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„Energy diversification strategy for Poland”

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1. Preface

The energy security is becoming a dominant issue in current international relations. There is unquestionably an increasing dependency of the energy-consuming countries on the energy-producing countries. Thus the two sides are not equal partners, since the producers appear to have the advantage of dictating the rules on the energy market. The situation of Europe can serve as an example. While domestic fossil-fuel resources decrease (the decrease of natural gas production in Great Britain and Denmark is particularly significant), Europe is becoming increasingly dependent on the imported hydrocarbons. The EU’s energy import dependence will increase from 50% of total EU energy consumption today to 65% in 2030\(^1\). Due to the fact that existing transit infrastructure in Central and Eastern Europe operates in East-West direction we can assume that Europe's dependency on hydrocarbons will be based on Russian resources mainly.

We are facing a deficit of energy carriers. Thus it is a reasonable conclusion that the issue of energy security, defined as securing access to energy carriers, will dominate international affairs in the next decades. In the 19th century, it was the natural resources that determined the power and position of a given state on the world arena. Today it is the new technologies and the new energy resources which are of key importance. We have to come to realize that the vital position of a country depends on its ability to produce energy.

Poland is an active member of the transatlantic community with dynamic economy and the position of a regional leader. However, with respect to the security of energy supplies, which has recently come to be regarded as a key factor for national economies, Poland cannot be content and feel comfortable\(^2\).

There are two reasons laying behind such a view.

As for the first reason, Poland has a very unique structure of energy consumption – 60 percent of primary energy consumption is covered by the coal production. Taking into account the fact that Poland has large reserves of coal, it is only natural that Polish energy system is based on them to such a significant degree. On the other hand, coal is equally a "burden", as the European Union’s legislative plans aim to limit emissions from the coal generators. As a result, Polish power plants will face serious difficulties with adjusting to the limits imposed on the rates of emissions.

As for the second reason, due to the infrastructural heritage of the Soviet dominance in the region, Poland is strongly dependent on Russian natural resources (oil and natural gas). This heritage affects not only Poland but also other countries in Central Europe. In this respect, I can say that Polish national sovereignty is strongly correlated with the ability to assure

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\(^1\) Reliance on gas imports is expected to increase from 57% to 84% by 2030, whereas of crude oil from 82% to 93%.


\(^2\) The condition of and challenges to Polish energy system are covered in a project of Energy Policy for Poland up to year 2030 which is presently being prepared at the Ministry of Economy.
independence from Russian energy resources and pipeline infrastructure. Therefore, Poland will strengthen its sovereignty once full dependence on Russian supplies of oil and natural gas is over.

Taking the above into consideration, I think that in a short-term perspective the main challenge for Poland is diversification of natural gas and oil supplies. Yet for the long-term, spanning over the next decades, Poland's energy security should be based on nuclear energy and new coal technologies.

- Energy security is becoming the main factor in international relations and will dominate the global order
- The increase in dependence of the energy-consumer countries on the energy-producing countries
- Independence from Russian energy resources as a challenge for mid-term strategy
- Polish energy sector based on a domestic coal resources – pros-cons

2. Fundamentals of Polish state interest with regards to the growing importance of access to energy carriers worldwide

One of the most important challenges facing the Polish government after the recent period of reforms and economic transformation is to change the structure of energy supplies. The current one has a very negative influence on Poland’s energy security. Another challenge is the carrying out of the plan to create north-south infrastructure of energy supplies. This would help to balance the existing east-west infrastructure inherited from the era of the Soviet Union. With this in mind, we are currently working on diversification projects that I shall present here. The position of the Polish government concerning the policy for oil and natural gas industry has been framed in two official documents, both of which give the highest priority to the energy security issues.

Natural gas

Diversification of natural gas supplies to Poland means that besides our domestic production and supplies from the Russian Federation, we do need to provide permanent supplies of natural gas from sources other than the two available at the present. Those supplies should be guaranteed in a form of a long-term contract. They have also to rely on a direct and independent from Russian Federation transportation system, which would connect Poland with reliable suppliers. Required supplies should not be less than one-third of all domestic energy consumption projected for the year 2012.

The objectives mentioned above are based on the current structure of natural gas supplies. Poland consumes ca. 14.4 BCM of natural gas annually, of which one third is domestically produced. The remaining two-thirds are imported from Russia, as provided in the Yamal

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3 Policy of the government of the Republic of Poland with respect to the oil industry in Poland, Ministry of Economy, Warsaw, February 6, 2007.

