Andrzej Szablewski

Institute of Economic Sciences – Polish Academy of Sciences

Should the Polish Power Industry be Integrated and If So, How?

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Introduction

The question posed herein is two fold. It refers to an on-going public debate on the issue of another modification of the state policy regarding structural transformations of the Power and Gas Sector, as proposed by The Ministry of the Treasury and supported by some part of the power industry. However, it is of a more fundamental nature, since it is in regards to the appropriateness of the basic change in the state strategy concerning this issue which took place following the last parliamentary elections in 2001.

The first case refers to a proposal to allow vertical integration of the national power and gas sector, which will entail incorporating distribution companies that are also undergoing consolidation, into two presently-created groups of electricity producers (Polska Energia – Polish Energy, created on the basis of the Southern Power Concern, and BOT, which consists of Bełchatów, Turów and Opole power stations and two (2) brown coal mines). The change in the state strategy was marked by the abandonment of a policy of blocking integration activities until competition emerged in the sub-sectors of power generation and sales, as well as privatization of these sub-industries, an approach which was unquestionably adopted throughout the 1990's. It is worth mentioning, that the structure of the domestic power and gas industry, which developed in the beginning of the 1990's, was characterized by a high degree of demonopolization, both vertical (with the existence of three (3) independent sub-industries: generation, transmission and distribution) and horizontal (with fourteen (14) large electricity producers and thirty-three (33) distribution companies). However, after 2001, a modification of the state structural policy called only for horizontal integration processes, i.e., integration of producers and distribution companies into large groups of power producers and distributors.

The scale and intensity of the merger and acquisition (M&A) process in the power sector that has lead to the integration of power and utility sectors worldwide, including Europe, provides an important background to the question posed at the outset. This process, vigorously advocated by proponents of integration of the domestic sector, seems to confirm not only the legitimacy of the redirection, from the passive state policy regarding structural transformations that started after 2001, but it also confirms the rationality of the presently advocated ideas to expand the on-going integration process to allow also vertical integration.

An examination of the motives behind the integration activities in the European power and gas sector leads to an obvious conclusion that the goal here is to strive to achieve economies of scale as well as benefits resulting from the vertically integrated power companies (synergy benefits) and benefits from convergence (not only in the case of combining activities in the power sector with those in the gas sector). The fall of Enron has strengthened a conviction, held by the power sectors of most countries, of the advantages of an integrated enterprise structure that is based on material assets (used in generation and/or networks). It applies primarily to power generating and sales companies, whose financial status is in particular jeopardy in cases when the former have no direct access to power markets, while the latter do not have their own sources of power generation.

1. Problem Formulation

Notwithstanding the importance of the microeconomic arguments presented here, (such as benefits of scale, synergy, and convergence, as well as minimizing market risk) that are in favor of integration, it is worth noting, that the issue of integration of the domestic power sector has been the subject of controversy for the last several years. Recently, this controversy has substantially increased, following the publication of the vertical integration proposition. It is important to note that the differences in opinions on the issue of integration that appear here have emerged not only within the sector itself, and among experts and analysts of processes of the market transformation of the network-based sectors, but also among regulators, which are the most important element from the point of view of the decision-making power in the sector. So far, the vertical integration scheme promoted by The Ministry of the Treasury has met with staunch opposition from the Ministry of Economy and Labor, the Office of Competition and Consumer Protection, as well as The Power Regulatory Office.

The level of controversy proves that it is necessary to take into consideration other arguments and to assess the validity of the scheme for vertical integration of the power industry, together with the course of consolidation processes that have taken place so far. It seems that the crucial criterion for such an assessment should be the question whether these transformations serve well in accomplishing the strategic goal of the power policy. Despite a number of serious reservations caused by the way the power policy has been executed so far , the author assumes that the strategic goal of this policy is still to create conditions conducive to the fast emergence and effective performance of a competitive market in generating, wholesale sales, and retail supply of the power industry.

For it should be noted that competitive market mechanisms are not only the most effective way of inducing an increase in internal efficiency at the company level but also, of ensuring often overlooked allocative efficiency, which is of key importance for both power producers and suppliers. In case of the former, the goal is to ensure that the benefits from increased internal efficiency are passed on to consumers. In case of the latter, the goal is to guarantee that companies will not be affected by increases in the costs of power generation and supply, which are independent from them. This translates into a lower risk of operations in power generation and sales.

If the goal of the power policy, as formulated above, is to be seriously considered, then to answer to the question posed at the outset, the following is required.

