# The Energy Policy of a Country in Transition

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## I. Transition breakthrough in the economy and energy situation

The command-and-distribution type of economy with its principal attributes: the predominating state ownership and omnipotence was, apart from attached to these attributes properties of the political and social sphere, a starting-point condition of systemic transformation that has been taking place in Poland and other Central and Eastern European countries after 1989. The intention was to replace administrative methods of co-ordinating economic development and its inseparable social and ideological criteria of generating national income and its distribution with market relations and market regulatory mechanisms: to have the owner instead of a uniform and anonymous state property; to have autonomous enterprises with their own goal functions instead of stagnant, hierarchic production units; to have a play of mutually competitive market actors instead of bureaucratic relations. And the idea was to have market prices instead of the official prices that had no relation with the cost, demand, supply, etc. This was to help build sound foundations of an efficient and effective economy. The legal and institutional grounds of economic mechanisms, even so turbulent as market, can be decreed but the market as such cannot be decreed. This is why the process of transition continues and why many challenges, problems to solve, and required changes are still ahead to be made.<sup>1</sup>

Architects of the power sector reform must also take into consideration that by its nature, this sector does not meet all the criteria of a competitive market because it has features of a natural monopoly. This configuration of factors has become unusually deep-rooted in the structure of the energy sec-

<sup>&</sup>lt;sup>1</sup> The "critical point" in the transition "from plan to market" has certainly been passed; there is no turning back now but, unfortunately, there is no fully effective and dynamic economy either. It is generally accepted that nearly one third of the economy remains to be a quasi-market economy. See, among other works, in: J. Kleer *Transformacja a konkurencja* in *Konkurencyjność gospodarki Polski w dobie integracji z Unią Europejską i globalizacji*, ed. by J. Bossak and W. Bieńkowski, Institute of World Economy SGH, Warsaw 2001.

tor, its functioning, behaviour of enterprises, and even in the attitudes of their employees.

This exceptional character of the energy sector, accompanied by facts related to the technological specificity of supplying energy, has long encouraged a monopolistic structure of energy and infrastructural goods supply with public supervision also in the developed countries (this approach can be partly seen in some European countries even today). Today, this sector is often described as "a natural monopoly" almost everywhere. This was justified by the absence of competition in the sector and it caused a whole lot of negative consequences. Two of them at least should be mentioned as very important ones: the lack of objective rationalisation of activities in the energy sector (that is, the lack of an effective mechanism of capital and labour allocation) and arbitrary price creation which is typical of the monopoly (also in situations where official prices are used) and burdens the final energy user with the consequences of its own poor management.<sup>2</sup> These, of course, were not the only negative facts in the functioning of the energy sector.

This state of affairs produced a new doctrine of economic policy which, generally speaking, consisted in liberalisation and introducing **competition**<sup>3</sup> in the energy sector. There is no doubt that these activities have a worldwide dimension and their aim is to improve the efficiency of the operation of the sector plus a relative reduction of energy prices, unchanged reliability and security of energy supplies, and its remaining to be a public good.

The state (or quasi-government institutions, such as, the European Commission) whose activity increasingly often acquires the form of specialised **regulation** that provides conditions for the emergence of competition in the energy sector<sup>4</sup> are the promoter of the transition process in the energy, electric power, gas, and remote heat. A variety of mechanisms and tools are employed and autonomous regulatory institutions are also appointed within the structures of government authorities or administration. This is often accom-

<sup>&</sup>lt;sup>2</sup> This does not contradict a frequent situation of economically ujustified subsidising of certain user groups. The phenomenon of "stranded costs."

<sup>&</sup>lt;sup>3</sup> See, among other works, P. D. Cameron, Competition in Energy Markets: Law and Regulation in the European Union, Oxford University Press, 2002; Z. Hockuba, Droga do spontanicznego porządku, Transformacja ekonomiczna w świetle problemu regulacji (The way to a spontaneous order. Economic transformation in the light of the regulation problem), PWN Scientific Publishers Warsaw 1995, page 23 and on; T. E. Keeler, Theories of regulation and the deregulation movement, "Public Choice," No. 44, 1984, pages 103–145; G. J. Stigler, The theory of economic regulation, "Bell Journal of Economics and Management Science," No. 2/1, 1971, pages 3–21. The example of practical rendering of these opinions is the Position of the World Energy Council adopted at the conclusion of the 16th Congress in Tokyo in 1995 which concerned the liberalisation and introduction of competitive market rules to the fuel and energy sector as the basic method for increasing its efficiency.

