



Difficult path towards gas partnership: Visegrad Group countries' gas cooperation with Ukraine¹

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Historically, gas cooperation between the Visegrad Group countries (V4) and Ukraine was shallow and erratic. The main reason for this state of affairs was a lack of predictability and transparency in Russian gas deliveries via Ukraine to Central Europe (and further to Western and Southern Europe). Ukraine played the role only of a problematic transit country, and its cooperation with V4 countries was limited to the absolute minimum. In the last few years, however, a profound change can be seen in the nature of V4–Ukraine cooperation. In general, Central European countries are finally “energy secured” *vis-à-vis* Ukraine. Furthermore, V4 countries have become an energy security provider to Kiev. This change is the result of intensive infrastructure development within the V4 and their efforts to establish closer infrastructural links with Western gas markets. An important role was also played by gas market reforms in the V4, which facilitated the exporting of gas from Central Europe to Ukraine.

The second big change in V4–Ukraine gas cooperation is connected with Kiev's reinvigorated efforts to integrate with EU gas markets. This is a reaction to the recent Russian annexation of Crimea and Moscow's continual support of separatists in eastern Ukraine. In fact, the Russia-Ukraine conflict has brought to an end Kiev's previous incoherent gas policy of zigzagging between the EU and Russia. In 2014, Ukraine set itself the clear goal of integrating with the EU, and took the first significant steps towards reaching this goal: adopting a new gas law and bringing about a partial liberalization of gas prices. V4 responded not only with maintaining its reverse flow deliveries, but also with an offer to assist Ukraine in the Europeanisation process, *inter alia* in reforming its gas sector. Nevertheless, the main area of V4–Ukraine gas cooperation has been working to establish EU rules on Ukraine's borders with Poland, Slovakia and Hungary. This process is unprecedented and extremely complicated from the political, legal and commercial point of view. Moreover, political cooperation between the V4 and Ukraine is still weak. In summary, there is still a long road ahead in achieving a true gas partnership between V4 and Ukraine.

Bitter legacy: traditions of V4-Ukraine gas cooperation

The V4 countries have a long and quite similar history of gas cooperation with Ukraine. This cooperation officially began in the late 1960s, when the Soviet Union launched the flow of

¹ The research for this text was partly conducted during a fellowship at the Research Center of the Slovak Foreign Policy Association in Bratislava in 2015 as part of the “V4 Flying Experts Initiative” financed by the International Visegrad Fund.

gas supplies to Western Europe via the so-called Southern route (known as the Brotherhood pipeline). The pipeline crossed from the current territories of Russia and Ukraine via Czechoslovakia to Austria. It was gradually expanded and upgraded, *inter alia* by the adding of two branches: from western Ukraine to Hungary (and further to the former Yugoslavia) and from Czechoslovakia to Germany. The Brotherhood pipeline quickly became the backbone of Soviet Union–Central Europe gas collaboration. This was the result both of its magnitude (it reached a transit capacity of almost 110 billion cubic meters per annum) and its strategic role in the Soviet Union's policy *vis-à-vis* the West. It is worth mentioning that Poland represented a somewhat different case as compared to the other V4 countries. Firstly, the scope of Polish gas cooperation with the Soviet Union was far more limited, as Poland did not play a transit role at all during communism. Secondly, Poland was the only V4 country with significant domestic gas production. Therefore, Polish dependence on Soviet gas was relatively small (the other V4 countries' gas consumption was secured almost completely by imports).