4 For detailed information about gas and oil production, consumption etc., see Appendix 4.
contract⁵, or from other former Soviet republics. Poland is entangled by Russian gas pipeline network from the east, as well as from the west (as presented in Picture 1), which transports natural gas to western Europe. As a result, Poland is bounded by Gazprom’s gas as well as by the Russian pipelines. Therefore, in case of an emergency situation, when natural gas supplies from Russia are reduced or cut off, Poland does not have any alternative solution to assure continuous supplies of natural gas.⁶

![Picture 1. Russian natural gas exporting routes (see Appendix 5)](image)

As a consequence, two projects are presently being carried out in the field of natural gas supplies: the Baltic Pipe and LNG terminal. For the most part, both projects are conducted by a state-controlled (86% of shares) company – Polish Oil & Gas Company (www.pgnig.pl).

The first of those projects aims to establish a direct pipeline connection from the Norwegian Continental Shelf to Poland. The Baltic Pipe is intended to carry 3 BCM of natural gas annually.⁷

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⁵ The so called Yamal contract was signed in September 1996 as a long-term contract. Poland should receive – on a take-or-pay basis – 250 BCM of natural gas over the period of 25 years. The basis for the signing of the Yamal contract was the intergovernmental agreement between Poland and Russian Federation regarding the construction of a gas pipeline network for the transit of Russian gas through the Polish territory (as a part of Yamal pipeline). The gas pipeline network was established as an east-west oriented connection.

⁶ In the period between January 1st and 26th, 2006, at one of the pipeline entry points to Poland, in Drozdowicze on the country’s eastern border, the supplies of natural gas from Russia were disrupted. As a result, the average daily consumption of natural gas in Poland had to be decreased by 9 percent, with all internal supplies for the industry highly reduced (providing only for the support of technological processes). Many companies were forced to place their production on hold. An abrupt reduction of supplies was a consequence of the conflict between Russia and Ukraine concerning the increases in the price of natural gas sold to Ukraine. The January crisis took a much more serious toll on other Central European countries, and had an impact even on the British gas market.

⁷ See Appendix 6 for maps of Scanled and Baltic Pipe projects.
The second important project is to set up the LNG terminal on the west of the Polish coast. It will allow to import liquefied natural gas to Poland from different suppliers. Its initial capacity will be 2.5 BCM annually, with an option to expand it to 5 BCM and even to 7.5 BCM if necessary later on.

Both projects should be completed by 2010-2011. They play a crucial role in providing for the real diversification of natural gas supplies to Poland. After their successful completion, the structure of natural gas supplies to Poland will look as follows: one-third will come from domestic production, one-third from the two infrastructure projects entering Poland’s supply network from the north, and another one-third will be imported from the East as provided by the existing long-term contract (see Picture 2).
Crude oil

Poland highly depends on Russian oil due to the lack of alternative transportation infrastructure. However, contrary to the natural gas supplies, there is a possibility of importing oil by sea, through the existing oil terminal – “Naftoport” in Gdansk. In case of disruption in the supplies from the eastern/Russian direction, we do have an alternative solution to provide crude oil supplies to Polish refineries, as well as to the German refineries supplied by the Polish pipeline.

Poland uses ca. 23 MTA of crude oil, mainly REBCO (Russian Export Blended Crude Oil), which is carried through the Druzhba pipeline. As for the oil sector, 96% of this resource is imported from Russia.

Polish oil sector has to address two essential challenges. The key factor in energy security policy for oil is to assure permanent availability of oil supplies. Disruption of oil supplies via the land route is the most immediate challenge, once the Druzhba pipeline is closed. As the Russian side seems to voice more openly its intentions of decreasing the role of the Druzhba pipeline system, there is a serious concern with the possible implications. The policy planning needs to take into account both options: the amount of oil transported via this infrastructure being reduced, or the pipeline being permanently shut down. The other challenge is to find a new transit infrastructure, independent from the Russian network. For that very reason, the project of building Odesa-Brody-Plock pipeline has a fundamental significance for our region.