<sup>&</sup>lt;sup>4</sup> A proposal of a classification of Poland's energy sector regulation has been given by A. Dobroczyńska, L. Juchniewicz, B. Zaleski in *Regulacja energetyki w Polsce* (Energy regulation in Poland), Adam Marszałek Publishers, Warsaw-Toruń 2001, page 37.

panied by strengthening the role of anti-monopoly institutions in both, the sphere of executive power and administration of justice.

The political and systemic change programme for the Polish economy covered all spheres, hence the reform of the energy sector. The reform was dictated by the necessity to modernise and develop the operations of enterprises that had been subject to central steering over years and to catch up with the initiatives undertaken by Western European countries. The latter became a particularly important factor when Poland decided to join the united Europe and started the relevant procedures.<sup>5</sup>

The principal transformation direction in the energy sector comprised the introduction of economic mechanisms, that is, a market that would discipline the costs, and a new diversified ownership structure that would more efficiently support economy and the people.<sup>6</sup> This was supposed to be supported by de-monopolisation and privatisation. In most general words, the aim was to establish a situation where the energy generation and supply cost, resulting from these changes, is no longer a barrier to economic growth and helps Polish business to face international competitors. Another goal was a situation in which charges paid by Polish households for energy and its supply are no longer a barrier to improving their standard of living. In other words, the aim of the reform was a relative reduction of fees paid by the end-user and giving him a better service. It was believed that a competitive energy market<sup>7</sup> would be the principal method for the implementation of this goal like it was in the other economy sectors. The free-market approach to the operation of the energy sector combined with the modification of the ownership structure of enterprises were expected to offer an opportunity for a major improvement of its efficiency.

The current phase—beginning when the "Energy Law Act"<sup>8</sup> entered into force, that is on December 4, 1997, when it introduced a new approach and new mechanisms of operation in the energy sector—consists in a clear intensification of these processes by introducing contractual relations between suppliers and receivers in all the areas of energy business which is not yet

<sup>&</sup>lt;sup>5</sup> Article 78 of the European Association Agreement establishing the association between the Republic of Poland on the one side and the European Communities and their Member States on the other, made in Brussels on December 16, 1991, and published in the Journal of Laws dated January 27, 1994, pertains to energy and in its item 1 the EU expressis verbis declares that market economy rules are the basis of energy management.

<sup>&</sup>lt;sup>6</sup> Poland's production efficiency and energy consumption continue to be too low, e.g., the AGENDA 2000 (European Commission's Opinion on Poland's application for the European Union membership in 1997) describes the distance behind the EU as 2 to 3 times.

<sup>&</sup>lt;sup>7</sup> A significant example of the related official position is a document adopted by the Council of Ministers on September 17, 1996: *Demonopolisation and privatisation of power industry*, which includes a directive on the introduction of market principles in the fuel and energy sector.

<sup>&</sup>lt;sup>8</sup> The Energy Law Act of April 10, 1997 (Journal of Laws No. 54, item 348) was subsequently amended, for the last time in 2002. For a comprehensive comment see: B. and R. Taradejna, *Energy Law Act. A collection of regulations*, Economic Chamber, Polish Heat Generation, Warsaw 2001.

fully governed by market mechanisms. For the Energy Law Act introduces market relations in the energy sector but these are still strictly regulated. In future, when enterprises of the energy sector consolidate their ability to operate as independent energy businesses, these regulations will be gradually lifted until a competitive energy market emerges.

These are the reasons why the Polish power sector needs continued restructuring whose objectives, progress, and effects should develop according to the following correlation: the concept of long-term national development— energy policy—energy regulatory policy.<sup>9</sup>

#### **II.** Energy policy: subject and goals

The aim of the development of Polish economy is improving standard and quality of life achieved through a balanced, effective economic growth, respecting the principles of natural environment protection with a special focus of the long-time policy direction on minimising the unutilised labour resources. A necessary condition for such a concept are also the consumption and supply prognoses for the individual energy carriers, while the strategy of their balancing that conditions the effectiveness of national development, is a subject of the energy policy.

The essence and subject of the energy policy is presented in a table which also permits to identify the specific character of Polish problems (see Table 1).

