p-ISSN 2300-4088
e-ISSN 2391-5951
NR 4 (2017)

PROGRESS IN ECONOMIC SCIENCES

CZASOPISMO NAUKOWE INSTYTUTU EKONOMICZNEGO
PAŃSTWOWEJ WYŻSZEJ SZKOŁY ZAWODOWEJ
IM. STANISŁAWA STASZICA W PILE

PWSZ
w Pile

p-ISSN 2300-4088
e-ISSN 2391-5951

Progress in Economic Sciences

Czasopismo Naukowe Instytutu Ekonomicznego
Państwowej Wyższej Szkoły Zawodowej im. Stanisława Staszica
w Pile

Nr 4 (2017)

Wersja elektroniczna czasopisma jest wersją pierwotną.

Piła 2017

p-ISSN 2300-4088
e-ISSN 2391-5951

Projekt realizowany
z Narodowym Bankiem Polskim
w ramach programu edukacji ekonomicznej

NBP Narodowy Bank Polski

Poglądy autorów publikacji nie mogą być utożsamiane ze stanowiskiem Narodowego Banku Polskiego.

Publikacja współfinansowana przez

Enea Operator

Adres Redakcji: Instytut Ekonomiczny
Państwowa Wyższa Szkoła Zawodowa
im. Stanisława Staszica w Pile
ul. Podchorążych 10
64-920 Piła
tel. (067) 352 26 11
http://pes.pwsz.pila.pl
pne@pwsz.pila.pl

Czasopismo jest indeksowane w następujących bazach:
BazEcon, BazHum, CEJSH, DOAJ, Index Copernicus, ERIH Plus

Przygotowanie i druk:
KUNKE POLIGRAFIA, Inowrocław

Spis treści

ARTYKUŁY

Table of contents

ARTICLES

Progress in Economic Sciences Nr 4 (2017) p-ISSN 2300-4088 e-ISSN 2391-5951
DOI: 10.14595/PES/04/025

Grzegorz KINELSKI*
Kazimierz PAJĄK**

Competitive market and sources of its advantages in the electric energy subsector

Introduction

A competitive enterprise is characterized by the ability to compete, achieve and maintain competitive advantage, as well as to operate and survive in a competitive environment. It is able to design, create and offer better products than other companies. Competitiveness is defined by three dimensions: competitive potential, competitive strategy and competitive position.

Competitive potential is composed of all the resources required to operate and compete in a given market, determining the achievement and maintenance of a competitive advantage. They are resources that allow us to create values, evolving from simple to complex, unique and distinctive competences and abilities difficult to implement and imitate [Krzakiewicz, Cyfert 2015, p. 223 et seq.].

Sources of competitive advantage of energy companies are strategic material resources, such as manufacturing assets, availability of fuels and raw materials, distribution networks, staff competencies, knowledge and skills, innovation, entrepreneurship and reputation. The classical approach to competitiveness, where a high position of a company is determined by cost advantage, does not apply here. Competitive economy is affected by secure energy supplies to customers at affordable prices. Given the constant legislative changes and varying customer preferences and expectations, effective competition instruments, which achieve a synergistic effect by supporting each other, are gaining in importance. Relying on a single advantage, regardless of whether it is cost or quality, does not guarantee success [Zamasz, Woszczyk, Pająk 2015, p. 6 et seq.].

The energy market is specific because energy security, which is measured, inter alia, by demand for electricity, is crucial for economic development.

* Stowarzyszenie na rzecz Gospodarki Energetycznej Polski, IAEE, Polska
** Uniwersytet Ekonomiczny w Poznaniu

It is estimated that the losses generated by the failure to provide energy worth one Polish zloty to medium and large customers are twenty times greater. Energy is not only part of economic processes, but it is also the most important component of consumption processes [Zamasz 2015, p. 32 et seq.].

For many years, even in highly developed countries, the energy market has often been identified with the monopolistic market supervised by the state. The roots of this type of monopoly go back to distant times. The emergence of the power industry and its gradual development were related to the establishment of exclusive supply of fuels and energy. It is worth remembering that initially energy supply resembled the supply of other goods. Trading energy was no different from other commercial transactions. It is only with the passing of time, primarily because of its enormous utility, that energy has become the primary public good provided by (private and state) companies of public utility status. In recent decades, market concepts have been gaining in popularity.