The collapse of the Soviet Union and the emergence of an independent Russia and Ukraine opened a turbulent new chapter in the V4's gas relations *vis-à-vis* Russia and Ukraine. This was the result of frequent Russia-Ukraine gas disputes concerning debts, non-payment, and the level of transit tariffs. Despite these developments, the V4 countries did not actively pursue a diversification agenda, maintaining their traditional dependency on Russian gas transported via Ukraine for more than two decades. This was mainly due to a lack of financial resources. Also, the V4 countries perceived a potential gas disruption as a "theoretical" threat rather than as a real one. There was no actual experience of gas disruptions to the V4 in the 1990s, despite the fact that during that time Russia cut deliveries to Ukraine on a number of occasions. As the result, during the first two decades after the collapse of Soviet Union there were only two significant infrastructure investments in Central Europe. The first was Hungary's pipeline to Austria (the so-called HAG), which opened in the middle of 1990s. Its interconnector had a limited capacity (4 bcm per annum) and enabled Budapest to import Russian gas not only from Ukraine but also from the western direction. The second major investment in Central Europe was the transit pipeline Yamal–Europe, which went from Russia via Belarus and Poland to Germany. It had capacity of 33 bcm per annum and made Poland the least dependent of all V4 countries on Ukrainian gas transit. The V4 gas markets remained largely the same, highly dependent on Russian supplies, which were delivered under long-term, oil-indexed contracts. Moreover, the V4 were still either totally (Czech Republic, Slovakia, Hungary) or partially (Poland) dependent on the Ukrainian transit. At the same time, V4–Ukraine gas cooperation was kept at a low profile and limited to technical cooperation over transited gas. There were almost no political or business talks concerning the deepening of gas cooperation. Neither significant upgrades, nor any new gas connections on V4–Ukraine gas borders, were made.

The danger inherent in this situation was for the first time highlighted during the first gas crisis in January 2006. It lasted only three days, and had a relatively mild impact on V4 economies. Nevertheless, the need for an energy security strategy was clearly visible as the gas crisis showed the real, not theoretical, vulnerability of Central Europe. Nevertheless, after this 2006 gas crisis there was much more talk about energy security in the V4 than real action. In 2007, Budapest came with an innovative (and ultimately unrealized) idea to connect gas grids with its southern neighbors (the so-called NETS initiative). In Poland, the immediate result of the gas crisis was the government's decision in late 2006 to build an LNG terminal in Świnoujście. Preparations to construct this terminal were, however, very slow.

The gas crisis in January 2009 had much more serious political and economic consequences for the V4 and the EU. Between the dates of January 2–20, 2009, Russia halted gas deliveries

to Ukraine due to a serious gas dispute with Kiev. It was the biggest gas supply crisis in EU history. Sixteen European countries were affected as around 80 per cent of Russian supplies to the EU were via Ukraine.² The most serious problems occurred in the Balkan countries, which even experienced a humanitarian emergency situation (lack of heating in households). Among V4 countries, Slovakia was the most affected country (economic losses were estimated at approximately 1–1.5 per cent of GDP).³ The gas crisis severely damaged Russia's reputation as a supplier and Ukraine's credibility as a transit country. This was bluntly expressed by the Czech Foreign Minister Karl Schwarzenberg, who said: "The main lesson learned from this crisis is that Russia and Ukraine aren't reliable suppliers. Europe must think about alternative sources and a pipeline."⁴

It is worth mentioning that Slovakia tends to put the blame on Kiev rather than on Moscow for the 2009 gas disruption. This is a result of the traditionally good Russian–Slovak political cooperation, as well as of Kiev's mistakes in communication during the gas crisis. During his emergency trip to Kiev in January 2009, Slovak Prime Minister Robert Fico may have felt snubbed by Ukrainian Prime Minister Yulia Tymoshenko, who made him wait several hours before an inconclusive meeting – after which the Slovak PM frankly stated that Ukraine "did not care" about the difficult situation in Slovakia. In his later public statements, he has very often portrayed Ukraine as an unreliable partner.

Along with the difficult experience of the gas crisis, the V4–Ukraine gas relationship was also negatively impacted by the non-transparent Russian–Ukrainian joint ventures operating in the gas markets of Ukraine and Central Europe. The most illustrative example was the operations of the gas intermediary Rosukrenergo (RUE) – a Swiss-registered company owned by Russian Gazprom (50 per cent) and two Ukrainian oligarchs (Dmytro Firtash with 45 per cent and Ivan Fursin with 5 per cent). The company had a monopoly on the import of Russian gas to Ukraine between 2006–2009, and was an important player in the scheme of gas deliveries to the Polish company PGNiG, as well as to Emfesz, an important distributor of gas in Hungary. The settlement of the January 2009 gas crisis envisaged the removal of Rosukrenergo from the Russian–Ukrainian gas trading scheme. This had negative spillovers on the Polish and Hungarian gas markets. Polish PGNiG was forced to hastily renegotiate its gas contract with Gazprom because RUE was not fulfilling its contractual obligations (deliveries of 2.4 bcm annually). RUE was also not able to deliver gas to Hungarian Emfesz, which, by the way, was sold in an illegal and untransparent manner soon after the 2009 gas crisis.⁵ In general, the difficulties surrounding Rosukrenergo were another sign to V4 countries that they had better cooperate with extreme caution with Ukraine (and Russia).