> Firstly, a familiarity with the conclusions drawn from the course of the power sector

deregulation processes that have taken place so far, including the structural transformations that have occurred. This applies in particular for a country such as Poland, where competitive mechanisms in the power generation and supply sector are not in place, and where the number of companies in which the sole shareholder is The Ministry of the Treasury dominates the market;

> Secondly, based on these conclusions, to conduct an assessment of the results brought on by the change in the national strategy with respect to the structural transformations of this industry;

> Thirdly, to define what the national structural policy regarding the power sector should be based on.

2. Power Liberalization and the Industry Structure

In fact, the problem of a relationship between liberalization and the structure of the liberalized industry posed here refers to the main concern caused by the intensity and scale of the existing consolidation processes in the world power sector. Namely, do these processes reject the method, also popular in Poland in the 1990's, of reforming the power sector, (as well as other network infrastructure-type industries), based on the model of horizontal and vertical demonopolization of the industry, also known as the British model. This concern seems justified even more so when we take into account the fact that intensive integration processes, including vertical and cross-industry (convergence) integration, have been taking place in Great Britain itself for some time now.

From the Polish perspective, confirmation of the concern raised here would mean that we question the national policy that was adopted in the early 1990's and enforced until 2001. This policy was based on the assumption that the vertically and horizontally demonopolized structure of the national power sector, which emerged at the beginning of the previous decade, would facilitate an inherently difficult process of creating competition in network-based industries. This would mean that those who criticized the redirection of the policy, the author included, which postponed the starting of the vital integration processes in the sub-sector of power generation and distribution until mechanisms of competition would be up and running and privatized, were wrong. This would also encompass those groups and state agencies which are now critical of the integration of the already consolidated power generating companies with the consolidated distribution companies.

Published papers have been appearing more frequently, which summarize over thirty (30) years of experience in the liberalization of network-based sectors, first in the USA and then in Great Britain, as well as other countries. These papers leave no doubt about the fact that the structure of the liberalized sectors, with respect to the degree of both horizontal and vertical concentration, plays a vital role, in particular during the initial period of launching a competitive and regulated power market. This fact is further proved by experiences of both those countries which were successful in creating an efficient market as well as those in which these processes have been taking a longer time. This is despite their declarations concerning the need to introduce fast changes and to implement necessary reforms that would abolish formal obstacles impeding greater competition.

This conclusion does not mean, however, that it is the only factor influencing the success or failure in obtaining the full benefits of a competitive market. Stated in brief, the pace

and positive effects of market transformations of network-based industries depend on the degree of horizontal and vertical integration of these industries, the quality of regulatory infrastructure, the effectiveness of pro-competitive regulations, and in countries like Poland who ultimately intend to privatize these sectors, on the way ownership reforms are carried out. In this respect, the most important conclusions may be formulated in the following way.

> The higher the degree of industry integration the longer time it takes and the bigger the role of regulators in stimulating competitiveness.

> The faster the privatization of a demonopolized industry occurs, the quicker the customers will benefit from lower power generation and supply costs.

> Privatization of corporations that have too strong of a market position may, in fact, contribute higher revenues to the state budget and ensure an increase in the internal efficiency of these corporations. However, it would deprive consumers of the benefits due to them, which, in turn, would generate strong pressure to increase the degree of regulation in sub-sectors which are officially competitive. As a result, regulatory risk would grow (invoked by a fear whether it would be possible to pass onto consumers cost increases that are outside of the control of corporations), accompanied by costs of capital and, in the long run, prices.

> Privatization also has an important regulatory effect since it removes the conflict which exists between the ownership and the regulatory functions of the state. It makes it easier for regulators to undertake energetic pro-competitive actions that would often endanger the interests of state-owned companies.

> Although private companies are more susceptible to the stimuli of a competitive market, public corporations may also react positively to this kind of stimuli.

> When the following occurs: a) an effective competitive market has emerged that is characterized by a large number of generators and suppliers, low barriers of market entry and exit, as well as properly diversified price and quality selection, b) regulation of network activity works effectively and c) the costs of changing suppliers are low, the related procedures are simple, and when consumers' experiences in exercising their right to change suppliers are firmly-rooted, then conditions are right to consider both horizontal and vertical integration.