Taking into account the recent statements by the Russian side implying a low importance assigned to the Druzhba pipeline, as well as the occurring disruptions in oil supplies to such countries as Poland, Ukraine, Belarus and Lithuania (these cases are described below), the planned enlargement of the Russian sea terminal in Primorsk finds a new meaning and should be considered from a proper perspective. It is becoming more evident that the terminal would serve to export Russian REBCO oil bypassing current transit countries: Poland, Belarus and Ukraine. Accordingly, it is a reasonable assumption that the Russian side wants to marginalize land-based route, that is the Druzhba pipeline, and even disable it from transporting oil. The Belarusian-Polish section of the Druzhba system – with sea terminal in Gdansk – would thus be excluded from Russian transit scenarios. This would give Moscow the option of threatening consumers in Poland with possible shut-downs of the system.

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8 Naftoport is the biggest operator in loading/discharging of imported or sea-exported crude oil in Poland. The loading capacity of this seashore situated oil terminal is 34 million tons of crude and petroleum products per year. [www.naftoport.pl]

9 There are two major Polish refineries in operation: Plock Refinery (owned by PKN Orlen S.A., with crude distillation capacity of 17.8 MTA, and a deep processing capacity of only 13.8 MTA) and Gdansk Refinery (owned by Grupa Lotos, with crude distillation capacity of 6.0 MTA). Two German refineries, PCK Raffinerie GmbH in Schwedt and Mitteldeutsche Erdoel-Raffinerie GmbH (MIDER, formerly TRM) in Leuna are also supplied with Russian crude oil from the Druzhba pipeline system. [www.orlen.pl; www.lotos.pl]

10 The Druzhba pipeline is supposed to provide Russian crude oil to Lithuanian refinery in Mazeikiu, which was purchased in a takeover deal by the Polish company PKN Orlen. After the buyout in August 2006, the Russian pipeline operator – Transneft – suddenly stopped supplying crude oil via the Druzhba pipeline, citing the need for urgent repairs. In the following month, when the refinery managed to receive oil supplies via marine terminal in Buting, a major fire erupted in the plant, causing a series of explosions and serious damages. The report received by the Lithuanian authorities pointed out that the fire was not an accident, but probably an industrial sabotage. Some analysts suggested that Russians wanted to punish the Lithuanian state for backing PKN's bid over those of competitors favoured by Moscow, or to press the Polish company into withdrawing from the purchase.
I would like to focus on the Odesa-Brody-Plock pipeline project (OBP). Its main goal is to create a new transportation corridor for crude oil from the Caspian Sea Region (Kazakhstan and Azerbaijan) to Europe. Caspian oil could thus be supplied to Poland and further to other consumer countries via Naftoport in Gdansk (Picture 5).
This project has several advantages. First of all, it will strengthen the security of supplies to Central and Eastern European countries, and particularly Poland, which heavily depends on the Russian crude oil, as mentioned before. It could also simplify and make more efficient the export of oil from the Caspian Region to world markets, while avoiding maritime traffic in the Bosphorus and the Black Sea, as well as the related risk of accidents. The project will use the existing connection from Odesa to Brody, with a new pipeline to connect Brody to the existing Polish network in Adamowo. When concluded, the pipeline will allow to deliver crude oil to the sea terminal on the Polish coast. It is worth mentioning here that the Gdansk oil terminal already serves today as an export hub for the Kazakh oil transported via Russian Transneft system to consumers in America.

The project gained momentum during the Energy Summit in Krakow (11-12 May 2007), which brought together the presidents of Azerbaijan, Georgia, Lithuania, Ukraine and Poland, as well as the personal envoy of the President of Kazakhstan. As a result of the Summit, an International Working Group was established to analyze technical and logistic problems of the Odesa-Brody-Plock project. It was also agreed that membership in “Sarmatia”\(^{11}\), a Polish-Ukrainian joint venture set up in order to construct the OBP, will be extended to other countries participating in the Summit.

The importance of oil and natural gas diversification projects

Poland has many reasons to become involved in the above diversification projects. Russia intends to decrease the role of Druza oil pipeline and Yamal natural gas pipeline. It has already undertaken to construct the sea terminal in Primorsk, assured the use of Odesa-Brody pipeline to deliver oil in a reverse direction to Odesa\(^{12}\), and advanced the work on the construction of "Nord Stream" gas pipeline. Accomplishment of the above undertakings will increase the risk that Russia will be able to limit unilaterally the supplies not only to Poland, but also to Ukraine, Estonia, Latvia, Belarus, Lithuania, Slovak or even Czech Republic while keeping other – i.e. Western – consumers supplied.