² "The January 2009 gas supply disruption to the EU: an assessment. Commission Staff Working Document accompanying document to the Proposal for a regulation of the European Parliament and of the Council concerning measures to safeguard security of gas supply and repealing Directive 2014/67/EC," SEC(2009)977 final, July 16, 2009. Available online: http://www.europarl.europa.eu/registre/docs_autres_institutions/commission_europeenne/sec/2009/0977/COM_SEC%282009%290977_EN.pdf (accessed on August 28, 2015).

³ M. Gonchar, A. Duleba, O. Malynovskyi, Ukraine and Slovakia in a post-crisis architecture of European energy security: Prospects for transport of hydrocarbons and bilateral cooperation, Bratislava and Kyiv: Research Center of the Slovak Foreign Policy Association, 2011, p.18.

⁴ "European Parliament: EU Czech Presidency discusses Gaza, EU enlargement in the Balkans and other priorities," European Union Delegation to the United Nations, August 21, 2009. Available online: http://eu-un.europa.eu/articles/en/article_8431_en.htm (accessed on August 28, 2015).

⁵ "Gazprom's Murky Games in Hungary," Eurasia Daily Monitor, May 5, 2009. Available online: [http://www.jamestown.org/single/?tx_ttnews\[tt_news\]=34948&no_cache=1#.VeBOXZc2XHJ](http://www.jamestown.org/single/?tx_ttnews[tt_news]=34948&no_cache=1#.VeBOXZc2XHJ) (accessed on August 28, 2015).

Rebalancing the V4–Ukraine relationship

After the 2009 gas crisis, Central Europe launched a large number of infrastructure enhancements and started the construction of new interconnectors. The most important improvements were the establishment of reverse flow on the Brotherhood transit pipeline in mid-2011, allowing gas to flow from the Czech Republic to Slovakia. Currently it allows approximately 24 bcm to be imported annually, while Slovakia's gas needs are around 5–6 bcm a year. A similar reverse flow was established on the Yamal–Europe transit pipeline, which allowed Poland to import gas from Germany starting from 2011. Initially it allowed for an annual import of around 2.3 bcm, but since 2015 this was increased to almost 8 bcm (Poland consumes around 16 bcm a year). The Visegrad Group also came with the bold concept of creating the so-called North South Gas Corridor, which envisages the construction of many bi-directional interconnectors and domestic pipelines, linking the Baltic Sea area with the Adriatic and Aegean Seas. As part of this concept, several important investments were prepared, *inter alia* the Polish–Czech interconnector (opened in 2011), the Slovakia–Hungary interconnector (finished in 2014 but opened a year later), the Polish LNG terminal in Świnoujście (should be operational at the end of 2015), and the Polish–Slovakia interconnector (currently in the pre-investment stage, should be operational in 2019).

Due to these infrastructural developments, V4 countries have significantly decreased their systemic exposure to any gas disruption via Ukraine, thus improving their position *vis-à-vis* Ukraine. A recent European Commission study shows that all V4 countries currently meet the so-called "N-1 standard", which means that they are able to cover their daily gas demand upon the disconnection of the largest supply infrastructure. The Czech Republic and Slovakia have the highest security levels, able to cover approximately 250 and 200 per cent respectively of their gas demand, should their largest supply source be cut off. Both Poland and Hungary exceed the required threshold of 100 per cent.⁶ Admittedly, the N-1 standard is only a short term energy security indicator. Nevertheless, it clearly shows that the V4 are prepared to cope with short term disruption.⁷

Meanwhile, the V4 countries have pursued a gas market liberalization agenda and reformed their gas markets in line with the EU's third energy package (approved in 2009, came into force in the middle of 2011). V4 countries have implemented *inter alia* stronger unbundling rules, i.e. the separation of gas transport and sales, as well as a new mechanism of gas trading based on an entry-exit tariff system. Under this new system, gas is traded in isolation

⁶ "Commission Staff Working Document. Report on the implementation of Regulation (EU) 994/2010 and its contribution to solidarity and preparedness for gas disruptions in the EU Accompanying the document Communication from the Commission to the European Parliament and the Council on the short term resilience of the European gas system Preparedness for a possible disruption of supplies from the East during the fall and winter of 2014/2015," SWD(2014) 325 final, October 16, 2014, p.8. Available online: https://ec.europa.eu/energy/sites/ener/files/documents/2014_energystresstests_securityofgassupplyseglulation_report_0.pdf (accessed on August 28, 2015).