Electricity market and competitiveness

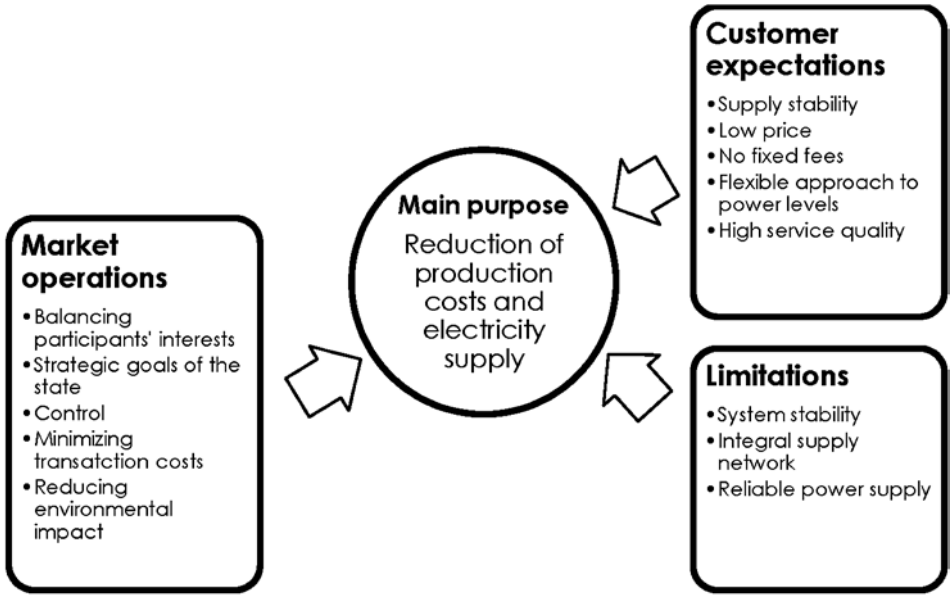
The overriding objective of the electricity market is to provide reasonable energy prices and service reliability. The basic premise of liberalizing the energy market is the separation of energy production and sales from its transmission and distribution. This allows for independent price fixing and thus for the introduction of competitive rules for trading electricity. In order for this to happen, the electricity market must ensure:

- ❏ equal treatment of all market participants;
- ❏ free access to the market, only financial and technical constraints are allowed;
- ❏ the free formation of final electricity prices;
- ❏ tariffing preferences, e.g. economic exclusion;
- ❏ prioritizing electricity supply continuity [Okólski 2002, p. 39].

Taking into consideration the above and functional requirements, appropriate technical, organizational and legal rules have been developed. They are presented in Figure 1.

The electricity market operates on two levels, described as wholesale and retail markets. The wholesale market deals with electricity trading, balancing demand and ensuring reliable operation of the industrial system. The following levels of this market can be distinguished: centralized market, separated and non-obligatory stock market based on supply offers, dispersed market and decentralized market in the form of stock exchange transactions and contracts [Niedziółka 2010, pp. 32–33]. The second level is the retail market. It is composed of the competitive and regulated areas. The competitive area consists of transactions in which consumers can purchase electricity in accordance with the right to choose a supplier. They can therefore buy energy from suppliers

Figure 1. Principles of electricity market operation in terms of competitiveness



Source: own elaboration based on M. Okólski, *Jaki model rynku energii?* Warszawa 2002, p. 41.

or directly from manufacturers. In the regulated area, electricity is supplied by distribution companies and prices are the result of tariffs agreed by the President of the Energy Regulatory Office (ERO).

The energy sector in Poland and the European Union (EU) has been deeply transformed over the past several decades, resulting from: EU energy policy, priorities of government restructuring programmes and changes in organizational, functional and ownership structures. Changes in the energy market conditions cause a strategic reorientation of enterprises in the sector. The transformation has affected the scale and level of concentration of energy companies that are currently operating within vertically consolidated capital groups.

The energy sector is dominated by big players that do not keep up with the changing environment. As a result, the term 'two-speed power' is used in the literature [Report 2010, p. 46]. This concept shows disproportions and a deepening gap between the public and private sectors. Partial privatization is one of the elements of the sector restructuring process. Another is the need to modernize and change the production structure. In most cases this involves repairing or even exchanging equipment. Most production facilities (60%) are over 30 years old and the power industry is in poor technical condition due to a lack of necessary investments. The necessary restructuring and modernization of the energy sector requires large investments. This may lead to an increase in energy prices that will affect both households and other businesses. This is the most noticeable effect of the sector's modernization. However, modernization

will increase competitiveness and, therefore, the efficiency of the energy sector. The diversification of energy sources will increase the country's energy security and independence from fuels and raw materials supplied by other countries [Żmijewski 2011, p. 469 et seq.; Nagaj 2016, p. 245 et seq.].

The implementation of competition rules in the electricity market has been a new impetus for action. Significant changes have been introduced to the old model of regulated enterprises. Firstly, according to EU directives, the state is gradually liberalizing the entire industry, allowing new entrants. Secondly, also in line with the EU directives, the state seeks to separate the monopolistic (infrastructure) activity from the commercial activity of the competitive market in order to promote the development of competition. Thirdly, the state sells stock packages held in such companies. Fourthly, companies remaining local monopolies in their field of service with state permission will be entitled to a reasonable return on invested capital [Regulation 2005, p. 36 et seq.; Report 2013, p. 10 et seq.]

