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Review Article

Monopoly and competition in the energy market: A legal analysis

Nima Norouzi and Maryam Fani*

Department of Energy Engineering and Physics, Amirkabir University of Technology, Tehran, Iran.

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Competition law is mentioned as one of the effective factors in promoting the welfare and economic efficiency. But in an economy, not all industries and parts of an industry may be able to accept competition; these industries are known as "natural monopolies." It is said that "energy," which is considered a natural monopoly, must be completed in the hands of the government. While examining the basic concepts, this article seeks to examine the issue of whether the energy sector is competitive? And if the answer is yes, in which sectors of the industry are the mentioned capabilities? Is it fundamentally correct to assume that the energy sector, especially electricity and gas, is a natural monopoly? It can be said that although in the energy industry, the production of electricity or gas may be controlled by the government or the private sector, its transmission and distribution is managed by the private sector under certain conditions and is competitive in the open market. In addition to answering the above questions, this article examines the infrastructure, challenges, and opportunities for competition in the energy market, especially in the electricity and gas industry.

Key words: Economics, natural monopoly, energy market, essential facilities, competition law, gas and electricity industries

INTRODUCTION

Creating competition to improve market efficiency has always been endorsed by economists and jurists. For this reason, they study how to provide competition according to the conditions of each market (Abbas, 2009). In the years after World War II, governments entered the economy and took over the energy sector, arguing that the free market mechanism had shortcomings in "optimal resource allocation" and "maximum welfare." This has taken the form of a closed economy, sometimes in the form of a "natural monopoly". But in the last two decades, the views and structures of the economy regarding "network industries" have changed significantly. One of the characteristics of these industries in the energy sector is its connection with the discussion of "providing public services to consumers" and "public interests," which on the one hand justifies "government interference" and, on the other hand, should be used for public interests. Provide "competition". In a way, the interaction between these two issues is a challenging topic.

However, countries began to create competition rights in their energy markets. This view was based on the premise that a system based on natural monopoly might be reformed to allow market participants to compete, at least in some areas where monopoly in these industries was reduced. Governments carry out this process mainly through "privatization" and "liberalization." According to this process, there is more reliance on the market, with the proviso that privatization should be encouraged in any part of an industry that can accept competition. For this reason, the closed pattern and the cumbersome traditional rules are evolving towards a pattern of "competition with a command economy." Therefore, the misconception that the market cannot have the capacity to compete in this industry should be discarded simply because the products mentioned are part of the natural monopolies. Therefore, the view was created that the energy industry should be treated like any other commodity in applying the rules of competition law, and its requirements have been provided.

Therefore, this article first describes the history of countries moving from a natural monopoly of the energy sector to an economy and then answers the fundamental question of whether competition in the energy market (upstream or downstream) is possible and how? It also discusses the benefits

*Corresponding author. Maryam Fani, Email: nima1376@aut.ac.ir.

that competition can bring to a market, addresses the challenges facing competition in entering the energy sector, and makes the necessary arrangements to provide it.

DOMINANCE OF MONOPOLY IN THE ENERGY MARKET

The energy sector is considered the "strategic sector" of an economy, and therefore the justification for proponents of government intervention is the need to provide and guarantee energy. The reasons for this necessity are as follows: First, governments generally engage in activities that are considered natural monopolies; Such as the transfer and distribution of energy carriers that lead to "vertical integration" in the upstream and downstream sectors (Willis, 2008). Secondly, the monopoly and integration of such activities are mainly done in a state-owned company. These companies provide the required electricity and gas, which are usually considered "necessities of community life" and therefore the need for government intervention (Trujillo, 2010). As stated, the principles of the characteristics of the traditional pattern are as follows:

The exclusive right of the government to the executive operations and management of the energy network; lack of significant competition in the private sector; Forming and directing vertically integrated activities and having centralized control; Determining costs based on costs incurred, not competitive market prices; Existence of a wide range of complex planning with strict and central control (Cameron, 2007). Non-interference of the final beneficiary (consumer) in decisions related to the field of production, distribution or consumption of energy or its carriers; Control of all legal and financial contexts; Irresponsibility of government managers in case of danger or failure in activities. Irresponsibility arises from the costs of incompetence and mismanagement, and imposition of costs on consumers and taxpayers.