⁷ The European Commission also prepared the so called "stress-tests" that assess the resilience of the European gas infrastructure during a hypothetical 6 months halt of Russian gas exports to Europe (among other scenarios). The stress tests showed that V4 countries would be affected, but not as severely as Baltic countries or South Eastern Europe. Hungary and Poland would experience a 30 per cent and a 20 per cent supply shortfall respectively, in the case that there was no solidarity among European countries. See also: "Communication from the Commission to the European Parliament and the Council on the short term resilience of the European gas system. Preparedness for a possible disruption of supplies from the East during the fall and winter of 2014/2015," COM(2014)654 final, October 16, 2014, p.6. Available online: https://ec.europa.eu/energy/sites/ener/files/documents/2014_stresstests_com_en_0.pdf (accessed on August 28, 2015).

from its physical location in the transmission network. These reforms have largely improved transparency and laid the foundations for gas market development. Most importantly for V4-Ukraine gas relations, they have made it easier for V4 countries to trade gas with Western Europe (via western gas companies such as RWE and GdF), and consequently to bring Western gas closer to Ukraine.⁸

The V4-Ukraine gas relationship was also heavily influenced by Russia's gas policy. After the 2009 gas crisis, Moscow reinvigorated its efforts to diversify its gas export routes and bypass Ukraine. In late 2011, Gazprom opened Nord Stream – a new gas route from Russia running under the Baltic Sea to Germany. This pipeline currently has the capacity to transfer 55 bcm of Russian gas to Western Europe annually. After completing Nord Stream, Gazprom continued its "pipeline offensive" *inter alia* by promoting another project: South Stream. This new large pipeline (63 bcm per year) would also bypass Ukraine. Moscow was actively preparing the construction of South Stream until late 2014, when the project was abruptly abandoned. Instead of South Stream, Gazprom is currently lobbying to build the so-called Turkish Stream (a shorter version of South Stream, which would end at the Turkish-Greek border). In the middle of 2015, Gazprom also signed memorandums with Western companies to build the third and fourth sections of the Nord Stream pipeline (another 55 bcm per year). Moreover, Gazprom announced at the beginning of 2015 that it will completely stop its transit of gas through Ukraine after the Russian-Ukrainian transit agreement expires on January 1st, 2020.⁹

Russia's persistent strategy to bypass Ukraine has had a significant impact on the V4 and Ukraine. Firstly, Ukraine and some V4 countries (mainly Slovakia) are losing transit profits due to a decrease in transit volumes. This was clearly seen after the Nord Stream pipeline opened in 2011, as this led to a significant decrease in the transit of Russian gas via Ukraine (see Table 1), and subsequently via Slovakia. Data from the Slovak transmission system operator shows that transit fell by 37 per cent, from 74 bcm in 2011 to 46.5 bcm in 2014.¹⁰ Interestingly, the Czech Republic swiftly replaced the supply drop from Slovakia with an increase in supply from Germany, while Poland and Hungary did not experience a significant change in Russian gas transit volumes.

Secondly, there is high degree of uncertainty over whether to keep the Russian gas transit through Ukraine and also via Central Europe (mainly via Slovakia and Hungary). As a result, Ukraine is hastily pushing to develop its possibilities for importing gas from the western direction. Meanwhile, some V4 countries are introducing new ideas which would allow them to maintain their important transit role in the region. At the end of 2014, Slovakia came with a bold initiative to build a large pipeline, Eastring, aimed at being a bridge between Western European gas hubs and South Eastern Europe. According to the plans, it will have an initial transport capacity of 20 bcm per year and will connect Slovakia with Turkey via Hungary, Romania and Bulgaria. Hungary has also started to lobby in favor of a new project – the so-called Tesla pipeline, which supposedly will be an extension of the Turkish Stream pipeline. According to Budapest, the new project should connect Hungary with Greece via Serbia and Macedonia.