Legal regulations for the energy economy were developed from the beginning of the systemic transformation in Poland. As a result, the Sejm passed the Energy Law on 10 April 1997, which constitutes the legal framework of the energy sector. This legal act allows for the implementation of the main energy policy objectives, which are as follows:

- ❏ to ensure the security of energy supply, i.e. provide conditions to meet the current and future demands of society and the economy for energy;
- ❏ to establish prices resulting from market mechanisms and/or regulation by an independent state body, separated from ministry structures, and balancing the interests of electricity suppliers and recipients;
- ❏ to protect the environment [The Internal 1988, p. 238].

Discussion on the transformation of the energy sector was launched earlier in Europe. This was reflected in the 'Working Paper on the Internal European Market' [The Official Journal of Laws 2000 No. 48, item 555]. In this document, the European Commission pointed out that competition should be a major factor in integrating the energy market. Furthermore, the document raised the issue of stimulating the energy market's impact on the standard of living of the population, which would lead to increased trade between EU member states and increased production capacities of enterprises. The document dealt with tax issues, administrative constraints, monopoly issues, pricing and electricity costs, and pointed to important infrastructure areas.

The Energy Law in Poland has been amended several times since it came into force. The most extensive changes were introduced by the Act of 26 May 2000 on amending the Energy Law. This was forced by the Constitutional Tribunal, which declared that the law was incompatible with the Constitution because the provisions of the act did not lay down even the most general principles concerning price and charge calculation mechanisms, as well as the creation of individual tariffs. Further amendments were mainly due to

the need to adapt national legislation to EU directives aimed at speeding up the liberalization of national electricity and gas markets. Another important change was enacted by virtue of the Act on amending the Energy Law [Popczyk 2007, p. 26 et seq.].

Article 1, Section 1 of the Energy Law points to its essential importance for the energy economy. It outlines the general principles for shaping the state's energy policy, the priorities, principles and conditions for the supply and use of fuels and energy, the rules for the functioning of energy companies, and indicates the authorities responsible for the management of fuels and energy. The broad scope of the subject matter of the act is due to the tasks involved. The Polish Energy Law is considered one of best acts of this kind in Europe. Its solutions define the strategy of Poland's energy policy aiming at: limiting state participation in the management of the power sector; privatization and demonopolization; improving the efficiency of electricity companies by creating conditions for their development; marketing energy trading; streamlining regulatory functions; broadening price and tariff control; and balancing the interests of electricity companies, consumers and users of electricity [Szczygieł 2000, p. 17 et seq.; Pach-Gurgul 2012, p. 203 et seq.].

The law creates the legal basis for the deep changes that the energy sector is subjected to. It aims to introduce market mechanisms into the energy sector. This is extremely important because the sector affects conditions under which all business entities operate and thus decides on the security of the economy due to the dependence of customers on energy suppliers. This is very important because many energy companies operate under monopoly conditions. It is worth pointing out to Article 49 of the Energy Law, which provides that the President of the ERO can exempt an energy company from the obligation to submit tariffs for approval if he finds out that it operates in a competitive market or he can withdraw the exemption granted if the conditions justifying the exemption cease to exist. However, the above provision did not specify the criteria of the competitive market and therefore the regulator was obliged to do so. This means that, according to the statutory provisions, the President of the ERO, considering each time the decision to exempt companies from the obligation to submit tariffs for approval, will identify and evaluate the competitiveness of the market on which the enterprise operates. He must therefore take account of: the adequate number of market participants; their market position defined by their market share; entry and exit barriers; commercial homogeneity of goods (services); transparency of structure and operation principles; equality of participants' rights to and principles of access to market information; control and surveillance against market cartel (collusion); and access to high-performance technologies [Szablewski 2012, p. 82].

The present-day processes in the energy market allow us to identify certain circumstances that objectively should foster competitive processes in the electricity market. These include, but are not limited to: the excess of

installed power over the maximum power requirement; implementation of policies of third-party access to the network; diversified entity structure on a spatially homogeneous market (this condition is practically met in electricity); manufacturing and marketing; licensing that minimizes administrative barriers to entry and exit; progressive privatization of sector entities aimed at gaining ownership diversity; creating institutional market infrastructure; advancement in the development of technical infrastructure (e.g. measurement equipment and data transmission systems) [Nagaj 2016, p. 278 et seq.].

These circumstances should be strengthened in the near future by a series of general conditions. They include: adapting legal norms and technical standards to European requirements; increasing the customer awareness of the market (if not fulfilled, this condition may prove to be a strong barrier and therefore the role of consumer organizations and the media in disseminating market knowledge is important); developing educational activities to increase knowledge and awareness among energy users of the benefits of the competitive market and the absence of alternatives in this regard [Ziemski, Lissoń 2014, p. 39 et seq.].

Due to legislative and regulatory measures taken in the energy sector, from July 2007 all consumers have been entitled to choose a supplier regardless of the amount of energy purchased. The introduction of this principle with respect to all consumers does not automatically mean that the electricity market can be considered competitive. However, the resulting formal premises: shape the proper structure of the market – the domination of one or more producers, often vertically integrated, is the primary barrier to competition; develop the process of building a liquid wholesale market providing adequate electricity for trading; develop procedures for the effective separation of energy trading from its distribution; and provide non-discriminatory access to the network for entities not belonging to business groups, to which distribution networks belong [ARE 2012, p. 127 et seq.].