	Normative approach	Polish case
Conditions	1. NATURAL	1. — coal domination
	2. SOCIAL	— large geothermal resources
	3. POLITICAL	— gas deficit
	4. SYSTEMIC	2. — medium civilisation level
	5. EXTERNAL	— poor economic knowledge
	6. ECONOMIC	— social phobias and myths
	7. TECHNOLOGICAL/TECHNICAL	— attachment to sovereignty
		3. — configuration of forces: domination of industrial groups and low public interest
		<ul> <li>— lack of long-term vision (concept)</li> </ul>
		— lack of awareness and (real, not slogan-like) thinking about Poland's situation after accession

### Table 1. ENERGY POLICY: conditions, aims, regulation

<sup>9</sup> See A. Dobroczyńska, L. Juchniewicz, *The regulatory policy on energy (Polityka regulacyjna wobec energetyki*, w: *Polityka gospodarcza w procesie akcesji do Unii Europejskiej*, wyd. Akademia Ekonomiczna w Poznaniu, 2003).

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	Normative approach	Polish case
		4. — unfinished transition process: hybrid system
		5. — EU accession deadline
		— geography of energy deposits
		— East-West relations in energy co-operation
		— Russian energy transit
		6. — development level
		— GNP structure
		<ul> <li>— high prices of energy and energy investment</li> </ul>
		— lack of long-term multi-scenario prognosis
		7. — scattered generation
		<ul> <li>nuclear energy consumption progress</li> <li>pace</li> </ul>
Aims	SUSTAINABLE DEVELOPMENT	— energy security
		<ul> <li>-household energy consumption growth</li> </ul>
		— energy cost decline
		<ul> <li>economically justified environmental protection</li> </ul>
Regulation	I. INSTITUTION	I. — Parliament: Sejm and Senat
		— Government
		— Ministry of Economy
		— Ministry of Finances
		— Chairman of the Energy Regulatory Authority
	II. INSTRUMENTS:	II 1. — resolutions
	1. LEGAL/ADMINISTRATIVE	— legal acts
	2. ECONOMIC	— decrees
	3. PERSUASIVE	— administrative decisions
		II 2. — programmes
		— taxes and exemptions
		— localisation indications
		— public support
		— guarantees
		II 3. — suggestions and recommendations
		— publications, opinions, positions, etc.

Source: author's papers.

The main goals of Polish energy policy can, as a matter of fact, be reduced to two issues because all the others are about how these two are to be implemented:

- 1. The reliability of supplies and security<sup>10</sup>—the most important problem to solve is defining an adequate strategy, including, among other things, the selection of primary fuels, the desired generation technologies, the right relations between reserves and a current and future balance between energy demand and supply, diversification of directions from which fuels and energy will flow.
- 2. Rational energy prices—a dual category of a basic civilizational good and, to the benefit of civilizational progress, also a commodity, that is, a category linking the imperative of reliable supply and the buying power of the people plus the need for a better competitiveness of enterprises in the sector.

The awareness and, together with it, a broad public consensus on the above-mentioned goals does not unequivocally offer a solution to all problems involved in energy policy, among them the pace and methods for regulating the energy sector, its structure and functioning conditions, the type of tools, and the sequence of using them. This state of affairs results from both the complex mutual relations and the specific circumstance resulting from the systemic and social transition. Hence, certain variability of the strategy and the serious accompanying problems.

#### **III.** Polish practice: what energy policy is pursued, if any?

Brevity and clarity of the government's political intentions and the methods for their implementation, well documented with genuine studies and research—are features required of strategic documents.

The question is whether Polish government documents related to energy policy meet this postulate, especially in terms of the hierarchy of goals, methods for their implementation, and tools.

Until March 2002, the document "Assumptions for Poland's energy policy by 2020"<sup>11</sup> was binding. This document determined the state's main energy policy goals in the following way:

- 1) energy security—a condition of the economy allowing to cover the current and prospective demand for fuels and energy;
- 2) better competitiveness—of domestic businesses, products, and services offered on international markets and on the internal market;

<sup>&</sup>lt;sup>10</sup> The process of reforming the energy sectors in the European countries, their progressing integration and liberalisation will pretty soon change the meaning of the category known as energy security. We can be fairly sure that it will be a resultant of higher competition on the European markets (and not only at a local, national scale) under the control of national regulators.