ENERGY MARKET, COMPETITION, AND MONOPOLY

The specificity of the energy sector and the guarantee of energy supply

The energy sector includes society's "public services," especially in economies with fewer energy resources (Cameron, 2007). Therefore, this section is subject to special regulations for the following reasons:

First, energy storage is either costly or impossible, making it vulnerable to market abuse and dominance. Therefore, control and supervision by "supervisory authorities" control and supervision are necessary. Second, the energy sector requires a lot of investment, and this is a barrier to competition. Third, another issue that arises in many countries is "energy independence". The European Union, for example, imports most of its energy from countries that do not have reasonable political stability. Fourth, the government or national government needs to provide adequate assurance regarding energy supply and security to the people and consumers (Padrds et al., 2010).

In any case, all these factors justify the government's involvement in the energy market to some extent, but on the contrary, it is said that one of the basic aspects of ensuring energy supply is the existence of competition rights in the market (Jegen, 2010). It should also not be overlooked that one of the characteristics of this industry is that it must be able to respond to any demand at any time (Schroeder et al., 1982). The result is that electricity and gas services are overseen by state-owned companies, at least early in work, and the government itself controls and regulates the terms and prices of these services (Spence, 2008).

Being a natural monopoly

Availability It is argued that the energy industry, especially electricity and gas sources, are themselves examples of "natural monopoly" and that competition in it is not expedient; Because natural monopoly saves "mass-production costs," "reduces the total cost of the product," and "reduces ancillary costs." Some industries are structured in such a way that if their products are to be "economically efficient" and produced at minimal cost, they must be monopolized; Because otherwise, a large number of small businesses have to enter the market, so that all of them are operating inefficiently; So it is economical for such industries to be run exclusively.

But it must be said that energy services are considered a natural monopoly if the "production," "transmission," and "distribution" of energy are necessarily interconnected and interconnected; Explain that if the "production," "transmission," and "delivery" of energy are all in the monopoly of the government, it means that the government will not only produce electricity or gas but also have the transmission and distribution of energy-related services to the consumer. In this case, a monopoly will occur. However, considering the use of the facilities of the non-governmental private sector in the structure of the transmission network or distribution of energy products through the use of two or more routes (two pipelines, in gas or two transmission lines), it is economically feasible. Therefore, there will be a possibility of competition in this sector; In other words, while the production and sale of energy products may be under the control of the government or the private sector, it is possible to attract investment from the private sector (domestic and international) in the field of transmission and distribution of energy products.

Now, if the private sector has the necessary ground to enter the whole chain of "upstream" and "downstream" activities of the energy sector such as oil, gas, and electricity from the point of production to the point of distribution, we can expect that part of the energy sector is monopolized out of the ordinary, in the form of law and a competitive economy.

Competition in energy production will eventually lead to the exit of those producers who cannot provide conventional services at a competitive price. Thus, sectors such as government-controlled distribution (policymaker and overseer), tariff-related costs are set by the public authority, and energy production is smoothed to create competition (Czarnecka et al., 2011).

In this regard, only a "policy maker and supervisor" can be responsible for controlling distribution-related services in the energy transmission system. Energy production and marketing have no special and non-competitive technical characteristics so

that they can always be in a state of natural monopoly (Hellwig, 2008). Thus, upstream sectors such as energy production, refining, and marketing may be subject to competition rules. But downstream sectors, such as transmission and distribution, may inevitably be subject to a "systematic monopoly". In this way, access to network infrastructure should be under the theory of "necessary facilities" and the management of the welfare state.