The first of the premises mentioned above should launch competition procedures. The modern structure of the sector creates – under certain conditions – opportunities for doing so. The threat seems to be vertical consolidation within energy groups. Vertical links between energy production and sales reduces the need to trade on the wholesale market and leads to low liquidity. In order to limit this type of practice, the obligation to obtain consent under Article 20, Section 2 of the Act on Competition and Consumer Protection has been introduced. This provision stipulates that the President of the Office of Competition and Consumer Protection may allow for consolidation which results in a significant reduction of competition. This is to prevent the strengthening of one entity's dominant position and thereby increase the level of competition in the market [Zamasz 2015, p. 36 et seq.]

It is worth noting here that competitiveness is fuelled by the privatization of the energy sector. Where the majority of the market is controlled by

one entity that holds shares in both power plants and distribution plants, the implementation of competition is hampered.

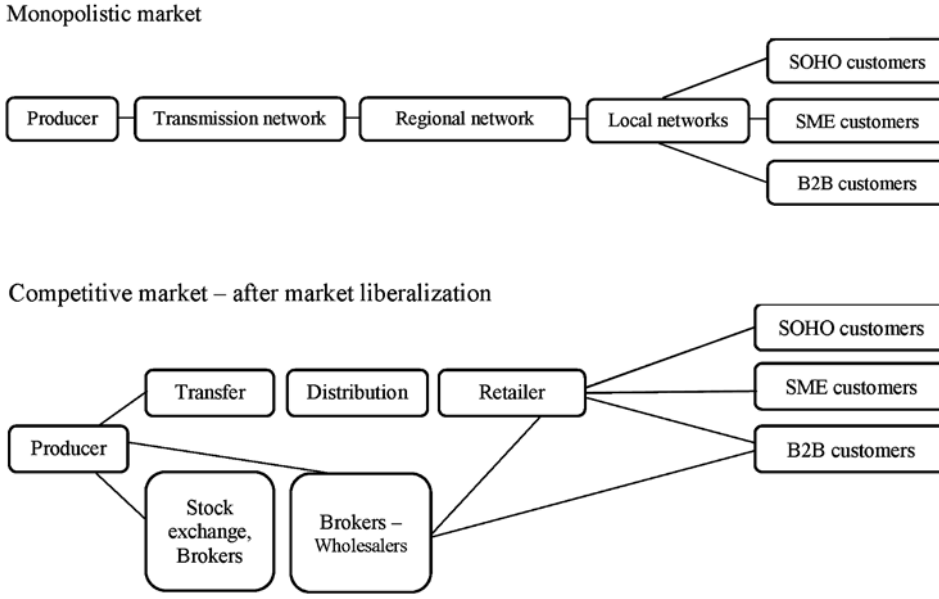
The last factor affecting competitiveness is building capacity. Increasing production capacity will not only have a positive impact on energy security but will also exert pressure on market participants. Nevertheless, cross-border investments are important. Expanding connections allowing for the integration of the national system with the neighbouring countries' systems will significantly affect the competitiveness of energy sector entities. It is also worth mentioning that the law contains the term 'sustainable development of the country'. Although it is the main guideline for the energy policy objectives pursued by the Council of Ministers, it has not been further developed. Sustainable development is defined by another legislative solution – the Environmental Law. It states that sustainable development of the country is a socio-economic development where political, economic and social activities are integrated, the environmental balance is maintained and sustainability of basic natural processes is ensured in order to balance the opportunities of individual societies and their citizens – both contemporary and future generations – for access to the environment. It can therefore be assumed that sustainable development should be interpreted as the need to take account of environmental and economic equilibrium, particularly in energy processes. This corresponds to the provisions of the amended Energy Law, effective 24 July 2002. The provisions contained in it (e.g. Article 9) impose on energy companies the compulsion of economical and pro-ecological energy management in Poland. Sustainable development combines all the interests of both energy companies and consumers of fuels and energy [Baehr, Stawicki, Antczak 2003, p. 17 et seq.]. The introduction of market mechanisms into the energy sector may raise concerns that investment decisions made by energy companies will result in uneven development due to the varying levels of outlays. This situation may reduce the country's energy security. The globalization of energy markets in Europe may also adversely affect the level of security, as countries with strong energy infrastructure already have a significant advantage. This is a consequence of the strategic aspects of energy policy, particularly energy security and the internationalization of fuel and energy trade.

Energy supply and competitiveness

The supply chain on the energy market depends on the model adopted there. Figure 2 shows the network of business links on the monopolistic market and how they change after removing barriers to entry. While new opportunities for cooperation are opened at the wholesale level for some customer segments, others can choose a supplier in the liberalized market. The office/home office (SOHO) segment usually draws energy from low voltage networks. The

segment of small and medium-sized enterprises (SME) includes companies that are connected to a medium voltage network and consume much more energy than the SOHO segment. Segmentation depends on individual power providers. However, the annual power consumption ranges from 50MWh to 1GWh and from 100MWh to 10GWh. Segmentation levels depend mainly on the organization of internal and external sales networks and on the goals and size of energy suppliers. The largest customers form the strategic segment also known as B2B. The literature indicates that this name should also refer to the SME segment. This segment includes customers that usually use 110kV high voltage networks. They can also take advantage of the direct access to the Polish Power Exchange and make purchases in bilateral contracts on the over-the-counter (OTC) market. The full value chain of the energy company is shown in Figure 2.

