## Solutions for the states of the Visegrad Group to improve their energy security

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## ABSTRACT

The content of the article is focused on the issue of the energy security of the Visegrad Group states (in the article acronym V-4 is used). The article contains description of the energy crisis of 2009 which had the negative impact on the economy of the V-4 states. The article is an attempt to propose the best solutions for the V-4 states to improve their energy security and preclude the energy crisis in the future.

**KEYWORDS:** V4, European energy policy, oil and gas market in Europe, energy safety, European Union.

The assured energy security is important part of the economy in each state. In the case of interruption of energy supplies the industry can't work that's why the whole economy can collapse. The energy security is very important issue as for the V-4 states. The gas crisis of 2009 in V4 states began when Ukraine and Russia failed to reach an agreement on gas prices and supplies. For that reason Russia decided to cut gas flows to Central Europe via Ukraine at the beginning of January 2009. Slovakia "declared a state of emergency, following a halting of gas supplies from Russia overnight", transit pipeline from Russia to Bohemia "was halted from midnight", Hungary decided to limit "natural gas consumption by industrial users" and Poland was forced to "cut gas supplies to industrial clients" (18 countries affected by..., 2009). As we see, the crisis of 2009 was evidence that critical energy dependence on only one supplier – Russia and on only one transit country – Ukraine can threaten the safety status of the V-4

in the economic sphere. That's why diversification of energy sources, suppliers and transit states are important challenges for the V4 to improve security of their economies. In this article we analyse which are the best possibilities and solutions for improving of energy security of the V-4 member states.

Many analysts and politicians call for the increase of using alternative sources of energy to reduce dependence on Russian oil and gas. But the alternative sources of energy have problems, they are not so effective as for energy production and the production is more expensive than in thecase of fossil fuels. Moreover, many analysts and politicians ignore the fact that they are not so ecologically clean. For instance, as for biofuels and biomass according to David Tilman, a professor at the department of ecology, evolution and behaviour at the University of Minnesota, corn used for biofuels production "requires nitrogen fertilisers and some of that comes on as ammonia, which is volatilised into the air" and it can cause "health impact on people" (Jha, 2009). We can't ignore the fact neither that the soil is needed for the production of biomass and biofuels. It can threaten the production of food (Vaščík, 2010). That's why we reckon that the biomass and biofuels are not a solution for improving energy security of the V-4 states. The Czech president Václav Klaus didn't sign the bill which implement the directive of the EU. According to this directive the EU states must increase the share of used biofuels with the goal to reduce dependence on fossil fuels. V. Klaus said he didn't sign the bill because the EU ignore negative effects of biofuels and biomass for ecology and "health of man" (Klaus nepodepsal další novelu..., 2011). We consider it as an important step and the other states of the V-4 should adopt this position and call together for the EU to change its policy and re-evaluate its position towards biofuels and biomass. As we have seen, the biofuels are not a good solution for improving the energy security of the V-4.

As we see, the alternative sources have many problems and the nuclear energy seems to be the only effective solution how to reduce too big dependence on oil and gas. The critics can tell us that although nuclear power plants produce clean energy and have high performance they also produce dangerous nuclear waste. It can't be problem in the future because the scientists of prestigious universities in the U.S.A. have recently developed new TWR reactors which process the nuclear waste (TR10: Traveling-Wave Reactor..., 2009). For that reason it was very important that during the meeting in the city of Visegrad in October 2011 the presidents of the V-4 states "agreed that the region currently had no alternative to nuclear power" (Visegrad Four presidents say..., 2011). It's very important that the presidents found common attitude. It's necessary to support nuclear energy in the V-4 formate by one common voice towards Brussels within the EU context because nowadays we hear many critical voices in the influencial EU states towards nuclear energy like Germany (Germany to abandon..., 2011) or Italy (Brevini, 2011).

On the other hand nuclear energy is only partial solution. It reduces dependence on one source of energy, Russian oil and gas, but doesn't reduce dependence on one supplier, Russia. V-4 states are very dependent on Russian uranium. The Russian company TVEL has granted a license for exporting of nuclear fuel to Czech Republic, Hungary and Slovakia until 11th April 2016 (Tvel to be awarded..., 2011). These problems can be resolved through using of hydro-energy. The hydro-energy has a great potential but it's still not completly used. 29.4 percent of the energy potential of the Slovak rivers is still not used (Construction of hydropower plants is..., 2010). The potential of hydro-energy in Bohemia is not fully used neither. Many facilities are obsolete. "Most of these big facilities were made back in the 1950s, so it makes sense to do the renovations. It brings efficiency and a potential increase in output." (ČEZ invests in..., 2011). Moreover, Ukraine, which is the neighbour of the V-4, has high potential as for hydro-energy. Hungary "intends to build a hydroelectric power station in the Ukrainian territory and to import electric power produced by it" (Zielys, 2009). That's why we think the states of the V-4 should promote common projects of developing hydro-energy and try to interconnect their electric grid with Ukraine as potential exporter of hydro-energy to the V-4. Managing director Igor Gallo of section in Slovenská Elektrizačná Prenosová Sústava, society which oversee the electric transmission in Slovakia, said Slovakia plans to build "2x400kV interconnection in Veľké Kapušany in Slovakia, which is close to both the Ukrainian and Hungarian borders" (Liptáková, 2011). As we see there's high potential of using hydro-energy by V-4 states and Ukraine. And if the grids of the V-4 and Ukraine were interconnected we think it would help to reduce dependence on Russian energy sources.