From the perspective of our discussion on integration, the example of reforms in British infrastructure-based sectors best illustrates the conditions, costs, and resulting dilemmas addressed by the state policy, which undertakes to liberalize and privatize network-based sectors to varying degrees of horizontal and vertical integration. It also illustrates a changing approach in the state policy to grassroots integration processes, due to the development of effective mechanisms of a competitive and regulated market. These British experiences, together with the experiences of other countries that have already launched effective competitive markets, indicate clearly that this goal may be reached in the easiest and fastest way in a vertically and horizontally demonopolized power sector. However, even when the network-based sector is fully monopolized, it is possible to demonopolize it in a relatively short period of time and to institute effective mechanisms of competition, but this requires a very active, and thus a very controversial, pro-competitive regulation. This special type of regulation, called 'assisted entry', is one in which the regulator uses various solutions that facilitate access for new entities to the market at the expense of

corporations 'well-established' in the market as well as regulations that offer consumers a real selection of power suppliers.

The effects of competition in the area of power generation and sales will grow if the market mechanisms reforms are accompanied by ownership reforms. This will then create the proper conditions for companies to search for their optimal structure that would allow them to obtain benefits related to their scale, vertical integration, and convergence, as well as protect against market risk, credit risk, and the risk of market instability. It is in this context that we should consider the above-mentioned vertical integration processes of the British power sector. By weakening its previously rigorous policy of blocking submitted merger and acquisition proposals that would lead to vertical integration, the British regulator believed that the well-developed competitive mechanisms and the established competitive market structure would minimize the ensuing risks caused by reduced competition. Thus, despite the vertical integration that has been taking place in the British power sector recently, there are still as many as six (6) companies able to compete on the national scale. However, the regulator and cooperating anti-monopoly agencies have already started indicating that the degree of integration of the British power sector has reached the level which must not be exceeded.

The importance of the market structure, as it relates to the development of competition, is also acknowledged by the European Commission. It is exemplified both in the New Directive regulations as well as in assessments regarding the insufficient progress in deregulating the power sector as published in the annual Benchmarking Reports. The former contains an elaborate set of regulations whose purpose is to reduce the negative influence on development of competition caused by the domination of vertically-integrated power companies in the member states. From this perspective, the most important decisions of the Directive include.

Firstly, strengthening of the regulatory infrastructure which will facilitate implementation of the TPA (Third Party Access) principle, and removing barriers limiting electricity sales within the EU.

Secondly, introduction of more restrictive laws concerning the separation, out of the structures of vertically integrated businesses that dominate in the EU, of the network activities in form of a commitment to establish legally separate transmission systems operators (as of July 1, 2004) and distribution systems operators (as of July 1, 2007)Thirdly, introduction of a pricing mechanism for trans-border transmission services and principles of managing capacity allocation in trans-system connections.

The latter case refers to an opinion, repeated in consecutive Reports, that a high degree of integration of domestic generation markets poses one of the key obstacles to the development of competition at the domestic market level. It is documented by indicators that measure the combined share of the three largest generators in domestic potentials of installed capacity. Whereas in countries that have a well-developed competitive market, these indicators reach a level significantly lower than 50%, in the remaining countries they range from 60% to 97% .

3. Assessment of the change in national policy regarding structural transformation of the sector

In view of the above statements, it is clear that the change in the state policy regarding market transformations of the domestic power sector, which entails a reversal of a

previously-enforced sequence of actions, leads in a direction that is in conflict with the recommendations based on previous experiences in market transformation of the power sector. If the integration continues further, beyond the already completed projects of horizontal integration in the generation and distribution sub-sectors, and in particular when vertical re-integration occurs, the domestic power sector structure will become comparable to the standards used in the majority of the member states. These are the standards which are commonly believed to constitute the major factor hindering the deregulation progress that benefits consumers.

This negative evaluation of the current state structural policy should be further reinforced when taking into account the effects of implementing the policy that allows integration prior to the launch of the market's and the sector's privatization.

Firstly, the on-going debate regarding power sector integration has not only distracted authorities and the public from the problems which can be solved by developing competition, but it has also led to the dominance of the belief that the degree of efficiency in power generation and supply is primarily a function of the enterprise's size. This approach leads to reducing the significance of the mechanisms of competition, as it relates to stimulating increased efficiency and passing the resulting benefits on to consumers. It also leads to ignoring the importance of delays in introducing market competition.