Recent events related to the disruptions of natural gas supplies to Belarus\(^{13}\) and Ukraine\(^{14}\) only proved that the Russian Federation uses its natural resources as a tool of hard-power foreign policy and not as a market commodity.\(^{15}\) Commercial competition need not turn into national rivalry but it does in the case of Russian oil and natural gas. Russian companies do not function on a typical commercial basis under market mechanism, where competitiveness is the determining factor shaping company’s decisions, profits and position. It follows that the

\(^{11}\) At the present stage, the company’s goal is to carry out the analysis of the economic, financial and technical aspects of constructing a new oil transport corridor Odesa-Brody-Plock-Gdansk.

\(^{12}\) Russian Federation takes many actions to block Ukrainian plans on finding other sources of energy carriers than Russian ones. Since 2004 the existing part of the pipeline from Odesa to Brody has been functioning in a reverse sytem – it transports Russian crude oil to the terminal in Odesa according to the agreement between Russian-British company TNK-BP. In December 2006 the following companies: Transneft, UkrTransNaft and TNK-BP signed the agreement to prolong REBCO oil supplies via this pipeline for the next years lap to 2011.

\(^{13}\) In August 2007, Gazprom threatened to cut the supplies of natural gas for Belarus by 45 percent due to Minsk’s $457 million debt. As Belarus paid off the debt, supplies had not been cut finally.

\(^{14}\) In June 2007, Russian Federation announced its intensions of raising the price of natural gas exported to Ukraine by 12-17 percent. There is a high probability of yet another Russian-Ukrainian conflict developing in the near future (see also footnote 6 on page 5).

Russian oil and natural gas sector is exempted from market-oriented economy, and turned into a strong-arm of government’s foreign policy.  

Poland wants to complete the planned diversification projects for oil and natural gas in the next 5-6 years. These projects, including the LNG terminal, Baltic Pipe, and the OBP pipeline, have a strategic value for us. Furthermore, I would like to stress that accomplishing of the above mid-term strategic goals will contribute to the ability to avoid political pressure and threats from the Russian side. Thus Poland will have acquired the freedom to focus on those issues that are of vital importance not in the short-term but rather for the decades to come. We are fully aware of the changing nature of the challenged ahead of us. In the second decade of the 21st century, we will face different problems. Thus the issues concerning natural gas and oil will give lead to those concerning new coal technologies and nuclear energy. Therefore, the latter two issues are our main area of interest for developing a long-term strategy.

The importance of coal and nuclear energy for Poland – preparing for the future

At the present, coal is a very important component of energy security in Poland. About 94% of electricity consumed is produced from hard coal and lignite. Operative resources of hard coal exceed 4.5 billion tons, and the annual production over the past few years amounted to 97-100 million tons. Poland exports about 20 million tons of coal, mainly to the European Union countries, while importing 2.5-3.0 million tons.  

Over the past 17 years, Poland has not faced any shortage in electricity supply. As new and more efficient technologies were introduced to the consumer market for electric energy, the country’s power generation capacity remained constant. In the recent years, due to steady economic growth, the level of electricity consumption has approached the domestic power generation capacity. Our response to that trend, in mid-term perspective, should be the construction of a nuclear power plant in Poland.

Growing dependence on the import of energy carriers gives a new urgency to the issue of nuclear power plant, as one of the most crucial subjects in energy debates. The share of nuclear energy in the entire European Union energy mix in 2005 amounted to 14.6%, and in the production of electricity reached the level of 31%. At the present new nuclear power plants are being built in Finland and in Romania. British government has resumed a debate on the future of nuclear energy, and the Dutch government announced an upgrade of their only power plant facility. The European Commission and the European Council acknowledge nuclear energy as the most important source of emission-free energy.

At the same time, Poland, holding the biggest deposits of hard and brown coal in the European Union, should be the leading country to implement clean coal technologies. These technologies should ensure better competitiveness of the Polish energy sector in the medium and long-term perspective, as well as help to increase the country’s energy security. The Summit of the European Council held in March 2007 made the commitment to decrease the overall EU dioxide emissions from coal by 20%, as well as to increase the average share of renewables and biofuels in energy production to 20 % by the year 2020. I am most skeptical about implementing PR-oriented solutions to problems of most crucial importance. “3x20 by 2020” might sell well, but it does carry a heavy price.