LEAVING THE MONOPOLY AND ENTERING THE COMPETITION IN THE ENERGY MARKET

The view of government intervention since 1945 has been that government economic control over the energy sector is essential for post-war modernization. Accordingly, these industries were controlled by the government, and the composition of the energy market was based on vertical integration in the production, supply, distribution, and transmission of energy. Because it was assumed that operations related to these industries are generally excluded from the realm of competition law (Jegen, 2011). But in recent decades, advanced industrialized countries have introduced competition laws into markets that are considered uncompetitive, and in addition, have applied the rules of regulatory and competitive economics (Spence, 2008). Therefore, the expansion of competition and the subsequent emergence of new economic models of the private sector and liberalization in the United States in the 1970s and later in the European Union, as well as private sector intervention in the transmission and distribution of energy products in the electricity and gas sector in the 190s. Competition rights have been in these markets (Bellantuuono, 2009). It should be noted, however, that the European Commission's first steps towards creating a competitive energy market in the late 1990s were largely in the form of a series of "guidelines" for host countries rather than a basic basis for "decentralization" in the "manufacturing," "marketing" and "distribution" of energy.

After that, both developing and developed countries began to plan to liberalize and reform their energy sector. The most important reasons that lead to the emergence of a monopoly movement and the acceptance of competition in the market are as follows: Poor performance of the government on the one hand, and high cost and insufficient access to expected services on the other; The inability of the public sector to finance its investment investments in the energy sector; The need to eliminate subsidies and liberalize the price of energy carriers; The tendency to increase government revenues through the sale of energy carriers and such assets (Bacon, 2002). Finally, there is an undeniable principle that long-term government sovereignty and ownership, on the one hand, erodes the motivation for the active presence of the private sector. It improves its performance in this area and, on the other hand, leads to imposing high costs on the government and the people, as well as reducing the quality of services, poor investment decisions, and lack of incentive to supply better the demand of consumers (Tapia et al., 2012).

THE POSSIBILITY OF COMPETITION IN THE ENERGY MARKET AND THE OPPORTUNITIES AHEAD

The expansion of government economic activities in the late 1970s and the decline in the efficiency of government institutions, and the existence of factors such as lack of motivation, bureaucracy, poor management, etc. caused the "failure of government performance" and, therefore, the tendency to create and develop more competition. "Competition" is essentially the relationship between several actors offering similar goods and services to an identifiable group of consumers at the same time. The benefits that competition can bring are as follows:

First, it increases efficiency, motivates more production, and reduces production costs (Cameron, 2007). However, early experience shows that, unfortunately, competition in energy has not been able to bring a significant reduction in energy prices for its consumers (Spence, 2008). Second, competition law promotes prosperity and economic growth. This goal is achieved by preventing undesirable behaviors, such as "price stabilization" or "market allocation," by providing performance guarantees for violators (Ligon, 1977). Third, facilitating competition in competitive sectors increases efficiency and motivation in "research and development activities" and increases the variety of products available to consumers (OECD, 2001). Fourth, there is no doubt that the incentive to make a profit has always been a strong incentive to use energy products efficiently, followed by a high incentive to reduce costs. Fifth, the competition allows distribution companies to procure energy directly from the producer and deliver it to the consumer, following free access to local networks. The competition also allows consumers to choose their "supplier" of energy (Cseres, 2008). Sixth, competition prevents the exploitation of consumers (Tapia et al., 2012). Seventh, most public administration decisions are usually based on "short-term" and political necessities, while decisions in the private sector are necessarily based on "long-term" policies and economic rationality.

CHALLENGES OF COMPETITION IN THE ENERGY MARKET AND ARRANGEMENTS

In addition to the above opportunities, the challenges posed by competition in the energy market and the need to take appropriate measures to compete must be addressed.

