WAR BY OTHER MEANS

KREMLIN'S ENERGY POLICY AS A CHANNEL OF INFLUENCE

COMPARATIVE CASE STUDIES FROM UKRAINE, MOLDOVA, GEORGIA, ROMANIA, HUNGARY

PROJECT FINANCED THROUGH A GRANT BY THE NATIONAL ENDOWMENT FOR DEMOCRACY

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A comparative assessment and case studies from Ukraine, Moldova, Georgia, Romania and Hungary

APRIL 2019

Project financed through a grant by the National Endowment for Democracy

Introduction: How the Kremlin may enhance its energy leverage in the West and what should we learn from Central and Eastern Europe

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The EU has been increasingly caught up in its own internal struggles over the past years - migration, populism, Brexit - and is facing fundamental challenges to its core principles and values from problematic member states such as Poland, Hungary or Romania. Russia stands only to benefit from such internal divisions. As usual, Moscow has three main instruments to exert significant political influence in its "near abroad", but also to expand it in the formerly communist Central Europe and further towards the West. Its main weapons to do so are:

- direct military intervention and conflict fueling in ex-USSR states;
- "hybrid war" methods such as cyberattacks, disinformation, trolls, covert financing of extremist parties and the like; and
- its energy leverage.

While the first two are under closer Western scrutiny once Russia's aggression in Ukraine showed just how far Kremlin is willing to go, the third remains somewhat under the radar of the West, despite increasing concerns among energy specialists in Brussels and in some capitals. Naturally, the intensity with which these three instruments are used is much stronger in Russia's geographic proximity. However, they can be employed to a fuller extent in this region only because of the vacuum created by poor governance, as well as extensive dependency on Russian energy supplies or transit fees. These instruments can be also combined for higher impact: we note an increased use of the "hybrid war "methods[1] and even the use of brute force[2] in order to destabilize the energy networks of Russia's closest neighbors.

As the prospects to finalize Kremlin's pet energy projects Nord Stream 2 and Turkish Stream loom ever closer, this report is meant to ring the alarm bells: excessive reliance on Russian energy is a real threat, not only to energy security of Central and Eastern Europe, but also for the broader, fundamental objective of improving governance across the region, as many of the Eastern Partnership countries can testify.

The five case studies we present in this report cover a broad range of problems and very different situations.

Two countries (**Romania and Hungary**) are EU members, well connected to Western energy markets, less dependent on Russian energy supplies and generally abiding by EU principles. We note that in recent years Romania and Hungary have diversified their energy sources and reduced the gas consumption; in consequence, the Russian influence in the sector has diminished. But even in these EU member states, particularly in Romania, lesser commitment to EU's Third Energy Package and to EU's Energy Union policies may have long term negative effects for their both EU and non-EU neighbors, reversing previous reforms and enhancing again Russia's energy grip on the region.

[1] https://jsis.washington.edu/news/cyberattack-critical-infrastructure-russia-ukrainian-power-grid-attacks/

[2] The 2006 sabotage of two gas pipelines to Georgia.

The other three cases (**Moldova, Ukraine and Georgia)** are in theory bound by the same EU rules on energy as the members of the Energy Community and to general EU principles by having signed Association Agreements. However, insufficient alternatives for energy (as Russian energy supplies or Russian gas transit play an important role in their economies) render these states critically vulnerable to Kremlin's whim. The three countries also have comparatively weaker institutions while corruption is much deeper entrenched, which favors lucrative deals for local and Russian oligarchs, particularly in the energy sector. Moreover, all three states have separatist regions where the central government has no control, and which are viable exclusively with Kremlin's support – and to a great extent, as we show, this support is also energy-related.

Russia's aggressive behavior in these countries and its broader implications for the democratic governance should be an eye-opener for the West. Moldova, Georgia and Ukraine are the "laboratory" where Kremlin flexes its muscles by taking advantage of the countries' increased energy dependence, combined with institutions systematically weakened by breaches of the rule of law. Only EU's strong safeguards against abusive anticompetitive behavior, alongside its support for key institutions, administrative controls, regulators, judiciary etc. protect its members, so these safeguards must themselves be carefully protected.

As we noted in our previous report[3], the EU itself has been much more vulnerable in the early 2000s than it is today to Russia's energy leverage. Two gas crises (2006, 2009) and the military aggression in Ukraine (2014) gave the Union a strong impetus to accelerate the integration of its energy market and push for the implementation of the Third Energy Package, a process that would have been probably much slower without this sense of urgency. Interconnections and solidarity mechanisms against energy crises were also enhanced after the EC's timely energy security stress tests in 2014, followed shortly by the adoption of the energy security strategy[4].

DG Competition's investigation into Gazprom's anti-competitive behavior in eight member states resulted in no more than a slap on Gazprom's wrist[5] for its well documented abuses: the Russian state company sought to segment the EU market in order to increase market domination through long term rigid contracts to foreclose markets, apply restrictions on re-export and the like. Nevertheless, the investigation made Gazprom more careful with its anticompetitive practices in the EU. What is more, a good report prepared for the European Parliament emphasized the critical implications of increased dependence on Russian supplies of energy[6]. Many players, such as Poland and the Baltics, are acutely aware of the risks posed by projects such as Nord Stream 2; the European Parliament has voted recently a strong-worded resolution on EU-Russia relations which reiterates energy concerns[7]. The Parliament is expected to vote on amendments to the gas directive 2009/73/EC, hopefully closing a loophole in the legal EU framework by which the Nord Stream 2 pipeline could have been excluded from the application of the directive.

[3] Energy, Russian Influence and Democratic Backsliding in Central and Eastern Europe: A Comparative Assessment and Case Studies from Belarus, Ukraine, Moldova, Hungary, Romania, 2016, Expert Forum (EFOR) (https://expertforum.ro/en/files/2017/05/Final-countries-report-coperta.pdf)

[4] https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/energy-security-strategy

[5] https://www.politico.eu/article/gazprom-escapes-eu-fine-competition-probe/

[6] Energy as a tool of foreign policy of authoritarian states, in particular Russia, 2018, Policy Department for External Relations - Directorate General for External Policies of the Union, Study requested by the AFET Committee of the European Parliament http://www.europarl.europa.eu/RegData/etudes/STUD/2018/603868/EXPO_STU(2018)603868_EN.pdf

[7] http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2019-0157+0+DOC+XML+V0//EN&language=EN

Figure 1 *Europe gas map*

Source: https://balkaneu.com/natural-gas-russia-consistently-present-in-europe/

Much remains to be done, as not all relevant players on EU's internal energy market are fully aware of the risks posed by the excessive reliance on Russian energy. Neither Nord Stream 2 nor Turkish stream make economic sense[8], so there should be widespread concern about Gazprom's real goals behind these projects. Nevertheless, the projects have already created vested interests within the Union, such as Gazprom's local partners in the construction of the pipeline, and they lobby for their continuation. The economic sanctions announced by Washington against Gazprom's partners and contractors for the pipeline ruffled a few feathers in Berlin, but these sanctions are justified and strongly supported by countries like Poland and the Baltics, who know too well from bitter experience how the Kremlin operates: the project will simply enhance Western Europe's dependence on Russian gas while threatening to deprive Ukraine of substantial transit fees[9].

The most amazing fact is that all the hubbub around Nord Stream 2 is all just a bit of history repeating itself, from which apparently no lesson was learnt[10]: in the '80s there were significant frictions between the US and Europe around the so-called "Yamal project" (now the "Brotherhood" pipeline crossing Ukraine and Slovakia, not to be confused with the newer Yamal pipeline crossing Belarus). That project was the critical turning point for the détente between Germany and Russia at the peak of the Cold War. Just like now, US was concerned that it would increase Europe's dependence on Russian gas (which in the end, it did), so Washington imposed sanctions, but they had to be lifted to help Western Europe allies "save face" to their constituencies. Just like now, the project was skillfully

[8] https://warsawinstitute.org/gazproms-lavish-spending-nord-stream-2-turkish-stream/
[9] https://www.handelsblatt.com/today/politics/secondary-us-sanctions-how-the-us-could-halt-nord-stream-2/23834864.html?ticket=ST-1943918-dbXTx9JQNY2QfvLdfq5S-ap2
[10] https://www.vocaleurope.eu/how-russian-pipelines-heat-up-tensions-from-reagans-battle-over-yamal-to-the-european-row-on-nord-stream-2/?fbclid=IwAR1Q3--elEQNQ_SPrGOyKTi5I5nEhz7IcGUj6tIUmMcfUqIX2a3DFKQYZqM

used to legitimize Kremlin in the eyes of the West: USSR before 1991 and Russia afterwards was most scrupulous in meeting all contractual commitments and appearing a reliable business partner, an argument used now by many Nord Stream 2 supporters[11]. The "Yamal project" benefitted USSR in many other ways beyond the profits from gas sales, for example by providing access to Western technology (including American technology, which exasperated Washington), at costs subsidized by various European countries since the USSR was not financially able to pay; and in long term gas contracts in hard currency which offered a lifeline support for its bankrupt communist regime. The same type of long term gas contracts are identified today as anticompetitive practice by Gazprom on the EU energy market.

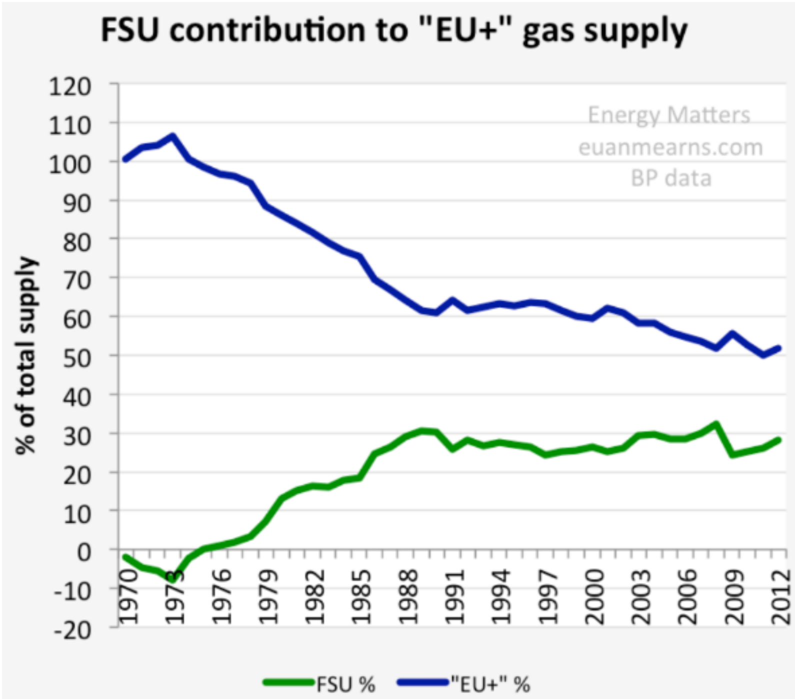

Figure 2 *The relative contributions to EU gas supply from the EU and the FSU. The indigenous EU supply has fallen to 50% of total consumption (that includes Norway). FSU imports have been stable between 25 and 30% of the total since the late 1980s (EU+ includes Norway).*

Source: http://euanmearns.com/the-fantasy-of-european-gas-independence/

Indeed, Nord Stream 2 undermines EU's energy security strategy exactly in the same manner, by boosting the imports of Russian gas; by some estimates, EU's total gas imports from Russia could rise from 34% in 2017 to over 40%[12]. One reason is that Germany is phasing out nuclear generation and will compensate for it with new gas-fired power plants. Nord Stream 1 supplied in 2016 gas equivalent to 55% of Germany's total consumption, but if the phase-out of nuclear capacities continues according to schedule, in a couple of years Russian gas could make up 80% of Germany's consumption[13]. Also, an increase of gas generated electricity is expected to balance increasing capacities of wind and solar generation, and because of the increased price of CO2 allowances that puts pressure to reduce coal based electricity generation[14]:

[11] https://www.ft.com/content/e9a49e8c-852c-11e8-a29d-73e3d454535d
[12] https://www.bild.de/politik/ausland/bild-international/anders-fogh-rasmussen-on-nordstream-54036424.bild.html
[13] https://www.bakerinstitute.org/media/files/files/ac785a2b/BI-Brief-071817-CES_Russia1.pdf
[14] https://markets.businessinsider.com/commodities/co2-emissionsrechte

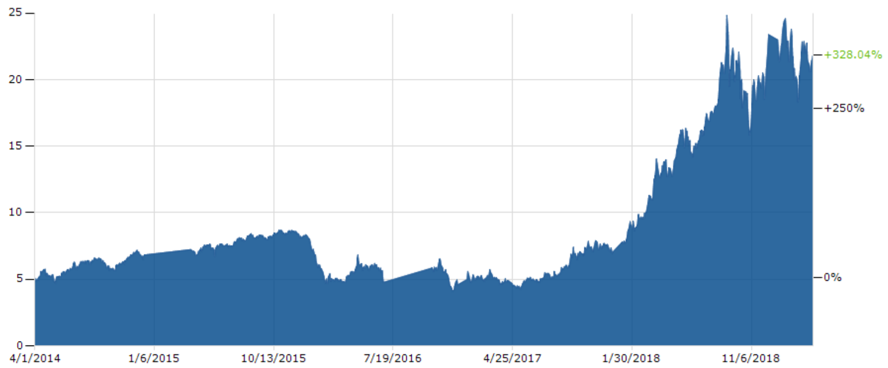

Figure 3 *CO2 allowances price, in Euro/ton*

It must also be noted that, if the Ukrainian transit were to be abandoned and left in disrepair for a number of years in the absence of enough transit fees to cover maintenance, virtually all Russian imports to N-W Europe would be concentrated in one single route. This is a major energy security threat for the EU; for example, one single terrorist bomb or one major accident could blow up both pipes of Nord Stream. Last but not least, the project could help Russia export corruption to Europe, which is something many Western decision makers do not seem to understand[15].

What is more, even if the amendments to the gas directive are passed and become applicable to Nord Stream 2, the implementation of the Third Energy Package with its requirements for non-discriminatory third party access to the pipeline remains doubtful on EU territory. The case of OPAL, a pipeline built on German territory to connect to Nord Stream 1, and on which there have been endless discussions to exempt in full or in part from the Third Energy Package, is notorious[16],[17]. Less known is the case we examine in the report on Romania concerning the implementation of Third Energy Package on the Isaccea-Negru Voda pipeline, the Romanian section of the pipeline that transits Russian gas to Bulgaria. On this pipeline, even though capacity is available after the expiration of some long term contracts in 2016, pressure from Gazprom disguised as technical nitty-gritty, plus the threats to cut supplies, are still delaying the application of EU rules. Decision-makers in Western Europe seem less aware of such issues, which explains why Romania was excluded from the countries covered by the investigation of DG Competition.

In the following chapters, we find strong indications of Russian abusive behavior and strong similarity across countries, many of which are only partly understood in the West. For instance:

1. In Ukraine, Moldova and Georgia, Gazprom sought for more than two decades to gain direct control over the gas pipelines, with various degrees of success. Behind all these, there is a sense of entitlement: the pipelines were built by the Russians in the times of the USSR, and the Ukrainian gas network is the critical route to export to Europe. It should worry us that Nord Stream 2 is no different. In all cases, threats to discontinue supply, massive gas price increases, alongside with discounts for good behavior were used. Sometimes the pressure went to extremes, for example during the winter of 2006, when the two gas pipelines to Georgia were sabotaged and one major electricity transmission line was blown up by Chechen terrorists, if we were to believe the official Russian version. When Georgia appealed to alternative routes for gas through Azerbaijan, Gazprom stopped supplies to

[15] https://www.atlanticcouncil.org/blogs/new-atlanticist/nord-stream-2-is-a-bad-deal-for-europe
[16] https://www.oxfordenergy.org/wpcms/wp-content/uploads/2017/01/The-OPAL-Exemption-Decision-past-present-and-future-NG-117.pdf
[17] https://www.reuters.com/article/us-russia-eu-gazprom-wto/russia-loses-bulk-of-wto-challenge-to-eu-gas-pipeline-rules-idUSKBN1KV1OX

Azerbaijan as well. In 2008, another explosion disrupted oil transportation on the Baku-Tbilisi-Ceyhan pipeline, with Russia being the prime suspect.

The case of Ukraine's gas transmission system is much better known: since 2005, "sticks" such as gas cuts (sometimes justified through the unpaid arrears), reduction of pressure, conditions of advance payments to continue supply and "carrots" such as price discounts in exchange for military and political concessions ("*Kharkiv Accords*") have been alternatively used to convince Ukraine's political leadership to cede control over the gas network, but also to persuade Europe of Ukraine's unreliability as a partner. In fact, the only justification for Nord Stream 2, in our view, is to penalize Ukraine by stripping its budget of transit fees (some 2.5 billion USD, or 10% of the country's budget) for its misbehavior of getting closer to the West, while reinforcing the Western dependence on Russian supplies. In Moldova, Gazprom controls the network through direct ownership (50%+1) gained in the late '90s and supports ever increasing arrears of Transnistria, as a leverage to possibly gain other critical energy assets by executing the debts at an arbitrage in Moscow.

It is critical to observe that both Georgia and Ukraine have managed to enhance energy security by the diversification of gas supplies; in the case of Ukraine, direct involvement of the EU after the 2014 crisis has substantially improved Ukraine's access to alternative supplies of gas on EU rules. Ukraine's negotiation position has improved tremendously after the arbitration in Stockholm – another example of successful application of Western principles of rule of law. Also, it must be noted that poor internal governance of all three countries have allowed oligarchs from Kremlin circles to gain control over major energy assets (electricity, oil, gasoline etc.). Poor governance allowed Russian oligarchs to benefit from preferential contracts, opaque favors and advantages, preferential legislation and regulation, alongside local vested players. Romania, an EU country examined in the report, although much less dependent on Russian supplies, has also allowed Gazprom's interests to prevail through poor internal governance. These range from artificial increase of gas imports through regulation – to the benefit of a local oligarch in the fertilizer business and several other players – to the silent non-application of EU's third party access rules on the transit pipeline Isaccea-Negru Voda.

2. All separatist regions in Moldova, Ukraine and Georgia are in a way or another involved in Russia's energy deals. These may pose direct security threats to the West, while reducing the effectiveness of sanctions targeted at individuals. In Transnistria, Abkhazia and Donbass, "free" Russian energy support the production of cryptocurrencies. In many areas of these separatist regions, the legacy industry dating back to the USSR is virtually bankrupt without "free" energy; cryptocurrency mining is one of the few booming economic activities, despite the recent bust of cryptocurrencies in international markets. In **Transnistria**, mining farms owned by the son of Russia's general prosecutor started to operate recently with cheap electricity produced by the gas-fired power plant Cuciurgan, owned by the Russian Inter RAO, which has a lot of spare capacity (it is currently being used at only about 17% of its nominal capacity). The production of cryptocurrency through this scheme, using gas that is reported as Moldovagaz' unpaid arrears to Gazprom, could accelerate the accumulation of debt, now at over 7.3 billion USD (about the size of Moldova's GDP).

In Georgia, the cryptocurrency is produced with electricity de facto stolen by **Abkhazia** from the Enguri hydro power plant, a large unit supplying 30-35% of Georgia's electricity demand. This happened at least until last December, when the high increase in production risked destabilizing the local electricity generation and was suspended temporarily, until further regulation of the matter. It must be noted that a large increase in electricity demand in Abkhazia caused by a rapid growth of cryptocurrencies could destabilize Georgia's electricity system, increase imports of Russian electricity, push prices up and potentially cause blackouts. If such an event were to happen and Georgia to react, Russia could take control over the Enguri power plant by force.

In **Donbass**, the available coal-fired capacity is ideal for production of cryptocurrencies, which are also used in the separatist regime's foreign trade, bypassing international sanctions. In fact, all separatist regions explored the idea to introduce cryptocurrency as a “national” currency to attract investments and ensure foreign trade despite sanctions. It must also be noted that a former Donetsk People’s Republic ex-officer, Dmytro “Moriachok” Khavchenko, took over Wex (formerly known as BTC-e), a virtual exchange that used to be the largest Russian-speaking crypto marketplace, in late 2018. This is a sign that some people expect this business to grow. US officials found that this exchange was used in money laundering operations amounting to 4 billion USD before 2017; “Moriachok”’s family currently resides in Moscow. Cryptocurrencies per se are not illegal, but they are much less regulated than other payment forms and harder to track than bank transfers, which renders them an ideal payment means for massive disinformation campaigns, trolls, money laundering schemes and the like, with the potential to even manipulate elections in the West[18]. They could also be used by Russian oligarchs to bypass the sanctions introduced by the West to penalize Kremlin.

Also to be noted that the simply existence of the separatist regions, which do not recognize central governments of Moldova, Ukraine and Georgia and the official legislation, crates major obstacles in implementing the Third Energy Package, sabotaging the fulfillment of energy chapter’s commitments of the Association Agreements.

3. If a deal with Russia looks too good to be true, it probably is. This is so not only for the former USSR countries, but for the West as well. We mentioned above the example of the “Brotherhood” pipeline. Ukraine’s “Kharkiv Accords” of 2010, by which the country got yearly gas discounts for the 25-year right of Russia’s Black Sea fleet to station in Sevastopol is another example: the yearly discounts did not in any way stop Gazprom from rising gas prices in 2010-2013, well before the 2014 crisis and under a Kremlin-friendly leadership. Hungary’s Paks2 nuclear project proves today to be a poisoned apple which ties Budapest’s hands in its relations with Russia. Its very costly commitments can be postponed only by recourse to various EU regulations and approvals that delay its implementation. In former USSR countries, Gazprom and other energy giants allowed defaults on payments for years without discontinuing supply or doing what any commercial company would do to recover debts, only to use the arrears as a leverage to gain more control over critical energy assets or increase prices when the countries deviated from Kremlin’s desired course of action. This instrument has been used multiple times in Ukraine, but also in Moldova, Georgia, Belarus or Central Asian states; it had been often deployed in the Baltics prior to the countries’ accession to EU and NATO. The right response to such threats and abuses is the implementation of arm’s length transactions, full commercialization of the energy sector, transparency in negotiations and energy deals, diversification of supplies through interconnectivity and solidarity for energy security with neighboring countries, in brief, exactly what EU stands to offer if its directives and principles are fully implemented. This offer is valid not only for accession countries, but for EU members as well.