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17 Internal materials of the Polish Ministry of Economy.
The goals to which the Council made its commitment force the EU member states to take action. Doing so, the European Commission and the leaders of the European countries should have presented a more nuanced approach, assigning environmental obligations to member states only after considering the specific repercussions for the economies. The more developed countries of ‘Old Europe’ should certainly understand that the indiscriminate acceptance of those obligations by the new members of the European Union will bring an end to the fast economic growth, which enables them to bridge the wealth gap – the fundamental difference in the standard of living that was created with the division of Europe by the iron curtain after World War II.

It is not a matter of the new EU members states turning away from the environmentally sound solutions. Poland has already traveled a long way in terms of reducing the emission of coal dioxide as well as sulphur dioxide, and fully fulfills the Kyoto protocol. Clean coal technologies could take the country even further, allowing for even greater decrease in emissions. However, it needs to be well understood that making Clean Coal Technologies economically efficient may take more than until the year 2020. We are nevertheless open to new projects in this area, yet we are equally determined to start up nuclear projects for Poland as well.

To begin with, Poland is most interested in participating, as a partner to the Baltic States, in a joint venture aimed at building a new power block of the Ignalina nuclear power plant in Lithuania, which is supposed to replace the old Russian one. Poland’s willingness to cooperate and initiate its own projects in this field is grounded on the conviction that the threat of a serious nuclear power plant breakdown nowadays seems to be minimal. Furthermore, the construction of water-cooled reactors in fact precludes the possibility of an explosion and the consequent release of radioactive chemicals into the environment. Recurrence of the Chernobyl disaster is nowadays impossible, especially with the state-of-the-art modern reactors that we envisage to be used in any of the nuclear power plant project, in which Poland will be involved. Moreover, it is worth bringing to attention the fact, that the lack of our own nuclear power plant does not guarantee freedom from possible nuclear threat, as eleven nuclear power plants operate in the neighboring countries.\(^\text{18}\) As Poland has yet to have an open public debate on nuclear energy for the country, it is not clear how the public opinion will respond to the plans being developed. I believe that our government should initiate the public debate soon and I trust that there will be a wide support for the idea.

In the first decades of the 21st century, the international competition for the access to energy resources will definitely intensify. The trend has already been visible. For Poland the consequence is a necessity to initiate a long-term power plant construction program. It will not only help to maintain the economic growth, but also increase the energy security of Poland. There is no doubt that it will have an impact on our international position as well.

\(^{18}\) *Nuclear power in Poland*, The Polish Institute of International Affairs, March 2007, Warsaw.
Liberalisation process in the EU vis-à-vis energy security of its Member States

For some time now, the European Union has been undertaking various activities aimed at creating a common market for energy. In the view of the European Commission, as well as some of the member states, a common market for energy, founded on the common legal base, common rules and similar standards binding the companies from the energy sector, should enhance market competition, while at the same time ensuring energy security. One of the fundamental principles of the market so defined, is the third party access to the existing energy infrastructure (pipelines, storage and stockpile facilities). The infrastructure owned by the energy companies active on the market shall, in accordance with that very principle, serve all potential market players, and the access to that infrastructure has to be non-discriminating and based on the free market standards.

The above concept of a common market for energy has its clear advantages, yet it seems to be particularly vulnerable when dealing with companies from third countries – countries which within their own borders, are not obliged to reciprocally apply the same principles and standards to EU companies. In the recent years, we have been able to observe a growing trend, whereby the entities from the energy-supplying countries (Russia, Arab states), which benefit from supply monopoly in many of the EU member states, are taking advantage of the liberal EU internal market regulations. These companies are trying to dominate the internal markets of EU member states by taking over existing, as well as developing new downstream assets in those EU countries. On the other hand, EU companies do not enjoy an equal and unrestricted access to their markets of those energy-supplying countries, often being systematically eliminated from the already gained market segments (e.g. upstream).

I would like to emphasize that such a situation presents a grave danger to the energy security of the EU member states. Having the monopoly over energy acquisition, combined with the ability to control the energy carriers’ prices with disregard for transparent mechanisms, constitutes an undisputable threat of takeover and monopolization of the energy markets of some EU member states.

Taking the geopolitical situation of Poland into account, full market liberalization introduced before diversification of supplies is implemented, may make impossible the latter to be finished. The monopoly position of the energy suppliers may well result in them enjoying an equally monopoly position as recipients on internal market for energy.

- Gas&oil diversification projects in Polish mid-term strategy
- Long-term strategy focuses on new coal technologies (ie. CCT) and nuclear energy
- Priority of diversification of gas & oil supplies over liberalisation process
3. Poland in international environment – energy related issues.