Challenges

Entering a competitive market, especially in industries once who thought to be monopolies, will face challenges. Explain that change in the energy market requires a "centralized system" in the production and distribution of energy to a "decentralized system." In this regard, it is necessary for the natural monopoly of the past to be abolished, for market participants to be allowed to enter the competitive sectors to benefit from the "energy distribution network" freely and following the law. Liberalization, however, raises concerns due to technical constraints on the energy structure that cannot be managed without coherent planning (Bellantuuono, 2009). For this reason, in the process of entering the energy competition market, it is necessary to pay attention to the following issues:

First, because competitive markets are not long in coming, the full transition process has not yet taken place in many countries; even leading countries such as the United States and Europe, and the impact of market liberalization on investment in long-term energy production and the diversity of energy

carriers are not fully understood. This is a long-term process in which, although the role of governments has changed, the gas and electricity industries still face high levels of government intervention (Harker et al., 2006).

Second, in moving from a monopoly market to a competitive one, each production unit must contract with consumers. In general, energy market participants prefer to provide services to those Egyptians who are both large (major buyers) and "predictable." The major buyers are the "industrial consumers" (Spence, 2008). One of the reasons for government intervention is monitoring the conclusion of "long-term contracts," One of the reasons people turn to long-term contracts is to reduce the "risk of production costs." To eliminate this risk, a vendor can get all its energy from "one source," not from short-term or different energy markets. In this way, he can avoid himself and his customers in the face of instability in the short-term market. However, it should be noted that long-term contracts with consumers reduce competition in the market (Willis et al., 2008).

Third, one of the most important issues is paying attention to low-income consumers. Such consumers may have difficulty securing their energy, given that low-income consumers spend the largest share of their income on energy compared to high-income households and that these consumers often spend less on the system. They impose an energy supply, so governments subsidize more of these consumers. Whereas the principle of equal access must be established, the costs normally imposed on rural consumers for distribution will be higher than those on the urban consumer; for this reason, rural users should be subsidized by urban users. This type of pricing will no longer exist in a competitive market because competitive market participants are looking for lower costs, higher profits, and more consumer attraction; this is because it requires indifferent attention to consumers. This justifies the need for economic regulation (Harker et al., 2006).

Fourth, it is necessary to pay attention to some special features of these industries. The gas industry is less complex than electricity because gas is usually exploited as it is extracted (Talus, 2011). As a result, supply in the gas sector is more flexible than in electricity. Gas produced from natural reservoirs and different wells has different quality and materials and may have impurities; unlike any electricity produced, it has a fixed property. If the power is cut for safety reasons, it can be returned to the consumer without risk, while this is not possible for the gas sector (Hancher et al., 2010).

However, in shaping the process of creating competition in the electricity and gas market, the following features should be considered:

First, gas storage capacity is far greater than electricity. Explain that electricity cannot be stored in large quantities and at the same time at a low cost. Therefore, in some hours, more or less electricity may be generated. This can motivate price increases (Cameron, 2007). For this reason, the government must monitor to reduce energy fluctuations and abuse of power.

Another is that power fluctuations in the consumer market pose a serious challenge in terms of costs; Explain that the electricity demand varies during the day and according to the seasons, which leads to the problem of "peak demand." If energy is not produced as much as demand, the consumer market will be disrupted or eventually shut down, which will lead to high costs.

Necessary arrangements for competition to enter the energy market

Reaching a competitive market requires legal initiative; for this reason, the government must establish an open energy policy and prepare the ground for a reform program and legislation. It is necessary to change and reinterpret patterns related to "ownership," the nature of natural monopoly, and fundamental concepts in the networking industry. The reason for this is that, in the absence of competition, privatization becomes problematic before it solves a problem and causes the transformation of "state monopoly" into "private monopoly" (Hussein, 2006).

It is necessary to change the direction in the government's view and avoid direct control over the price of final products and promote competition. Competition is enhanced by creating a set of rules that require the "network operator" to provide the energy service provider with the opportunity to use the network at a reasonable price (Hellwig, 2008). The main feature of this new model is as follows:

1) The separation of "production" from "distribution" activities to facilitate competition.