[18] http://fortune.com/2018/02/16/russians-trolls-cryptocurrency-mueller/

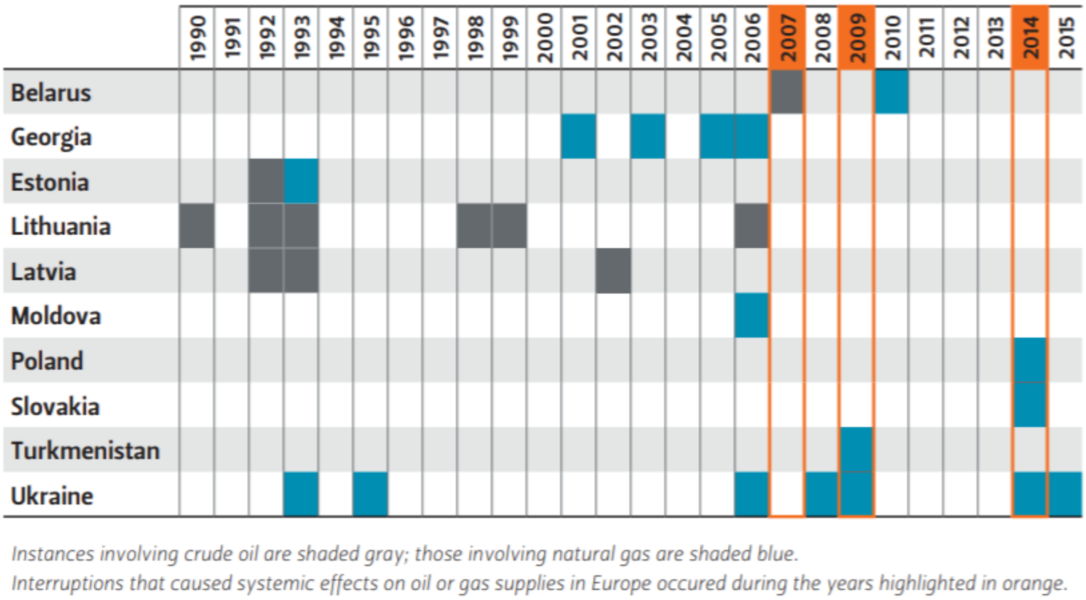

Figure 4. *Known or probable politically driven energy supply or price manipulations by Russia (1990 – 2015)*

Source: Gabriel Collins, Russia's Use of the "Energy Weapon" in Europe
https://www.bakerinstitute.org/media/files/files/ac785a2b/BI-Brief-071817-CES_Russia1.pdf

RECOMMENDATIONS

The EU Commission should continue to push for the full implementation of its energy market principles: internal energy market directives, interconnections, infrastructure and solidarity among member states in the case of an energy security threat. Implementation by all EU members is critical for giving the right signal to accession countries and members of the Energy Community. **Romania** should be subject to infringement for taking steps back with poor legislation and regulation that discourages investments in the Black Sea offshore gas deposits and interconnectors. Nord Stream 2, as well as pipelines already existing on EU territory such as the gas transit via Romania or Germany, must fully implement third party access.

Infrastructure development is essential to diversify supply; given the limited availability of resources, in terms of both money and gas, only projects that diversify both routes and sources should be pursued. This is true not only for EU financing (principle enshrined, for example, in CESEC priorities), but also for financing of individual member states and companies. Where infrastructure (natural monopoly for energy routes) is involved, the implications go beyond pure commercial considerations and contracts between commercial companies. They must be viewed as matters of energy security, high on the political agendas of European capitals and Brussels. Investments in storage and LNG are critical to diversify supply and limit the risks of disruption.

Understanding the strength of Russia's leverage whenever exemptions from EU rules are granted and energy dependence is increased requires first to understand how Russia behaves where it already has monopoly of supplies and where Western rules are not applied: in **Moldova, Georgia** and **Ukraine**. There is no reason to suspect Russia would behave differently inside the EU, if given the opportunity.

EU institutions should strongly support cooperation among former USSR members to solve critical energy security challenges. **Ukraine** benefitted substantially from EU support in finding alternative supplies after the 2014 crisis. **Ukraine** and **Moldova** still have unsolved bilateral disagreements in areas that involve energy security and environment and this discourages cooperation, although their energy systems are closely interlinked. EU, supporting energy security in both countries, could act as a mediator to solve such disputes. A trilateral EU-Ukraine-Moldova format, for example, should be used to reach an agreement on the HPP on the Dniester (important for Ukraine's electricity system, but affecting 80% of the water supply in Moldova and breaching EU directives on environment and water); on using the existing pipelines to allow alternative gas sources for Moldova if the transit via Ukraine is bypassed starting with 2020, and providing access to gas storage in Ukraine in commercial terms; or on joining together the European electricity system ENTSO-E at a realistic date, or other related matters.

Strict competition rules must apply to energy sectors in the EU and countries with association agreements and members of the Energy Community. This includes transparent ownership of energy companies, including transmission operators. Concentration must be avoided as a result of transactions with energy assets.

Energy sectors in EU and Energy Community may be targeted by investors from third party countries. For example, the Dniester HPP, a controversial project that European lenders such as EIB or EBRD refused to finance, might seek Chinese or other investors from outside the EU. Such investors could be less driven by market principles and more by the wish to gain a dominant position in a particular market, and as a result more willing to bypass the rules. Indeed, the recent cautious approach of some EU member states (Germany, France) and the enthusiastic stance of others (Italy) towards China's Belt and Road Initiative indicates that this issue will be the next big debate in Europe. To avoid potential risks of involvement of third country actors in sectors critical to security, such as energy, based on geopolitical rather than purely commercial considerations, one may consider limiting their participation in infrastructure by imposing certain thresholds.

To **enhance energy security in the region**, the EU should also consider extending its solidarity mechanisms to Eastern Partnership countries which have signed association agreements: such initiative would be timely, since there are on-going negotiations to amend the Energy Community Treaty. Also, interconnections between the EU and these countries should also be supported through higher grant participation from European budgets. The current co-financing rules for the European instruments are *de facto* 20% in the Neighborhood Investment Facility, whereas in the EU structural funds are co-financed with up to 50%, regardless of the relative financial capacity of EU vs non-EU members of the Energy Community. Higher EU financial support for such projects would also increase the visibility of the EU and its core principles and values in the region.

Ukraine: the costs and gains of fighting for energy independence

Olena Pavlenko, Roman Nitsovych, Denys Nazarenko, Anastasiia Synytsia, Oleksandr Yaroshchuk

Introduction: "The Empire Strikes Back" (1991 - 2014)

In the history of the energy sector, which for a long time used to get the lion's share of the uneasy relationship between Russia and Ukraine, two main stages can be identified. The first started with Ukraine's independence in 1991 and lasted until the war of 2014. In this interval the transition occurred from the tight economic integration inherited from the USSR to the wild capitalism with Russian oligarchs taking over critical assets and dominating Ukraine's politics via corrupt local allies. The political limbo made the country to drift sluggishly towards integration with the EU, which finally culminated with the Revolution of Dignity: a popular uprising ignited by the refusal by president Yanukovych to sign the Association agreement with the EU. This momentous event marks the start of the second period, post-2014. The rapid change of power brought the country closer to the West and more transparent and fair rules in politics. The backlash was that Russia responded by aggression against a state with weak institutions, leading to occupation of 7% of its territory. Energy was the very cornerstone of relations during both periods.

Assets

The energy system of Ukraine, as the western outpost of the Union's mainland, has been designed significantly to serve Soviet Kremlin's strategic vision of expansion and building its dominance over the West through energy exports and, if necessary, military power. Such preconditions explain why Putin's Kremlin, through its state- and privately-owned companies, has been so interested and successful in taking over Ukrainian energy assets within a decade from the late 90s to early 2010s. It was mostly visible in oil refining, as four of six largest refineries were acquired by 2001. This caused the restructuring of the whole industry, away from investing into domestic oil production and refining, towards dependence upon respective direct or indirect (via Belarus) imports from Russia.[19] Russian players gained control over critical assets often through non-transparent procedures and even by hostile takeovers: for example, the US-based AES Corporation ownership in some electricity distribution companies was allegedly sold under pressure to Babakov's VS Energy[20]. Equally telling is the corporate strategy pursued. Russian investors, in spite of their abundant financial resources, refrained from investing in the modernization or renewal of their Ukraine-based energy capacities.

Refinery	Capacity, m tones	Russian investor	Year of acquisition	Current status
Kremenchug	18,6	"Tatneft"	1994	Taken over by local oligarch Igor Kolomoiskyi in 2007, operational
Odesa	3,6	"Lukoil"	1999	Not operational since 2010
Lisichansk	16	TNK	2000	Not operational since 2012
Kherson	8,7	NK "Alians"	2000	Not operational since 2005

Table 1: *Refineries with Russian owners* **Source:** open sources information

[19] http://enkorr.com.ua/a/publications/Goryuchie_itogi_chem_zapomnilsya_toplivniy_rinok_2018_goda/235149
[20] https://www.aes.com/investors/press-releases/press-release-details/2013/AES-Agrees-to-Sell-Its-Ukraine-Assets/default.aspx, https://www.ft.com/content/050b37ae-0fcc-359b-b3c0-7423388899c0

Owner	Company	Sphere	Market shares
Akhmetov	DTEK Naftogaz	production	7,9%
	DTEK Trading	trade, retail	7%
	DTEK Trading	trade, wholesale	6,7%
Firtash	RGC (with partners)	distribution	61%
	Promenergo	trade, imports	3,9%
	RGC	trade, retail	32%
	Firtash traders	trade, wholesale	2,3%
Novinsky	Smart Energy	gas production	1%
Boyko	(indirectly)	distribution	9%

Table 2: *Russian owners/affiliated persons (gas industry).* **Source:** NEURC, SMIDA companies reports, own calculations

Owner	Market shares
Akhmetov	37%
Grigorischyn/Kolomoyskyi	7%
Grigorischyn	4% (+alleged influence to the TSO)
Liovochkin/Boyko	3%
Babakov	18%
Surkis	5%

Table 3: *Russian owners/affiliated persons (electricity distribution).* **Source:** NEURC, SMIDA companies reports, own calculations

In pursuing its strategic goals to increase Ukraine's energy dependence on Russia, the Russian government relied not only on Russian companies, citizens and capital, but more often found local allies among Ukrainian politicians and businessmen whose drive for personal gain outweighed the national interest. This is why Kremlin supported the Party of Regions (which counts within its ranks energy tycoons such as Akhmetov, Firtash, Boyko and others) and the corrupt President Yanukovych, as the major political forces in Ukraine who opposed rapprochement with the EU, with its implicit commitments to more transparent rules in business and politics[21].

Therefore, the very methods by which Russia does business and Russia's clear strategic goals to acquire critical energy assets (or supporting their acquisition by likeminded proxies in Ukraine) have contributed significantly to weaken the democratic politics, and the principles of rule of law and economic fair competition.

[21] https://www.foreignaffairs.com/articles/ukraine/2019-02-07/putins-game-plan-ukraine; &https://www.businessinsider.com/manafort-russia-backed-politicians-ukraine-opposition-bloc-yanukovych-trump-2017-11

Gas Transmission System

There is, however, one Ukrainian energy asset that is the single most coveted, yet never obtained by Russia: Ukraine's gas transmission system (GTS). GTS is a piece of critical infrastructure designed to deliver enormous amounts of natural gas to the European market. Without it, the vertically integrated Gazprom, a Russian government-owned export monopolist, could never extend its control over the whole value chain of gas exports so vital for sustaining both the distorted Russian economy and the expansionist plans on the EU energy markets. GTS is much more important than the gas system of Belarus, over which Gazprom got full control in 2011[22]. Ukraine's complex gas transmission system generates nearly 3% of the country's GDP in hard currency[23]. Over the years Gazprom tried many times, unsuccessfully, to take over. Eventually Gazprom decided to construct pipelines to bypass it altogether. In the past, Russia made attempts to repeat the "Belarussian scenario" in Ukraine, bargaining guaranteed volumes of transit in excess of 100 bcm per annum and significant price discounts for Ukrainian gas imports in return of ownership or at least direct control of the GTS. At the same time, the Russian side tried to increase Ukraine's costs of operating GTS independently, by portraying it to European customers as an unstable and unreliable partner.

Incident	Year	Alleged reason	Outcome
Gas cut off for several days	2005-2006	Ukraine's new leadership following the "Orange revolution" refused to cooperate; Gas bills arrears; Demonstration of unreliability of Ukraine and its GTS	5 year contract via RosUkrEnergo (Dmytro Firtash)
Several cases of low entry gas pressure	2007-2008		1 year price negotiation; Open collision within Ukraine's political leadership (Cabinet of Tymoshenko refused to perform in line with President Yushchenko's position)
Gas cut off for several days	2009	Gas bills arrears; Demonstration of unreliability of Ukraine and its GTS Preventing Ukraine's ambitions to join NATO and the EU	New agreement signed between Gazprom and Naftogaz (found unfair to the latter in numerous aspects by Stockholm arbitration in 2018[24])
Gas price negotiations ("Kharkiv Accords")	2010	Price drop to ensure budget stability for Ukraine and for military reasons in Russia	Prolonged stay of Russian Black Sea fleet in Sevastopol for 25 years, discount is prolonged by

[22] Ukraine's GTS annual capacity equals 288 bcm on the entry and 151 bcm on exit (in the European direction), while the Gazprom's pipeline in Belarus has 34,96 bcm of annual capacity (2017). http://www.btg.by/press/about-company/2018/07/371/

[23] The most recent estimation of the company's net value by its CEO Mr. Andriy Kobolev equals to USD 14 bn http://naftogaz.com/www/3/nakweb.nsf/0/A0DFE24C8ED6AC24C22583850034772F?OpenDocument&Expand=3.1&

[24] In 2017 Stockholm Arbitration found many provisions of these contracts unfair and rules significant compensation to be paid by Gazprom towards Naftogaz. See: http://naftogaz.com/www/3/nakweben.nsf/0/E62D5C9B21795281C225834B00537D4E?OpenDocument&Expand=2&

			RF government on yearly basis
Gas cut off for several days, cancellation of price drop, claim of advance payment	2014	Ukraine's new leadership following the "Revolution of Dignity" refused to cooperate; Weakening Ukraine's economy under armed aggression and occupation	First trilateral negotiations including the EU; Decision taken to cease direct supplies from Russia as soon as possible (last supplies took place in 2015)
Low entry gas pressure	2018	Taking revenge for losing Stockholm arbitration days before; Demonstration of unreliability of Ukraine and its GTS	Breach rectified following considerable pressure on Russia from the EU

Table 4: *Playing hard ball: Gazprom's "sanctions" for Ukraine's "misbehavior"*

In every such instance, the manipulation of gas supply was doubled by intensive disinformation campaigns targeting Western audiences; these may well be regarded as the first shots in the hybrid war waged subsequently by Russia in many other instances. The Russian government and Gazprom facilitated the creation of a complicated and opaque set of commercial relations, involving monopolist intermediaries authorized to import and trade Russian gas in Ukraine. Between 1998 and 2009, the governments of the two countries allowed client intermediaries, selected non-competitively, to thrive on arbitrary prices, arbitrage, budget subsidies and offsets of commercial losses of the state-owned Naftogaz, plus other intricate barter and tolling schemes.

In perspective, these considerable non-transparent windfall cash-flows created the perfect environment for the oligarch groups, most notable for the business empires of Dmytro Firtash and Yulia Tymoshenko[25] in Ukraine, to gain further influence and benefit from high-level corruption. Before 2014, Russia exerted partial indirect control over the Ukrainian gas market through shadow arrangements and clientelist political elites in Ukraine. After 2014, Kremlin's hopes rest on two methods: to bypass this transit route via alternative pipelines like Nord Stream 2 and Turkish Stream, and to simultaneously continue to destabilize Ukraine's internal politics by boosting the pro-Russian and populist actors - those who promise unrealistically low gas prices in order to win the elections.

"A New Hope" (2014 - 2018)

From shadow deals to the rule of law

As shown above, before 2014, political and economic relations between Ukraine and Russia developed significantly on trust, personal connections of specific individuals and clientelism, more than on commercial, arm's length considerations. Determining and securing the national interest was more a matter of personalized leader choice rather than a rule of conduct prescribed by norms. After 2014, Ukraine paid a high toll for disregarding rule of law as a guiding principle, and the Ukrainian Revolution of Dignity[26] has become both the turning point for the national history and the watershed moment

[25] https://foreignpolicy.com/2014/03/19/married-to-the-ukrainian-mob/

[26] The other name of the popular uprising that took place mainly in November 2013 – February 2014 and resulting in expelling of much of Ukrainian public government, including President V. Yanukovych, PM M. Azarov and numerous ministers and other officials, followed by snap presidential and parliamentary elections. This

for the regional balance of power. Ukraine started the process of dismantling the vassal system in energy and other sectors, making a U-turn away of Moscow and more importantly from the shady way of deciding on important public matters behind closed doors.

Since 2014, the negotiation on gas supplies has taken the current trilateral format with the full participation of the European Commission. With support from its Western allies, Ukraine negotiated several "packages" (separate agreements on Russian gas supply) and later diversified its gas sources through purchases on the common market of the EU[27], to the extent that the Russian factor is not as threatening as before. This stopped the usual practice of using personal ties between political elites to reach an agreement, often trading energy issues for geopolitical concessions. Despite the new approach and the control by third parties, manipulations with gas pressure and the rhetoric of "unauthorized gas withdrawal" are still present as methods of the Russian hostile policy.

The transparency of the negotiation process and clear agreements to supply gas to Ukraine were a positive development. The trilateral format made true of Kremlin's biggest fear: the trust increased between Ukraine and the EU side the country was recognized as rightful partner rather than a mere client of Russia. This principle of solidarity with Ukraine took away the one instrument the Kremlin had always relied on: closing deals obviously detrimental to Ukraine based on its stronger position and non-transparent negotiation process. Even more important was the decision to move the resolution of the conflict over the contracts for gas imports and transit from the realm of bilateral talks behind closed doors - the way they were always signed - to the international arbitration, which in the end ruled them unfair and anti-competitive.[28]

Such changes were contrary to the Russian interests and often lead to desperate acts of blackmail through gas cutoffs. Such episodes occurred in 2009, 2014 and most recently in March 2018, when Gazprom refused to supply gas to Ukraine, as it was decided by Stockholm arbitration; and in spite of the gas being prepaid by Naftogaz. Moreover, the Russian monopolist lowered the pressure of the gas transited to Europe, prompting Ukraine to default on its international commitment to provide a stable transit service. Nevertheless, the citizens put up a show of solidarity (initiative *#Prykruty* (*"turn [the gas] down!"*)) and reduced their domestic consumption; emergency supplies arrived from Poland, and international pressure was put on Russia. The crisis was successfully solved.[29]

By refusing togo back to opaque negotiations, Ukraine's new leadership has opened up a new field of dispute resolution - the legal fora - and this yielded considerable benefits. In 2014 Naftogaz fielded claims against Gazprom to the Stockholm Arbitration Court. The origins of the legal conflict were based on two contracts between Naftogaz and Gazprom concluded in 2009 (on transit[30] and supply[31] until 2019). Signed under political and economic pressure and by people with uncertain political mandate[32],

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moment of state weakness was exploited by Russia when it occupied the Autonomous Republic of Crimea, an integral part of Ukraine.

[27] EU-Ukraine-Russia talks agree on $4.6 billion to secure gas supplies. European Commission. Last modified October 30, 2014. https://ec.europa.eu/energy/en/news/eu-ukrainerussia-talks-agree-46-billion-secure-gas-supplies; EU-Ukraine-Russia talks agree on the terms of a binding protocol to secure gas supplies for the coming winter. European
Commission Statement. Brussels, 25 September 2015. http://europa.eu/rapid/press-release_STATEMENT-15-5724_en.htm

[28]Olearchyk, Roman. Ukraine's Naftogaz claims $2.56bn legal victory over Russia's Gazprom. The Financial Times. Last modified March 1, 2018. https://www.ft.com/content/b933b8bc-1cd3-11e8-aaca-4574d7dabfb6

[29] http://euromaidanpress.com/2018/03/13/russia-has-used-gas-blackmail-against-ukraine-again-and-it-has-failed/#q2

[30] https://www.pravda.com.ua/rus/articles/2009/01/22/4462733/

[31] https://www.pravda.com.ua/articles/2009/01/22/3686613/

[32] These contracts have been entered into rather unexpectedly as a result of then-PM Yulia Tymoshenko's spontaneous visit to Moscow, and once signed, spurred significant political confrontation in Ukraine, as then-PresidentVictor Yushchenko accused her of having violated his direct instruction

they included requirements at odds with the EU market rules. After almost four years of proceedings, the two decisions by Stockholm arbitration led to the obligation of Gazprom to pay USD 2.56 billion to Naftogaz.[33] The court upheld Naftogaz' claim and agreed that Gazprom failed to fulfill its obligations on transit volumes, awarding USD 4.63 billion in damages (ruling from 28th February 2018).The court also decided that Naftogaz should pay Gazprom USD 2 billion for gas arrears (ruling from 22nd December 2017). Giving the magnitude of the claims and counter-claims, it is safe to say that the court has eventually taken a rather balanced decision, which, however, symbolically strengthened Ukraine, whose bargaining position was historically weaker. Such a result would have been unthinkable just a few years before.

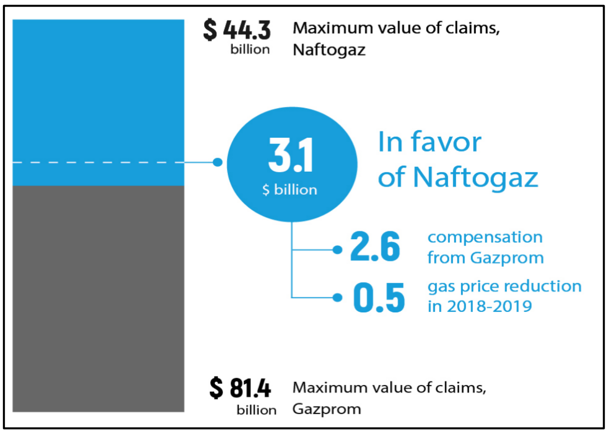

Figure 1. Stockholm arbitration results. **Source:** Naftogaz[34]

In parallel to rejecting Gazprom's 'take-or-pay' clause and revising the gas prices in the Stockholm arbitration, Naftogaz moved forward with other legal claims. On March 1, 2019, the Hague Tribunal found that the Russian Federation is liable for the unlawful seizure of assets worth USD 5 bn from Naftogaz in Crimea, which was considered a violation of the Russia-Ukraine bilateral investment treaty.[35] Apart from energy, in November 2018 Ukraine's largest state-owned bank won an arbitration case for USD 1.3 bn in compensation for loss of business and assets following the annexation of Crimea[36]; more international arbitration and civil suits against Russia are under preparation or in hearing stage.