Except for initiatives the goal of which is to find other sources than oil and gas the V-4 states have tried to develop support mechanism in times of energy crises so that one state could help another one in the case of energy shortage. For instance, Poland has tried to promote the initia-

tive on the EU level. Poland proposed solidarity mechanism according to which "violating the energy security of one country represents a threat to the entire European community" (Geden et al., 2006) In February 2010 the V-4 held energy security summit in Budapest. It resulted in declaration which called "for emergency plans to be drawn up including an EU solidarity mechanism in the event of an energy crisis". The states should have recognized principle that "violating the energy security of one country represents a threat to the entire European community" (Kron, 2010). On the other hand it's hard to imagine that these initiatives could be realized. Because these kinds of plans "suppose the construction of joint energy storage, joint networks applying to gas, oil, electricity, as well as a mutual reaction in emergency situations" (Geden et al, 2006). It 's very hard to imagine to centralize energy storage on the EU level which would distribute energy according to needs of state. That means in fact loss of sovereignty if the EU should decide how to distribute energy to states in case of emergency. Even the principle "violating the energy security of one country represents a threat to the entire European community" is problem. What does "violating the energy security mean"? For example, when the Russian initiative called Nord Stream pipeline will help improve energy security for some EU members like Germany. Because in cases of conflicts concerning price between Russia and Ukraine or Belarus Germany will still receive Russian gas because Nord Stream bypass those two states. On the other hand it's a threat for the V-4 because Nord Stream bypass their territories. They will lose their status as transition states, they will become only consumers which means they will be more easily blackmailed by Russia because of their statute. As we see the "solidarity mechanism" proposed by V-4 states can't be realized in situation when the member states are not able to define "common threat to the Community".

The important thing how to solve energy problems is to build new oil and gas pipelines, to build new transport routes. We can say the V-4 states have achieved some success as for building new pipelines. During the V-4 summit held in Budapest in February 2011 political leaders of the member states "issued a number of directives, including diversifying the natural gas and oil supply to Europe, developing a southern energy corridor, promoting north-south interconnections through all V4 countries" (McNally, 2010). The north-south interconnection, which means interconnection of northern LNG<sup>1</sup> terminals in Poland with the other V-4 states

<sup>1</sup> Liquified natural gas.

and LNG terminals in Croatia, can help reduce dependence on Russian oil and gas because V-4 states would be able to import these commodities from other parts of the world. Through the LNG terminals the V-4 would be able to import oil and gas from Norway or the Caspian Sea. High Level Expert Group with the participation of Poland, Bohemia, Slovakia, Hungary, Romania, Bulgaria and Croatia (as an observer) was set up. The goal of the group was to make an action plan as for the development of interconnections of gas, electricity and oil sectors (A Common Energy Policy..., 2011). On 28th January 2011 the prime minister of Hungary Viktor Orbán and his Slovak counterpart Iveta Radičová signed an agreement for a section of the North-South gas pipeline that crosses their countries (Prime ministers to seal..., 2011). During the same month a letter of intent to build Polish-Slovak section was signed by the transport operators (The North-South gas corridor..., 2011). On 14th September Czech Prime Minister Petr Nečas and his Polish counterpart Donald Tusk inaugurated Czech-Polish section. Half of the cost was paid by the EU Commission (Thompson, 2011). It's also the important aspect of the V-4 energy security. The V-4 states should act united within the EU to gain more support for their initiatives from Brussels. In 2010 the EU gave no support to the Hungarian-Croatian gas pipeline "despite the fact that a seventh pipeline is to be built between Belgium and Holland, even though there are already six lines between the two countries" and the "EU supported the Visegrád Region with little more than one percent of its overall budget of five billion Euros" (Féhér, 2010). We reckon the absence of lobbying activities are the main problem why the EU has granted so little amount of money for the V-4 energy projects. European Round Table<sup>2</sup> is important lobby group of industrialists which influence decisions of the EU institutions. It encompasses many western energy companies like BP, Total, E.ON etc. But on the other hand Hungarian energy company MOL is the only V-4 member within the ERT (Members by Country, 2011). Well, it's very important so that the other energy companies of the V-4 became members. If there were more V-4 energy companies in the ERT we think the V-4 lobbying would be influential in the EU and that's why V-4 would receive greater support of the EU institutions. Except for lobbying there's also one problem as for building new pipeline routes. These projects can't resolve the problem of the dependency on Russia. It's impossible because the total amount of oil and gas passing through these pipelines is very low in com-

<sup>2</sup> We will use the acronym ERT.

parison with Russian systems. Jakub Skavron, an energy analyst with Roland Berger Strategy Consultants, said after the inauguration of the Polish--Czech section within the North-South interconnection: "To call a pipeline with capacity of 0.3 percent of Russian gas supplies or 2 percent of Czech and Polish annual gas demand an a important step toward Russian gas independence is a little bit exaggerated" (Thompson, 2011).

For conclusion, we can say it's not good solution for the V-4 to replace the fossil fuels massively by alternative sources. As we see the alternative sources pose ecological and health problems like biofuels. That's why the V-4 should take common attitude and persuade the EU that biofuels are not a good solution. The V-4 should promote the development of nuclear energy. As we see it has pespectives. On the other hand it's important to support the use of other sources of energy like water. It can reduce dependence on Russian fuels. Within this context the interconnection with Ukraine is highly perspective. The V-4 should continue in diversification of transport routes. For these project V-4 can receive EU finance but the lobbying power must be increased. On the other hand, as we see, it's hard to fully reduce energy dependence on Russia.

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