2) Freedom of the entry and investment in competitive activities. The first step is to liberalize the market or "deregulate" (privatize) to compete in the energy market. The main goal is to decentralize, reduce discrimination, increase market access and provide a competitive environment.

3) Buyers' freedom to contract with energy suppliers and set competitive prices.

4) Free access to the network and infrastructure (necessary facilities) and the need for basic and legal infrastructure changes. For this reason, a series of regulations are necessary to determine the limits of property rights, contracts, and company behavior (Cseres, 2008).

5) "Competition with government oversight." A "supervisory authority" is necessary to prevent any anti-competitive behavior between the producer and the distributor.

6) Change of ownership forms (privatization). It is possible that while maintaining the existing structure, the performance of the new model may be handed over entirely to an independent management structure.

7) One of the most important measures is "exit from the merger." Separating "competitive" sectors from "non-competitive" sectors is one of the tools needed to promote competition in the networking industry. The existence of vertical mergers in the energy market is one of the barriers to competition. Therefore, separating the ownership or executive operations related to the gas and electricity network is necessary from energy supply activities (Willis et al., 2008).

Despite the above, some government intervention in the form of a command economy is needed. To respond to the challenges (consumer protection, long-term contract, energy

market structure, etc.), the comprehensive answer is given, the application of "command economy" and for reasonable access to the network, the theory of "necessary facilities" as The prerequisites for creating competition are as follows:

The necessity of command economy, the interaction of competition law and command economy: The competitive process is a challenging issue as to whether the benefits outweigh the costs. Competition in the energy market is justified if it reduces costs and prices below its monopoly level. Even if a competitive process reduces costs, the situation for consumers may worsen if a regulated economy controls no market. In a way that creates a private monopoly (Harker et al., 2006).

In the new model, the networking industry's main task of "regulatory agencies" is to promote competition. For the reasons stated throughout the article, the precondition for a successful liberalization program is a "regulator" or network operator. In the United States, for example, the Public Utilities Commission sets the rates for electricity consumers. (Trujillo, 2010) and the "Federal Trade Commission" monitors consumer rights and competition law. One of the reasons for the application of "economic law" is the inadequacy of the free market function due to its "side effects" (such as "social costs" due to pollution) or the inequality of information between the parties to the contract in the market. This "market failure" results from insufficient regulatory rules or the enforcement of inefficient competition rights, or poor consumer protection.

Where there is a natural monopoly then regulatory economics must be considered as an "alternative" to competition (Moot, 2004) because "competitive policy" for competitive markets is different from the competitive policy for monopoly markets (Mahmoud, 2008).

For example, the United States Federal Energy Act of 1935 provides that "regulators" control the price of electricity and gas products, because "potential market entrants" must either produce or buy to get the energy you need. This may be somewhat difficult for new entrants to the market because the energy sector is not a short-term choice, and others control available resources through long-term contracts (Spence, 2008).

Liberalization can increase competition and consumer interests but this assumption is when the consumer has the economic, legal motivation, opportunity, ability, and competence to do so and to be able to assume the responsibilities transferred to him by the government during the liberalization period; This is because consumers do not make the most of the liberalized market. After all, they are usually reluctant to choose their supplier and get the best combination of cost and benefit. About 60% of consumers have changed their "supplier" only once (Cseres, 2008).

Competition and grammatical economics are two independent and "complementary" poles. Market control is done in two ways: control through the rules of "a priori" or "competition law" 7, which protects the consumer and allows the best market participants to remain with the best price and quality.

This alone is not enough, and the "command economy" and "posterior" monitoring that the "regulator" performs according to predetermined rules is necessary (Harker et al., 2006).

In the UK, Ofgem acts as a "regulator" if it observes any "anti-competitive" or "consumer rights" behavior following the law. One of the tasks of this organization is to provide the ground for new activists to enter the market and remove any barriers to entry. It is also responsible for controlling all activities related to energy supply, and the activities of companies must be with his permission. The tasks assigned to market participants are providing contracts with different terms, supplying and selling energy to domestic consumers, and distributing energy without discrimination (Ofgem, 2004).