<sup>&</sup>lt;sup>11</sup> Adopted by the Council of Ministers on February 22, 2000. The first and, at the same time, preceding document (made by the Ministry of Industry and Trade) in which the goals and tasks of energy policy were determined under conditions of systemic transition were: "The guidlines for Poland's energy policy by 2010" (adopted by the Council of Ministers in October 1995). Both documents—this concerns the present energy policy too—were and continue to be convergent with the ideas of the Community energy policy in their teleological aspect, especially those defined in the White Paper, An energy policy for the European Union. COM(95)682.

3) environmental protection—against the adverse effects of energy-related processes.

At the same time principal action strategies were defined to reach: an integrated energy and environment management; organisational and technological de-centralisation of energy systems; liberalisation of power grid markets; better energy efficiency and a transition period. To implement these, the "Assumptions..." also included the state's action plan which has been materialised only in a small part.

The "Assumptions..." had serious weaknesses, such as, wrong premises and energy prognoses, wrong ideas of the primary energy sources diversification, the vision of the target ownership and functional structure in the energy sector. A major mistake was the adoption of the extensive approach as basis for the construction of a development strategy. Most of the text and the whole data material referred to the supply side and was clearly used to prove *a priori* theories that would guarantee privileged and dominating position in national economy to actors operating in the sector. An additional circumstance was the de-valuation of macro-economic assumptions adopted by authors of the document.

Economic policy is a place where the state determines its economic priorities. The currently binding programme of the government's medium-term economic policy is ENTERPRISE—DEVELOPMENT—LABOUR, the Government's economic strategy,<sup>12</sup> in which the condition of a successful implementation is, among other factors, a policy of supporting economic growth and timely progress of the accession negotiations concluded by the acceptance of Poland as member of the European Union in 2004. An important role in these two pillars of the new strategy is played by energy policy, both in its theoretical aspects and practical application which first of all refer to the accessibility of the individual energy carriers and their prices.<sup>13</sup>

Critical comments on the qualitative analysis of the "Assumptions for the energy policy" and devaluation of macroeconomic assumptions adopted by authors of the document, as well as its relation to the new energy policy strategy—have dictated the necessity to introduce major modifications in it. This

<sup>&</sup>lt;sup>12</sup> Approved by the Council of Ministers on January 29, 2002. The Government is going to implement an economic programme being a proposal for integrated inter-disciplinary measures leading to the solution of the most burning problems of Polish economy: stagnation, increasing civilisation lag behind prospective Union partners, and growing unemployment. Therefore, there are the following aims: to return on the path of 5% GNP growth within two years, professional activation of the people and higher employment, efficient absorption of Union funds supporting national development.

<sup>&</sup>lt;sup>13</sup> The social and political expectations in the area of energy policy priorities were confirmed by parliamentary debate on January 25, 2002, which focused on the "Information on the state of the nation's energy security and measures undertaken by the government in this respect," examined by the Council of Ministers on January 22, 2002.

is why the previously binding government document was subjected to a critical analysis and updating.  $^{\rm 14}$ 

On April 2, 2002, the Council of Ministers adopted a new document titled "Evaluation of the implementation and amendment to the Assumptions for Poland's energy policy by 2002 and annexes."<sup>15</sup>

This document has confirmed that the overall objective of Poland's energy policy is energy security, while its previous (2000) definition describing it as a condition allowing to cover the current and prospective demand for fuels and energy was made more rigorous by adding that this must be done in a technically and economically justified way and with respect to environmental protection requirements. A declaration was made for the first time that a long-term strategy ensuring this goal would rely first of all on greater participation in the international division of work for which the progressing integration processes on the European energy market would be used.

The basic amendment to the energy policy consists in the fact that it considers the reduction of the energy sector's overhead cost accompanied by better energy security<sup>16</sup> as the short and medium-term strategic goal. The means for the implementation of this policy is continuation of systemic transformation. The government has promised to continue a policy of consistent building of competitive energy markets as provided for by the Energy Law Act, European Union Directives, and the recent decisions adopted at the 15 Summit in Barcelona.

The document "Evaluation of the implementation and the amendments..." and its Annex 3 "Citizen, market, competition—organisational, structural, and ownership transformation in the fuel-energy sector" mentions a number of measures, mainly in the area of regulatory and ownership policy, which should lead to a better efficiency of the Polish power sector. Here are those which the authors believe to be most important:

1. Directing the process of organisational, functional, and ownership transformations to the quality of service and services offered, to reaching rational energy prices—beneficial to national economy and competitive for the

<sup>&</sup>lt;sup>14</sup> The awareness of potential high variability of internal and external conditions of this policy persuaded the Polish parliament to include (in the Energy Law Act, articles 14 and 15) an obligation to verify the "Assumptions..." every two years.