⁸ Technically, "Western gas" is transported to the V4 from the eastern direction (from Russia via Belarus or Ukraine). However, it is sold by Western gas companies under swap arrangements.

⁹ "Russia to cut transit via Ukraine," Euobserver, January 15, 2015. Available online: <https://euobserver.com/news/127216> (accessed on August 28, 2015).

¹⁰ "Annual Report 2014," Eustream, p. 9. Available online: http://www.eustream.sk/en_company-eustream/en_annual-reports (accessed on August 28, 2015).

Reverse flow phenomena: establishment, operation, prospects

The most illustrative example of the changing and deepening V4–Ukraine gas cooperation was the establishing of physical reverse flows. Currently, there are three main gas reverses to Ukraine: from Poland (in Hermanowice interconnection point), from Hungary (Beregdaróc) and from Slovakia (Budince). Deliveries from Poland were launched in November 2012. Technical capacities allow the delivery of approximately 4 million cubic metres per day, which represents 1.4 bcm a year. Deliveries are operated on an interruptible basis, so actual deliveries are always lower. The second physical reverse flow was established on the Hungary–Ukraine border in March 2013. Technical capacities allow almost 17 million cubic metres per day to be sent to Ukraine, which represents 6.1 bcm per year. The Hungarian reverse flow also operates on an interruptible basis. The largest and most important reverse flow was established by Slovakia in September 2014. At first it had a capacity of 27 million cubic metres daily (almost 10 bcm yearly), but in March 2015 this capacity was increased to 40 million cubic per day (14.6 bcm per year). The Slovak reverse flow, unlike those of Poland and Hungary, operates on a firm basis (9.8 bcm) and also in interruptible mode (4.8 bcm per year). The combined annual capacity of reverse flows from Poland, Hungary and Slovakia is close to 22 billion cubic metres, which is a higher volume than the total Ukrainian imports for 2014 (see Table 1).

These reverse flows represent a positive sign of the deepening V4–Ukraine collaboration. Nevertheless, their establishment and operation has been difficult, occasionally translating into political frictions. This concerns mostly the reverse flow from Slovakia, which was established only after long and difficult negotiations, and seemingly would not have done so at all without the European Commission's mediation. The main problem was Ukraine's insistence on a so-called "large reverse flow," i.e. on using the Brotherhood pipeline in reverse mode. This would have allowed a transfer of around 30 billion cubic metres per year to Ukraine. Slovakia rejected this idea, however, claiming that there was a contractual problem with it. Eustream claimed that it would be impossible to establish a large reverse flow without consent from Gazprom Export, which exercises the function of transmission system operator on the Slovakia-Ukraine gas border. Slovakia therefore offered a "small reverse", i.e. utilizing the unused gas connection Vojany–Uzhorod. Slovak arguments, however, were constantly rejected by Ukraine. Naftogaz, Ukrainian transmission system operator, has recently revealed the expertise prepared by Norwegian legal company Wikborg Rein, which shows that Slovakia can not refuse to establish an Interconnection Agreement (which is a prerequisite for a "big reverse") on the basis of its contractual ties with Russia. The expertise also pointed out that Gazprom by not providing shipping codes to Naftogaz is breaching EU law.¹¹

Another problem that came to light during negotiations was a deeply rooted mistrust between Eustream and Uktransgaz, as well as concerns over the economic viability of reverse flow. It is worth noting that the Slovak–Ukrainian talks on establishing reverse flow were launched as early as 2012 and experienced several abrupt ruptures. In June 2012, Eustream launched an Open Season procedure, which showed that there was not sufficient market interest in implementing a reverse flow to Ukraine. Nevertheless, talks over reverse flow continued. In December 2013, Uktransgaz unexpectedly rejected the offer of a small reverse flow. This was at a time when Ukraine received a price discount for Russian gas as a reward from Moscow for not signing the Association agreement with the EU. After the fall of Ukrainian

¹¹ "Facilitating reverse flow from West to East," Wikborg Rein MEMO, June 2, 2015. Available online: <http://www.naftogaz.com/files/Information/2015-06-02-%20-%20Facilitating%20Reverse%20Flow%20Capacity%20from%20West%20to%20East.pdf> (accessed on June 2, 2015).

president Viktor Yanukovich, the new government in Kiev also rejected small reverse flow for a few months, continuing its pressure for the establishment of a "large reverse." Finally, the cooperation agreement for the small reverse flow was signed in April 2014.