Necessary facility theory: Potential bidders entering the market to sell energy must deliver their goods to consumers through the network, so they need to have access to the necessary energy transmission infrastructure (Spence, 2008). Facilities and infrastructures that competitors cannot provide the required services to consumers without access are called essential facilities (Mahmoud, 2014). This doctrine was first applied in the United States to the need for competitors to access infrastructure resources, including ports and roads, and is now used in the energy and intellectual property sectors. Therefore, access to the gas or electricity transmission network must be provided according to the prices specified by the "network operator." This is considered "abuse of a dominant position" in which access to the network at a reasonable price to competitors by the operator of that part is prohibited or subject to unconventional conditions. Denial of access to third parties sometimes leads to "abuse of a dominant position," which is considered an "inherent" anti-competitive behavior (Article 82 of the EU Treaty 5 or Article 2 of the US Case Law) (Kotlowski, 2007).

The concept of third-party access refers to the rights granted to energy suppliers or consumers by which they can use the electricity or gas grid (which is controlled by the other hand) to conduct their own business (Hellwig, 2008). For this reason, the holder of the necessary facilities should consider the interests of the users of the facilities (competitors) and not only his interests in the decisions he makes. Where there is a natural monopoly, the right of third-party access is usually associated with an obligation to enter into and execute a contract by the party in control of the transmission system (network operator).

CONCLUSION

Orchids Competition is against monopoly. It is natural for competition to arise where it is a "competitive" market, and it is a competitive market where potential and actual market participants can offer their goods and the consumer can make the best decision in choosing his product and supplier. It was observed that in the traditional model, all decisions were made by the government, with the consumer having no role other than turning the light switch on or off. However, the studies conducted in this article indicate that:

1. Not all parts of the energy chain are "non-competitive." Even in the downstream sectors of energy (energy distribution and transmission), which are still a natural monopoly, it can be

systematized to a degree of competitiveness with the oversight and management of a "regulatory body" (government or non-government) and with Pay attention to the "theory of necessary facilities" in this section. In any case, it cannot and should not be denied that the upstream energy sectors are competitive.

2. The results of the studies conducted in this article indicate that to compete in the energy market, whether in upstream or downstream activities, it is necessary to provide facilities by governments that provide access to energy (upstream) companies in the production and supply sector (upstream). Distribution of energy (downstream) as one of the facilities and "necessary facilities" to transfer the product (electricity or gas) to its consumer, "under reasonable conditions" and legally and away from the abuse of the dominant position and under the supervision of the government or Provide another institution.

3. Knowing that competition alone cannot achieve the desired results and competition alone is not enough, the minimum involvement of an independent authority in the management and regulation of the market, especially the consumer market, is necessary. Leaving the energy market to its own devices, while it may prevent the formation of a natural monopoly, may become a private monopoly (through mergers between private companies), so factors such as "supporting the monopoly," "Consumer" and "the need to respond to energy demand" during the day, etc., to justify the need for government intervention and the establishment of necessary regulations.

4. Competition arises if there is a free market, and the precondition for a free market is eliminating all-out government interference and state ownership in all sectors (privatization). It can be concluded that competition in the energy market is possible and can greatly benefit industry actors, consumers, and society provided that its infrastructure is provided following the rules mentioned above.

5. Given that each of the electricity and gas industries has its characteristics and requirements (fluctuations in energy consumption, ability or inability to store energy carriers, etc.), in the process of competition to maximize economic efficiency, these issues should be considered.

6. Also, one of the factors that should be considered in the light of competition law rules are "energy contracts" (long-term or short-term) and energy consumers (industrial and residential consumers); Because the longer the contract between the supplier and the consumer, the less opportunity there is for other suppliers to enter, as well as the proportion of consumers' choice (and vice versa). The supervisory body manages this.