The corporate reform of the biggest state-owned energy company Naftogaz was found to be the matter of life or death after 2014 by the OECD-funded researchers, as «*uncertainties regarding the future of gas transit routes through Ukraine and the threat posed by Russian-backed gas transit projects intended to reduce its reliance on Ukrainian routes, are risks that must be mitigated to protect*

(https://korrespondent.net/business/1207541-skandalnye-gazovye-kontrakty-yushchenko-obvinil-timoshenko-v-ignorirovanii-prezidentskoj-direktivy). During an interview that DiXi Group had with a top state servant in 2017 he has confirmed this view of those events. See more: http://dixigroup.org/eng/publications/russian-fairy-tales/

[33] http://www.naftogaz.com/www/3/nakweb.nsf/0/7E5364806D6A2069C225835400378242?OpenDocument&year=2018&month=11&nt=%D0%9D%D0%BE%D0%B2%D0%B8%D0%BD%D0%B8&

[34] http://www.naftogaz.com/www/3/nakweben.nsf/0/E62D5C9B21795281C225834B00537D4E?OpenDocument&Expand=2&

[35] http://www.naftogaz.com/www/3/nakweben.nsf/0/90E8ACADAC9BA783C22583B0005C7E88?OpenDocument&year=2019&month=03&nt=News&

[36] https://www.rferl.org/a/russia-rejects-1-3-billion-international-arbitration-ruling-in-ukraine-bank-case/29624188.html

the value of Ukraine's hydrocarbons assets and ensure energy security for Ukraine and the EU. »[37] The new management team of Naftogaz is testimony to the successful strategy to strengthen corporate governance and increase transparency, confirmed by OECD's latest report on State-Owned Enterprise Reform in the Hydrocarbons Sector in Ukraine.[38] Starting with the weakening of the dependency on Russian gas due to the creation of reverse flows from EU countries since late 2015[39], and continuing with the approval of the Natural Gas Market Law and the changes made inside the company (introduction of a supervisory board*, s*pecification of a gas transit operator, etc.), Naftogaz is bringing the energy sector in Ukraine closer to Europe.

Common energy markets

A legacy of the Soviet Union, synchronised with the power systems of Russia and Belarus, the integrated power system of Ukraine is (at least declaratively) scheduled to be synchronised with the European continental grid (ENTSO-E) by 2025. This decision is completely in line with the Energy Strategy 2035 and the joining up of the EU energy market. Important challenges still lay ahead: electricity market implementation, the balancing of the system ("isolated mode" should be passed as a test before the synchronization) and the support for renewables[40].Most probably the synchronization with ENTSO-E would take longer than expected, but it is bound to happen in the future.

Equally important are the reforms of the gas sector, which need to be incentivized and completed[41]. The liberalization of Ukraine's gas market would create better security of supply in the region. Key points on the agenda are the unbundling of Naftogaz and involvement of Western investors in the new TSO (Transmission System Operator) management, the market opening for households and municipal heating companies, establishing a spot market through the creation of a gas hub[42], and improving conditions for investment in the upstream sector. Along with the gas hub, cross-border infrastructure projects between Ukraine and the EU shall be facilitated. Combined with the spirit of solidarity in emergency cases, those can turn Ukraine's gas market into a place for liquid business and transform Ukraine from recipient to net contributor of energy security. In particular, gas transfer points should be shifted from the Western to the Eastern border of Ukraine (located far away from the conflict zone), thus contractually bringing Ukraine on the side of the EU and allowing Ukraine's TSO to take full contractual responsibility for the gas transit and also reducing the associated risks to European companies[43]. One of the significant infrastructure projects is the planned Ukraine-Poland interconnector.[44]

A significant risk for these projections is represented by Gazprom's plan to build by-passing routes - Nord Stream 2 and Turk Stream. The most likely scenario is that one line of Turk Stream would be built until the end 2019 and Nord Stream 2 would be operational in 2020. After that, Ukraine would still

[37] http://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Policy-Insights-Ukraine-SOE-Reform-flyer-EN.pdf
[38] http://www.oecd.org/daf/ca/SOE-Reform-in-the-Hydrocarbons-Sector-in-Ukraine-ENG.pdf
[39] http://utg.ua/still-alive/
[40] https://ua.energy/media-2/news/ukrenergo-presented-discussed-plan-measures-implementation-within-integration-ukrainian-energy-system-entso-e/
[41] For details, see http://dixigroup.org/storage/files/2016-05-10/polbrief_dixi_gas_market_reform.pdf
[42] http://dixigroup.org/storage/files/2016-12-19/web_en_ukrainian_gas_hub_2016_en.pdf
[43] http://www.naftogaz.com/www/3/nakweb.nsf/0/21D6495FCDCE4BDBC2257F2C0037AA5D?OpenDocument&year=2015&month=12&nt=%D0%9D%D0%BE%D0%B2%D0%B8%D0%BD%D0%B8&
[44] http://en.gaz-system.pl/our-investments/integration-with-european-gas-tramsmission-system/gas-interconnection-poland-ukraine/

retain a role in the transit of Russian gas for the EU consumers, though a reduced one.[45] This makes the negotiations between Naftogaz and Gazprom for a post-2019 deal particularly important. There are numerous factors which amplify the uncertainty that such a deal would be signed (and if so, on which terms), but it seems that Ukraine may find itself in slightly better position under a no-deal scenario. Another gas cutoff likely then to happen after January 01, 2020opens for the possibility to shift the contractual points of delivery to the Eastern borders of Ukraine, something Gazprom has historically opposed.

Currently, all negotiations are being conducted in trilateral format in Brussels, which ensures transparency and a level playing field for all stakeholders. However, Gazprom's intention to offer some sort of guarantee that a minimum amount of gas would pass through Ukraine in exchange for a "settlement of dispute" (i.e. a revision of the Stockholm arbitration) should not be considered a reasonable compromise. There are no legal instruments to enforce implementation of such a guarantee against Russia in case of non-compliance. A default is actually inevitable since the real reasons to build bypassing routes are not commercial, but mainly political: to terminate Gazprom's dependence on Ukraine for transit. From Ukraine's point of view, preserving the current transit scheme is preferable not only because it would continue to collect significant transit fees, but also as a substantial incentive to speed up its internal gas market reforms, modernize and optimise the GTS and review its entry-exit tariffs. More importantly, a viable (and preferably critical) gas transit via Ukraine would serve as an important deterrent for Russia's leadership to engage into a full-scale war[46].

The decision to diversify gas supply sources became a necessity for Ukraine as a result of continued provocations and cut offs by the Russian side, though this came at a price. In order to ensure the formal and technical reliability of up to 30 bcm from its western border, Ukraine had to invest considerable political effort, but this investment earned large benefits[47]. The deeper integration to the EU energy market allowed Ukraine to decrease the geostrategic pressure on its energy policies and stimulated liberal reforms. Gazprom's went at great length to block the capacities of interconnectors at the EU-Ukraine border, but this is the best proof of Russia's deliberate intention to undermine this integration with a common energy market that is rule-based and not driven by the interests of individual players[48].

"The Phantom Menace" (2018 - 2019)

Association agreement, reforms and the rule of law

The signs of the higher transparency in decision making and fuller internalization of the rule of law as a guiding principle are manifold in the internal transformations of the Ukrainian energy sector. Among positive developments there is the *Energy strategy until 2035*, adopted by the government in 2017[49]. This high-level policy document sets the vision of the transformation of Ukrainian energy sector and includes the plan of EU-Ukraine energy markets integration. New legislation transposing the Third energy package was enacted in recent years and now is being implemented with determination, along

[45] https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/11/Russian-gas-transit-through-Ukraine-after-2019-Insight-41.pdf
[46] https://www.ukrinform.net/rubric-economy/2621573-nord-stream-2-to-give-putin-additional-opportunities-for-aggression-mep.html
[47] Chłoń, Tomasz. Gas reverse flow from Slovakia to Ukraine: an Obvious Thing to Agree On? Visegrad Insight. Last modified March 17, 2014. http://visegradinsight.eu/reverse-flowgas-from-slovakia-to-ukraine/
[48] Socor, Vladimir. Slovakia: Potential Gateway for Reverse Gas Flows from Europe to Ukraine (Part Two). Eurasia Daily Monitor, Vol. 10 Issue 150. Last modified August 13, 2013. https://jamestown.org/program/slovakia-potential-gateway-for-reverse-gas-flows-from-europe-to-ukraine-part-two/
[49] https://www.kmu.gov.ua/ua/npas/250250456

with numerous by-laws and regulations. A forward-looking practice of three years budget planning is also becoming a reality in Ukraine[50], as well as the new law to ensure transparency in the extractive industries[51] and continued EITI membership and performing to these reporting standards. The implementation of the Association agreement with the EU is on schedule and the efforts made so far start to produce results.

The transformations happen at a much lower pace than they could, however. Almost three years after passing the law on the gas market and despite much effort from all sides, including the Energy Community Secretariat, Ukraine's Naftogaz remains a vertically integrated entity, while also facing open confrontation with the Cabinet of Ministers. The most recent points of conflict were the accusations of its CEO Andriy Kobolev of his remuneration made by the Prime Minister Groysman[52], which may lead to the change of the whole management team that has shown impressive results, at least on the legal front with Gazprom[53].On the other hand, Naftogaz too often plays up their international success against Gazprom while remaining silent on such issues as delays in the unbundling of the company. This was recently noted even by the Energy Community Secretariat's Director Janez Kopac, otherwise a supporter of Naftogaz's leadership[54].

Another instance of poor management hampering the reforms was the attempt by the Deputy Minister of Energy Mykhailo Blyznyuk in October 2018 to take over the control of electricity TSO - "Ukrenergo", by using the results of asset evaluation, deemed unsatisfactory[55]. This evaluation should have been a routine step in the incorporation plan, on the course of further unbundling, but turned into a hostile action condemned by numerous international partners and donors. It has delayed the reorganization of TSO and subsequent certification under Directive 2009/72/EU, but also led to the unexpected decision for "Ukrenergo" to be moved from the Ministry of Energy to the Ministry of Finance before the corporatization was complete[56]. Yet another example is the vast local gas distribution networks in Ukraine that remain under the control of Dmytro Firtash, whose company RosUkrEnergo has long been an intermediary between Ukraine's Naftogaz and Russia's Gazprom: it leads to a slow pace of the market reforms[57], as the companies sabotage the liberalization process on numerous levels[58],[59].

Tellingly, the largest high profile abuse case in the recent years is only indirectly connected with the Russians. After considerable amount of coal mines in the East of Ukraine were lost due to occupation, in 2016 the national energy regulator introduced the famous formula "Rotterdam+" for setting the electricity tariff for business consumers. The formula accounts for the fuel portion at the level of imported resource purchased on global markets and delivered from the Netherlands' ports. However, there is ample evidence[60] that DTEK holding, de facto monopolist in coal production and the largest

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[50] https://www.epravda.com.ua/news/2018/12/6/643352/
[51] https://zakon.rada.gov.ua/laws/show/2545-viii
[52] https://economics.unian.info/10473261-groysman-kobolyev-row-playing-in-kremlin-s-hands.html
[53] https://concorde.ua/rs/daily/item_74339/
[54] https://en.interfax.com.ua/news/economic/550514.html
[55] https://ua.energy/main-events/official-position-of-npc-ukrenergo-regarding-the-statement-of-the-ministry-of-energy-and-coal-industry-of-ukraine/
[56] https://www.kyivpost.com/ukraine-politics/ukraines-finance-ministry-gains-control-of-energy-operator-ukrenergo.html
[57] The law on liberalized natural gas market was passed in 2015, the law on electricity market - in 2017, and yet both markets are far from full-fledged competition or even clear and functional decentralized architecture, while the current market players remain functionally bundled.
[58] https://www.atlanticcouncil.org/blogs/ukrainealert/good-to-be-king-ukraine-s-fugitive-oligarch-blocks-reforms-and-benefits-from-international-handouts-while-under-house-arrest
[59]https://lb.ua/economics/2018/10/26/410859_kobolev_oblgazi_zadolzhali.html
https://gordonua.com/ukr/news/politics/-koboljev-oblgazi-ne-tilki-reguljarno-kradut-gaz-derzhavnoji-kompaniji-ale-i-shantazhujut-mistsevi-gromadi-497252.html
[60] http://neweasterneurope.eu/2018/04/09/rotterdam-plus-investigation-gone/

thermal electricity producer, continues to buy the coal largely produced in the mines "nationalized" by the separatists and sold as Russian coal, which artificially inflates its costs compared to the level recognized in the regulated end-user price[61],[62]. As a result, DTEK's EBITDA rose dramatically from UAH 7.5 bn in 2015 to UAH 17.8 bn in 2016, UAH 23 bn in 2017 and UAH 12.6 bn for 6 months 2018[63]. The second largest TPPs - state-owned "Tsentrenergo", which is believed to be within unofficial control of the President's Poroshenko business partner Ihor Kononeko, benefited from a similar increase in income[64].

It is therefore obvious that even with rather low external control of the Russian state or capital over Ukraine's current energy sector, reforms must be significantly accelerated, especially as far as anticorruption is concerned, in order to tackle the legacy of "wild capitalism" model dominated by local oligarchs.

Fruits of war

Russia's intervention[65] and forced annexation of Ukrainian territories in Crimea and Donbas region dealt a severe blow to the Ukrainian economy. In just two years the country's GDP shrinked by half: from USD 183.1 bn in 2013 to USD 91 bn in 2015[66]. Different appraisals of related losses range from USD 98 bn[67] to over USD 300 bn[68]. The Russian aggression in the east of Ukraine has affected the energy infrastructure in particular. Since the conflict began, the Ukrainian government declared a state of emergency in the energy sector twice, in 2014 and 2018, due to the lack of anthracite coal, which is utilized by Ukrainian TPPs for electricity generation and used to be almost exclusively extracted in the Donbas area[69].

While the electricity supply has improved significantly, the security situation in the southern maritime regions raises the most serious concerns. On November 25, 2018, the Russian Federation seized Ukrainian naval ships in the Kerch Strait and de facto expanded the area of the military conflict from the Donbas region to the Azov Sea.[70] In fact, Russia had started to destabilize the situation in the Sea of Azov earlier, since April 2018, when its customs officers intensified inspections of ships going in and out of the Ukrainian ports through the Kerch Strait. Such actions have provoked jams and delays on the Strait, resulting in lost income from shipping operations.[71] According to the Ukrainian Sea Ports Authority (USPA), the export of iron ores through the ports of Berdyansk and Mariupol dropped by 43.6% and 6.7% respectively in 2018compared to 2017. Furthermore, steel products is one of the main export categories in Ukraine and the port for Mariupol provided about a third of the Ukrainian capacity of ferrous metals in 2018.Moving this cargo to other ports creates additional pressure on the railway infrastructure. Total exports from the port of Berdyansk decreased by 17.6%, and from the port of Mariupol by 9.7%.Clearly the conflict in the Azov Sea undermines the economic security of Ukraine.[72] (Poland finds itself in a similar situation as its territorial waters border on the Kaliningrad region. Gdansk bay is closed by the Vistula Spit, which stops vessels from entering Poland's ports freely; they

[61] http://dixigroup.org/eng/comments/import-vugillya-z-rosii-ne-pripinyavsya/
[62] http://realgazeta.com.ua/ugol-iz-rf-kontrabanda/
[63] https://dtek.com/ua/investors_and_partners/reports/
[64] https://www.epravda.com.ua/news/2018/07/13/638694/
[65] https://www.martenscentre.eu/publications/caught-act-proof-russian-military-intervention-ukraine
[66] https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2017&locations=UA-RU&start=1987&view=chart
[67] http://www.atlanticcouncil.org/images/publications/Cost_of_Kremlin_Aggression_web.pdf
[68] http://visionofhumanity.org/app/uploads/2017/06/GPI-2017-Report-1.pdf
[69] https://www.bbc.com/ukrainian/features-38992213
[70] Andreas Umland. Ukraine's Black Sea coast: the next geopolitical flashpoint?
[71] https://www.bbc.com/ukrainian/features-45551495
[72] The data is taken from the website of the Ukrainian Sea Ports Authority: http://uspa.gov.ua/pokazniki-roboti

have to cross the territorial waters of Russia. Poland has started the building of a canal through the spit, even without full compliance with EU legislation and environmental standards, in order to protect itself from the similar conflicts with the Russian Federation, as it has happened to Ukraine[73].)

The direct material loss from conflict is massive, though gradual steps are taken to mitigate them[74]; however the indirect impact on the democratization process, implementation of the rule of law and fundamental reforms in Ukraine may be even more important.

Lack of governmental control in occupied Donbass and the limitless authority of the local warlords render the region an enticing environment for various illegal operations. The most notorious such business is the coal smuggling: as Ukraine lost nearly all its anthracite mines but still needs large amounts of this energy-rich coal for power generation, the legal limbo made trade between Ukrainian TPPs and terrorists-controlled mining enterprises a highly profitable business[75]. Illegal trade on the frontline, especially large-scale smuggling of coal, generates concerns and suspicions of high-scale corruption in Ukraine's defence forces, security service and military prosecution services. Given the tragic loss of lives on both sides, the allegations of involvement by high ranking politicians and officers in corrupted schemes make the subject very sensitive with the Ukrainian public opinion. In turn, this erodes the public trust in the supreme command and political leadership of the country, in times when this is needed most to withstand external threats and aggression.

Another business allegedly blooming in the vacuum is the mining and trade of cryptocurrency. Since December 2015 and May-July 2017, respectively, Ukraine ceased power supplies to the occupied territories of Crimea and Donbas region. In Crimea electricity demand still considerably exceeds own production plus imports from Russia; the Russian government imposes strict controls. By contrast, in Eastern Ukraine significant thermal power generation capacity[76], abundant coal supply, nearly no industrial activity and weak control by separatist warlords and Russian forces render the region an ideal place for dubious crypto operations, from mining to anonymised exchange and trade. Local financial institutions and all business altogether are sanctioned and banned from global operations, including SWIFT. In consequence cryptocurrency represents one of very few means for sustaining foreign trade, much of which might constitute coal exports, including to the EU[77],[78]. In fact, using cryptocurrency is even recommended by the self-proclaimed authorities of the fake republics, such as the so-called "minister of connectivity" of the DPR Victor Yatsenko[79], while blockchain is planned to be used by the so-called "Post Office of Donbass"[80].

Interestingly, although the Ukrainian border defence regularly reports attempts to smuggle "mining" equipment into separatist-controlled territory, real mining "farms" financing the separatists propaganda websites were found within the controlled territory of Ukraine too, such as in Cherkasy and even Kyiv[81].It is hard to assess the scale of this dubious business, but the fact that one the DPR ex-officers Dmyto "Moriachok" Khavchenko has taken over Wex (formerly known as BTC-e), a virtual exchange that used to be the largest Russian-speaking crypto marketplace, in late 2018, signalst hat this business is expected to grow[82]. According to estimates of the US law enforcement officials, this

[73] https://www.eurointegration.com.ua/news/2019/02/20/7093082/
[74] https://www.osw.waw.pl/en/publikacje/osw-commentary/2018-06-11/justice-and-compensation-ukraine-takes-russia-to-0
[75] https://nako.org.ua/wp-content/uploads/2017/11/Crossing-the-line.-How-the-illegal-trade-with-occupied-Donbas-undermines....pdf
[76] Installed generating capacity of Zuiivska and Starobeshevska TPPs amounts to 3280 MW.
[77] https://podcasts.ceu.edu/content/funding-russian-separatists-ukraine-smuggling-coal-eu
[78] https://jamestown.org/program/coal-smuggled-ukraines-occupied-donbas-ends-poland/
[79] http://dnr-live.ru/kak-kriptovolyuta-mozhet-pomoch-ekonomike-dnr-kommentariy-ministra-svyazi/
[80] https://www.ostro.org/donetsk/society/news/539569/
[81] https://www.obozrevatel.com/crime/v-ukraine-razoblachili-majnerov-kriptovalyut-sponsirovavshih-ldnr.htm
[82] https://news.bitcoin.com/report-troubled-crypto-exchange-wex-finds-new-owner/

exchange was used for conducting anonymous operations for USD 4 bn before 2017[83] alone; the family of "Moriachok" currently resides in Moscow.

The broader picture: Russia's behavior in the region from a Ukrainian angle

Russian energy diplomacy: on the edge of the lobbying and manipulation

In February 2019, one of the closest Putin's allies, Vladislav Surkov, wrote a highly controversial article claiming to summarize the ideology of the current Russian political leadership (which in the article is philosophically linked to the "essence of the Russian people"). Surkov admits that the Russian government "does far more than meddling in foreign elections but meddles in people's minds"[84]. Different tools of Russia's influence, whether lobbying, sponsoring radical groups in the Western democracies or sending abroad missions of spies, seem aimed to sow uncertainty and confusion, break social cohesion and polarize existing cleavages.

Russian political lobbying tends to rely on the individual ties between important decision makers, rather than on policy and cooperation between political parties or other collegial institutions and follow mostly the top-down approach. The examples of Miloš Zeman, Silvio Berlusconi and Gerhard Schroeder show that plenty of leaders exist who are more than happy to work in Russia's interests, some of them sincerely[85] and the energy sector is a prime target. For example, in Austria the oil&gas giant OMV lobbies the government for the expansion of the Central European Gas Hub (with a joint stake with Gazprom); in Germany and France energy trade associations, as *Zukunft Erdgas e.v* and the *Association française indépendente d'électricité et du gaz*, include many Russian member organisations[86]. Captatio benevolentie in institutions with intellectual prestige is also a goal of the Russian lobbying activity. For instance, one of the UK universities was blamed for giving a platform to a Nord Stream 2 lobbyist: it appointed Friedbert Pflüger, a person with no scientific background, but with political connections, for the position of the affiliated think tank director, and published a strategy paper on Nord Stream 2, sponsored by five energy companies who invested in the project[87].