The operation of reverse flows has demonstrated that they play a very positive role in the V4–Ukraine gas relationship. Data from transmission system operators show the growing importance of deliveries from the V4 to Ukraine, mainly from Slovakia (deliveries from Poland and Hungary are still rather insignificant due to the interruptible mode of both reverses). In 2014, deliveries already represented 5 billion cubic metres, while in the first half of 2015 deliveries already exceeded 6 billion cubic metres (see Table 2). Clearly Slovakia has become the main channel for European gas export deliveries to Ukraine. Moreover, this has come about with relatively low capital expenditures (20 million dollars). Eustream claims that after just one year of operation, reverse flow profits covered capital expenditures. This shows an extremely high return on investment, as gas interconnectors usually return profits only after 10 years.

The establishment of reverse flows could have also some negative impacts on Central Europe, as for example in September 2014 Gazprom unexpectedly decreased deliveries to European countries. The deliveries were below ordered volumes (nominations), but within contractual limits. Gazprom explained that deliveries were reduced for technical reasons (the need to inject additional gas to Russian gas storages) but there was the widespread conviction that Russia was attempting to halt the reverse flows.¹² This interpretation was widely believed due to the fact that, as the result of the decreased deliveries, Poland was forced to reduce its reverse flow to Ukraine for short period. Hungary completely halted gas deliveries to Ukraine until January 2015 in order to replenish storage (See Table 3).

Without a doubt, reverse flows have been crucial for Ukraine's energy security. In the period of June–November 2014, Russia completely halted deliveries to Ukraine (without stopping the transit via Ukraine to Europe), and Ukraine's gas market was supplied only via domestic production, storage, and import from the EU. The existence of reverse flows has also enhanced Kiev's position in its negotiations over a new, temporary gas deal with Moscow (the so-called winter package). This has also translated into significant financial gains. According to Naftogaz CEO Andrej Koblev, in 2014 – due to reverse flows from the EU and renegotiation of the contract with Russia (winter package) – Ukraine saved around 3.6 billion dollars.¹³ This was a result of the fact that the price of Western gas delivered to Ukraine from reverse flows was considerably lower than the price of Russian gas.

The establishment of reverse flows has also triggered a new area of cooperation between Ukraine and Poland, Slovakia and Hungary. In November 2014, negotiations on direct interconnection agreements were initiated between Ukrtransgaz and the transmission system operators from Poland, Slovakia and Hungary, thus starting work on the implementation of EU rules on V4–Ukraine borders. These agreements mean that transmission system operators will harmonize procedures such as capacity allocations and congestion management, in line with EU standards. Moreover, these interconnection agreements will allow for virtual reverse

¹² A. Łoskot-Strachota, "Central European problems with Russian gas supplies," Centre for Eastern Studies, September 17, 2014. Available online: <http://www.osw.waw.pl/en/publikacje/analyses/2014-09-17/central-european-problems-russian-gas-supplies> (accessed on August 28, 2015).

¹³ "АндрейКоблев: Людямдавалигаздешево, чтобыдругойрукойзабирать у нихгораздобольше," [Andrew Koblev: People were given cheap gas but on the other hand it was even more expensively taken from them], Pravda, May 25, 2015. Available online: <http://www.pravda.com.ua/rus/articles/2015/05/25/7068978/> (accessed on August, 2015).

flows (in which case gas is not physically transported, but gas requested in reverse flow is taken from the gas flowing in the forward direction). The main problem with establishing virtual reverse flow is that the Ukrainian transmission system operator Ukrtransgaz is not a fully-fledged operator, as it does not receive shipper codes from Gazprom.

