusal to deal by dominant subjects was a subject of the analysis in case C-6/73 Commercial Solvents (ICI & Commercial Solvents v Commission, [1974] ECR-223). GLASL, D. (1994) "Essential Facilities Doctrine in EC Anti-trust Law: A Contribution to the Current Debate", European Competition Law Review 15: 306-314. For the concept of essential facilities: Magill Case (Case T-69/89 Radio Telefis Eireann v Commission [1991] ECR II-485), Bronner (Case C-7/97 Bronner v. Mediaset [1998] ECR I-7791). In the context of network industries see for example: TEMPLE LANG, J. (2000) "The principle of essential facilities in European Community competition law - the position since Bronner", Journal of Network Industries 1: 375-380. On the economic effects: WERDEN, G. (1987) "The Law and Economics of the Essential Facilities Doctrine", Saint Louis University Law Journal 32(2): 433-480; M. Motta, op.cit., p. 66-69.

[27] There are opinions that this doctrine has its roots in US court practice (the case United States v Terminal Railroad Association of St. Louis, 224 U.S. 383 (1912), 236 U.S. 194 (1915), although the Supreme Court has never formally admitted its application. BERGMAN, M. (2001) "The role of the essential facilities doctrine", Antitrust Bulletin, Summer 2001: 433.

[28] This might be prescribed ex ante, or such a measure could be imposed by the competition protection body as a sanction to eliminate the discriminatory conduct.

[29] OECD (2001) Restructuring Public Utilities for Competition. Paris: OECD, 2001, p.12-18.

[30] In a more detail, article 9. of the Directive 2009/72/EC on energy and Directive 2009/73/EC on gas.

[31] The notion of 'control' should be interpreted in line with article 3(2) of the Merger Regulation No 139/2004 of 20 January 2004 on the control of concentrations between undertakings, OJ 2004 L 24/1.

[32] BAUR, J., PRITSCHKE, P. AND KLAUER, S. (2006) Ownership Unbundling. Baden-Baden: Nomos, p. 36.

[33] KOENIG, C., KÜHLING J., RASBACH W. (2003) "Das energierechtliche Unbundling-Regime", In: Recht der Energiewirtschaft. München: C.H. Beck, p. 119.

[34] J. Baur, P. Pritschke, S. Klauer, op. cit., p. 29-36.

[35] OECD, op. cit., p. 13-14.

[36] Often by way of 'golden shares'.

[37] 'Economic' unbundling features in the Dutch legislation : Electricity Act of 1998. KÜNNEKE, R., FENS, T. (2007) "Ownership unbundling in electricity distribution: The case of The Netherlands", Energy Policy, 35: 1920-1930.

[38] Often in the form of a trust.

[39] OECD, op.cit., p. 14-15.

[40] J. Baur, P. Pritschke, S. Klauer, op. cit., p. 33-34.

[41] Article 19(3) of the Directive 2003/54/EC and article 17(3) of the Directive 2003/55/EC.

[42] Due to inherent characteristics, gas transport systems assume the full range of specific features in accounting statements. See. article 17(5) of the old Direktive 2003/55/EC.

[43] KÜHLING, J. (2004) Sektorspezifische Regulierung in den Netzwirtschaften - Typologie Wirtschaftsverwaltungsrecht. Munich: CH Beck, p. 339-344.

[44] C. Koenig, J. Kühling, W. Rasbach, op. cit., p. 221-222.

[45] J. Kühling, op. cit., p. 351.

[46] OECD, op. cit.

[47] C. Koenig, J. Kühling, W. Rasbach, op. cit., p. 222-223.

[48] European Commission, Note of the DG Energy and Transport, "The Unbundling Regime", 16.01.2004., p. 11. http://ec.europa.eu/energy/electric...

[49] EBERLEIN, B. (2005) "Regulation by cooperation: the 'third way' in making rules for the internal energy market", In: P. Cameron (ed), Legal Aspects of EU Energy Regulation - Implementing the New Directives on Electricity and Gas Across Europe. Oxford: Oxford University Press, Ch. 4.

[50] J. Baur, P. Pritschke, S. Klauer, op. cit.; BAUR, J., PRITZSCHE K., SIMON, S. (2006) Unbundling in

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[51] European Commission (2010) "Interpretative Note on Directive 2009/72/EC concerning common rules for the internal market in electricity and Directive 2009/73/EC concerning common rules for the internal market in natural gas "The Unbundling Regime", Brussels, 22. 01. 2010, Staff Working Paper, p. 11. http://ec.europa.eu/energy/gas_elec...

[52] European Commission, op. cit., p. 14.