Energy diplomacy is where the strategic confrontation takes place between Ukraine and Russia. The Russian Federation, being a successor state of the Soviet Union, has an extended network of diplomatic representations and contacts, as well as informal "associated persons" who serve the Russian interests. But Russia does not follow international norms, having its own style. Only in recent time we had the notorious cases related to Russian spy activity, like poisoning in Salisbury[88] and the Russian spies arrested in Sweden[89] and the Netherlands[90]. It is hard to say whether so many recent incidents connected to the secret services of the Russian Federation on mission are the result of intensified activity, or the Western countries began to disclose such cases more often --but the rise of the direct confrontation is undeniable.

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[83] https://www.justice.gov/usao-ndca/pr/russian-national-and-bitcoin-exchange-charged-21-count-indictment-operating-alleged

[84] https://www.bloomberg.com/opinion/articles/2019-02-12/russia-has-its-own-deep-state-it-s-called-deep-people

[85] https://www.atlanticcouncil.org/publications/reports/the-kremlins-trojan-horses-3-0

[86] https://transparency.eu/russialobbying/

[87] https://www.theguardian.com/education/2018/jul/26/uk-university-accused-platform-nord-stream-2-lobbyist-kings-college-london

[88] https://www.theguardian.com/world/2018/sep/23/russian-passport-leak-after-salisbury-may-reveal-spy-methods

[89] https://euobserver.com/tickers/144284

[90] https://www.theguardian.com/world/2018/oct/04/how-russian-spies-bungled-cyber-attack-on-weapons-watchdog

Kremlin's propaganda in energy policy pursues two major goals. First, it attempts to promote Nord Stream 2, and to a lesser extent Turkish Stream, inside the EU[91]. For this, it uses different disinformation strategies. One of the most common is to underline the "positive aspects" of Nord Stream 2 and revenues in contrast to the Ukrainian gas transmission system. The latter is usually portrayed as inefficient, unreliable, outdated, or, as often said by Russian media, a heap of "scrap metal"[92]. Second, Kremlin aims to undermine Ukraine's efforts in building an independent, reliable energy market. It always criticizes the reverse gas purchases and gas reserves in Ukrainian gas storages by repeating every year, usually from October to April, that Ukraine soon would "be frozen to death"[93],[94]. It also adds that the safety on Ukrainian nuclear plants is deteriorating, and that the decision to substitute Russian nuclear fuel with the fuel provided by Westinghouse is unreasonable.

The Nord Stream 2 narrative on Russian media is illustrative for this PR effort. It has a single purpose: to convince Europe that the project is necessary, reliable, and makes economic sense. The two key messages to be shared further are: a) it will help Europe to get rid of unreliable transit countries[95], primarily Ukraine, thus becoming more independent, and b) it will reduce the price of gas transit[96].Moreover, Russian media explain the American interest in stopping Nord Stream 2 with its plans to export LNG to Europe - which, however, have been marginal as compared to Russian supplies.

Pipeline politics

Divide and rule have long been Russian foreign policy strategy, and not only in relation to Ukraine. Kremlin's so-called pipeline politics of developing gas routes of excessive and redundant capacity not only aims to offset and devalue Ukraine's gas transmission system, but also to split the Western leaders apart. A classic example of this was the European Commission's approval of Germany's regulator decision to deviate from general approach of capacity allocation for Gazprom to increase utilization of the OPAL pipeline in 2016[97]. Not only does this episode of a larger initiative of shipping more gas through new northern paths threaten to diminish Ukraine's transit revenues during the hardship of Russia's armed aggression and economic blockade; it could also compromise the security of gas supplies to Central and Eastern Europe, whereas Slovakia and Poland repeatedly suffered from artificial gas shortages and arbitrary suspension of supplies from Gazprom[98]. Gazprom's misbehavior and violations on the European energy markets were proved by the EU Commission's antitrust investigation in 2018[99]. All in all Russia's continued and selective deployment of political and commercial tools in specific EU member states, namely Germany, is a direct blow to European Union's external energy policy and its political solidarity.

The most outstanding example of Russian pipeline politics is the case on the Nord Stream 2 -Turkish Stream projects. Energy mathematics is simple: two strings of TurkStream and Nord stream 2 (with a planned capacity of 31.5 and 55 bcm respectively) together will give an additional 86.5 bcm of gas transit capacity. Meanwhile, Ukraine's gas pipelines delivered 87.8 bcm to the EU in 2018[100], which is

[91] https://www.stopfake.org/en/moscow-leverages-qatar-crisis-disinfo-to-bolster-nord-stream-2/
[92] https://www.stopfake.org/en/fake-nord-stream-2-will-make-ukraine-s-gas-transit-system-obsolete/
[93] https://rusvesna.su/news/1515166459
[94] http://www.ng.ru/economics/2014-09-16/100_obzor160914.html
[95] https://www.gazeta.ru/business/2015/01/22/6383865.shtml
[96] https://rg.ru/2016/06/16/miller-nazval-pliusy-severnogo-potoka-2-pered-ukrainskim-tranzitom.html
[97] https://www.osw.waw.pl/en/publikacje/osw-commentary/2016-11-09/european-commission-enables-increased-use-opal-pipeline
[98] https://energypost.eu/case-nord-stream-2/
[99] http://ec.europa.eu/competition/antitrust/cases/dec_docs/39816/39816_10148_3.pdf
[100] http://utg.ua/utg/media/news/2019/01/gts-results-for-2018.html?fbclid=IwAR3C7hnx1tIIN2f_kyx6aY6hvv4Rr7a2hdTLQhb8N1Ng-tLT_WfTEYCyisY

only 60,2%[101] of the Ukrainian GTS maximum capacity (145,8 bcm/year). In order to push the case for projects with questionable economic sense, Kremlin not only gains support among Gazprom's key partners, but also mobilizes political elites across Europe, using disunity on specific issues of gas transportation as a tool.

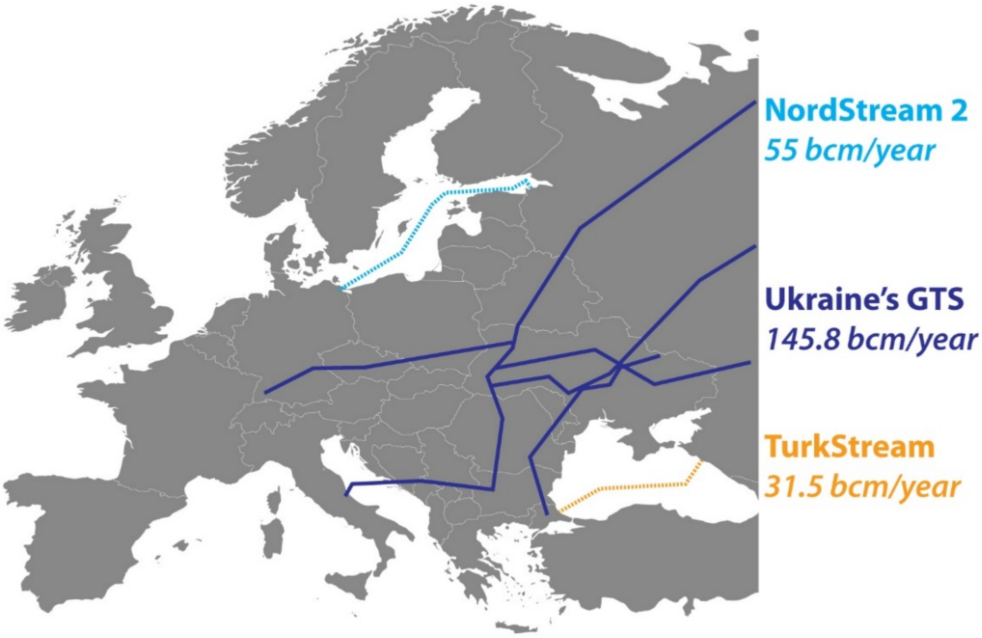

Figure 2. *Comparison of current operational capacity of Ukraine's GTS and proposed bypassing projects.*

Sources: UTG, Gazprom's project web-sites

Kremlin's pipeline politics poses specific risks not just because of its aim - to deepen EU's dependence on Russian gas supplies - but more disturbingly because of its tactics. Just like in Ukraine before 2014, the idea is to legitimize its interests through finding or creating allies and agents within the official structures of the target states, who then could openly communicate and advance Russia's agenda. The examples of Silvio Berlusconi and Gerhard Schroeder prove that even top European officials may be recruited by using the virtually unlimited resources of the authoritarian Russian state[102]. Compared to Ukraine's, the democratic tradition of the Western European states is much stronger, and their political institutions are more resilient. However, this does not mean the toxic influence of Russian pipeline politics would not corrode it, most notable through impairing mutual trust of the European nations, especially against a background of rising right-wing populism and the ongoing migration crisis.

[101] http://utg.ua/utg/gts/description/

[102] In particular, see: Polyakova, Alina; Laruelle, Marlene; Meister, Stefan; and Barnett, Neil. The Kremlin's Trojan Horses: Russian Influence in France, Germany, and the United Kingdom. Atlantic Council Dinu Patriciu Eurasia Center. November 2016. http://www.atlanticcouncil.org/images/publications/The_Kremlins_Trojan_Horses_web_0228_third_edition.pdf ; Polyakova, Alina et al. The Kremlin's Trojan Horses 2.0: Russian Influence in Greece, Italy, and Spain. Atlantic Council Dinu Patriciu Eurasia Center. November 2017. http://www.atlanticcouncil.org/images/The_Kremlins_Trojan_Horses_2_web_1121.pdf

Russia, gas and elections in Ukraine

Before 2004, when gas prices for households were not a big part of a family budget, energy was not regarded as priority in election campaigns. Like in Belarus, rather close affiliation with Russia promised and delivered ridiculously cheap gas, which undermined any move to improve energy efficiency. After the Orange Revolution of 2004 however, when prices for Russian gas became the tool for pressure on Ukraine's new President and Government, energy became more important in political parties' election campaigns. In the 2006 election campaign, the Party of Regions used Ukraine-Russia gas crisis as a pretext to manipulate people's fears that "high prices on Russian gas will kill Ukrainian industry". This partially explains the higher support of pro-Russian parties in industrial regions, where factory workers were afraid to lose their jobs in case of "killing the industry". Such threats served to keep control over most of the industrial regions of Ukraine for a long period of time and were amplified after 2009 gas crisis and the Tymoshenko-Putin gas deal.

The revision of prices as result of "successful negotiations with Russia" became a key campaign message to voters during Victor Yanukovych's presidency[103]. It is hard to say if such a price arrangement was a conspiracy between the Ukrainian and Russian Presidents' team to increase Russian influence in political and economic sphere, or the Ukrainian Government really believed that lower prices would make the voters tolerate widespread corruption and prevail over security and geopolitical concerns. Anyway, lower gas prices were traded in 2010 for an agreement on Russian Black Sea Fleet; and again in 2013 for turning down the Association Agreement with the EU. For the country's leadership it was a winning message to its supporters, but for the citizens it became a clear signal which sparked the protests.

The exploitation of the "gas price" issue in the 2019 elections differs from what was done in 2009-2012. Before, when the gas for households was subsidized by state spending on Naftogaz deficit, the main audience for political declarations to decrease gas prices was the big industry (which wanted to keep them as low as possible) and residents of industrial regions. The demand of the companies to keep good relations with Russia in order to secure low prices on gas and better compete on international markets is very much like the messages which are circulating now in Germany[104], in the context of building Nord Stream 2 and strengthening energy relations with Russia. In Ukraine, pursuing these priorities resulted in increasing numbers of pro-Russian politicians in the Parliament and Government bodies.

In 2015-2018, after the Revolution of Dignity, when the gas market reform started and the system of heavily subsidized prices for households was discontinued, Ukrainian citizens were those who suffered the most: prices on gas increased several times. Despite the fact that this action helped to decrease the level of corruption and forced well off consumers to pay the full price for gas, a lot of households – up to 4 million – still remained in need of support from the state to pay their gas bills. These are the most vulnerable groups and thus target for populists, who made the issue of gas prices the tune of their campaigns in presidential and parliamentary races.

For example, Yuliia Tymoshenko (*Batkivshchyna party*) said she would halve the price. Her main argument is that Ukraine is producing its own gas and it costs less than on international markets, although she is silent on how to attract investments that state-owned company Ukrgazvydobyvannia needs to increase production. Her party did not vote for the legislation bringing more transparency and accountability to extractive sector. Presidential candidates who pretend to be more liberal still

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[103] https://www.unian.ua/politics/299667-yanukovich-yakscho-stane-prezidentom-rozirve-gazovi-ugodi-z-rosieyu.html

[104] https://www.dw.com/en/german-industry-defends-nord-stream-2-gas-pipeline/a-45611911

complain about the gas prices for households, but rather as a result of flawed housing subsidies policy or non-transparent use of funds from gas development business. For example, Anatoliy Hrytsenko criticizes the subsidy mechanism, as it doesn't incentivize consumers to economize. By contrast, the top contender Volodymyr Zelenskyi does not comment much on gas prices. Other candidates are blaming in their statements the high gas prices and their causes, but do not make promises to decrease tariffs for consumers.

The President Poroshenko, who also runs election campaign, explains that raising the gas price is a necessary step as result of commitments to international financial institutions and the high debt which Ukraine owes to IFIs. His focus is on economic policies to fight poverty rather than on lowering the gas prices.

Yurii Boyko and Yevheniy Murayev are the opposition candidates leaning towards Russia the most. In addition to criticizing high gas prices for households, they basically propose "gas in exchange for security and European integration". In particular they demand to improve relations with Russia and via such friendship negotiate the gas supply and transit through Ukraine. The most recent such case is that of Boyko and Victor Medvedchuk, Putin's close allies in Ukraine, who visited Moscow in March 2019to negotiate possible gas supplies with the Russian PM Medvedev. This is coupled with the clear message to put a quick end to war through implicit or explicit resolution to make peace with Russia[105]. Although their long and largely undisguised affiliation with Kremlin makes this electoral promise trustworthy, under current circumstances it could only be performed by bringing Ukraine's foreign and internal policy back to Russia's fold and giving up on European and Euro-Atlantic integration plans.

RECOMMENDATIONS

- **Learn from others' mistakes.** The EU and Ukraine differ significantly in their history and position vis a vis Russia's; nevertheless the Russian government tends to apply with the EU means of pressure and tools of influence tested before in Ukraine, targeting the whole society of its political circles. Therefore, understanding the Russian traps for Ukraine in the past provides important insights into current threats for the united Europe.
- **Read between the lines.** In energy projects sponsored by Russia, geopolitical calculations always take precedence over mere economic interests. Overcentralized government and huge resources available make this strategy sustainable. Pure economic analysis of any proposed energy project is insufficient, when deep political and security concerns are at stake.
- **Prioritize security**. Since the end of the Cold War, security had dropped in importance on the EU's agenda, but Russia's aggressive war against Georgia and Ukraine changed this lately. As energy supplies are the major channel of cooperation with the difficult Russian partner, every business agreement taken by the EU should first undergo strict security analysis. Those of high magnitude, such as Nord Stream 2, should not remain the sole responsibility of individual states, but be seen as a matter of security to the whole Union.
- **Trust rules, not people**. It is much harder to prevail over a whole nation or state administrative establishment than to corrupt its leader. Therefore, identifying populist, greedy or pliant allies among the political elites of other countries and making them to cooperate has long been a routine of both Russian secret services and government. Strict enforcement of common rules, banning exceptions and imposing transparent decision making should remain the cornerstone of the EU policy and politics to prevent corruption and rent seeking in the energy sector.

[105] https://112.international/politics/we-have-clear-solid-plan-to-lead-ukraine-out-of-crisis-boiko-36507.html

- **The law should reign supreme**. Ukraine's experience shows clearly that the most effective way to prevent mistakes and losses from the energy cooperation with Russia is to enforce the European principles of competitiveness, diversification, common policies, as well as publicity and transparency. Some of these principles may be ignored in carrying out individual gas transportation projects on an exceptional basis, but it is precisely such "exceptions" from European rules that are likely to become dangerous traps that will later make it a lot harder to maintain a high level of energy security.
- **Raise the stakes...** Whenever the price for doing so is considered acceptable, Russia tends to disregard its obligations, putting might and power over rule of law. Its promises, assurances and even the clearly written obligations should therefore always be backed by appropriate options of enforcement. For example, the promise to maintain a part of the existing gas transit through Ukraine once Nord Stream 2 pipeline is operational should be given little credit unless it becomes enforceable.
- **… or reduce cooperation**. Russia is also capable of ignoring decisions of arbitration, as it was proven in the case of Naftogaz. Which means that it is better not to have large scale cooperation at all, as none of Russia's obligations may ever be completely secured and enforceable. A clear practical application of this recommendation will be to seek to change contractual delivery points of gas for the EU consumers to the Eastern borders of Ukraine. This would also accelerate the internal gas market reforms in Ukraine and bring closer the full conform to the Third energy package.
- **Support the democratic pro-European political spectrum...** Russia routinely offers support to internal forces aimed at blocking democratic developments and undermining market reforms. Therefore it is urgent to maintain constant pressure from the international partners for the positive trends in these directions . The recent achievements by the Ukrainian government in implementing the Association agreement with the EU were to large extent due to the IMF and European Commission's requirements for continued cooperation. These efforts should be assisted and reinforced, especially if the government begins to lean towards populism at a certain point.
- **… and push for faster reforms**. Nothing bolsters energy security in Ukraine more than the access to EU's gas market. Deeper integration of both the electricity and gas networks will further decrease the likelihood of pro-Russian policies in the energy sector. For this, however, more has to be done on both EU and Ukraine sides. At times when the reforms may be threatened by domestic politics, as it happened with the open confrontation between PM Groysman and the management of Naftogaz, a strong and constructive voice by the EU Commission and the Delegation to Ukraine can help to settle things down. Macroeconomic assistance should be made more strongly conditional on furthering the anti-corruption reforms.
- **Facilitate local cooperation**. Creating alliances and finding rally points may be a good tactic in countering Russia's influence. Collaboration between the EU, Moldova and Ukraine in the energy sector should be enhanced, whether within the framework of Energy Community, CESEC or at trilateral level. Contingency measures should be planned for in advance, in case Gazprom discontinues the gas inflow once the contracts with Ukraine and Moldova expire in 2020.They would also accelerate the ENTSOE integration of the two countries and help finding a mutually acceptable solution to the problem of the Dniester Pumped Storage Power Station. Any plans of expanding the gas interconnectivity between Ukraine on one side and Poland, Slovakia and Hungary on the other side, should also remain high on agenda of the cross-border gas infrastructure development.

Moldova's lasting energy dependency on Russia: the 'new' and 'old' traps

Denis Cenușa

General overview

The Moldovan energy system maintains a high degree of dependency on Russia. Over the last two years from the previous 2017 assessment[106], some positive trends have been noticed in the area of energy policy. But structural shortcomings of technical, financial and strategic character are yet to be overcome. The existing inconsistencies threaten the country's fragile energy security, even without additional interference from Moscow. Moldova is unable to pull itself out of old traps and avoid falling into new ones. The risks created by its current position seem to be underestimated.

On the bright side, the state authorities stepped up and improved, to some degree, the capacity of the energy regulator (Energy Regulatory Agency), through the adoption of Energy Law in September 2017.[107] This enhances Agency's financial autonomy from the parliament and introduces a more transparent selection mechanism of its leadership. It also constitutes the final transposition of the Third Energy Package[108]. Moreover, though at a very initial stage, some progress was made in the 'unbundling' process through the drafting of the Guidelines suggesting few ways for legal and functional separation in the gas sector[109], and the ownership unbundling of Moldelectrica.[110]

There are however imperfections in the functioning of the new mechanism for yearly electricity purchasing, operational since 2017, which struggles to ensure fully transparent, non-discriminatory and predictable conditions for electricity supply. The criteria of procurement indeed cut off the dubious intermediary companies from the electricity transactions and added supervisory filters by involving the European observing parties in monitoring the purchase. However, the mechanism continues to fail in preventing the anti-competitive practices of the Ministry of Economy and Infrastructure that favor the state-owned operators.[111] The construction of the gas interconnector to the West is another area where progress is slow. This undermines the goal to diversify supply since the interconnector is the only alternative to mitigate the risk of a 'gas shutdown' that is imminent if Russia indeed abandons transit via Ukrainian pipelines network, as the rumor goes, from Jan 2020. The highest systemic risks concerns the unsolved and steadily growing gas debt to Gazprom, magnified recently by the growing production of crypto currency in the Transnistrian region.

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[106] Expert-Forum, Energy, Russian Influence, and Democratic Backsliding in Central and Eastern Europe, Chapter on Moldova, May 2017, https://www.expert-grup.org/media/k2/attachments/NED_Final_report.pdf

[107] The other two key laws are the Gas Law (http://lex.justice.md/md/%20365664/) and the Electricity Law (http://lex.justice.md/md/365659%20/), both passed by the Parliament in May 2015.

[108] The Third Energy Package includes the following legislation: 1) Directive 2009/72/EC concerning common rules for the internal market in electricity; 2) Directive 2009/73/EC concerning common rules for the internal market in natural gas; 3) Regulation 715/2009 on conditions for access to the natural gas transmission networks; 4) Regulation 714/2009 on conditions for access to the network for cross-border exchanges in electricity; 5) Regulation 713/2009 establishing an Agency for the Cooperation of Energy Regulators.

[109] EBRD and Schönherr, Guidelines for Legal and Functional Unbundling in the Natural Gas Sector, http://anre.md/ro/content/ghiduri

[110] Notably, since late 2018, all the energy companies owned by state were transferred from the administration of the Ministry of Economy and Infrastructure to the Public Property Agency, except Moldelectrica. The Agency is under the control of the Government, not of a specific line ministry.

[111] Procurement of electricity in Moldova needs serious improvement, 13 March 2018, https://www.energy-community.org/news/Energy-Community-News/2018/03/13.html

The current chapter assesses evolutions on the most sensitive and meaningful dimensions of the energy sector that can enable the capacities to counter the almost unchanged influence of Russia in this area. We propose a set of recommendations to the international partners, which have consistently supported over the years the efforts to build a robust energy security policy in Moldova.

The politicized energy regulator

In theory, the adoption of the new legislation created better perspectives to increase the independence of the national regulator: **Energy Regulatory Agency** (ANRE). In line with the Energy Law of October 2017[112], the regulatory body benefits from functional and financial independence from any state authority (Art. 8). Institutionally, the Agency is able to adopt decisions independently from the government or the parliament, and other public institutions. The Agency is held accountable before the parliament. The Law has also set a more competitive mechanism to select the administrative directors of the Agency, coordinated by the Parliamentary Committee on economy, budget and finances, and supervised by the European partners (Energy Community, EU Delegation), making the process more transparent.