As a result of these negotiations, the Hungarian transmission system operator FGSZ signed an interconnection agreement with Ukrtransgaz in June 2015.¹⁴ This is the first document of its kind and is meant to serve as a model agreement for Polish and Slovak operators in the process of implementing EU rules on their borders with Ukraine. The Hungary–Ukraine interconnection agreement could also be replicated on other EU borders between member states of the Energy Community (for example Hungary–Serbia, Romania–Moldova, Romania–Ukraine). The Hungary–Ukraine interconnection agreement should be implemented by the beginning of October 2015, when Ukraine declares it will implement new network codes. Nevertheless, it is not clear whether it will be possible to implement this agreement to its full extent, i. e. whether it will be possible to put in place the virtual reverse flow (backhaul). EU law has never been established on external EU borders, and it is not clear whether the agreement will be effectively implemented. The signing of this agreement has created new political momentum in V4–Ukraine relations, and will increase the pressure Ukraine puts on Poland and Slovakia to sign similar agreements. Kiev will also try to use this agreement to extort shipper codes from Gazprom, probably under already pending arbitration. Meanwhile, the existing physical reverse flows will continue to play an important role. Gazprom halted gas deliveries to Ukraine once more in June 2015, and there are continuous negotiations with Slovakia to further increase reverse flow deliveries (allegedly to the level of 20.8 bcm per year¹⁵).

Beyond reverses

At the end of 2014, during the V4–Ukraine summit in Bratislava, the ministers of foreign relations of the V4 declared their countries' readiness to provide further assistance to Ukraine in Europeanization reforms. According to the plan, Poland will provide assistance in the field of public finance and administration reforms (decentralization), Hungary will share its experience with supporting small and medium sized enterprises, while the Czech Republic will share its experience in building civic society. Slovakia will help in the field of energy security and the security sector.¹⁶ In general, the V4's help is provided in the form of consultations and workshops. So far, however, the results of this initiative are disappointing. Only one seminar (organized by Poland) has been conducted so far, whereas a seminar on energy security and energy efficiency prepared by Slovakia was abruptly cancelled by Ukraine.¹⁷ The roots of Kiev's decision were unclear, but it was widely interpreted as

¹⁴ "Landmark Interconnection Agreement signed between FGSZ and Ukrtransgaz for both forward and reverse natural gas flow," FGSZ, June 5, 2016. Available online: <https://fgsz.hu/en/content/landmark-interconnection-agreement-signed-between-fgsz-and-ukrtransgaz-both-forward-and>(accessed on August 28, 2015).

¹⁵ "Slovak natural gas capacity to Ukraine unlikely to increase soon," ICIS, September 8, 2015. Available online: <http://www.icis.com/resources/news/2015/09/08/9922101/slovak-natural-gas-capacity-to-ukraine-unlikely-to-increase-soon/> (accessed on September 8, 2015).

¹⁶ "Slovakia to aid Ukraine in Energy and security reforms," Slovak Spectator, December 17, 2014. Available online: <http://spectator.sme.sk/c/20052991/slovakia-to-aid-ukraine-in-energy-and-security-reforms.html>(accessed on August 28, 2015).

¹⁷ "УкраїнатаСловаччина – історіяпроте, якпосваритисязсусідом, Європейськаправда." [Ukraine and Slovakia – the story of an quarrel with a neighbor], Evropejska Pravda, July 8, 2015. Available online: <http://www.eurointegration.com.ua/articles/2015/07/8/7035711/> (accessed on August 28, 2015).

a reaction to the Slovak Prime Minister's visit to Moscow in June 2015, where he suggested the possibility of merging the Slovak Easting pipeline with the Moscow-backed Turkish Stream. Moreover, Ukraine is still vexed over Slovakia's reluctance towards the idea of establishing a large reverse flow. In June 2015, Ukrainian Prime Minister Arseny Yatseniuk sent a non-public letter (the main parts of which were later disclosed by the press agency Reuters) to the European Commission, accusing Slovakia of illegal provisions in its contract with Gazprom, which supposedly prevented reverse flow to Ukraine on the main Brotherhood pipeline. The letter prompted a harsh reaction from Eustream, who claimed that Ukraine's accusations are irrelevant.¹⁸ This was another sign that despite positive developments, Slovakia–Ukraine relations remain tense.