<sup>&</sup>lt;sup>15</sup> Annex 1: A short-term energy sector development prognosis for the country; Annex 2: Energy sector—European Union membership; Annex 4: Citizen, market, competition—Organisational, structural, and ownership transformations in the fuel-energy sector; Annex 4: Information on the nation's energy security status and measures undertaken by the government in this respect.

<sup>&</sup>lt;sup>16</sup> This is why the document assumes that within about a decade significant changes will not occur in the structure of primary fuels consumption in system energy. It will continue to be a power sector based on coal. Higher gas consumption may occur after a consolidation of the trend of quick economic growth, including the results of analysis of long-time payment liabilities, and the degree of payment balance equilibrium. This will permit to obtain appropriate benefits from the investment effort (about PLN32 billion), to enlarge the potential and installations used for environmental protection in power and heat plants.

prices of energy generated abroad—also allowing for the necessity to return the capital invested in the power sector.

- 2. Support for the State Treasury-owned power enterprises in their restructuring processes by strengthening their economic condition and ability to adjust to situations and operations on an open European market.
- 3. Developing businessmen's sense of responsibility for the economic and financial condition of power enterprises and for the improvement of their efficiency.
- 4. Spreading information on the conditions and development trends in the power sector among the potential domestic and international investors.
- 5. Above all, quick launching of market mechanisms in the power sector, which is probably an intermediate objective while it should be an instrument of implementing the fundamental goals of the energy policy.

This means a further and more profound restructuring of the power sector which has even more conceptual areas to address.  $^{\rm 17}$ 

The authors estimate that this key document in energy policy does not yet satisfy all the important methodological and subject-matter postulates,<sup>18</sup> especially in terms of the strategy of adjusting the functional and ownership structure supporting the emergence of a competitive energy market in Poland and to the requirements of a liberalising European Union market. This state of affairs has many objective features that cause serious difficulties in determining concrete essence of the energy policy. Many of them are discussed in the further part of this text.

#### IV. Basic problems of Polish energy policy

In practice, the energy policy reveals issues causing special problems with the selection of appropriate solutions. They are very difficult problems for those who work on defining that policy. These problems are of universal character and they trouble politicians of countries with developed economy and civilisation but first of all most of them are specific problems emerging under conditions of countries in transition.

Poland is one of the countries that have ventured the enormous effort to change its economy into an efficient one ensuring well-being to its people. Poland is also a country of a specific psycho-social profile and this is not indifferent to such a huge structural project as transformation of a sector so far

<sup>&</sup>lt;sup>17</sup> A practical rendering of this postulate is, among other things, the work of the Energy Market Team (appointed by the Prime Minister on March 25, 2002) dealing with such issues as the concept of solving the stranded cost problem related to long-time contracts (KDT) by internal compensation within the group of power enterprises BOT and by securitisation of the other KDTs; the idea of rational consolidation of the excessively scattered power engineering but also developing a model of dividing the gas monopoly into functional enterprises tailored for the needs of the market.

<sup>&</sup>lt;sup>18</sup> Example: serious objections of the authors concerning the correctness of the short-term prognosis for the development of the national power sector (Annex 1).

operating under different political conditions and additionally burdened with the properties of a natural monopoly.<sup>19</sup> This is also a reason of the sovereign's "helplessness" in relation to industrial (managerial and "social," that is, trade union) groups of interests which is responsible for the lack of satisfactory progress in the energy sector reforming project.

It seems that the following problems deserve special attention, without ranking them by their importance but sorting out into definite groups which are, in fact, a reflection of various characters of individual type of conditionalities which were mentioned in Table 1:

#### — on the plane of natural conditions:

• the selection of the target structure of energy carriers—the dilemma of this situation consists, above all, in harmonising the utilisation of the natural advantage of hard coal and lignite deposits with the necessity to burden the natural environment, plus such an aspect as the scale and pace of launching geothermal resources, wind energy, bio-fuels, etc., into the economic consumption;

#### — on the plane of social conditions:

• social consensus for the new, free market model of energy market—this is indispensable because the social perception sees the energy market not as a big unknown but rather a big threat. It would, therefore, be desired to start a large-scale information campaign (in the case of electric power addressed to over 15 million users) that would show the potential benefits and threats resulting from the introduction of market mechanisms in the power sector. The main issue that should be explained first is, probably, overcoming the mental stereotypes according to which the existing model of energy sector's functioning and the way in which users are being served is everlasting, persuading the people that changes not only stem from the logic of transition but first of all they will give them measurable economic benefits;