The improvement of the legal provisions addressed partially the concerns raised in 2017by the civil society and the Energy Community about the lack of transparency in the appointment of ANRE's directors.[113] Nevertheless, in practice old habits remain, such as the hasty selection of four out of five directors, a process started in December 2018 and finalized by the approval of the old Parliament in February 2019, amid electoral campaign for the 2019 legislative elections. This cast doubts over the promise to de-politicize of ANRE. Impartiality in the selection was minimal as all four new directors were selected based on political rather than professional criteria: [114] none of them is specialized in energy policy. The newly appointed administration of ANRE represents either the ruling party (the Democratic Party) or political forces with whom they are strongly associated (the Moldovan People's Party). Regardless of the legal innovations, and the recommendations from the Energy Community to ensure ANRE's real independence, the authorities refuse to implement all the proposed safeguards against politicization.

Being tainted by party associations, the regulator lost the public trust. This makes it vulnerable to suspicions of poor management of the tariffs or of tariff manipulation according to political wishes. The latter occurred in February 2019, just before the parliamentary elections, when some suspected that the postponement of gas bills delivery was linked to the potential increase of tariffs for the final consumer.[115] In addition to that, the approx. 11% rise of the price for the Russian gas (from 215 USD to 237,46 USD for 1000m3) and about 25% compared with Q1 2018 became public only after media outlets reported it, and not from ANRE's communications.[116] These cases point out several serious deficiencies on the side of the regulator. On the one hand, it is obvious that the Agency prefers to dismiss the information about any rise of tariffs[117] than to deal with public criticism. This fear derives from the sensitivity of the topic, but it needs to be deescalated through consistent communication to the public. On the other hand, the regulator justifies its lack of pro-activeness with the legal procedures according to which the energy operator should propose to regulator the revision of tariffs,

[112] The Energy Law nr. 174 of 21 October 2017, http://lex.justice.md/md/371969/
[113] Energy Community, Updated Review, The National Energy Regulatory Authority of Moldova: Compliance, Governance, Independence and Performance, 28 February 2018.
[114] https://deschide.md/ro/stiri/economic/43969/Patru-directori-noi-numi%C8%9Bi-la-ANRE.htm
[115] http://protv.md/stiri/actualitate/facturile-la-gaz-intarzie-mai-multi-consumatori-se-plang-ca-nu---2489291.html
[116] https://moldova.europalibera.org/a/de-la-1-ianuarie-gazprom-a-m%C4%83rit-cu-aproximativ-25-tarifele-la-gazele-livrate-r-moldova/29823789.html
[117] ANRE denies the information about possible tariff increases, 18 February 2019, http://anre.md/ro/content/anre-dezminte-informa%C8%9Biile-despre-posibile-major%C4%83ri-de-tarife

not vice versa. Though legally speaking MoldovaGAZ[118] shares the responsibility for demanding the revision of tariffs, these companies represent the interests of the government, despite the minority shareholding, and therefore are susceptible to manipulations for political reasons. Consequently, the regulator should be entitled to take preemptive actions, given its independency that should be effectively proven, in identifying and communicating the tariffs-related information, even when this does not suit state-owned energy companies.

The politicization of the regulator has negative consequences not only for the price policy on energy supplies, but also for the effective enforcement of competition on the energy market, and higher capitalization of investments in the energy field. Therefore, ANRE should make its own independence a priority. All in all, the ANRE should become a well-functioning regulator in order to effectively counter-balance and withstand pressures from other domestic actors, such as the pro-Russian political parties or the presidency office[119], which recently showed clear willingness to accommodate Russia's interests in the energy sector.

"Unbundling" the gas sector – in slow mode

Slow progress is observed in the "unbundling" procedure in gas sector in the last years, though the derogation period given to Moldova expires in January 2020. According to the principles of the "Third Energy Package", the transport operators Moldovatransgaz, as well as Tiraspoltransgaz (not controlled by constitutional authorities), should effectively separate from the supplier parent company MoldovaGaz, whose 50% shares belong to the Russian monopolist Gazprom, which is today the only foreign gas supplier.

The Energy Community assessed the implementation of unbundling in gas sector to just 10%, compared to 25% in electricity. In summer 2018, the regulator allowed the transport company Moldelectrica to certify under the rules of the "Third Energy Package", and thereby complete the unbundling. Thus, ANRE can finally enact the provision on separation envisioned in the new legislation on electricity[120]. However, the electricity distribution companies, private and public, should still fulfill the functional separation.[121]

Practically, the separation in gas sector has complications because of the natural monopoly caused by the monopoly of the supplier – Gazprom, and the dependency to it that amplified since the early 2000s when Russia's leverage increased because of the accumulation of gas debts. With the technical assistance from BERD, ANRE can today operate with the guidelines for the unbundling in gas sector, officially launched in September 2018.[122] This makes possible the implementation of the primary legislation on natural gas[123], passed by the Parliament in May 2016, as part of the commitments under the "Third Energy Package". Avoiding pushing for a specific type of unbundling, ANRE underscored that the "unbundling guidelines" have a recommendation character for the distribution and the transporting companies. Notably, the document suggests the regulator's steps to prepare the

[118] MoldovaGaz' shares belong to Gazprom (50%), so-called Transnistrian authorities 35%, which also include the concessioned shares. Overall, Gazprom benefits of 75% of shares. 15% are still controlled by the Moldovan government.

[119] President Igor Dodon suggested that partially the debts of the Moldovan side to Gazprom can be paid by selling out the assets of the Moldova supplier MoldovaGAZ, 18 January 2017, http://agora.md/stiri/27100/dodon-recunoaste-datoria-transnistriei-la-gaz-ca-fiind-a-republicii-moldova-este-datoria-totala-a-tarii

[120] Law nr. 107 on electricity of 27 May 2016, Art. 3, p. (f), http://lex.justice.md/md/365659%20/

[121] Energy Community, Annual Implementation Report, September 2018

[122] ANRE, Guidelines for Legal and Functional Unbundling in the Natural Gas Sector, 24 September 2018, http://anre.md/ro/content/%C3%AEntreprinderile-de-gaze-naturale-au-ghidul-unbundling

[123] Law nr. 108 Law on Natural Gas of 27 May 2016, Art. 3, p (f), http://lex.justice.md/md/%20365664/

certification by the transportation and distribution activity[124], and based on which the regulator can check the conformity with the separation principle. From the reading of Guidelines results that the operating companies have unbundling obligations, under the natural gas EU directive and the natural gas legislation.[125]

By the end of 2018, the transporting operator Moldovatransgaz submitted to the regulator the proposal with the preferred option of unbundling[126], but the document is not available for public consultations. ANRE is going to comment on the proposal, and this might be also consulted with the Secretariat of the Energy Community.[127] According to the 2015 roadmap of the Government in energy, the separation and certification of the transport operator (Moldovatransgaz) and the system operator (MoldovaGAZ) should take place by autumn 2020.[128] In line with the commitments to the Energy Community, the unbundling process has to finish by the end of 2019.

In any case, the proposal must convince that Moldovatransgaz effectively separates from the vertically integrated undertaking MoldovaGaz. Consequently, either the legal or functional unbundling option should ultimately hinder MoldovaGaz from influencing the decision-making process within the transport operator.[129] This has a crucial meaning for the functioning of the internal gas market under the natural monopoly of MoldovaGaz. Moreover, the unbundling constitutes a prerequisite for the diversification of supplies, to ensure the unrestricted access of new supplies from the West, in particular from Romania, to the Moldovan pipelines. It also contributes to the efforts of developing interoperability capacities between the Moldovan and Ukrainian network of pipelines.

Two aspects require special attention. Firstly, there is a high risk that the separation of functional or legal nature "on paper" would have little effect in practice. Moldovatransgaz's independence from MoldovaGaz can become more impactful if besides ANRE the Energy Community Secretariat or another independent board of energy evaluators will check the fulfilling of unbundling criteria before renewing the activity license and periodically afterwards (ex. yearly). And, secondly, the unbundling process is going to be skipped by Tiraspoltransgaz that operates in the Russia-supported separatist region without any license issued by ANRE. Thus, the unbundling procedure can take place strictly with the participation of those who are entitled to legally operate as transporters of gas – Moldovatransgaz and Vestmoldtrangaz (owned by Romanian Transgaz[130] through Eurotransgaz).[131] [132] This lack of uniformity diminishes the unbundling effort. Thus, a working unbundling in relation with Moldovatransgaz can produce a synergy for the entire territory of the country.

Electricity procurement – convenient for the Transnistrian producer

As in the previous 2017 assessment, the situation in the electricity sector contains two systemic deficiencies. Firstly, the authorities are unwilling to organize an entirely correct annual purchasing of electricity. Secondly, approx. 70% of the up to 85% of electricity imported by Moldova (*See Table 1*) is

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[124] ANRE, Gas Companies obtained the Unbundling Guidelines, 24 September 2018, http://anre.md/ro/content/%C3%AEntreprinderile-de-gaze-naturale-au-ghidul-unbundling

[125] Directive 2009/73/EC concerning common rules for the internal market in natural gas and the Natural Gas Law nr. 108, Art. 24.

[126] Interview with the ANRE representatives, 18-22 February 2019, Chisinau.

[127] Idem. Looking for external seconding, the energy regulator has established an internal practice of sharing the drafts of the decisions on secondary legislation undergoing preparation with the Energy Community.

[128] Government Decision Nr. 409 of 16 February 2015 concerning the road maps in the energy field for the period 2015-2030, http://lex.justice.md/md/346670/

[129] Guidelines for Legal and Functional Unbundling in the Natural Gas Sector, 24 September 2018

[130] 58,5% of Transgas shares to the Romanian government.

[131] ANRE, The List of License Holders in the Natural Gas Sector, http://www.anre.md/ro/content/lista-titularilor-de-licen%C5%A3%C4%83

[132] The Romanian state-owned company Transgaz privatized Vestmoldtransgaz in 2018.

produced by Moldavskaya GRES (MGRES), situated in the Transnistrian region and owned by Russian enterprises - Inter RAO UES[133]. This is still possible because the state-owned company Energocom keeps buying the electricity from MGRES, partially deviating from the purchasing procedures adopted in 2017, and later revised twice by the Ministry of Economy in 2018 and respectively in 2019.

	Mil. kWh	*%, total*
Domestic production:	747.4	15.3
Termoelectrica	*619.3*	
CET North	*48.4*	
Costești Hydro Power Station	*46.9*	
Other local producers	*32.8*	
Import	4159	84.7[134]
Total	**4906.4**	**100**

Table 1. *Sources of electricity in Moldova, 2017.* **Source:** 2017 Annual Activity Report of ANRE[135]

Though the procedures for electricity purchasing bring more transparency, they can be easily circumvented because they have rather “guidance role”[136] and are not legally binding. This partially explains why state owned Energom revised the procurement results in 2017[137], just about 2 months after the bid, and favored the procurement of 70% of electricity from the separatist region (MGRES), instead of importing the entire volume from Ukraine as resulted from the tender. The sudden and non-transparent decision to buy electricity from the Transnistrian region provoked criticism from the European partners.[138] However, Energocom argued that the decision to split the import of electricity between MGRES and DTEK was requested by the need to “obtain a smaller price” and “to secure the supply of electricity”.[139] In practical terms, the state-owned company used the already signed contract

[133] Moldavskaya GRES (Kuchurgan power plant) represents the main power generator plant (2250 MW) owned by Inter RAO ESS outside Russia, followed by Ekibastuzskaya Gress in Kazakhstan (1000 MW), Trakya (Turkey), Grami 1 and 2 (Georgia), and Vydmantai Wind Park UAB (Lithuania).

[134] According to the contract of electricity import for 31 March 2017-1 April 2018, 70% of electricity was delivered by MGRES and the rest 30% by the Ukrainian supplier DTEK, https://www.energy-community.org/news/Energy-Community-News/2017/06/07.html

[135] 2017 Annual Activity Report of ANRE, http://anre.md/files/raport/Raport%20anual%20de%20activitate%20a%20ANRE%20in%20anul%202017.pdf

[136] Ministry of Economy and Infrastructure, Decision nr. 20 regarding the Guidelines for the annual procurement of the electricity, 29 January 2019, http://gasnaturalfenosa.md/sites/default/files/ro/Achizitii_de_energie/2019/Proces_achizitii/1_Ordin_%20Aprobare_%20Instruc%C8%9Biuni_%202019.pdf

[137] Electricity procurement in Moldova: international observers inquire about Moldova’s return to electricity produced in Transnistria, 7 June 2017, https://www.energy-community.org/news/Energy-Community-News/2017/06/07.html

[138] Electricity procurement in Moldova: international observers inquire about Moldova’s return to electricity produced in Transnistria, 7 June 2017, https://www.energy-community.org/news/Energy-Community-News/2017/06/07.html

[139] https://www.zdg.md/stiri/stiri-economice/s-a-schimbat-schimbarea-moldova-va-cumpara-din-nou-energie-electrica-din-regiunea-transnistreana

with the Ukrainian supplier to push down the price offered by the electricity producer, controlled by the separatist region, by 10%[140].

Even the Ministry of Economy broke the procurement guidelines, established by itself, when it interfered in the tender for 2018 and asked for a delay of electricity procurement procedures in order to save time for Energocom to finalize its offer.[141] This represented a clear discriminatory approach applied by state authorities against other competitors. In addition to that, the EU and the Energy Community signaled that a situation of "possible concerted action" took place during the electricity procurement. Thus Energocom negotiated with the two bidders MGRES and DTEK outside the formal procedures[142], as a result of which the two companies quit the tender.Meanwhile, the Ministry helped the state-owned company by stretching the initial deadlines, again contrary to the provisions of the procurement mechanism.

Though the bid for the electricity supplies for 1 April 2019 - 31 March 2020maintained the 2018-year pattern, it faced less visible criticism from the civil society and the Energy Community. So Energom secured again the supply of electricity that it will buy from MGRES and DTEK, with whom the state-owned company negotiated in a non-transparent manner, just like in 2018. Additionally, the proportion of supply from the Transnistrian region increased from 70% of the total imports for the period 1 April 2018-31 March 2019 to 85%[143] in for the next year. In doing that, Energocom reduced the diversification of supplies with the Ukrainian DTEK, the share of which halved from the 30% of total imports for the same period in 2018.

Over the last two years since it is operational, the procurement mechanism played indeed a positive role in increasing the overall transparency, eliminating the intermediary "offshore companies" from the supply chain, and slightly reducing the price of the electricity shipped from the separatist region. Nevertheless, this mechanism as other aspects of energy policy entails a set of systemic drawbacks.

Firstly, the state-owned companies, such as Energocom, are treated favorably compared to other local and foreign companies. This deteriorates the competitiveness in electricity. Secondly, the rules of procurement are neglected by the authorities that set them, in particular by the Ministry of Economy, which in 2017-18 facilitated the selection of Energocom as the winner of the bid. In fact, instead of setting the best practices, the authorities and the public sector keep acting against them. That constitutes a huge deterrence for foreign investments, who would be interested in playing by clean rules not favoring the incumbents. At the same time, the energy regulator seems to ignore the situation of "concerted actions" with the involvement of state-owned Energocom which required investigation, as recommended by the Energy Community.[144] Thirdly, using a non-binding legal framework (Guidelines), the authorities support a "free-riding" commercial behavior from MGRES, which produces electricity from cheap primary fuel (the Russian gas), for which it does not pay, and which gives competitive advantages in the bidding. Every time when Energocom agrees to buy the electricity from the separatist region it contributes indirectly to the growing gas debt of Moldovan gas

[140] Dionis Cenușa: The Problem is not only that we returned to buy electricity from Cuciurgan, but also that it was done in a non-transparent way, 7 June 2017, https://moldova.europalibera.org/a/interviu-denis-cenusa-cuciurgan/28532936.html
[141] Group of Observers concerned about delayed electricity procurement in Moldova, 13 March 2018, https://www.energy-community.org/news/Energy-Community-News/2018/03/13.html
[142] Procurement of electricity in Moldova needs serious improvement, 4 April 2018, https://www.energy-community.org/news/Energy-Community-News/2018/04/05.html
[143] Red Union Fenosa decided upon the offer for the energy procurement for the following year, 14 March 2019, http://gasnaturalfenosa.md/sites/default/files/ro/Achizitii_de_energie/2019/REDUF_adjudecat_oferta_achizitie.pdf
[144] Report of the Group of Observers: Procurement of electricity in Moldova 2018, https://www.energy-community.org/news/Energy-Community-News/2018/04/05.html

supplier MoldovaGAZ to Gazprom that is constantly growing, overcoming today 6 bln. USD already reached in 2017[145].

Electricity production on Dniester River

A problematic situation is registered in other areas of energy, such as the cooperation with Ukrainian partners in the hydropower energy. Moldova's weakness in the negotiations with Ukraine on expansion of the infrastructure on Dniester River attracted anti-governmental criticism in Moldova during 2017-18.

The intention of Ukraine to increase the hydro-energy production on Dniester River is contested by the civil society, and by the Moldovan authorities, because the strategically important water resources of the country are endangered. 70% of the total water consumption of Moldova depends on water flows of this river[146]. Besides the civil society[147], the Moldovan Parliament also underlined the concerns regarding the multiplication of the hydro-electricity production on Dniester River.[148] About 4 million peoples in Moldova and Odessa region use Dniester's for vital water consumption[149]. The Ukraine-Moldova authorities revised an older agreement in 2017 concerning the expansion of the infrastructure of the Ukrainian Dniester Hydro Power Complex (HPC). In 2018, the negotiations on the agreement faced resistance from the Moldovan side because of major environmental concerns, and being able to severely affect the social-economic security of Moldova. A part of this agreement included the transfer of 17 ha of Moldovan territory to the Ukrainian part for the maximization of the power generation. Today, the Second Hydropower Station (HPS-2) of the HPC is already using 20 ha of land inside the Moldovan territory for electricity production.[150] However, the controversial agreement foresees the construction of new components within Dniester Hydro Power Complex, such as four new hydropower turbines requiring the increase by 7 meters of the water in the buffer reservoir as part of HPS-2.

The implementation of the agreement can make the management of the water resources of Dniester hardly sustainable. Moreover, it contradicts some provisions of the Association Agreements signed both by Ukraine and Moldova with the EU, and those, which result from the membership in Energy Community. The civil society invoked that the Moldovan and Ukrainian parties did not publish the environmental assessment of the construction of the hydropower, as required by the EU Directive on assessment of environmental impact of public and private projects. There are various directives of

[145] As of September 30, 2018, the total debt is 7.2 bn USD (1.2 bn USD from before 2005, transferred by Gazprom to its subsidiary Factoring Finans - http://www.gazprom.ru/f/posts/91/747099/repiv_2005.doc; and debts from 2006-present, 6 bn USD. http://www.gazprom.ru/f/posts/01/851439/gazprom-emitent-report-3q-2018-appendix-2.pdf)
[146] UNDP, The Dniester Hydro Power Complex Social and Environmental Impact Study, 2018, http://www.md.undp.org/content/dam/moldova/docs/Dniester%20ProDoc%20final.pdf
[147] Joint Declaration by Moldovan and Ukrainian National Platforms of the Eastern Partnership Civil Society Forum – Dniester: No to new dams! Yes to free rivers!, m 21 August 2018, http://eap-csf.eu/wp-content/uploads/Dniester.pdf
[148] Parliament of Moldova, Decision Nr. 91 of 26 May 2017 concerning the adoption of the Declaration with the occasion of the Day of Dniester River, http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=370590
[149] Ion Efros, Why the Ukrainian hydropower infrastructure on Dniester will destroy Moldova and how to prevent such a disaster?, IPP, 2018, https://www.eesc.europa.eu/sites/default/files/files/analytical-report_impact-of-hydro-infrastructure-dniester_en_0.pdf
[150] UNDP, The Dniester Hydro Power Complex Social and Environmental Impact Study, 2018,

major importance that were ignored and that refer to the wild biodiversity, environmental liability for prevention and remedy scope, and water policy.[151]

Notably, the insistence on developing the Dniester Hydro Power Complex results from Ukraine's National Program on Hydropower Development until 2026, criticized by some Ukrainian NGOs for lacking public consultations and essential strategic environmental assessment.[152] This Program entails the construction of six new hydropower plants in Ukrainian segment of Dniester River. A contributing factor to the massive focusing on hydropower is the loss of major energy resources in the East and the Black Sea shore, as a result of Russia's annexation of Crimea and the military intervention in Donbass region (*Read more in the Chapter on Ukraine).*

In September 2018, a Dniester Commission was established with support of the Energy Community Secretariat and under the Dniester River Basin Agreement between Ukraine and Moldova. Seemingly, the Energy Community intends to "infuse" an environmental[153] substance into the plans to construct the hydropower facilities on Dniester by Ukraine. Raising the discussions on the Dniester issue at the European level allows to achieve several important goals for environmental conservation. However, this negotiation could be scaled up to reach agreements on a set of bilateral issues, most importantly, on the integration of energy markets into the European one and the regional stabilization.

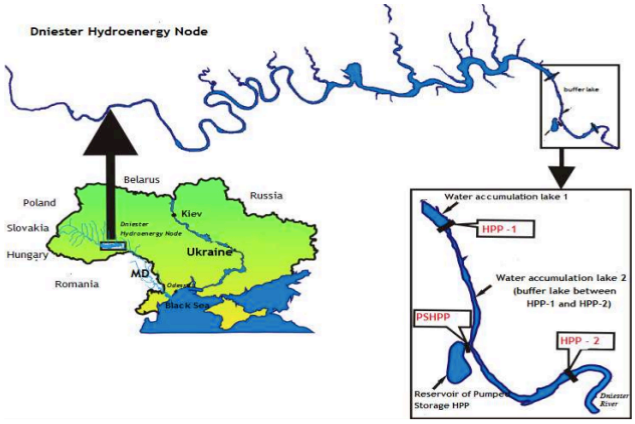

Figure 1. *The Ukrainian Dniester Hydropower Complex*

Source: Ion Efros, Why the Ukrainian hydropower infrastructure on Dniester will destroy Moldova and how to prevent such a disaster?