As far as other areas of gas cooperation go, there is a growing discussion over the possibility of creating a regional gas market between the V4 and Ukraine. Some Ukrainian politicians and experts claim that Ukraine with its large gas storage capacities would bring added value to a regional gas market, which would facilitate the creation of an "East European" gas hub. These ideas, however, remain elusive. Any discussion of a V4–Ukraine gas market at the moment is merely theoretical and premature. Firstly, Ukraine has just barely started to bring its legislative framework in line with the EU's third energy package. In March 2015, Ukraine adopted a new gas law, which introduced the concept of unbundling, an entry-exit tariff zone, and new network codes. Another stage, and much more complicated, will be the adoption of specific secondary regulations and their effective implementation, and coping with the widespread corruption in the Ukrainian gas sector.¹⁹ Secondly, establishing a regional gas market requires very good political cooperation and an adequate institutional capacity of gas market stakeholders (regulators, ministries). Given the poor track record of Slovakia–Ukraine political cooperation, and the deeply rooted mistrust between their transmission system operators, it is difficult to imagine a regional gas market between V4 and Ukraine in the near future.

Appendix

Table 1. Ukraine's gas indicators: transit, imports and consumption (in bcm per year)

	2007	2008	2009	2010	2011	2012	2013	2014
transit	115.2	119.6	95.8	98.6	104.2	84.3	86.1	62.2
imports	50.6	54.6	27	36.5	44.8	33	27.9	19.5
consumption	71.1	67.5	53.1	59	61.9	54.8	50.4	42.6

Source: Naftogaz Ukrainy, Energobiznes/energy ministry of Ukraine (August 28, 2015).

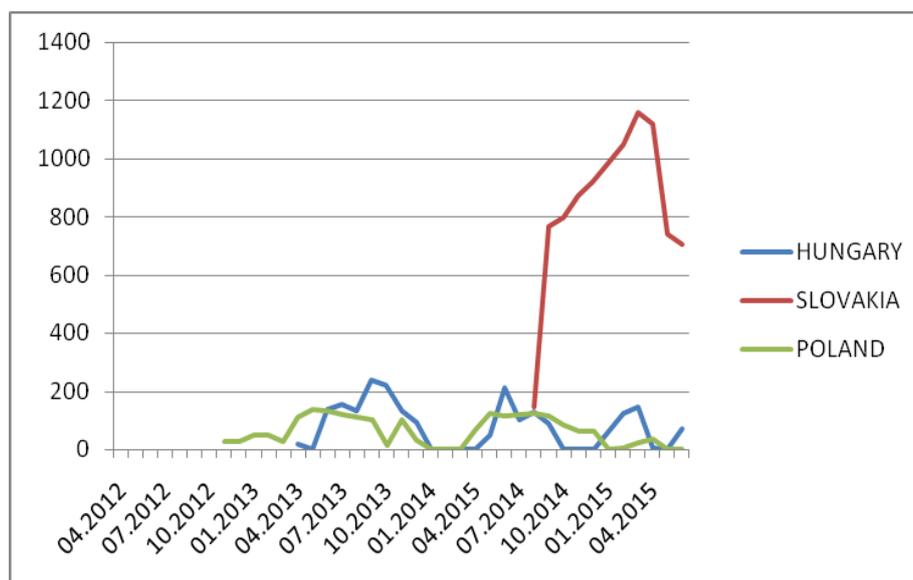
¹⁸ "Eustream's reaction to the letter of the Prime Minister of Ukraine to EU authorities," Eustream, June 24, 2015. Available online: http://www.eustream.sk/en_media/en_news/eustreams-reaction-to-the-letter-of-the-prime-minister-of-ukraine-to-eu-authorities (accessed on June 24, 2015).

¹⁹ W. Konończuk, "Reform # 1. Why Ukraine has to reform its gas sector," *OSW Commentary*, September 2, 2015. Available online: <http://www.osw.waw.pl/en/publikacje/osw-commentary/2015-09-02/reform-1-why-ukraine-has-to-reform-its-gas-sector> (accessed on September 2, 2015).

Table 2. Gas supplies to Ukraine from V4 countries (in billion cubic metres, bcm)

	2012	2013	2014	January-June 2015
Hungary	0	1.12	0.57	0.41
Poland	0.05	0.96	0.86	0.06
Slovakia	0	0	3.49	5.75
Total	0.05	2.08	4.92	6.22

Source: International Energy Agency, Gas flow database (August 28, 2015).

Table 3. Dynamics of gas flows to Ukraine from V4 countries (in million cubic metres, mcm)

Source: International Energy Agency, Gas flow database (August 28, 2015).