Figure 2. Value chain of an energy company before and after market liberalization



Source: Own elaboration based on: *How does Power Reach the end-cusotmer? Polish energy sector in the context of transformation on European markets*, The Boston Consulting Group, Akademia Energii 2013; G. Wojtkowska-Łodej, D. Michalski, P. Hawranek, *Zmiany uwarunkowań funkcjonowania przedsiębiorstw na rynku energii elektrycznej w Unii Europejskiej*, Oficyna Wydawnicza Szkoły Głównej Handlowej w Warszawie, Warszawa 2012, p. 46.

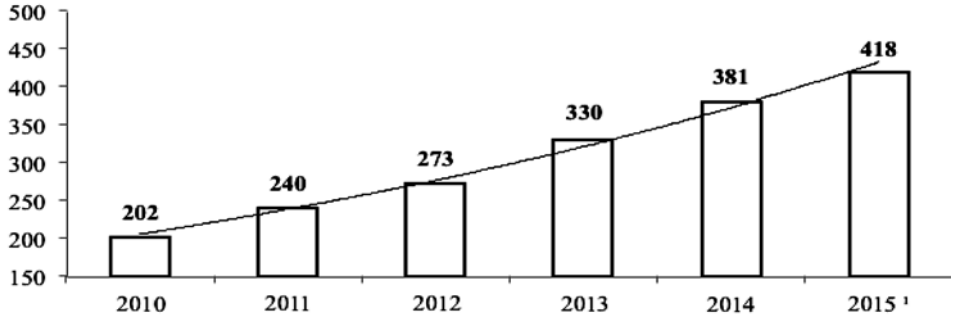
It is worth noting that liberalization introduces competitiveness into the energy market but does not make it fully open and free from previous, monopolistic conditions. This is evidenced by the growing but still small percentage of consumers deciding to change the trader, as well as the territorial division of

Poland between the largest energy companies. In Poland, geographic segmentation, in which energy companies operate, has a specific economic purpose. Only large companies are able to cope with huge and necessary investments in the power industry. Other energy entities become intermediaries between producers and traders (on the stock exchange or in OTC transactions) and end-users –households and industry. They bear no risk of choosing the optimum energy production technology, cost of buying the necessary certificates and permits for CO_2 emissions and obligation to modernize the infrastructure. This implies both opportunities and threats. It cannot be unambiguously determined in which market model the power industry currently operates, as there are elements characteristic of monopoly, oligopoly and monopolistic competition in the sector. However, it can be expected that the legislative and systemic changes that are being implemented will lead to the emergence of regional European energy markets and, consequently, a single harmonious centre for transactions and electricity flows where prices will only be shaped from the perspective of market equilibrium on the basis of demand and supply curves [Żmijewski 2011, p. 469 et seq.]

For decades, the sector has been accustomed to a certain comfort afforded by monopoly, which is an important problem and a barrier to the implementation of competition in the electricity market. In a natural monopoly environment, consumers bear the entire risk of power-related business, beginning with energy manufacturing and ending with energy distribution. Competition is associated with uncertainty; it can even be devastating to the people concerned because they need to constantly prove that they are more effective than others. On the energy market, it is consumers, rather than traders, who decide how much of the product and from whom they will buy. Traders do their best to make their competitor a party to the transaction. On the competitive market, each entity operates in a similar environment. Transactions are subject to legal or customary regulations and information on the prices of offered goods is widely available [Pająk, Pająk 2016, p. 115].

Both in the EU and in Poland, energy companies tend to monitor the full value chain and develop fuel and energy groups, beginning with the extraction of fuels through generation of electricity and heat from diversified sources, including in renewable processes, their distribution, wholesale and retail trade and customer service. The sector is dominated by large and very large entities, mainly energy groups. Increasingly, however, many small businesses appear in the market of renewable energy production and energy and gas retailing, which in turn stimulates competitive behaviour. Currently (as of April 2017), 453 entities hold electrical power trading concessions in Poland. Continuous growth has been observed in the past years, which shows the continuous development of the competitive market. This development trend is presented in Figure 3.