While the lack of transparent legal regulations prevents western companies from investing in upstream activities and in the transmission infrastructure, despite of its declared poor condition, we are facing Russian entities pursuing politically motivated investments in European energy infrastructure including hard assets, taking advantage of the freedom of investments within the European Union. Market regulations are being used in an abusive way by external entities playing a double role – economic, as well as a political one. The strongly held position of Poland advocates that the EU should persuade Russia to ratify the already signed Energy Charter Treaty. That would help to end the period of unequal trade arrangements and eliminate the uncertainty of Russian norms concerning foreign investments in the energy sector. At the very minimum, it would allow European companies to operate in Russia on more equal basis. This international agreement was established with the aim of having the EU trade regulations encompass the non-member countries, with which it cooperates. For the time being Russia has assumed a neglectful stance.

As part of the discussion on the negotiation mandate for the new EU Partnership and Cooperation Agreement with Russia, the Polish government has taken vigorous steps to persuade the European Union to demand from Russia the final ratification of the Energy Charter Treaty and signing the Transit Protocol. Poland rejected the mandate because of unlawful import embargo imposed by the Russian side on Polish meat and agricultural products. Yet the energy issue was of key importance as well. As a result of Poland’s position, seconded by several other countries, the efforts to include the key norms of the Energy Charter Treaty into the new EU-Russia Partnership and Cooperation Agreement are widely discussed and seem to be approved as a starting point for further negotiations.

The need for the Solidarity spirit in Europe

We are convinced that a common position based on a collective approach of national governments to energy security issues is possible. In 2005, in the aftermath of the situation caused by the disruption of gas supplies from Russia via Ukraine to Europe, the Polish government responded in a constructive manner proposing an intergovernmental agreement – the European Energy Security Treaty – that would provide assistance to the country, whose energy security is in danger. The proposal was by no means contradictory to or infringing on the commitments within the EU or NATO. It offered a flexible mechanism to deal with possible crises in the future. The EEST proposal contained a basic clause elaborating mutual energy security guarantees, under which the parties would be obliged to grant each other mutual assistance in the event of a threat to their energy supplies from natural or political causes. The treaty commitments were founded on the clause whereby the parties agreed that a threat to the energy security of one of them will be considered a threat to the energy security of all of them. Moreover, the EEST contained a proposal to build the infrastructure needed to bring real, immediate and significant assistance to the endangered country. The necessary infrastructure was to be used upon a collective decision and financed from a small budget controlled by the countries signatory to the agreement. Those “sleeping pipelines” would only be used at a time of emergency, providing the so needed security guarantee in face of a crisis situation.

19 As an example of scope of the discussion on the energy policy issue, see: José Manuel Barroso, President of the European Commission at Georgetown University, February 9th 2006, Speaking with a common voice: Energy policy in the 21st century; as well as Third regulatory pack to be presented 19th of September 2007
We still believe in the possibility of founding the solidarity mechanism in the area of energy security, even though the EU countries seem to prefer to act on their own. To make project feasible, the interests of all countries should be taken into account by the major European players. The Polish government has been consistent in its efforts to persuade the European partners, and its position seems to be met with more understanding than would once be the case. Thus elements of the original proposal have found their way into recent European documents.20

**New policy to avoid unwanted investments**

The current policy of the European Union, leading to the liberalization and opening of the internal market for energy, will have a major impact not only on the energy sector as such, but also on the energy security of the European Union as a whole and all its member states. We can observe a very strong drive towards separating and unbundling all the specific activities of energy companies. On one hand, this can lead to the opening of the market to more competition, yet on the other hand, it has the potential to weaken the European energy undertakings. At the same time, the Russian Federation, through the state-controlled companies like Gazprom, runs a clearly defined strategy aimed at acquisition and taking control of the oil and gas market in Europe. Apart from the desire to be a dominant market player in energy production and supply to the European consumers, Russia equally desires to take over the energy infrastructure in Europe. This infrastructure is a key and vital backbone of the security, sovereignty and independence of all European Union member states.