#### — on the plane of political conditions:

• defining the public interest in energy—we should consider identification of the public energy interest with the mere energy security and low-price power delivery as insufficient. A broader context is required and a variety of measures confirming the subordinated role of energy sector in relation to its users. As regards politicians themselves—ending the spectacular behaviours strengthening the power sector's monopoly, resignation from coqueting and clientism in relation to the energy sector, ending and rejection of the promotion of local particularism and replacing them with strengthening the state and representing the interest of 15 million users instead of 100,000 energy sector's employees;

<sup>&</sup>lt;sup>19</sup> Example: a highly negative public reaction to the privatisation of Warsaw's power distribution company STOEN.

• rational prices—one of the most important dilemmas associated with the long established social and political belief that energy was only a good not a commodity coming together with an egalitarian approach to prices, ideally the same for all customers, unchangeable in time and space. Rejection of official prices and new price-making rules are not accepted by the large population of energy users. Therefore, the rational character of energy prices should be viewed in two ways: in the light of actions related to developing price-making knowledge and in the context of explaining the reasons of the price level and the pace of—indispensable for the time being—increase;

#### — on the plane of systemic conditions:

- *"energy market "model"*—the search for a form of an organisational and functional structure for the sector that would place within its structures those energy enterprises which are able to perform effective operations on the competitive market and, at the same time, guarantee long-term stability of the energy security situation;
- strategy for political, systemic, and functional transition—broken down into various spheres (energy carriers and fuels) of the energy sector. The crux of the dilemma is a fundamental issue: how much government rule (vertical regulation), how much market competitive mechanism (horizontal regulation);

#### — on the plane of external conditions:

- the selection of price adjustment pace, chiefly electric power and gas prices, to the level of European Union prices—since the price-making competence has been delegated to the interested parties, that is, energy enterprises (both, tariff-using and operating on the competitive market) the problem ceased to be noticed by the state structures and, above all, by the Minister of Economy. The lack of an application concept in this field, the fact that this concept has not been included in economic programmes and legal regulations, augurs serious perturbations in a pretty near future. There will be little left to do than persuasion and administrative decisions approving the tariffs, that is, the "art of regulation" applied to discipline and rationalise the process of price adjustment, each time testing the "economic limit" of the domestic user;
- defining the degree and pace of incorporating the domestic power sector with the external sector—until recently this problem consisted in defining which pace to take to prepare the sector for external competition. Now, in a situation where EU legislation is to be implemented, that is, when the Polish market is opened to competition, there is only a possibility available to establish co-operation in energy with other parts of Europe and, through this, perhaps, save energy generation from liquidation. In other words, we are making a major complaint that being bogged in intra-sectoral disputes over the energy market model, preoc-

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cupied with solving "pseudo-dilemmas," and above all, yielding to the pressure from power sector managers who wanted to conserve the *status quo* at any cost, we have lost the opportunity to catch up with Europe for ever and to get ready for a tough battle on the competitive energy market. All we can do now is to protect energy producers from being erased from the economic map of Europe but this must be done with much economic commonsense;

#### - on the plane of technical and technological conditions:

- a model and implementation of what is known as scattered generation versus centralised electrical power system based on systemic energy generation sources and the grids for the highest and high voltage transmission. The complementary system, that is, the diversification of power generation within Polish economy, seems to be an obvious and desired solution, although the proportions of such diversification will stir emotions and never-ending disputes. Leaving the arguments usually raised in such disputes aside (chiefly those referring to the benefits, and their allocation, from preference given to one or another model) it is worthwhile to note two important facts. First, in a situation of a lack of clarity in selecting the target structure of primary energy carriers—it is difficult to build an application model of a scattered power generation. Second, scattered generation is largely a quasi autarky that seems to clash with the currently preferred model of economic development based on advanced specialisation. Unless we choose to fully rely on automation under which the problem of re-selling surplus power will cease to exist;
- modernisation of the power sector versus progress in energy conservation—clearly there is no correlation in this field, although many analysts stress that they always include energy saving in their prognoses. This is certainly overlooked by energy sector managers who seek and work to ensure development of their sector and stability of its functioning. This must be a little surprising because under the Energy Act, those people must include in their justified costs participation in financing enterprises oriented for energy saving. But the law is one thing and real life is the other because "the smock is nearer than the petticoat." This is a typical example of industrial particularism and taking care only for a particular interest. It seems easier to be the order even when he gives orders to himself, than to be a co-executing unit serving his own user.