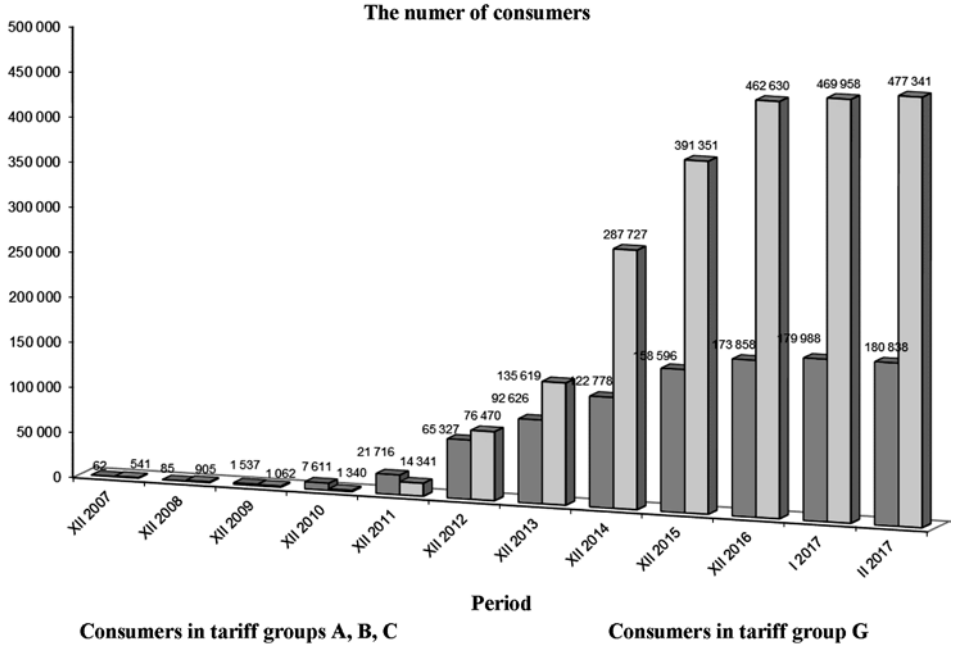
Figure 3. Market development in the area of electricity trading – the number of concessions between 2010 and 2015



Source: own elaboration based on data of the Energy Regulatory Office – the reports and statistics come from the website: ure.gov.pl

Interestingly, these entities now account for 59% of all retailers changed in the retail energy market in the consumer and small business segment. Figure 4 shows market development in terms of the number of concessions and retailers changed.

Figure 4. Market development in the area of electricity turnover – the number of retailers changed between 2007 and 2017



Source: own elaboration based on data of the Energy Regulatory Office – the reports and statistics come from the website: ure.gov.pl

Conclusions

Taking account of the current theoretical considerations and economic practice, it can be said that not only energy consumers but also energy producers and traders need competition. This forces companies to improve efficiency, which is unfortunately very difficult to achieve in an administrative manner. This is especially important in the context of the domestic and European markets. Competition is not limited to the energy sector, as energy is also sold by mobile phone companies, gas distributors and other small traders.

While energy companies already operate according to the market principles in the field of energy trading, energy distribution is still fully regulated. This does not exclude new clients, especially in areas where networks border with other distribution system operators. It is worth noting here that local self-governments play an important role in the field of competitiveness of energy entities. The Energy Law presents concrete, measurable tasks addressed to voivodship self-governments. According to Article 17, the voivodship self-government participates in the planning of energy and fuel supply in its area by issuing opinions on municipal projects in this area. Furthermore, Article 23 reads that the voivodship board issues opinions on, inter alia, granting and withdrawing concessions and agreeing plans of energy companies.

Bibliography

- ADAMKIEIWICZ-DRWIŁŁO H. (2002), *Uwarunkowania konkurencyjności przedsiębiorstwa*, PWN, Warszawa.
- ARE (2012), *Statystyka elektroenergetyki polskiej*. Warszawa.
- BAEHR J., STAWICKI E., ANTCZAK J. (2003), *Prawo Energetyczne. Komentarz*, Domański Zakrzewski Palinka, Zakamycze.
- BAKIER B., WEREDYK K. (2000), *Istota i mechanizm konkurencyjności*, [in:] Grabowiecki J., Wnorowski H. (2000), *Konkurencyjność gospodarki polskiej a rola państwa przed akcesją do Unii Europejskiej*, Uniwersytet w Białymstoku, Białystok.
- BHATTACHARYYA S. C. (2011), *Energy Economics. Concepts*, Issues, Markets and Governance. London. Springer.
- BIEŃKOWSKI W. (2000), *Konkurencyjność gospodarki polskiej w przededniu wejścia do Unii Europejskiej. Czy rząd może być bardziej aktywny?* [in:] *Unia Europejska wobec procesów integracyjnych – wyzwania dla Polski*, Materiały z konferencji międzynarodowej, Dom Wydawniczy ELIPSA, Warszawa.
- BIGGAR D. R., HESAMZADEH M. R. (2014), *The economics of electricity markets*. Noida. Wiley.
- BITKOWSKA A. (2010), *Procesy restrukturyzacji warunkiem poprawy konkurencyjności przedsiębiorstwa*. Warszawa. Difin.