One must recognize that ownership executed on the energy companies can result in their higher vulnerability to takeovers by third countries players. Sensitive industries, such as the Polish or Hungarian refinery sector, are already the primary target on the list. Higher prices of fossil fuels, as well as the growing dependence of OECD countries on energy imports, result in the emergence of the ever more numerous state backed investment funds, which are capable of following through with takeovers in the energy sector. Those funds are fueled by the money from oil and gas exports, as in the case of funds from Middle East and Russia, or they are supported by state subsidies, as is with the Chinese funds. Those investment funds have not only economical but primarily a political agenda, which weighs heavily on their investment decisions.

The remedy is clear. We must protect our national interests and our energy industries from the hostile takeovers by such state-owned funds. The word “protectionism” might long be gone from the political lexicon, yet it still seems to hold relevance when policy-making is concerned. Not so much time has passed, since the United States witnessed Dubai Ports World attempting to acquire shares in U.S. port facilities in New York, New Jersey, Philadelphia, Baltimore, New Orleans, and Miami. That move raised clear concerns regarding the security of the country. The same trend can be observed in Europe. Two years ago, when I took my post as Secretary of State at the Ministry of Economy, with responsibility for oil and gas supplies diversification, my assessments regarding the energy security of the EU were met with much distrust from my counterparts. Today it seems obvious to everyone that we must take steps to protect our interests. Thus the nature of the debate in Europe has changed. Nowadays various options are considered. Some of the most discussed would include

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screening and monitoring potential buyers, with the special attention given to their economical or political agenda; introducing the “golden share”, which gives the state a power to veto major decisions regarding key energy players; or even referring to the energy sector as a strategic sector, with all the legal provisions it entails. The latter option would de facto allow the EU to block investments from third countries, provided they might infringe on the energy security of the country, or the EU as a whole.

- Support for common position of national governments based on collective approach in the EU
- Protection of European companies from hostile takeovers

4. Energy - its importance at present and provision for future.

Three essential issues in my opinion may shape the future of the world energy and they are particularly important for 40-million people country, that is Poland. These concepts are "diversification", "solidarity" and "cooperation". Therein lies our concern in Poland, but I believe they have more extensive - international meaning, hence they are worth your attention.

**Diversification**

If completed as scheduled, the main diversification projects that are presently undertaken by Poland (the LNG terminal, the Baltic Pipe gas pipeline, the Odesa-Brody-Plock oil pipeline), will assure independence from Russian resources, on which we rely so heavily today. Consequently, Poland will be able to strengthen its political independence by achieving security of energy supplies. Equally, it will allow the country to pursue the long-term strategy focusing on nuclear energy and new coal technologies. Poland, with its large reserves of coal, needs a well thought-out policy in order to effectively use those resources. On one hand, that policy has to take into account the potentially burdensome repercussions related to the restrictions on carbon dioxide emissions. On the other, it has to lay the foundations for the potential value of the advanced coal technologies to be effectively developed.

Diversification understood as an ability to provide energy from new sources, can reach far beyond the search for new directions for oil and gas supplies. Those who will possess new, ground-breaking technologies will gain an immediate advantage. Poland is ready and willing to cooperate in the field of R&D, so that diversification does not need to be limited only to current energy sources and we are open to ventures through which we could develop new ideas (Hydrogen, ITER, etc.) or improve the technologies used today (Clean Coal Technology, IGCC, better nuclear reactors, etc.). I believe that the discussion about new energy sources must be set in the framework that reaches onto unexplored grounds. In the future, different technological factors will inevitably come to the fore. It is therefore crucial that we invest in R&D and commit to cooperation in this field. As part of that effort, it might at some point be worth considering whether achieving energy security – energy security defined narrowly as undisrupted access to hydrocarbons – is not an example of the “old way of thinking” or a dead-end road altogether. Must new energy sources be hydrocarbons-related and where is the place for a new vision of energy? Discussion of those matters would certainly be an inspiration.
Solidarity

In Poland, the tradition of Solidarity is still alive. We encourage countries of the European Union, as well as our Atlantic partners, to act according to that principle in the field of energy. Poland’s proposal of the European Energy Security Treaty inspired the European discussion bringing it closer to that very principle, even if more is still to be done. In the world where disrupting the flow of supplies may be as effective as sending tanks and aircraft, solidarity in the field of energy should be the core principle of international relations within the Transatlantic Community. When energy-exporting countries use their natural resources to obtain political goals, when access to energy resources becomes more crucial than ever before, there are reasons for concern. While the official strategy of the Russian Federation provides for the use of energy resources to obtain political goals, the biggest European countries remain silent, and the concern grows bigger. The Nord Stream gas pipeline is a vivid example of that tendency, which justifies our concerns. German and Russian energy companies prefer to build a gas pipeline under the Baltic Sea – a pipeline that not only carries a threat of a major ecological disaster if the tons of chemicals dating back to WWII and resting at the sea bottom were somehow to be disturbed, but also a pipeline that is by far more expensive than a land pipeline between Russia and Germany via the territories of the EU countries: Estonia, Latvia, Lithuania, and Poland, as part of the Amber gas pipeline project. That pipeline is to serve purely political reasons.