Secondly, another negative effect of the change in the state structural policy towards the power sector is an unleashing of integration proposals. It is enough to mention that the primary, and until recently, officially declared purpose of integration planners was to allow only horizontal integration in both sub-sectors. At present, the start of vertical integration is being advocated, and more and more often one can hear proposals to bundle the whole power sector in two or even one national concern. Undoubtedly, the increased support for such a proposal may be attributed to the fact that the chances for domestic competition are slim when, after Poland's accession to the EU, we become an element of the European energy market. As a result, the arguments of integration opponents has been undermined with the argument that effects of integration should be evaluated in reference to the whole European market and not only the domestic market. Such statements have been disproved by both the insufficient degree of integration of the European power market and by the lack of prospects for quick changes regarding this issue. This is caused mainly by limited inter-system transmission capacities, as is the case of big European countries including Poland, (an average EU ratio is nine percent (9%), while the Polish ratio is ten percent (10%)) high costs of expansion of the transmission facilities, and the difficulties connected with obtaining required licenses due to associated environmental impacts.

Thirdly, we must not overlook the growing negative consequences of continuing the integration process for a further round of, and the effects on, privatization. It will not only put an actual stop to privatization but it may also lead to other numerous dangers which, at best, will obstruct the resumption of the ownership transformations of the energy sector, and in particular of the distribution sub-sector. Previous cases of privatization of the two biggest distribution companies revealed a huge degree of resentment, or even an outright opposition to such a type of privatization by a large group of politicians, on behalf of the general public. The integration of power generation and distribution companies, in particular, their vertical integration, may only reinforce the arguments used by opponents of privatization.

Fourthly, increasing demands by the unions for social benefits and packages, and the dependence on the union's consent for integration, constitute an important factor which

may hinder further privatization and negatively influence revenues generated by it. On this point, there is no doubt that a state owner is less effective in curbing social demands, in particular those regarding employment guarantees. The overly generous guarantees affect power plants to a larger extent than distribution companies because of their overstaffing. Introducing excessively generous social packages will not only postpone the beginning of the necessary processes of labor restructuring, which should constitute a part in restructuring of the consolidated firms, but it will also decrease their value to potential investors. This, in turn, will further slow the public approval of their privatization.

4. What Should the Structural Policy be Towards the Sector?

The list of reservations concerning the scheme of structural transformation of the power sector implemented after 2001 should be extended to include those of a more systemic nature. These include two issues.

Firstly, the situation in which integration processes occur before the launch and initial stage of operation of competitive market mechanisms and the privatization of power companies is not conducive to the process of market transformation in this sector. Integration should be correlated with the degree of market development and based on incentives and information generated by these markets. Private owners, who in turn at their own risk and expense (since integration does not guarantee commercial success), should implement particular integration projects under the supervision of specialized state agencies responsible for competition protection and regulation of these markets. Thus, one can assume that it is more favorable to follow a sequence of actions in which the privatization of companies is preceded by introducing mechanisms of competition, and the integration process that follows allows the sector structure to adjust to real and constantly changing market conditions. This occurs in such a way that it is possible to find a compromise between benefits associated with economies of scale and the degree of operations integration and requirements for ensuring effective performance of competitors.

Secondly, adoption of the strategy that implies the state's direct engagement in creating a market structure raises serious doubts. One can pose a question here about the role of the state in influencing processes of market transformation of the power sector. The author believes that, in view of the announced privatization of companies, the state should not interfere in business decisions, such as those concerning mergers, but rather focus on creating conditions for their operations. This means, on one hand, creating conditions conducive to the growth of competition, where there are prerequisites for it to function effectively. On the other hand, this also entails setting forth a clear regulatory framework in cases where competition cannot bring satisfactory results as measured by categories of economic efficiency, customers' welfare, or important political interest, such as the energy policy.

The structural aspect of the state policy toward the power sector should be based on defining and publishing clear principles and conditions in which the state is going to allow inevitable changes to take place. Of key importance should be the principle that makes the approval to more important mergers or acquisitions conditional on an assessment of the level of development of the competitive market. It is important for both actual and potential market players to know the criteria on which such assessment would be based. The criteria would include not only the number of enterprises and the market share they each have, but also other factors that are important due to the specific nature

of the power market. According to the British regulator, it is important to assess the conditions and variation in frequency of market entry and exit, as well as the number and quality of price options available on the market, other conditions of electricity purchase, customers' knowledge about and experience in market participation, rates of supplier changes by various consumer groups, and the status and characteristics of grid limitations.

Finally, a key element of the structural policy should be a clearly stated position towards the issue of vertical integration, in particular in a country like Poland, where vertical re-integration has not occurred on a large scale yet. Although, especially among regulators, it is still believed that separation of generation and service chains (performed in various ways, starting with an accounting method and including an ownership method) is a vital factor in enhancing the development of competition, a view which appears to dominate more and more often holds that together with strengthening of competitive mechanisms it is possible to reduce the restrictions in this area. Curiously enough, certain restrictions would still be valid, in particular those that require the separation of business activities in competitive markets from grid/network operations which will remain a regulated activity, at least in the near future.