- Biuletyn – Kierunki rozwoju konkurencji i ochrony konsumentów w polskim sektorze energetycznym, Wydawnictwo UOKiK, Warszawa 2010.
- CHARNES A., COOPER W. W., RHODES E. L. (1978), *Measuring the efficiency of decision making units*.
- CHRZAN E. (2001), *Postawy polskiego konsumenta wobec intensywnej promocji oraz naruszania jego praw (w świetle badań)*, [in:] *Marketing przyszłości trendy. Strategie. Instrumenty przedsiębiorstwo i konsument w ewoluującym otoczeniu*, Zeszyt naukowy numer 661, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, p. 35.
- CISZEWSKI W. (2010), *Procedura tworzenia polskiej polityki energetycznej*, Biblioteka Regulatora.
- CLARK B. (2000), *Managerial perceptions of marketing performance: efficiency, adaptability, effectiveness and satisfaction*.
- COMMISSION OF THE EUROPEAN COMMUNITIES, The competitiveness of business-related services and their contribution to the performance of European enterprises, COM(2003) 747 final, Brussels, 4.12.2003, Annex II, p. 34.
- CZARNECKA M. (2013), *Konsument na rynku energii elektrycznej*. Warszawa. C.H. Beck.
- DIETL M., MAKOWSKI K. (2010), *Monopolizacja, demonopolizacja, niepewność*, Biblioteka Regulatora, Warszawa.
- EPSTEIN M., MANZONI J. F. (1998), *Implementing Corporate Strategy: From Tableaux de Bord to Balanced Scorecard*, European Management Journal.
- EDVISSON L., MALONE M. (1997), *Intellectual Capital: the proven way to establish your company's real value by measuring it hidden brain power*, Piotkus, Londyn.
- EDWARDS W. D. (2010), *Energy, Trading & Investing. Trading, Risk management and Structuring Deals in the Energy Markets*. New York. Mc Graw-Hill Finance & Investing.
- ESPINAS A. (1980), *Les origines de la technologie*, „Revue Philosophique de la France et de l'Etranger", Paris, vol. XXX.
- FLEJTERSKI S. (1984), *Istota i mierzenie konkurencyjności międzynarodowej*, Państwowe Wydawnictwo Ekonomiczne, Warszawa.
- GLINKA B., GUDKOVA S. (2011), *Przedsiębiorczość*, Wyd. Wolters Kluwer, Warszawa.
- GORYNIA M. (2000), *Koncepcja i metodyka badania konkurencyjności przedsiębiorstwa*, [in:] *Konkurencyjność gospodarki Polski w dobie integracji z Unią Europejską i globalizacji, Materiały dodatkowe*, SGH, Warszawa Grupa Lizbońska, 2000, Granice konkurencji, Poltext, Warszawa.
- GORYNIA M. (2001), *Międzynarodowa konkurencyjność polskich przedsiębiorstw – wyniki badań empirycznych*, [in:] *Przedsiębiorczość i konkurencyjność*, Vol. IV, red. J. Kotowicz-Jawor, VII Kongres Ekonomistów Polskich, Polskie Towarzystwo Ekonomiczne, Warszawa.
- GORYNIA M. (2005), *Strategie firm polskich wobec ekspansji inwestorów zagranicznych*. Warszawa. Polskie Wydawnictwo Ekonomiczne.
- GORYNIA M. (2007), *Strategie zagranicznej ekspansji przedsiębiorstw*. Warszawa. Polskie Wydawnictwo Ekonomiczne.
- GORYNIA M., ŁAŹNIEWSKA E. (2009), *Kompendium wiedzy o konkurencyjności*. Warszawa. Wydawnictwo Naukowe PWN.
- GÓRSKA-WARSEWICZ H. (2005), *Podstawy rachunkowości*, Wyd. WSiP, Warszawa.
- GRABOWIECKI J., WNOROWSKI H. (2000), *Konkurencyjność gospodarki polskiej a rola państwa przed akcesją do Unii Europejskiej*, Uniwersytet w Białymstoku, Białystok.