In the first place, through this format of intervention the Energy Community can balance the dialogue between Moldova and Ukraine, in which the latter is portrayed as a dominating party.[154] Secondly, instead of putting direct pressure on Ukraine to refrain from over-using the capacity of Dniester River, which is crucial for the security of Moldova, the Energy Community opted rather to demand the implementation of the environment component of the EU acquis. That implies ensuring that the environmental assessment is conducted for any construction of hydropower infrastructure. Fourthly, the external oversight of an international organization, anchored in the European legal framework, adds more transparency and is useful for the overall process of integration of Moldova and Ukraine in the European energy market. Finally, this helps to eliminate the confrontational attitudes in the relationship of the two countries, improves the regional stability and prevents the misinformation campaigns frequently applied by Russia to spread the division in the Eastern Partnership region.

[151] See: Ion Efros, Why the Ukrainian hydropower infrastructure on Dniester will destroy Moldova and how to prevent such a disaster?

[152] http://archive.mama-86.org/index.php/en/watersan/watersan-news/835-hydro-2026-r.html

[153] Secretariat participates in the first meeting of the Dniester Commission, 18 September 2018, https://www.energy-community.org/news/Energy-Community-News/2018/09/18a.html

[154] Ion Efros, Why the Ukrainian hydropower infrastructure on Dniester will destroy Moldova and how to prevent such a disaster?

Interconnection and geopolitical considerations

Over the last two years, the projects of interconnection both in electricity and gas sectors mostly stagnated. Meanwhile, the risks related to the Russian supplies of natural gas to Moldova are multiplying. In March 2019, the Russian authorities anticipated a termination of the transit of gas through Ukraine as the current transit agreement ends in December 2019.[155] According to Russia's position, the Ukrainian gas network performs worse than the two competing pipelines that are under quick construction and should be finalized sometime in 2020 – "Turkish Stream" and "Nord Stream 2".[156] Pragmatically speaking, the Ukrainian pipelines are quite energy intensive to function well, but the (geo) political dimension of the question is what dominates in Russia's calculus. This is confirmed by Russia's demand to Ukraine to ensure a political stability, among other conditions, in order to sign a new transit deal[157] (*Read more in the Chapter on Ukraine*). The interruption of transit will damage the Ukrainian infrastructure[158] and will affect directly the supplies to and via Moldova as part of the transit route to Balkans and Turkey.[159] Literally, the imports of Russian gas to Moldova will stop fueling the entire energy sector – both natural gas consumption and electricity production. Therefore, the construction of interconnections both on electricity and gas are of vital importance. The gas connector with Romania is a priority because the gas could be also used for electricity production in the central part of Moldova (Termoelectrica S.A.), including at MGRES plant in the Transnistrian region.

The steadily worsening geopolitical conditions in the East are putting pressure on the Moldovan authorities to accelerate the interconnection projects with Romania. Nevertheless, the construction of the gas pipeline from the Romanian border to Chisinau (Ungheni-Chisinau pipeline) the city that ensures approx. 60% of country's gas consumption is in a huge delay from the previous official plans of making the pipeline operational by the end of 2017[160].A similar deviation from the former governmental deadlines occurs in the case of the interconnection with Romania on electricity. The year for supplying electricity expected in 2015 was summer 2019[161], while the current plans are to have the electricity overhead line from the South of the country (Vulcanesti city) to Chisinau built by 2022, the first back-to-back module and early 2023 the second one.

The slowness of the gas interconnector (120 km; capacity of 1,5 bln. m3 in flat consumption) construction resulted from the change of plans by the Moldovan government, which suddenly decided to hand over the responsibility for the project to the Romanian state-owned transport operator Transgaz. In February 2018, Transgaz took over the transport operator Vestmoldtransgaz, a state enterprise operating the first segment of the interconnection with Romania, launched in August 2014 (the 42 km Iasi-Ungheni pipeline). The Romanian energy company paid 180 mil. MDL[162] (approx. 9 mil. EUR) for the Moldovan company and agreed to invest another 93 mil. EUR in the construction of the

[155] PM Medvedev names conditions for continuing gas transit via Ukraine, 5 March 2019, http://inforos.ru/en/?module=news&action=view&id=86939
[156] Слишком дорогая Украина: почему нужны новые газопроводы, February 2019, https://www.gazeta.ru/business/2019/02/26/12210469.shtml?updated
[157] Russian PM Medvedev referred to the relations between Russian Gazprom and Ukrainian Naftogaz should be solved, implying the cases brought against Gazprom at the Stockholm arbitrary court, and that favorable commercial conditions should be offered to the Russian side, http://inforos.ru/en/?module=news&action=view&id=86939
[158] Ukraine to reduce its claim against Russia's Gazprom if new transit contract is signed, 22 January 2019, https://www.uawire.org/ukraine-to-reduce-its-claim-against-russia-s-gazprom-if-new-transit-contract-is-signed
[159] Без «Южного потока»: транзит газа через Болгарию будет закрыт, https://www.gazeta.ru/business/2019/03/12/12238327.shtml?updated
[160] Government Decision Nr. 409 of 16 February 2015 concerning the road maps in the energy field for the period 2015-2030, Annex 2 concerning the natural gas interconnection, http://lex.justice.md/md/346670/
[161] Government Decision Nr. 409 of 16 February 2015 concerning the road maps in the energy field for the period 2015-2030, Annex 1 concerning the electricity interconnection, http://lex.justice.md/md/346670/
[162] Agency of Public Property, 27 October 2017, List of companies available for privatization, https://app.gov.md/sites/default/files/comunicat_informativ_ro.pdf

interconnector. The privatization has raised various questions about the strategy adopted by the Moldovan government.

First the deal with the Romanian company led to the cancellation of the assistance offered by EBRD and EIB of 82 mil. EUR[163], to which was attached a 10 mil. EUR grant from the EU. This indicates the incoherence of policies pursued by the Moldovan authorities. Initially, the Government approved the deal for EBRD and EIB assistance to support works undertaken by a state-owned operator belonging to the Ministry of Economy and the Parliament passed it in the first reading in summer 2017. After restructuring the approach for the pipeline construction (with the privatization of Vestmoldtransgaz) the loans had to be entirely cancelled, and new EBRD/EIB loans had to be renegotiated for the new entity.

Second, the privatization procedures lasted more than 6 months, from the day when the privatization was agreed in February 2018 until the official finalization of all privatization procedures in September 2018. As a result, the construction of the segment Ungheni-Chisinau remains so far on paper. “Transgaz” has launched the tender for construction companies, but the criteria were very demanding and created additional time pressure for the entire project. The major problems for Transgaz (which has experience in similar projects) in finding suitable construction companies consists of the limited availability of specialized construction workers (welders, etc.), materials for the construction, and very tight schedule.[164] However, technically speaking, the pipeline could be built in 4-6 months, which in optimistic terms could be sufficient to have a pipeline by the end of 2019 and already fully operational by 2020. But to have a functional interconnector two major conditions should be also fulfilled – availability of natural gas on Romania side (questionable, after the issues highlighted in the chapter on Romania); and a free access for the suppliers to the transport network. Additionally, the project should be economically feasible; this means its costs must be recovered through a sensible tariffs policy. This is again a matter requiring a highly trusted and respected regulatory agency.

Unlike the gas pipeline project, the construction of the electricity interconnection with Romania, from the South to Chisinau, needs longer time for implementation. According to the financing agreement, signed with EBRD, EIB and scheduled for approval by the World Bank, Moldova receives loans of 230 mil. EUR, and a 40 mil. EUR grant from the EU, to build an electric line (400 kV) and a back-to-back converter (600 MW) at the border with Romania (Vulcanesti) between 2019 and 2022.[165] The features of this interconnection contain more predictability. Generally speaking, the sector of electricity is more liberalized and the imports are more diverse than in the gas sector, though MGRES is constantly favored in the electricity purchasing (*See above*). Moreover, a Moldovan company is in charge with the construction of the electricity interconnection – the system operator Moldelectrica. Last but not least, the loans from the international donors can play a disciplining role for the Moldovan authorities, but also increase the external supervision over the project evolution.

[163] https://www.economica.net/bei-si-berd-finanteaza-cu-92-mil-euro-pentru-prelungirea-gazoductului-dintre-romania-si-r-moldova-care-ar-reduce-de-rusia_130473.html

[164] Interview with the ex-employee in the EU assistance project in Moldova, 18-22 February 2019, Chisinau.

[165] EBRD, EIB, EU and World Bank finance Moldova-Romania power link, 20 December 2017, https://www.ebrd.com/news/2017/ebrd-eib-eu-and-world-bank-finance-moldovaromania-power-link-.html

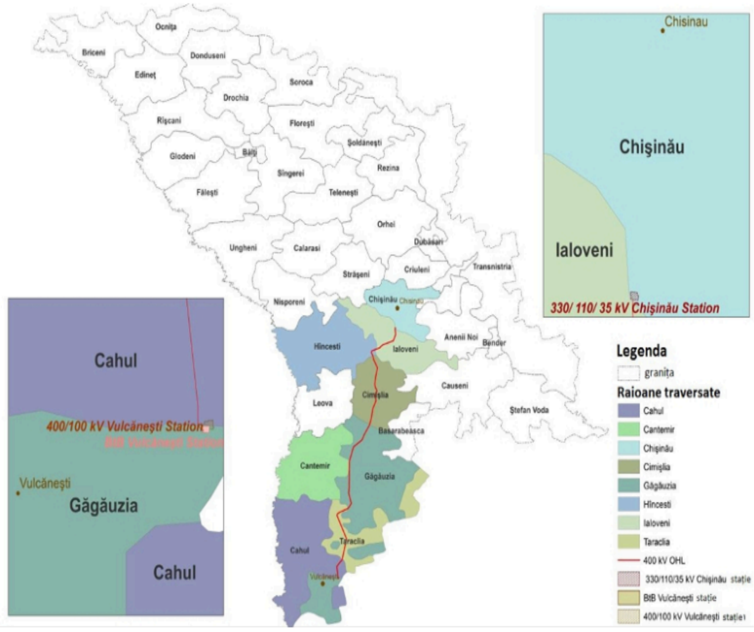

Figure 2. *The electricity interconnection Vulcanesti (South)-Chisinau*

Source: Moldelectrica.md[166]

Russia's decision to suspend the gas supply via Ukraine after 2020 represents a strong incentive for the Moldovan side to develop the gas interconnector with Romania. The construction depends on the Romanian company Transgaz, and the Moldovan authorities can only monitor the construction process. The loan obtained by Transgaz from EIB, accounting for 38 mil. EUR[167], increases the positive prospects for the project. But the investment program allows Transgaz to build the pipeline up until 2021, which is beyond the date when Russia has announced to stop using Ukraine territory for gas transit.

In order to avoid a negative scenario for Moldova, the construction needs to accelerate. In first place, the construction process should become fully transparent. Regardless of the fact that this is an investment project, it has a strategic importance for the security of the country. Secondly, the Moldovan government should keep the project on the top of the bilateral agenda with Romania, given that Transgaz is a Romanian majority state owned company. The interconnector should be depoliticized, but at the same time maintained under the close watch of the decision-makers for security reasons. Last but not least, the Moldovan authorities should facilitate the availability of human resources and materials necessary for the construction. In this regard, a flexible migration policy to hire temporarily foreign workers with the needed skills, and to import the construction materials based on a simplified custom duty regime, can be examined.

Concomitantly, the work to accelerate the construction of gas pipeline to Chisinau and to make it operational in an urgent regime should not exclude in any case the preparation of back-up plans to ensure imports of gas from the neighboring countries. These include updating the existing infrastructure to facilitate imports from Ukraine and to build reverse flow capacities from Romania, based on the pipelines that currently transport the gas to the Balkans (see also the chapter on Romania on the issues concerning third party access on the Isaccea-Negru Voda pipeline).

[166] http://www.moldelectrica.md/ro/finances/mold_rom_project

[167] Transgaz and EIB sign Financing Agreement for Building Ungheni-Chisinau Gas Pipeline, 25 January 2019, http://www.infotag.md/finances-en/271693/

Crypto currency production in the Transnistrian region

A new source of damage to the energy stability of the country is the mining of crypto currency in the Transnistrian region, which is stimulated by the separatist regime. Crypto currency by itself is not illegal, but it requires large quantities of energy and is less regulated and transactions are less easily traceable than in the case of banks, which renders it a favored business for separatist regions benefitting virtually free energy from Russian suppliers. Transnistria gets free gas from Gazprom (which however is added to Moldova's debts) and has the largest gas-fired plant in the region, MGRES, owned by the Russian Inter RAO and used now at just 17% of its theoretical capacity. In January 2018, the legislative body of the region passed the legislation regarding the development of blockchains for the purpose of crypto currency production. In 2018, the chair of the Russian business community "Delovaya Rossia" Igor Ciayka (who also happens to be the son of Russia's general prosecutor) underlined the appropriate conditions for energy intensive production of crypto in the Transnistrian region due to high speed internet and cheap electricity.[168] The speaker of the separatist legislative body, Alexandr Martynov, proposed to increase the capacity of electricity production at MGRES by at least 100 MW,[169] and increase the number of the operational mining firms, which were consuming between 5-7 MW in 2018. Using this activity, the Transnistrian authorities' attempts to receive revenues both from MGRES and from the crypto mining. As estimated in the previous report, only from the electricity production based on unpaid Russian gas, the region obtained about 1.3 billion USD between 2007-2016.[170] This amount can grow additionally from the mining activity.

The Transnistran authorities stimulate the business with crypto mining both at the level of legislation, and in more practical way, through preferential policy prices to stimulate the consumption of electricity while mining. The administration of the region set up a company "Technopark" that regulates the zone for the development of blockchain, administered by the region's so-called Ministry of Economic Development. The same company is entitled with the competence to register the foreign companies interested to invest in this activity. The potential investors can benefit from attractive tariffs for electricity and zero custom duty for the import of mining equipment.[171] The prices for 1 MWh for mining constitutes 52 USD[172], which is by 0,4 USD smaller than the price offered to Moldovan consumers via the electricity purchasing tender in March 2019 (52,4 USD/MWh)[173]. Moreover, the price for electricity can go down to 50 USD/MWh and even 38 USD/MWh if the owners of crypto firms consume 10 MWh and respectively more than 120 MWh.[174]

So far, the known mining companies in the Transnistrian region, such as Tirastel GmbH, are linked to Sheriff Holding, which controls the biggest economic assets of the region[175], but also represent offshore companies registered in Germany. [176] The latter was involved in illegal introduction of mining equipment through the Ukrainian Custom Service in 2017-18.[177] There are other offshore companies,

[168] Приднестровье примайнивает инвесторов, 1 February 2018, https://www.kommersant.ru/doc/3535347
[169] http://newsmaker.md/rus/novosti/vlasti-pridnestrovya-rasschityvayut-razmestit-v-regione-fermy-dlya-mayninga-kripto-40728
[170] Chapter on Moldova, Expert-Forum, Energy, Russian Influence, and Democratic Backsliding in Central and Eastern Europe, May 2017
[171] Description of the Transnistrian company "Technopark", http://tehnoparkpmr.md/kompany/4-o-kompanii.html
[172] Tariffs for electricity consumption for mining activity, http://tehnoparkpmr.md/kompany/5-tarify.html
[173] http://gasnaturalfenosa.md/sites/default/files/ro/Achizitii_de_energie/2019/REDUF_adjudecat_oferta_achizitie.pdf
[174] Tariffs for electricity consumption for mining activity, http://tehnoparkpmr.md/kompany/5-tarify.html
[175] The Republic Sheriff, 30 June 2016, ttps://www.rise.md/articol/republica-sheriff-3/
[176] Tirastel GmbH, https://www.moneyhouse.de/Tirastel-GmbH-Wiesbaden
[177] Crypto-paradise on Dniester, 7 April 2018, http://www.jurnaltv.md/news/ba17044f2907e98c/cripto-paradis-la-nistru.html

with Russian presence, like Goweb International[178], specialized in production and selling of mining equipment.

The crypto currency production entails various risks, including for the integrity of democratic processes as showed its use for meddling in the US elections.[179] In the case of Moldova, the uncontrolled multiplication of mining capacity in the region will consequently increase the gas consumption, and inevitably add to the existing debts of 7 bln. USD. Acting as a maximizing incentive for "free-riding" activity of the offshore companies, with local and Russian capital, the mining firms in the Transnistrian region constitute an easily overlooked, though very serious danger for the energy sector.

Several crucial measures should be adopted to prevent the further expansion of crypto production. Primarily, the Moldovan and Ukrainian authorities need to adopt a common position about the risk generated by crypto mining in the region. Together with the support of EUBAM, the two countries should set a mechanism of identifying and prohibiting the imports of equipment that have as destination the crypto mining in Transnistria. Secondly, the gas debts accumulated before mining and after it started must become a priority on the EU-Moldova Association Agenda, and also in the dialogue with the Energy Community. As provided by the 2017 report[180], the Transnistrian region generated the historical debts of 6 bln. USD. This results from the lack of any legally binding framework that can constrain the region's operator Tiraspoltransgaz to pay the bills to MoldovaGaz. As the contract with Gazprom terminates by the end of 2019, the European partners could support the Moldovan authorities in negotiating and drafting a new contract with the Russian supplier, based on the experience of trilateral energy dialogue on transit issue, facilitated by the EU between Ukrainian Naftogaz and Gazprom.[181] The effectiveness of this measure will grow if accompanied by the speeding of the construction of the gas interconnector with Romania that can improve the negotiating positions in front of Russia. Last but not least, the national authorities in EU member states (in particular, in Germany) should investigate the involvement of offshore companies registered in Europe in mining production in the separatist region of Moldova, given that such activity has a destabilizing potential not only for the energy sector but for the democratic institutions as a whole as well.

Conclusions

The major developments in energy area can be divided in three categories of interdependencies with the Russian factor. The first group includes the actions that do not depend on Russia, such as the attempts to (1) fortify the regulator, (2) complete the transposition of legislation under Third Energy Package and (3) diversify the supply. To the second group belong the (4) slow 'unbundling' procedures in gas sector and (5) the partially distorted rules of electricity procurement. In this regard, there is an interlinking between the gas transport operator and Gazprom-controlled national supplier MoldovaGAZ. At the same time, the availability of electricity offer from Inter RAO UES-administered MGRES in separatist region makes the implications of Russia more visible and almost inevitable. The third group contains those very problematic areas that are poorly addressed by the Moldovan central authorities, and which have a considerable potential of destabilization of the energy system - (6) gas

178 https://beta.companieshouse.gov.uk/company/06774252/filing-history?page=1

179 The US District Court for District Columbia, 13 July 2018, p. 3, https://www.justice.gov/file/1080281/download

180 Chapter on Moldova, Expert-Forum, Energy, Russian Influence, and Democratic Backsliding in Central and Eastern Europe, May 2017

181 Ministry of Foreign Affairs of Ukraine, Trilateral talks on post-2019 Russian gas transit held in Brussels, 21 January 2019, https://mfa.gov.ua/en/news-feeds/foreign-offices-news/69983-u-bryusseli-vidbulisya-tristoronni-peregovori-shhodo-tranzitu-gazu

debt toward Gazprom and correlated with it - (7) production of crypto currency in the Transnistrian region.

RECOMMENDATIONS

Consolidating the regulator

- Support the screening of the primary and secondary legislation in order to identify and eliminate the legal loopholes used currently by the energy regulator to refrain from pro-active behavior. Today, the ANRE relies on the legal provisions that give the exclusive priority in demanding the revising of tariffs to the energy companies;
- Depoliticization and professionalization of the regulator by improving the mechanism of selection of the regulator's administration, by involving the civil society, introducing criteria of sectoral specialization for the members of the selection committee. Transparency can be improved by the live-streaming of interviews, or by making the recordings public afterwards;

Un-bundling process:

- Higher involvement of the Energy Community Secretariat in the assessment of companies that implement the unbundling principle. This will make the energy regulator more objective when it checks the fulfillment of the unbundling criteria before certifying the company.
- Exploring possibilities to expand the unbundling to the Transnistrian region and avoid fragmentation. The implementation of the DCFTA provisions in the region should serve as an initial point of departure.

Electricity procurement:

- Until the electricity interconnection is built, set the electricity procurement procedures in secondary legislation and make them legally binding for all actors, including the state-owned enterprises such as Energocom. Today, these procedures are written in a decision of the Ministry of Economy and Infrastructure only as recommendations, which encourages both the Ministry and the company toi gnore them, in particular when it comes to deadlines. The responsibility should be shifted from the Ministry to the Regulatory Agency, which is responsible for the acquisition procedures of the regulated companies.
- Demand full transparency of the negotiations between the state-owned company Energom, as trader, and the importing suppliers from Ukraine and from the Transnistrian region, in order to prevent "concerted action". Currently, the process is only half visible, because Energocom negotiates confidentially with MGRES and the Ukrainian DTEK the price of electricity.

Electricity production on Dniester River:

- Maintain a high level of transparency and effective public communication about the activity of the Dniester Commission, established with the support of Energy Community. Externalizing the Dniester's water administration is a way to avoid arbitrary actions by the Moldovan and Ukrainian sides. A trialogue between EU, Ukraine and Moldova should discuss a broader package of issues of high concern for the two countries and seek a broader consensus: apart from the contentious Dniester hydropower project, both countries have common interests such as: examining options for the emergency supply of gas and electricity in case Russia will finalize the bypasses to the Ukrainian transit after 2020;tackle the problem of crypto-currency mining in separatist regions; the transfer of knowledge from Ukraine to Moldova on negotiations with Gazprom, scheduled to take place this year (e.g., to what extent the arbitration can be moved to Stockholm instead of Moscow).

Interconnection:

- Ensure maximum transparency when building the gas pipeline as a way to hold the company accountable and keep the construction on schedule.
- Put the gas interconnection projects on the top of the political agenda between Moldova and Romania, because the latter has the possibility to control the activity of Transgaz, which is a state-owned company.
- Increase the availability of human resources and materials necessary for the construction on the Moldovan side with measures such as a flexible migration policy for temporary hiring of foreign workers or simplified custom regime for importing specific construction materials.
- Develop back-up plans for ensuring imports of gas from the neighboring countries in case of cut offs of transit via Ukraine. This requires the updating of existing infrastructure for facilitating imports from Ukraine and for building up reversing capacities from Romania, based on the pipelines transporting gas to the Western Balkans and Turkey.
- Speed-up the electricity interconnection by starting the procurement procedures and prioritizing tight construction schedules as one of the main selection criteria.