7. Suppliers - for the reasons stated - are more willing to sell their energy carriers to industrial consumers. According to the game's rules, the supervisory authority (operator) should try to create a balance between the supplier and the consumer on the one hand and between the supplier and the industrial consumer on the other hand.

CONFLICT OF INTEREST

None declared

REFERENCES

1. Abbas M (2009). Investigation of the existence of natural monopoly in the Iranian telecommunications market. Econ Mod Quart. 3(1).
2. Bacon RW, Besant-Jones J (2002). Global electric power reform, privatization and liberalization of the electric power industry in developing countries. Energy & mining sector board discussion paper series. No.2.
3. Bellantuono G (2009). Contract law, regulation and competition in energy markets. Compet Regul Net Indus.
4. Cameron PD (2007). Competition in energy market: Law and regulation in European Union. Oxford University Press: Second Edition.
5. Cseres K (2008). What has competition done for consumers in liberalised markets? Compet Law Rev. 4(2):77-121.
6. Czarnecka M, Ogłódek T (2011). The energy tariff system and development of competition in the scope of polish energy law. Yearbook Antitrust Regul Stud. 4(4):151.
7. Dabbah MM (2011). The relationship between competition authorities and sector regulators. Camb Law J. 70(1).
8. Hancher L, Hauteclocque AD (2010). Manufacturing the EU energy markets: The current dynamics of regulatory practice.
9. Harker M, Price CW (2006). Introducing competition and deregulating the British domestic energy markets: A legal and economic discussion. CCP Working Paper No. 6-20.
10. Héritier, Adrienne (2001). Regulator-regulatee interaction in the liberalized utilities: Access and contract compliance in the rail sector.
11. Hellwig MF (2008). Competition policy and sector-specific regulation for network industries. MPI Collective Goods Preprint.
12. Hussein S (2006). From state monopoly to private monopoly. Economic trend.
13. Jegen M (2010). Two paths to energy security: The EU and NAFTA. Canada J Glob Poli Anal.
14. Kotlowski A (2007). Third-party access rights in the energy sector: A competition law perspective. Util Law Rev. 16(3).
15. Ligon D (1977). Antitrust aspects of the oil Andgas industry. Oklahoma City University Law Review.
16. Mahmoud B (2008). Convergence and competition in stock markets: The conflict of competition law and stock market law. Law Quart. 38(3).

17. Mahmoud B, Mahmoud JC (2013). Economic Analysis of Intellectual Property Mortgage. J Leg Res.

18. Mahmoud JC (2014). Examining the legal regime governing coalition patent agreements. Thesis for obtaining a Master's degree in International Business and Economic Law.

19. Maxwell C (2013). Competition in public services. Office of Fair Trading.

20. Moot JS (2004). Economic theories of regulation and electricity restructuring. Ener Law J. 25(2).

21. OECD (2001). Restructuring public utilities for competition: Competition and regulatory reform.

22. Ofgem (2004). Domestic competitive market review. DCMR Publication.

23. Padrds C, Cocciolo EE (2010). Security of energy supply: When could national policy take precedence over European law. Ener Law J. 31:31.

24. Spence DB (2008). Can law manage competitive energy markets? Cornell Law Review. No. 137.

25. Schroeder C, Miller A (1982). The Validity of Utility Conservation Program According to Generally Accepted Regulatory Principles. Sol Law Rep.

26. Talus K (2011). Long-term natural gas contracts and antitrust law in the European Union and the United States. J World Ener Law Busi. 4(3):260-315.

27. Tapia J, Mantzari D (2012). The regulatory/competition interaction.

28. Trujillo E (2010). State action antitrust exemption collides with regulation: Rehabilating the foresee ability doctrine. Fordham J Corp Finan Law. 11(2).

29. Willis P, Hughes P (2008). Structural remedies in Article 82 energy cases. Compet Law Rev. 4(2):147-174.