- ILLERIS S. (1996), *The role of service activities in regional development: western and eastern Europe*, [in:] Chatterli M., Domanski R. (eds), *Urban and regional management in countries in transition.*Wydawnictwo Naukowe PWN, Warszawa.
- JANUSZKIEWICZ W. (2001), *Konkurencyjność polskiego sektora uslug w dobie integracji z Unią Europejską i globalizacji*, [in:] *Konkurencyjność gospodarki Polski w dobie integracji z Unią Europejską i globalizacji*, pr. zb. pod red. J. Bossaka i W. Bieńkowskiego, SGH, Warszawa.
- JANUSZKIEWICZ W. (2001), *Konkurencyjność polskiego sektora usług*, pod red. Kotowicz-Jawor J. Tom IV, Przedsiębiorczość i konkurencyjność, VII Kongres Ekonomistów Polskich, Polskie Towarzystwo Ekonomiczne 2001, Warszawa, Dom Wydawniczy Bellona.
- JANUSZKIEWICZ W. (2000), *Konkurencyjność sfery uslug a rola państwa przed akcesją Polski do Unii Europejskiej*, [in:] *Konkurencyjność gospodarki polskiej a rola państwa przed akcesją do Unii Europejskiej*, pod red. H. Podedwornego, J. Grabowieckiego i H. Wnorowskiego, Wyd. Uniwersytetu w Białymstoku, Białystok.
- JELONEK D. (2003), *Przewaga konkurencyjna e-przedsiębiorstwa*, Ekonomika i Organizacja Przedsiębiorstwa, 3.
- KOTOWICZ-JAWOR J. (2001), Tom IV, *Przedsiębiorczość i konkurencyjność*, VII Kongres Ekonomistów Polskich, Polskie Towarzystwo Ekonomiczne, Warszawa, Dom Wydawniczy Bellona.
- MAJCHRZAK M. (2012), *Konkurencyjność przedsiębiorstw podsektora usług biznesowych w Polsce. Perspektywa mikro-, mezo- i makroekonomiczna*. Warszawa. Wydawnictwo CeDeWu.
- MATUSIAK B. (2013), *Modele biznesowe na nowym, zintegrowanym rynku energii*. Łódź. Wydawnictwo Uniwersytetu Łódzkiego.
- OKÓLSKI M. (2002), *Jaki model rynku energii?* Urząd Regulacji Energetyki, Warszawa.
- PAJĄK A., PAJĄK K. (2016), *Bezpieczeństwo energetyczne – niskoemisyjność w rozwoju gospodarczym Wielkopolski*, [in:] K. Pająk (red.) *Gospodarka niskoemisyjna i jej wpływ na rozwój województwa wielkopolskiego*. Warszawa.
- PAWŁOWSKI J. (2005), *Diagnoza potencjały innowacyjności i konkurencyjności przedsiębiorstw*, „Przegląd Organizacji", 2005.
- PORTER M. E. (2000), *Strategia konkurencji. Metody analizy sektorów i konkurentów*, PWE, Warszawa.
- STACHARSKA-TARGOSZ J. (2010), *Rynek energii*. Kraków. Politechnika Krakowska.
- STANKIEWICZ M. J. (2005), *Konkurencyjność przedsiębiorstwa*, [in:] *Budowanie konkurencyjności przedsiębiorstwa w warunkach globalizacji*, Dom Organizatora, Toruń.
- SZABLEWSKI A. T. (2012), *Liberalizacja a bezpieczeństwo dostaw energii elektrycznej*. Warszawa.
- SZCZYGIEŁ L. (2001), *Model rynku energii elektrycznej*, Seria wydawnicza „Biblioteka Regulatora", Urząd Regulacji Energetyki.
- ŚWITALSKI W. (2005), *Innowacje i konkurencyjność*, Wydawnictwa Uniwersytetu Warszawskiego.
- WZIĄTEK-KUBIAK A. (2003), *Konkurencyjność polskiego przemysłu*, Dom Wydawniczy Bellona, Warszawa.
- ZIEMSKI K., LISSOŃ P. (red.) (2014), *Inwestycje infrastrukturalne i ochrona środowiska w prawie energetycznym*. Poznań.
- ŻMIJEWSKI K. (2011), *Innowacyjne rozwiązania w energetyce – wyciąg propozycji zawartych w Białej Księdze NPRE*. Warszawa.

Rynek konkurencyjny i źródła jego przewagi w subsektorze elektroenergetycznym

Streszczenie

Subsektor elektroenergetyczny w obszarze konkurencyjności jest znacznie zróżnicowany w zależności od obszaru, który badamy. Wytwarzanie energii, przesył czy też obszar dystrybucji posiadają całkiem odmienną charakterystykę konkurencyjności, niż takie obszary jak obrót energią elektryczną. W obszarze wytwarzania przewagę konkurencyjną buduje m.in.: umiejętne poruszanie się na rynku paliw oraz celowe inwestycje wpływające na sprawność i efektywność urządzeń. W obszarze dystrybucji, mimo naturalnego monopolu, pojawiają się na rynku także takie OSD-n, które dynamicznie odbierają udziały w rynku nowobudowanych przyłączeń. Obszar obrotu można z powodzeniem porównać do innych segmentów rynku konkurencyjnego, gdzie występuje sprzedaż masowa usług i produktów.

Słowa klucze: energia elektryczna, przemysł elektroenergetyczny, przewaga konkurencyjna

Competitive market and sources of its advantages in the electric energy subsector

Abstract

The electric energy subsector varies considerably in terms of competitiveness depending on the area under analysis. Power generation, transmission and distribution have quite different characteristics of competitiveness than areas such as electricity trading. In the area of power generation, competitive advantage is developed by factors such as: skilful operation in the fuel market and targeted investments affecting the efficiency and effectiveness of equipment. In the area of energy distribution, despite the natural monopoly, some distribution system operators dynamically take over the market share of newly constructed networks. The area of energy trading can be successfully compared to other competitive market segments where mass sales of services and products occur.

Key words: electric power, electric power industry, competitive advantage

JEL: K32

Wpłynęło do redakcji: 28.02.2017 r.
Skierowano do recenzji: 06.03.2017 r.
Zaakceptowano do druku: 19.05.2017 r.