Crypto-currency in the Transnistrian region:

- Developing cooperation between Moldovan and Ukrainian authorities in combating the crypto mining in the Transnistrian region, due to its risk potential. The EUBAM and the Energy Community must support such efforts.
- Initiating investigations at the EU level, in particular in Germany, concerning the activities of crypto mining activities in the Transnistrian region, and dismantling such business because of their dangerous character both for the regional energy security and the stability of democratic institutions.

Gas debts:

- Introducing the topic of gas debts as priority in the dialogue with EU on the Association Agenda, and with the Energy Community. An external independent assessment about the risks created by the gas debts to Gazprom should be conducted. Currently, the issue seems to be abandoned. The topic involves critical risks for the energy security, so it should be put at the top of the political agenda, even though it is a contractual matter between commercial entities.
- Engaging the EU in the future dialogue on new gas contract between the Moldova and Russia, based on the experience of the trilateral dialogue between EU, Ukraine and Russia on gas transit.
- Coordinating the future negotiation of a new contract with Russia with the advance of the interconnectors with Romania. The availability of the interconnector will enhance the negotiating power of the Moldovan authorities.

Georgia: Energy as Battleground with Russia

Murman Margvelashvili, Giorgi Mukhigulishvili, Tutana Kvaratskhelia

Introduction

Georgia's aspirations toward Euro/Atlantic integration are formally or informally opposed by Russia with a wide spectrum of hybrid methods. Moscow traditionally considers Georgia, like other post-Soviet countries, to be the "sphere of its own interests". According to the Georgian Strategic Defense Review 2017-2020 document, the use of elements of "soft power" and economic tools by the Kremlin represents the main challenge for Georgia's national security environment[182].

The hybrid means used by Russia against Georgia include military, diplomatic, economic, informational and other similar tactics. For the purpose of this article, the emphasis will be on economic tools and its energy component, precisely because the energy sector is one of the most important strategic sectors of the country and has a high relevance to the national security.

Georgia implements the EU Energy Acquis under the Association Agreement and through its Energy Community membership. However, some policies, notably related to state owned companies of neighboring countries, often contradict this declared course.

Below we summarize the Russian presence and influence in Georgian Energy sector and draw recommendations for the international community taking into account the fact that Russian influence over Georgia is not an isolated issue, but in fact part of bigger strategy which clashes with the interest of European Union as well as NATO and the United States.

Russian Capital in the Georgian Energy Sector

The largest Russian state player on the Georgian electricity market is "Inter Rao UES". Inter Rao holds 75% of shares in JSC "Telasi", the second largest power distribution company in Georgia, and it owns hydro power plants (Khramhesi 1 and2) with 223 MW total installed capacity. It also owns 50% of the shares in "SAKRUSENERGO", which manages the 500/330/220kV transmission lines and interconnectors in Georgia[183]. In 2016, Inter RAO Group sold its 100% ownership stake in the Georgian 300MW thermal power plant. According to the Inter Rao representative, as per 2020 development strategy, Inter RAO Group mostly focuses on the development of business in the Russian Federation. However, it will continue its active involvement in Georgia in both hydro generation and electricity transmission, as well as retail[184].

RAO UES entered the Georgian market in 2003, after its subsidiary RAO Nordic bought a Dutch company Silk Road BV from the American AES Corporation for 23 million USD. After 5 years of operation and 250 mln USD investment, the AES Corporation left Georgia and transferred to the Russian-owned RAO Nordic all its generation and distribution assets[185].

In June 2007, a dubious undisclosed Memorandum of Understanding (MoU) was signed between the Georgian government and Inter-Rao UES. It fixed the long-term distribution margin to JSC Telasi, and provided an unprecedented condition of upfront revenue in return for a vaguely formulated condition to build a 100 MW HPP on the river Khrami. The MoU neglected the authority of the regulator,

[182] https://mod.gov.ge/uploads/2018/pdf/SDR-ENG.pdf
[183] https://www.interrao.ru/en/activity/foreignact/http://sakrusenergo.ge/en/about-us/
[184]https://bit.ly/2TTuVTw
[185] http://www.telasi.ge/en/about/history

contradicted the industry practice by treating various Russian owned distribution and generation companies as one corporation, and raised strong doubts about its fairness and potential collusion of the parties involved. The conditions were not met by Inter-Rao UES. WEG estimated that the excess revenue received by JSC "Telasi" from 2006 till 2012 was about 330 million GEL (110 mln EUR).[186]

The MoU was later renewed and modified several times due to the various political and economic needs of ruling elites. In its amendment of 2012, the newly appointed energy minister allegedly exempted Inter RAO UES from investment obligations and extended the validity of the MoU till 2025. This was done in exchange for a minor tariff reduction, needed to comply with pre-election promises of the winning Georgian Dream party.

This example indicates a sort of a collusion between the government and Russian utility company based on its ownership of strategic assets in Georgia, where the concessions are being provided for the government's internal political expediency in return for undisclosed benefits to the other side.

Examples of Russian private ownership in Georgian energy sector include:

- 70% shares of **"Energy" LLC**, which holds Dariali HPP, Larsi HPP, and Shilda HPP, representing in total 134 MW installed capacity is owned by a Russian citizen Mevlud Bliadze.
- Tbilisi water supply company "**Georgian Water and Power**" which owns Zhinvali HPP (130 MW) is owned by the offshore company "Georgian Global utilities" LLC governed by Russians, who have previously worked in different subsidiaries of Russian Inter Rao[187]
- In many of the newly developed small hydropower plants the Russian capital can be traced although there has not been a study of its total share.

	Generation	**Transmission**	**Distribution**
1	Inter Rao UES owns Khrami 1 / Khrami 2 HPPS - 223 MW total installed capacity	50% share of Sakrusenergo - which manages the 500/330/220kV transmission lines and interconnectors in Georgia	70% of "Telasi"- Second Largest distribution network in Georgia
2	Russian citizen holds 70% shares of "Energy" LLC, which holds Dariali HPP, Larsi HPP, and Shilda HPP -134 MW total installed capacity		
3	Georgian Water and Power Zhinvali HPP- 130 MW total installed capacity		

Table 1: *Russia ownership of key Energy assets in Georgian Electricity sector*

Another important sector in this regard is the **Georgian petroleum market**, known for its low level of competition. According to Transparency International Georgia, a clear oligopolistic structure dominated by five companies had been formed in the import of fuel, as well as wholesale and retail trade. Five big companies, out of which two are related to Russian businesses, include: Sun Petroleum Georgia, Lukoil Georgia, SOCAR Georgia PetroleumRompetrol Georgia, Wissol Petroleum[188].

[186]http://weg.ge/sites/default/files/article-electricity-tariffs-eng.pdf
[187] https://idfi.ge/public/upload/russiancapital.pdf
[188]TI Georgia https://bit.ly/2TWR6s5

- The Russian oil company **Rosneft** holds 49% in **Petrocas Energy LTD**, which by itself owns oil terminals in Poti, and 140 petrol stations in Georgia under the brand name of "**GULF**". Sun Petroleum Georgia LLC, also known as Gulf, entered the Georgian fuel market in 2010. The entry of Sun Petroleum Georgia into the market resulted in the disappearance of several companies (Senta, Eko and Magnat) from the market. Owners of these companies claim they were forced to transfer their gas station chains to Sun Petroleum Georgia[189].
- **Lukoil Georgia** – a Georgian subsidiary of Russian Lukoil, owns 62 petrol stations in Georgia and is one of the largest importers of oil products in the country. According to Transparency International Georgia in 2010-2015, Lukoil was awarded 351 contracts through simplified state procurements, with a total value of around 14 million GEL. In addition, over the same period, the company participated in 65 tenders, 25 of which it won. The total revenue generated from tenders amounted to approximately 100 million GEL. Despite that, its main rival, Rompetrol Georgia, has won a greater number of tenders (49), Lukoil Georgia has, nonetheless, received more money from the state budget. It has to be mentioned, that Lukoil is the least popular in the population among five large companies - only 10% of respondents buy fuel in gas stations of this company[190].

As the Georgian Competition Agency reports, the above-mentioned five big companies are responsible for 93% of imports[191].In 2015, after 8 months of research, the Competition Agency fined all 5 companies with a total of 51.6 million GEL (approximately $22.7 million) for alleged price-fixing. According to the head of the agency, the companies had been violating the competition rules and regulations on the retail petrol and diesel market through artificial import barriers and cartel-type fixing schemes in the period of 2008-2014[192].

At the same time, fuel prices (gasoline, diesel) in the region were not very much different from each other (for example: in 2014 gasoline price was 1.24 $ per liter in Georgia, 1.30$ in Armenia and 1. 21$ in Azerbaijan[193]. The diesel price also ranged from $0.77 - $1.24 among countries[194]. In March 2019, prices are almost same in Armenia[195] and Georgia[196] (EUR 0.80 for gasoline, EUR 0, 57 for diesel).

Another important element in this situation is related to the Russian oil Company Rosneft. In 2009 Rosneft signed an Agreement on Oil and Gas Extraction with Abkhazia that granted it the right to carry out oil extraction activities on the Abkhazian Black Sea shelf. The government of Georgia has criticized Rosneft for signing an exploration and development agreement with the breakaway Republic of Abkhazia, calling the document a violation of Georgia's laws and territorial integrity.

Article 5 of the Law of Georgia on Occupied Territories clarifies that any transaction regarding real property that is concluded within the occupied territories in violation of the legislation of Georgia shall be deemed void from the time of its conclusion and shall have no legal effects. Article 6 of the same Law restricts economic activity in the occupied territories[197].

Moreover, it owns three petrol stations on the territory of Abkhazia, violating Articles 5 and 6 of the Law of Georgia on Occupied Territories[198]. Currently Rosneft stopped oil production in Black Sea

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189 TI Georgia https://www.transparency.ge/en/post/report/competition-slightly-increased-georgia-s-fuel-market-2013-2014
190 Idem
191 https://bit.ly/2TVXNuj
192 http://georgiatoday.ge/news/645/Georgia's-Competition-Agency-Fines-Major-Fuel-Retailers
193 https://www.theglobaleconomy.com/rankings/gasoline_prices/Asia/#Armenia
194 https://www.theglobaleconomy.com/rankings/diesel_prices/Asia/
195 https://autotraveler.ru/en/armenia/trend-price-fuel-armenia.html#.XJM7WSgzbIU
196 https://gulf.ge/
197 https://matsne.gov.ge/en/document/download/19132/5/en/pdf
198 https://factcheck.ge/en/story/16042-according-to-tamar-beruchashvili-at-the-current-stage-rosneft-does-not-violate-the-law-of-georgia-on-occupied-territories-1

because of the sanctions[199], however, it has been conducting illegal activities on Georgian territory since 2009.

Despite all this circumstances, in 2014 Rosneft purchased 49% of the shares of the Petrocas Energy Group which is one of the largest oil companies operating in Georgia (owned by the Georgian businessman David Iakobasvili), importing fuel from Europe and supplying it to petrol stations in the country. The company also owns oil terminals in Poti[200].The Minister of Economy and Sustainable Development of Georgia stated that Georgia has not participated in the deal and the agreement has been reached at an offshore zone. However, he ordered his Ministry to study the legalities of the deal together with the Ministry of Foreign Affairs and the Ministry of Justice. The commission was created, but has not delivered any important assessments yet[201].

In 2017 Rosneft reached an agreement with the so-called President of South Ossetia on building several petrol stations in the Tskhinvali region[202] again, violating the low of Georgia on Occupied Territories.

Gas Sector - Relationship with Gazprom

The Georgian government initiated negotiations with Gazprom in 2002, which ended with the signing of twenty-five year strategic partnership agreement between the Georgian government and Gazprom on July 1, 2003. Before 2003, The Russian Company Itera was the main supplier of gas to Georgia[203].

After the Rose Revolution brought Saakashvili to power in 2004, Moscow soon began applying energy sanctions to Georgia. As with other defiant ex-Soviet states, Georgia was subjected to massive gas price increases. From 2004 to 2006 the price demanded by Gazprom increased almost 500 percent, from $50 to $235 per thousand cubic meters. Moscow tried to portray this as a ‘normal’ price increase, designed to bring Georgia in line with prices charged to Moscow's West European buyers, which the Kremlin described as the “world market price.” In 2007, at the peak of Georgia's dependence on Russian gas, the country paid about $300 million to Gazprom, - equalling about 10% of the entire government budget.[204]

The winter of 2006 became an obvious example of Russia using gas as political weapon: After the sabotage of the two alternative branches of main gas pipeline (supplying Georgia and Armenia) and the blowing up of the electricity import transmission tower on Russian territory, on the coldest day of January 21, Georgia was totally cut off from Russian energy supply. Russia announced that both main gas lines to Georgia had been cut by bomb blasts, allegedly by Chechen separatists. Georgia had no gas reserves and was experiencing an extremely cold winter. Moreover, when after two weeks of energy blockade, through the efforts of Azerbaijan, it became possible to transit Russian gas through the Azeri gas transportation system, Gazprom stopped supplying Azerbaijan as well[205].

It is noteworthy that this was the last possibility for Russia to exercise its leverage over Georgia’s gas supply and to drag it back into own political orbit. The gas from Azerbaijan Shahdeniz field started flowing through Georgia from 2007. The blockade had an opposite effect and consolidated the society

199 https://frontnews.eu/news/en/16444/Russia-stopped-oil-production-in-Black-Sea-because-of-sanctions
200 https://factcheck.ge/en/story/30481-rosneft-violates-the-law-of-georgia-on-occupied-territories-whilst-the-government-of-georgia-in-spite-of-the-promises-it-made-has-no-reaction
201 https://bit.ly/2TWftp
202 https://commersant.ge/ge/post/rosneftiquot-okupirebul-samxret-osetshi-avtogasamarti-sadgurebis-msheneblobas-gegmavs
203 https://www.transparency.ge/sites/default/files/Georgia's%20Policy%20in%20the%20Natural%20Gas%20Sector%20eng.pdf
204 https://www.sciencedirect.com/science/article/pii/S187936651500010X#fn19
205 http://weg.ge/sites/default/files/weg-book-with-cover-page-eng.pdf

in its willingness to defend country's independent pro-western, democratic development. The immediate crisis was finally mitigated by the Iranian gas supply through Azerbaijan.

In 2008 an incident occurred on the BTC (Baku-Tbilisi-Ceyhan) pipeline disrupting the oil transportation for 14 days. The pipeline had been pumping about 900,000 barrels per day before an explosion occurred. The financial loss over 14 days came to over 1 billion dollars. Despite Russia's denial, Georgian officials claimed that it was a well-organized and well-coordinated act of sabotage in the attempt to destabilize Georgia. At the beginning of December 2014, after seven years of investigation, Bloomberg published the information that BTC pipeline was blown up by hackers who used ultra-modern computer technologies and were supported by Russian Special Services[206].

After 2007, the remaining connection to Russia's Gazprom consisted of the Russian gas transit to Armenia over the North-South transit pipeline, leaving 10% of the transited gas as in-kind payment. In 2016, Gazprom-Export demanded to change the gas transit agreement and to switch from in-kind payment to a monetary compensation. The negotiations were held behind closed doors and ended up with an estimated 70% loss of value for Georgia. The transit fee that was previously a transparent 10% for more than two decades became a "commercial secret" against the principles of treating the network infrastructure based on the GATT/WTO and the Energy Charter[207]. There was no reciprocity demanded (e.g. for similar terms of transit of gas from Central Asia through Russia) and the transit fee was allegedly inadequate for the needs to maintain the pipeline in a rough and unstable mountainous terrain.

Officials vaguely indicated that Georgia had no other option, but it remained unclear why the ministry agreed to start negotiations without proper preparation and leverage when there was an option, at least, to delay and prepare better while maintaining the existing terms of transit. This incident raised questions about both the capacity and motivation of Georgian negotiators. The explanations given were that the change of transit conditions was inevitable due to Georgia's international commitments under the Energy Charter and World Trade Organization (WTO), requiring monetary compensation of the transit service "commensurate with" the actual expenses incurred. However no reference was made to the Commitments under the EU-Georgia "Association Agreement" and the Energy Community Accession Protocol which require that tariffs for transportation of natural gas shall be set through a cost-based methodology by the regulator.[208]

Since 2016, the negotiations with Gazprom Export have created a strong tensions in society, as the processes are non-transparent and highly politicized. The ambivalence was increased by the fact that the former Prime-minister and billionaire Bidzina Ivanishvili owns about 1% of Gazprom's shares. It is just natural that Ivanishvili, as the most influential person and party leader, defends all major decisions, and relations with Gazprom could not be addressed without his knowledge . In December, 2018 Ivanishvili said that his 1% stake in Russian gas export monopoly Gazprom had been pared down and the remaining shares would be sold[209].However, experts claim that buying and selling Gazprom shares is notoriously difficult, and hardly anyone in Georgia can check the Gazprom shareholder list to verify whether the declared intention is actually carried through.[210]

In March 2019 a new agreement was achieved with Gazprom Export. According to the deputy minister of Economy and Sustainable Development, the negotiations were quite complex, but led to considerable improvement on two key aspects: the fee for the gas transit to Armenia increased and the price of Russian gas for Georgia was reduced, whereas "interested businesses" will be able to buy

[206] http://www.weg.ge/sites/default/files/energy-union-and-eap-countries4.pdf
[207] http://weg.ge/sites/default/files/comments-on-gasprom-georgia-transit-agreement-f-eng.pdf
[208] http://weg.ge/sites/default/files/comments-on-gasprom-georgia-transit-agreement-f-eng.pdf
[209] https://old.civil.ge/eng/article.php?id=24755&search=
[210] https://www.ecfr.eu/article/commentary_Georgias_Gazprom_mystery5061

gas from Gazprom directly. The agreement will be effective in 2019-2020 but it is again classified as "commercial secret"[211].

No clear explanation was given as to why the better conditions were offered and one may expect that this could not happen without concessions on the Georgian side. This is happening in parallel with price increases for Moldova and Armenia, which underlines the political rather than commercial motivations of Gazprom. It is also unclear how and why the numbers are kept secret since all interested parties (buyer companies, Azeri SOCAR, Armenia etc.) will easily get the information. The possible explanation is that the deal is struck on behalf of influential and well-connected business elites and is concealed only from the Georgian public and businesses who will not have access to Gazprom's gas. This also demonstrates the fragmentation of gas market where, instead of competition between the current monopolist (SOCAR) and Gazprom, we will have two segments of influence as they divide the market between them. This is totally against the EU energy acquis that Georgia declares to be implementing.

Data	Event	Geopolitical Rationale	Economic Rationale
2004 - 2006	Price demanded by Gazprom increased by nearly 500 percent, from \$50 to \$235 per thousand cubic meters.	applying energy sanctions to the disobedient Georgian leader, Newly Elected pro-western president	'Normal' price increase, designed to bring Georgia in line with prices charged to Moscow's West European purchasers, which the Kremlin described as the "world market price."
2006 Winter	Cut off from Russian energy supply in coldest winter - sabotage of the two alternative branches of main gas pipeline and blowing up the electricity import transmission tower, left Georgian population without gas for 2 weeks.	create instability in the country	Russia announced that both main gas lines to Georgia had been cut by bomb blasts, allegedly Chechen separatists
2008	Attack on BTC - disrupting the oil transportation for 14 days.	Undermine the reliability of southern export route for Caspian gas	Russia denied connection with incident. However. according to Bloomberg's 7 years investigation, BTC pipeline was blown up by hackers who used ultra-modern computer technologies and were supported by Russian Special Services
2016	Gazprom-Export demanded to change the gas transit agreement- switch from in-kind payment to monetary compensation.	unclear	Using principles of International Legal Framework, which forbids in-kind payment
2019	Increase transit fee (monetary compensation)	Unclear	unclear

Table 2: *Examples when Russia used its energy leverage for political purposes*

[211] http://www.economy.ge/?page=news&nw=1064&lang=en

Georgian Breakaway region Abkhazia

Instigating and supporting conflicts is Russia's favorite tool to influence political processes in neighboring countries. Moldova, Georgia, Armenia/Azerbaijan, and Ukraine all have unresolved territorial conflicts that are directly or indirectly fueled by Russia.

The Georgian breakaway region **Abkhazia** is especially concerning from the energy point of view. The major energy asset of Georgian power system and the main source of energy in Abkhazia – Enguri/Vardnili hydropower (HPP) cascade - is split between Georgian and Russian/Abkhazian controlled territories since the conflict in 1990s.The Enguri HPP reservoir and the dam ended up on the Georgian controlled side while the powerhouse is on Abkhazian territory. Since then, Abkhazia is supplied for free from the Georgian power grid and Enguri/Vardnili HPP cascade.

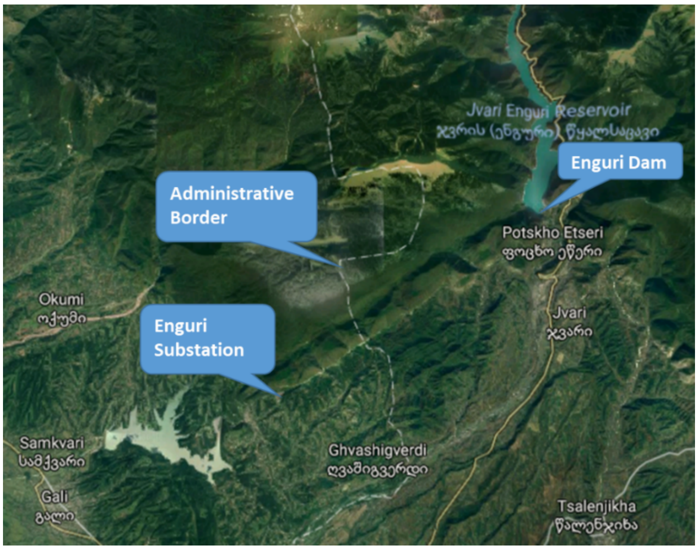


Figure 1. *Enguri HPP Dam and Substation (WEG)*

The unpaid consumption from Abkhazia was tolerated partly because it created a working connection with the region and helped maintain the relative peace while still getting Enguri power. However, the unpaid consumption is growing and becoming a major security problem for Georgia. The cost (subsidy) of electricity delivered to Abkhazia is around 40 million GEL annually. Considering the need of compensating the growing winter consumption by imports and thermal generation, the real cost to Georgia is almost twice as much. This also does not include the major costs of capital works on the tunnel and reservoir[212]. More than 180 million USD has been spent on Enguri HPP rehabilitation during 1998-2016.[213]

Cheap electricity and the absence of restrictions encouraged the production of cryptocurrency in the region, which creates important geostrategic and political difficulties for the Georgian state. It can increase its energy dependence on neighbors, including Russia, and trigger significant economic and political problems. The increased electricity consumption in Abkhazia can cause imbalances in the Georgian system, can be harmful for the energy infrastructure of Enguri HPP (posing risks to the dam stability, tunnel integrity and the reservoir). There is no information regarding the ownership of mining farms or whether they are connected to Russian layers. However, the poor quality and availability of electricity in winter periods resulted in shutting down 8,950 kW of Mining capacity (15 mining farms) in December 2018. The decision was lobbied by Aslan Basaria, the CEO of the local distribution company Chernomorenergo, according to whom the cuts were made as part of the "temporary

[212] http://weg.ge/sites/default/files/enguri-hpp-and-energy-supply-to-abkhazia-1.pdf
[213] https://www.ebrd.com/documents/comms-and-bis/psd-4304.pdf?blobnocache=true

measures to limit the consumption of electricity by certain categories of subscribers."[214] Basaria urged the de facto government of Abkhazia to come to an agreement on a framework to regulate the energy allocation. The de facto president agreed, and consequently, legislation on cryptocurrency mining is being drafted[215].