The absence of economic dilemmas is by no means something the authors have overlooked. For all the above-mentioned problems of energy policy in fact boil down to the economic evaluation of the consequences of each choice made. This is especially important for a country whose *per capita* GNP reaches 40% of the average figure for the 15 countries.<sup>20</sup>

The structure of the fuel balance, as well as the indispensable fuel imports with its material and geographical structure, should result from the regularly updated evaluation of the market depth, be consistent with ecological requirements, and observe the principle of minimum supply cost.

Development work is also important in the field of renewable energy as an alternative power source for the economy in a further perspective with special regard to the direct and drawn cost/effect calculus. This is why a discussion on the economic utilisation of renewable sources in a perspective of several years is possible in relation to bio-fuels.

The so-called energy security will get increasingly more economic dimension in contrast to its present technical dimension. Progressing market mechanisms in the Polish economy, access to advanced technologies in power engineering, the possibility to perform diversified business activities on various commodity and financial markets allows the implementation of almost all development plans, including the purchase of investment goods and materials required for it, plus meeting the demand from the fuel and energy end users. In this context, special significance is acquired by economic and financial aspects related to the price level and growth pace, as well as the condition of power enterprises and their customers.<sup>21</sup> These problems must be seen as an immanent cause-effect relation and, therefore, they must always be analysed together.

The selection of the tempo in which prices are to be made realistic—making prices realistic is a dilemma between the necessary realistic prices of energy carriers which were official prices until the end of 1998, and the pace of making energy charges realistic. This particularly concerns households spending about a dozen percent of their income on energy (analogous rate in the European Union countries is just several percent). Also important for the economy and its competitive strength is the aspect of making energy prices realistic, related to the pace of removing the cross subsidizing and solution of the dilemma: justified economic cost versus socially acceptable cost, whose immanent part is the way in which the capital engaged is paying back. Therefore, this also concerns the justification of making investment and a practical implication here being a change of asset evaluation in a power enterprise, a key change in the expected privatisation of the sector.<sup>22</sup> The selection of the

 $<sup>^{\</sup>rm 20}$  Eurostat, Yearbook 2002, page 405. The table also confirms that 6 candidates are doing better than we do.

<sup>&</sup>lt;sup>21</sup> The economic condition of the power sector may become a cause of interruptions in fuel and energy supplies. On the other hand, charging the users with high fees for energy and its supply may increase the volume of receivables, payment clots, bankruptcy of the users and, as a consequence, reduce energy consumption. Such situations may significantly affect the level of energy security.

<sup>&</sup>lt;sup>22</sup> Potential investors have frequently pointed to the lack of unequivocal solutions in this field in the Energy Law Act, the accompanying decrees, and in the "Assumptions for energy pol-

pace in which energy prices are brought to a realistic level is one of the major problems with ample implications of social and economic nature, hence its practical solution may only be a subject of political decision.

According to the letter of the law, the price-making mechanism is supposed to serve strengthening the energy security,<sup>23</sup> while in practice is often abused and serves strengthening the monopolistic position of various power sub-sectors and, as a result, deteriorates the economic condition of the users, whether they are industrial users or households.

Any improvement in this field should be sought not in a permanent increase of fuel and energy prices but first of all in improving the efficiency of power generation and, then, in its distribution and transmission combined with developing internal cost and financial recovery programmes by the same enterprises.<sup>24</sup> The tempo and scope of implementing competitive market mechanism and the implementation of a Polish power sector restructuring and privatisation programme is significant for the economic and financial condition of the power and gas sector companies.

The energy policy problems, described here very briefly, are closely interconnected and this makes them even more difficult to solve.

#### **V. Conclusions**

The state energy policy is indispensable. The goal and scope of steering the energy sector's development must be determined. Assumptions for this policy, allowing for long-term prognoses of the possibilities to balance energy demand and supply, are determined by areas in which the state—using institutional, legal, fiscal, financial, crediting, and persuasive instruments—controls the demand, supply, prices, and material structures of the energy market to reach the energy policy goals.