Relaxation of restrictions would refer to both allowing vertical integration of electricity producers with trading companies, as well as to more freedom in integration activities of grid sub-sectors, implemented both horizontally and cross-sectorally. It would create conditions for flexible structural transformations and an emergence of infrastructure-based companies with very diversified structures, as it relates to their scale of operations in the domestic, regional, or local market. Moreover, similar processes might occur in reference to enterprises operating in competitive markets.

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1. This change was authorized by a document Ocena realizacji i korekta Założeń polityki energetycznej Polski do 2020 roku, (Progress assessment and revision of the Directions of the Polish power policy until 2020),approved of by the Council of Ministers on April 2, 2002, in particular, Annex 2 to this document titled: "Obywatel, rynek, konkurencja – Przekształcenia organizacyjne, strukturalne i własnościowe sektora paliwowo-energetycznego". (Citizen, market, competition – Organizational, structural and ownership transformations of the power and gas sector).

2. Processes of integration of the worldwide power sector and an analysis of their causes is a subject of numerous research reports prepared mainly by leading consulting companies e.g., Power Deals, Annual Report PriceWaterhouseCoopers(PWC)., www.pwc.com/pl/powerdeals or Movers and Shapers. Utilities – Europe 2003, PWC www.pwcglobal.com/moversandshapers .

3. Cf: (Parmar 2003: 23)

4. The author has considered this issue in greater depth in: (Szablewski 2003: 211) and following.

5. One of the first publications which contained a detailed presentation of the key importance of the network sector structure to the development of competition was: (Vickers 1988). It is worth noting though that it was the American experiences with privatization of the telecommunications industry that paved the way for such approach to the role of the structural issues in the liberalization of network-based sectors. These experiences showed that the break-up of AT&T into smaller entities, done as a result of prolonged pressure from American anti-trust and regulatory bodies, made it possible for the telecommunications market to be opened up to other entities, whose earlier efforts to enter the market and compete with the huge AT&T had proved nearly futile. For more information on this topic see e.g.,: (Crandal 1990).

6. Cf: e.g., Czy konsolidacja nie zaszkodzi rynkowi, "Nowe Życie Gospodarcze" 2001, no.7, Restrukturyzacja i prywatyzacja sieciowych sektorów infrastrukturalnych-przypadek elektroenergetyki, Address to the Social-Economic Strategy Council under the Prime Minister: Prywatyzacyjna i technologiczna restrukturyzacja gospodarki, Warszawa, June 2001, Krytycznie o konsolidacji, "Rzeczpospolita" , August 25, 2001.

7. More important works dealing in greater depth with the importance of the sector structure to the course of liberalization of the power sector and other network-based sectors, based on experiences of various countries include: (Competition 1998) and (Newbery 1999). These issues has been discussed in Polish in : (Szablewski 2002, No. 3).

8. The idea of an assisted entry and its use by the British regulator of the telecommunications and gas industry has been presented in detail in: (Szablewski 2003, Chapter 3 and appendix).

9. Cf: (Cornwall 2003: 16).

10. Cf: (Palmer 2002: 12).

11. More in Polish on the contents and importance of the New Energy Directive in: (Michalski 2004).

12. Cf e.g., Second benchmarking report on the implementation of the internal electricity and gas market, Commission Staff Working Paper, Brussels, SEC. Similar concerns over the negative impact of the excessively-monopolized structure of domestic energy sectors on the course of deregulation in the member states have been raised in the already released draft of the Third Report prepared by the Commission.

13. A synthetic review of structures of European energy sectors in Polish is presented in a Report: Konsolidacja pionowa v. Separacja - ich wpływ na koncentrację firm na rynku energetycznym - tendencje europejskie, Cf Program realizacji polityki właścicielskiej Ministra Skarbu Państwa w odniesieniu do sektora elektroenergetycznego, a government document approved by the Council of Ministers on January 28, 2003 (final version).

14. Cf: (David 2003).

15. The author refers here to a case when unions of one of a group of distribution companies under integration managed to gain a ten-year employment guarantee for their members. Cf: (Berger 2004).

16. Cf: (Cornwall 2003: 16).

17. It is the direction of vertical integration of the British energy sector. Cf: (Palmer 2002:12).