Cooperation

Poland is looking for allies in the field of energy security not only to provide mutual assistance at the time of a crisis. It is equally open to cooperation in technology development and upstream activities.

Both the United States and the European Union are net importers of oil and natural gas. Both show rising demand for these energy carriers. Taking into account that energy supply has become an issue of the utmost importance for national security of a vast majority of countries, I hold the view that international cooperation in places where energy carriers are extracted and sold to world markets is necessary. Without infringing on the economic freedom of private enterprises, American oil companies can afford to let smaller European companies cooperate with them in the production of crude oil and natural gas. This would improve energy security of Europe, while at the same time the cooperation of Europeans in joint projects has the potential of making more accessible the markets in those countries where anti-American sentiment might prevail.

And a few words for the conclusion

I would like to focus for a moment on geography of energy supplies. In case of oil we can identify one major center in the Persian Gulf (38% of global oil supply, 61% of proved reserves) and several minor centers like Central Asia with Russia (15% supply, 11% reserves) and Asia Pacific (10% supply, 4% reserves), Africa (12% supply, 10% reserves) and South America (9% supply, 9% reserves), North America (16% supply, 5% reserves). In case of natural gas we can point out two major centers namely Middle East (41% of global proved reserves) and Russia (26% reserves). The list of biggest 10 natural gas suppliers differs a little bit and looks as follows: Russia, USA, Canada, Iran, Norway, Algeria, United Kingdom, Indonesia and
Saudi Arabia. It is easy to notice that majority of oil and natural gas reserves are located in unstable countries.

The region which is still clogged by leftovers of Russian dominance is Central Asia. The situation is improving quickly as new routes of transportation are either built, being built or planned. The most spectacular project from this area is certainly existing already Baku-Tbilisi-Ceyhan crude oil pipeline. The other project which is currently developed is a pipeline intended to connect gas systems of Turkey, Greece and Italy (IGT and "Posejdon" sub-projects). This project is the first step to open the south path for delivering Caspian natural gas to Europe (Azerbaijani natural gas from Shah Deniz). It has already reached the first phase. Nabucco is the most recognized gas pipeline project in Balkans and in Central Europe. It will stay viable attractive if other than Russian gas will supply the project. Caspian Region proximity to Europe makes it highly attractive. Alternative transport corridors from those countries are crucial to increase European Energy Safety.

Middle East is very unstable part of the world. Iraq is in turmoil, Iran is under sanctions and isolated, several other countries recovering from domestic or international conflicts. All this undermine the perspective of fossils import in foreseeable future.

Let the above statistics and numbers focus our attention back to the issues of energy security. I would like to strongly express that energy policy is a part of international security policy and it should be considered with an adequate approach. Not so long ago energy security meant primarily possessing enough fuel to use military equipment such as tanks, aircrafts and warships for certain period of time. It also meant the ability to produce weapons using mainly steel. Now, the access to energy sources is a deciding factor that will determine which country will stay or become global or regional power.

Awareness of the advantages of the mentioned above diversification, solidarity and cooperation led us to the conclusion that transatlantic partnership is possible in the field of energy and it is naturally related to the tradition of existing partnership.

- Energy is to become soon fundamental factor of international relations, States foreign policy and global order.
- Relations between USA and EU as a main energy consumers and its global impact
- R&D and new technologies as a key-factor of country’s global position
- Poland is an open country looking for allies in the field of energy security
Appendix

1. Policy of the government of the Republic of Poland with respect to the oil industry in Poland, Ministry of Economy, February 2007.


Maps and tables:

4. Energy Factsheet of Poland

5. Russian natural gas exporting routes

6. Natural gas diversification projects

7. Russian scenario if Drużba pipeline is cut off

8. Caspian crude oil corridor to Europe

Foreign studies:


10. Russian gas and oil for Europe, Centre for Eastern Studies.


12. Turkey – an energy transit corridor to the EU?, Centre for Eastern Studies.