[53] Euractiv, "Parliament backs 'third way' for gas market opening", 10. 07. 2008.

[54] Articles 17-23 of Directives 2009/72/EC and 2009/73/EC.

[55] BALMERT, D., BRUNEKREEFT, G. (2010) "Deep ISOs and Network Investment", Competition and Regulation in Network Industries, 11: 27-50.

[56] European Commission, op. cit., p. 15-20.

[57] Recital (18) of the Directive 2009/72/EC.

[58] P. Larouche op. cit. (2002), P. 139.

[59] http://ec.europa.eu/energy/doc/ener...

[60] Commission of the European Communities, The Internal Market for Electricity, COM(1998), 238 final. HANCHER, L. (1990) "A Single European Energy Market – Rhetoric or Reality?", Energy Law Journal, 11: 217-241.

[61] European Commission, An Energy Policy for the European Union, COM(95) 682 final.

[62] The pioneer of the energy market liberalization in the EU is a Great Britain. The Electricity Act) was adopted in 1989, while the Electric Energy Directive was adopted seven yeas later; The Gas Act was adopted in 1986; the Directive on Gas, twelve years later.

[63] B. Eberlein, op. cit., p. 59-65.

[64] Notably within the ACER, http://www.acer.europa.eu

[65] E.G. Regulation 1228/2003; Regulation 1775/2005.

name="_ftn66">[66] Article 3(1)(u).

[67] Although Article 154(6) of the Treaty enables the Commission to develop trans-European networks in the infrastructure, it seems that there is no clear basis for the competence of Commission in the domain of the internal energy market.

[68] Article III-256, Treaty establishing a Constitution for Europe of 29 October 2004, OJ 2004 C 310/1, 16.12.2004. For more on this regime: HANCHER, L. (2005) "The New EC Constitutional the European Energy Market", In: M. Rogegenkamp, U. Hammer (eds), European Energy Law Reports II,

Antwerp: Intersentia, Ch. I.

[69] B. Eberlein, op. cit., p. 63; J. Baur, P. Pritschke, S. Klauer, op. cit., p. 86.

[70] CROSS, E., HANCHER, L., SLOT P. (2001) "EC Energy Law", In: M. Roggenkamp, A Rønne et al. (eds), Energy Law in Europe. Oxford: Oxford University Press, p. 220. et seq.

[71] These main principles derive from articles 5(2) and 5(3) of the founding Treaty.

[72] MOTTA, M., POLO, M., VASCONSELOS, H. (2002) "Merger Remedies in the European Union", In: F. Lévêque, M. Shelanski (eds), Merger Remedies in American and European Union Competition Law, Cheltenham and Northampton: Edward Elgar, p. 106.

[73] POLLITT, C. (2007) The Arguments for and Against Ownership Unbundling of Energy Transmission Networks, CWPE 0737 (EPRG 0714), at p. 6-26. Available at: *www.eprg.group.cam.ac.uk/wp-...*

[74] European Commission, Communication from the Commission "Inquiry pursuant to article 17 of the Regulation (EC) No. 1/2003 into the European Gas and Electricity sectors (Final Report)", COM(2006) 851 final, Brussels, 10.01.2007., p. 6-8, and 11.

[75] European Commission, Communication "Prospects for the internal gas and electricity market", COM(2006) 841, Brussels, 10. 1. 2007, Communication from the Commission, "Inquiry pursuant to Article 18 of Regulation (EC) No 1/2003 into the European gas and electricity sectors (Final Report)", COM(2006) 851 final, Brussels, 10.1.2007, p. 52-55.

[76] LOWE, P., PUCINSKAITE, W. ET AL. (2007) "Effective unbundling of energy transmission networks: lessons from the Energy Sector Inquiry", Competition Policy Newsletter, 1: 23-34.

[77] BRUNEKREEFT, G. (2008) Ownership Unbundling in electricity markets – a social cost benefit analysis of the German TSO's, EPRG Discussion Paper 08-16, p. 8-9. Available at: http://ideas.repec.org/p/cam/camdae/0833.html; BRUNEKREEFT, G., EHLERS, E. (2006) "Ownership Unbundling of Electricity Networks and Distributed Generation", Competition and Regulation in Network Industries 1: 63.

[78] CREMER, H., CRÉMER J., DE DONDER, P. (2006) Legal Vs Ownership Unbundling in Network Industries, CEPR Working Paper Series, No. 5767, Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=931500

[79] Therefore some argue that socio-economic effect of unbundling could be marginal; taking this into account it is necessary to ensure sufficient production capacities. G. Brunekreeft, op. cit., p. 8-9.