A rational development of the energy sector is necessary and "The assumptions for energy policy" must clearly confirm it relying on a genuine calculation not so much of the justified costs but rather the truly economically justified costs, each time keeping in mind the resources of the Polish state and the context of a competitive Union energy market. Among the necessary measures in this field, special significance goes to the following actions:

icy." This is one of the most difficult and controversial issues in the regulatory process in privatised infrastructural sectors as we can see on the example of the experience of countries with much longer than Poland's market economy tradition.

<sup>&</sup>lt;sup>23</sup> See A. Dobroczyńska, L. Juchniewicz, "For the rational electric power price..." in Systemic transition in Poland—evaluations and perspectives. Materials from the scientific conference, ed. by Z. Szymla, Economic Academy in Cracow, Cracow 2002.

<sup>&</sup>lt;sup>24</sup> E.g., the cost of electric power generation and its price are one of the factors determining international competitiveness of Polish economy. A growing problem today is the loss of competitive strength by products whose manufacturing cost includes a large portion of energy (e.g., iron alloys, non-ferrous metals). There is no doubt that almost each increase of the price of energy and its supply may aggravate these problems.

- *systemic*, related to the progressing liberalisation of electric power and gas market and to the presence of market mechanisms in the sector and among its customers, combined with the realistic application of the TPA rules;
- *technical*, related to the program being now devised for re-electrification of the rural areas, the reversal of the declining trend in electricity consumption in the rural areas, and modernization of the generation, distribution and storage sector potential;
- *economic*, related to an improved efficiency of managing power enterprises, a practical implementation of pricing policy, and countering the transfer of all expenditures on the shoulders of the end users;
- *legislative*, related to the improvement of regulations governing the power sector, above all the principles of power enterprises functioning, changes in the legal authorisation of transmission system operators, and the price-making principles.

In order to implement the strategic goal, that is, the reduction of the energy sector's costs and reaching a rational price level combined with an improvement in energy security especially in its economic and financial aspects, it is necessary to continue the systemic transformation. We must strongly emphasize that the special role of the state in this process is providing good conditions for the emergence and operation of the market, also in areas which have not been subject to profound market-oriented reforms so far.

As regards the energy sector, this means that the Polish government will carry on the policy of consistent implementation of the priority to build competitive markets in line with the power policy of the European Union and its Directives and the Polish Energy Act. The aim of this market-oriented reform of the power sector is to increase the efficiency of companies operating in the sector and, consequently, increase the competitive power of the entire national economy. There is no alternative to stimulating competitive mechanisms and wherever their implementation is objectively impossible (grid) to its substituting by regulatory measures.

The directions of the energy policy, including the owner's policy, must be legible also to actors outside the energy sector, particularly investors, so that they can use such a government document to plan the development of their own companies, make the required investment options, and conclude contracts which are good for them.

The government document should avoid any double meanings which could offer to various industrial groups an opportunity to make claims addressed to the government and the State Treasury.

The authors believe that these are the principal recommendations for Poland's energy policy.

#### A b s t r a c t The Energy Policy of a Country in Transition

Poland, a country under market-oriented transition, has special problems with such spheres as the energy sector. Indispensable changes must be directed by energy policy compatible with the long-term concept of national development. The principal goals of the energy policy seem to be proportional to the national needs and aspirations related with the European Union. The situation is worse in the strategy of power sector's transition and functioning. Changes of the series of cabinets brought about changes in the concepts of restructuring and privatisation, as well as in the scope and pace of introducing competition, the latter being almost permanent problems of energy policy. A circumstance that explains but hardly justifies this state of affairs is an extremely complex configuration of conditionalities surrounding this policy, which the authors have tried to explain by pointing to problems of selecting solutions typical of the various conditionalities.

The authors believe that in order to implement the clearly strategic goal of economic policy, that is, the reduction of power sector's costs and reaching a rational price levels combined with a better energy security especially in its economic and financial aspects—it is above all necessary to continue systemic transformation, all the time being guided by the interest of energy consumers, not its producers. This is our fundamental recommendation. We must stress that in this process, the special role of the state is providing good conditions for the emergence and operation of the market, also in fields which are not easy to reform. As regards the energy sector, this means that the government will continue its policy of consistent implementation of the priority to build competitive markets, prescribed by the Energy Act and the European Union Directives.

The directions of energy policy, particularly the owner's policy, must be legible also for actors outside the energy sector, especially investors, so that they can use such a government document to plan the development of their own companies, make the required investment options, and conclude contracts which are good for them.