The current Enguri/Vardnili HPP cascade is the critical energy asset for Georgia and an essential part of the Georgian energy system. The existing status quo is detrimental, however, and the Russian military and propagandistic grip over Abkhazia does blocks any significant progress. The unsettled relations around its output do not allow to operate the plant in a safe manner. The continuation of the status quo may lead to the rapid depreciation of the asset for Georgia and, eventually, its transfer of this asset to Russia.

Attempts to Gain control over Energy infrastructure

Soon after the August 2008 war, on December 28, a memorandum of understanding was signed between Inter Rao and Georgia on the “effective exploitation” of Enguri HPP. The memorandum was leaked by Inter Rao and the fact became known for the Georgian population only two weeks later with Energy Minister, Alexandre Khetaguri, declaring in a press conference on January 12, that the deal was favorable for Georgia and would increase the security of the country’s energy system and the revenues from the power station. The minister also said that the memorandum itself did not represent a legally binding document. A contract, which, he said, was being drafted, would lay out the legal commitments of the parties based on this memorandum[216]. However, according to unofficial information, the agreement that would be strategically damaging for Georgia failed because of the strong opposition of the Abkhazian *De Facto* government. It seems that Abkhazians showed higher courage in defending their interests than the Georgian government who was under direct military threat at that time. Russia has allegedly tried to enter into the management of Enguri HPP since then, but strong public opposition and possibly also the involvement of EBRD (who has financed Enguri rehabilitation for years) makes this proposition more difficult to be accepted.

Russia also pressed, as it did elsewhere in the former Soviet space, for Georgia to sell its gas pipelines to Gazprom. At the peak of Russia's energy pressure on Georgia in 2005–2006, the country seemed close to giving in on this demand. This would have not only strengthened Russia's influence on Tbilisi, but also guaranteed gas supplies to Russia's ally Armenia, which can only be reached through Georgian territory. The then state minister Kakha Bendukidze, having strong Russian ties, was the most powerful proponent of selling the pipeline to Russia. However, in the end Georgia rejected the proposed Gazprom deal[217]. It took an active work of opposition parties and civil society as well as the support of international community to stop this deal. US government provided the support of 40 million for pipeline rehabilitation under the Millennium Challenge program and thus eliminated the argument of sales proponents on poor condition of the pipes.

Russia continues its creeping occupation of Georgia through the demarcation process (so called “borderization”) near South Ossetia-Shida Kartli administrative boundary line; it is also gradually advancing with the occupation line inside Georgia to enlarge the Russian-held territory. From 2009 on Russia has undertaken the bordarization of Tskhinvali region in waves. In summer 2015, Russian soldiers installed border markers in the village of Tsitelubani near Tskhinvali region. That incident resulted in 1,600-meter section of the BP operated Baku-Supsa oil pipeline being included in the zone of Russian occupation.[218]

[214] https://cointelegraph.com/news/government-of-abkhazia-cuts-off-power-to-15-cryptocurrency-mining-facilities
[215] https://cryptoinsider.com/abkhazia-regulates-crypto-mining/
[216] https://civil.ge/archives/118200
[217] https://www.sciencedirect.com/science/article/pii/S187936651500010X#fn22
[218] https://bit.ly/2TwiKXE

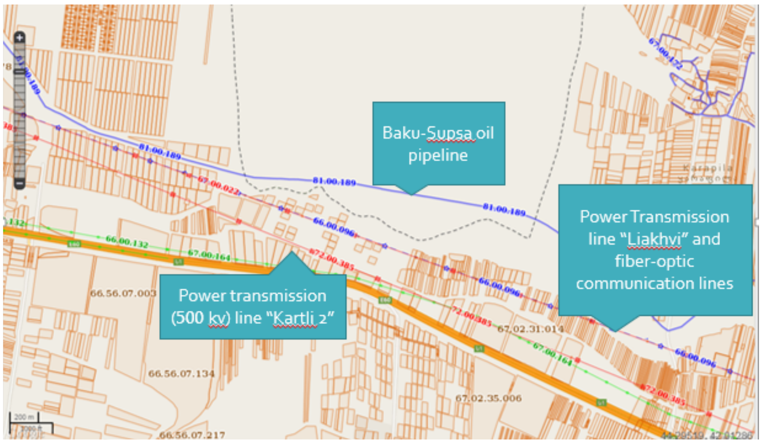


Figure 2. *Administrative Border Line and Energy infrastructure*

There are also other critical infrastructure units near the Administrative Border Line which might be targets for Russia's Creeping Occupation.

Opposing the Energy Transit Over Georgia

The export of Caspian fossil fuels to Europe and the world markets has served as an important pillar of Georgia's independence and security, due to the interest of international community in keeping this energy flow independent from Russian influence. Russia has always tried to block this transit and implemented a number of political projects and military actions to reduce the potential of this energy corridor. Damaging the BTC pipeline in Turkey and bombing its vicinity in Georgia in 2008 and taking over the part of Baku-Supsa pipeline right of way are some examples. The construction of Blue Stream successfully blocked the development of Nabucco project and now Russia is building Turkish Stream, with the purpose to undermine the development of the Southern Gas corridor. The recent agreement reached on the Caspian Sea Status[219] supposedly opens the possibility for a trans-Caspian pipeline and the flow of gas from Turkmenistan through Azerbaijan and Georgia to Europe. However, a number or political and economic circumstances may still hamper this development.

CONCLUSIONS & RECOMMENDATIONS

Russia has multiple connections and strong leverage over the Georgian energy sector, including:

1. Occupying the territory and controlling access to critical energy assets (Enguri, part of Baku-Supsa pipeline);
2. Ownership of energy companies (Electricity distribution Telasi, Khrami1 and Khrami 2 HPPs, SakRusenergo-HV power lines and interconnectors, petroleum companies Lukoil, Gulf);
3. Electricity supply: synchronous operation and importing power in winter periods
4. Gas interdependence: the transit of gas to Armenia and providing some portion of gas supply.

There may be other leverages like the possibility of acquiring control or destroying the power and gas infrastructure through cyber offensive, or manipulation of the gas and transit prices, *etc*. This complex set of dependencies is hard to analyze and in total it can provide a strategic leverage over Georgia's government policies.

The situation is complicated by the country's institutional weakness and vertically subordinated political parties. The decision-making power resides with a few persons, not with an independent regulator as should be the case in a country abiding by EU rules in energy. Such concentration of power

[219] https://www.bloomberg.com/news/articles/2018-08-12/caspian-sea-breakthrough-treaty-set-to-boost-oil-pipeline-plans

creates an easy entry point in the system and makes the whole society vulnerable to external influences. The government enjoys the freedom to take ad-hoc decisions in absence of effective parliamentary and civic oversight, which in turn is largely caused by absence of convincing political, economic, and security policy analyses and research that should normally be the base of real policies. This makes the country even easier target for external influences.

Where it is open, transparent and legal (e.g. electricity distribution, smaller generation capacities), Russian ownership of energy assets in Georgia has not led to serious abuses, the main issues being reluctance to invest and some signs of noncompetitive behavior. Transparent regulations and a competitive market are essential remedies against the use of such assets for political influences. However, Russia's political weapon in energy lay in its willingness to extend its control over the most important strategic assets like Enguri HPP and main gas transit pipelines, through blackmail and pressures.

More alarming is the continued trend of secretized relations between Georgian Government and Russia's state-owned companies (Gazprom, Inter RAO), resulting in undisclosed agreements and memoranda, contradicting the best industry practices of transparency and accountability, principles of EU legislation and sometimes the national interests. This may be indicative for the collusion between the Russian companies with local business elites and government representatives willing to achieve the short-term political gains at the expense of long-term country interests.

The political and financial support of the international community has played an important role in protecting our strategic energy infrastructure from Russian ownership (for example: EBRD support for Enguri HPP, US Millennium Challenge Corporation for North-South gas transit pipeline). Internal political processes and civic activism have created some safeguards against expansion of Russian capital and Russian presence in energy sector, but safeguards need to be built on more realistic and pragmatic grounds.

As an obvious step, it is necessary to minimize the space for ad-hoc decision making by the government and expand the space for transparent market and independent regulation operating according to principles of EU energy acquis. Another step would be to conduct an in-depth security assessment and to develop an energy security strategy based on realistic understanding circumstances.

More specifically, it is important that the EU realize the complex and multifaceted dependence of Georgia on Russian presence in energy sector and step up the efforts to:

- Increased monitoring and support of substantive, and not formal reforms for the implementation of EU energy acquis;
- Encourage evidence-based policy making and supports policy research institutions;
- Strengthen further the civil society capacity by increasing its capacity for analysis, monitoring and advocacy;
- Support the involvement of its experts in negotiations concerning strategic energy agreements;
- Continue and strengthen the support and presence with critical energy infrastructure as well as political support to the free and increased flow of Caspian hydrocarbons through Georgia over Southern Gas Corridor;
- Fully enshrine in law and strengthen in practice the independence, responsibilities and powers of the energy regulator as central authority in-charge with issuing of regulated tariffs, upholding market rules and market monitoring, in accordance with EU's rules in the Third Energy Package.
- The pre-election period before the next campaign, scheduled for the fall of 2020, is the right time to strengthen the policy and security discourse and mobilize the society against potential negative external influences.

Romania: turning back the clock by 5 years, to Russia's secret satisfaction

Ana Otilia Nuțu, Sorin Ioniță

Introduction

For various cultural, historical and political reasons, Russia is not popular in Romania, so its influence, in energy, broader economy and politics must be more subtle than in other countries in the region. Also, Romania is structurally much less dependent on imports of Russian energy, having: its own gas production; the potential to be a net exporter of electricity; and nuclear generation (about 20% of electricity production) with Canadian technology and fuel available domestically, unlike most nuclear power plants in the region.

At least in theory, with minimal efforts, **Romania could be totally cut off from Russia in terms of energy and energy resources**. It could also become a **serious competitor in the region for the Russian energy suppliers**, e.g. playing against Gazprom in Hungary, Bulgaria, Moldova on gas or against Inter RAO in Moldova on electricity.

Despite this theoretical "independence", Russia can "free ride" Romania's bad governance and profit substantially from legislative amendments, institutional weaknesses or regulatory failures that are generally favoring domestic oligarchs. After several years in which Romania had reformed rather well its energy sector, introducing competition and improved governance, signs of backtracking became visible in 2017-2018. Thus, the new governing coalition of socialists – liberal democrats (PSD-ALDE), elected in late 2016, quickly reversed some of the previous reforms which had been adopted in line with the Third Energy package – and which had reduced both the influence of local vested interests and potential for Russian influence, as explained in the previous report[220].

The most visible deterioration concerns the **independence of the energy regulator ANRE and the corporate governance of state-owned companies**. An independent energy regulator is critical to ensure effective market liberalization – sometimes in spite of Government pressures; safeguard the options of Romanian gas producers to export in a liberalized European market; and expressly enforce the third-party access to infrastructure, including the gas interconnectors and pipelines which are de facto used today only by Gazprom. In the years up to 2016, ANRE, the Romanian energy regulatory authority, had played quite an active role in pushing for these reforms much needed for energy security in the region, which would allow in the future free flows of energy in the common market and fair competition of state and private companies. Corporate governance of state-owned companies, in conjunction with effective enforcement of third-party access by the energy regulator, is essential to ensure that TSOs operate transparently with little scope for influence from any interests of market players such as suppliers and producers and that they truly enforce third party access on all pipelines, including transit. Also, state producers of electricity and gas must behave competitively, without state aid or preferential energy deals that are not at arm's length.

A second blow came from **new legislation discouraging investments in the energy sector**, by hitting hard in particular the new developments of gas in the Black Sea. Two pieces of legislation examined below are particularly hurtful: the offshore law 256/2018 and the Government Emergency Ordinance 114/2018. These effectively limit the capacity of Romanian producers to export gas to the region

[220] Energy, Russian Influence and Democratic Backsliding in Central and Eastern Europe – A Comparative Assessment and Case Studies from Belarus, Ukraine, Moldova, Hungary, Romania, available at https://expertforum.ro/en/energy-russian-influence-and-democratic-backsliding-in-central-and-eastern-europe/

competing with Gazprom and have already led to increased imports of Russian gas in recent months, as shown below. As we mentioned in our previous report, it is doubtful whether such developments, typical for poor domestic governance, are caused by direct interference of Russian interests; however, it is clear that the latter are at least indirect beneficiaries. The ultimate irony is that, through poor legislation and regulation, Romanian gas producers are required to sell some quantities of gas at regulated prices to Russian traders of imported gas, while being also required to purchase Russian gas for the operation of their own electricity generation plants.

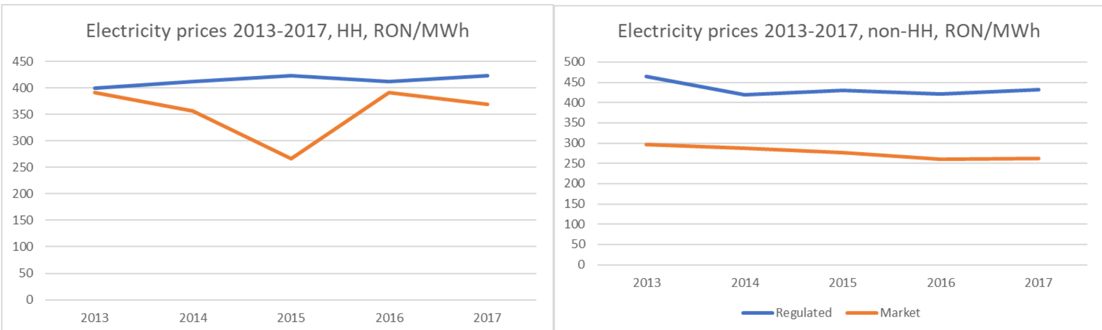
This overturning of European principles in Romanian legislation is all the more worrying as it takes place while Romania exerts the Presidency of the EU Council in the first half of 2019. At least in energy, Romania has acted inconsistently, supporting different positions at home and in Brussels. On one hand, the Romanian Presidency proposed and supported amendments to the Gas Directive 2009/73/EC. These are quite strongly worded to ensure that interconnectors with third party countries (to read, Gazprom's Nord Stream 2) must fully comply with EU's energy market principles, a move that we also strongly endorse. On the other hand, Romania is at home in breach of the same directive issuing the Ordinance 114 and has received from EU a formal notification (the initial stage of the infringement process). Under Gazprom's pressure, but also weak response, Romania is also quite unable to enforce the principles of non-discriminatory third-party access tokey transit pipelines which transports Russian gas via Ukraine to Bulgaria (the Trans Balkan transit gas pipelines). This inconsistency is in line with Romania's ad hoc policy making style, uncoordinated across the public sector, with sometimes good individual initiatives weakened by poor governance that favors vested interests at home. All these issues will be detailed in the following sections.

Deterioration of legal and institutional environment

Loss of independence of energy regulator

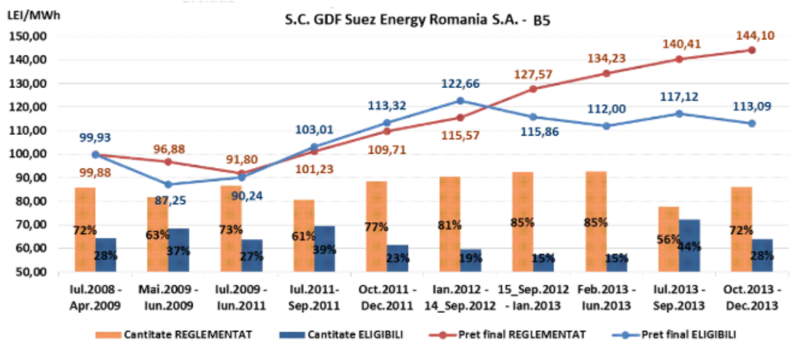
Laws 123/2012 and 160/2012 transposed in full the Third Energy package. For the next 4 years, the law was quite effectively implemented: gas and electricity markets were liberalized by 2017 for both industry and households, while the energy regulator ANRE had gradually built a reputation of increased independence and competence. Contrary to vocal vested players who argued that liberalization would bring havoc on the energy markets, the apocalypse failed to come[221]; gas and electricity prices remained rather low and below the initial expectations at the start of the liberalization process (Figure 1).

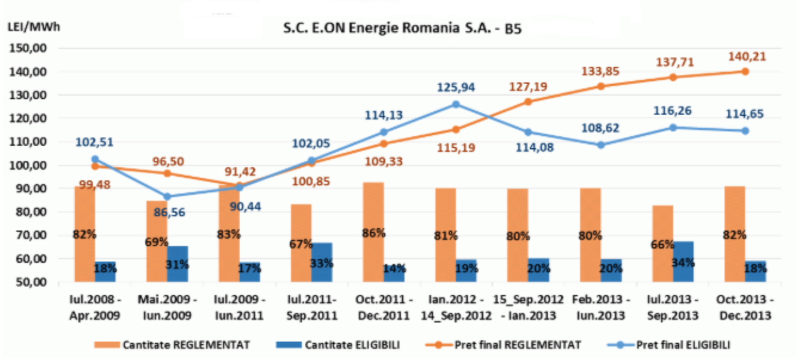
Figure 1. Before liberalization, regulated prices for electricity exceeded prices in the regulated market for households and non-households…



… and the same in the gas market, for households, even well before the end of the deregulation calendar (for non-households the gap was much more substantial)

[221] https://www.capital.ro/ce-efecte-a-avut-liberalizarea-pietei-gazelor-naturale.html





Source: ANRE

Despite the obvious advantages for consumers in deregulating the markets, including lower prices, in 2017, after the Coalition won the elections, the trend in following the EU's internal market principles changed. In January, energy prices registered a sharp hike on the power exchange. This happened because of a temporary energy shortage in the market, a possible speculation on the power exchange and some ill-advised comments of the Minister of Energy, but it had nothing to do with regulatory performance[222]. Rather, this provided an ideal opportunity to put pressure on the regulator. The committee in the Chamber of Deputies in charge with the legislation on energy initiated an investigation on the energy regulator, allegedly to examine this initial and temporary price hike[223].

There were several shortcomings of the investigation which leads us to think that the investigation was a means to put back the regulator under more political control – particularly as the leadership's mandates were expiring in October and new people were to be appointed by the Parliament. Thus, the investigation committee lacked from the start a clear, transparent and accountable mandate. Its works continued on-and-off for several months and gradually moved into much broader issues than the initial examination of the electricity market prices. During the summer, the committee started calling imperatively to interviews the representatives of private companies in a curious "witch hunt" for foreign investors, in particular attacking the private gas and oil producer Petrom. At the same time, the government increased its own pressures on the regulator ANRE, with the Minister of energy even announcing that certain regulatory responsibilities would be taken over by the ministry[224]; under the old leadership, the regulator pushed back such pressures quite vocally[225]. Various commentators in the media considered the investigation a form of pressure on the energy regulator, whose leadership was ending its term, and on Petrom, a frequent target for economic nationalists after its privatization

[222] http://www.contributors.ro/economie/criza-bursei-de-energie-ce-e-de-facut-daca-e%C8%99ti-client-sau-traderfurnizor/

[223] http://www.contributors.ro/economie/scandalul-anre-%C8%99i-pre%C8%9Burile-la-energie-pu%C8%9Bin-circ-multa-ipocrizie/

[224] https://economie.hotnews.ro/stiri-energie-21991468-ministrul-energiei-unele-din-activitatile-anre-putea-preluate-nivelul-guvernului-nu-este-decizie-foarte-clara.htm

[225] https://www.economica.net/anre-il-acuza-pe-ministrul-energiei-de-manipularea-pietei-si-de-incalcarea-directivelor-europene_143156.html

with OMV back in 2004[226]. The pressure escalated and in late 2017 (September-November) the leader of the Parliament investigation committee even threatened the Romanian CEO of Petrom Mariana Gheorghe that, if she did not come to the Parliament to discuss with the investigation committee, the findings of the investigation would be filed directly with the prosecutors[227]. Whether these threats and the investigation itself had any direct consequences on the decisions of Petrom and ANRE cannot be ascertained; however Ms. Gheorghe announced publicly and unexpectedly her resignation, effective in May 2018. The political gamble with the energy regulator also paid off: the person appointed in October 2017 as the new president of ANRE was in fact a controversial party loyal without proper credentials[228] and former member of the investigation committee. The other members of ANRE's newly appointed leadership were selected from the political cadres of the Coalition and of the Hungarian party which supports the government. Indeed, after the appointment, the politicization of ANRE increased, through nepotism inside ANRE and enhancement of the control of the Parliament[229].

The effects on the regulator's behavior became immediately visible. Since the change of the leadership of ANRE, the regulator has been silent in front of the attacks of the Government against the functioning of the energy market, whereas under the previous leadership it had always been quite assertive in similar situations. As the government approved a controversial decree returning to regulated markets for households for electricity and gas (Ordinance 114, explained below), ANRE had no public reaction, as should have been expected since this is a clear violation of the Third Energy Package. The regulator simply adopted quietly secondary legislation to implement the Ordinance and approved higher tariffs for end-consumers. It must be noted that Ordinance 114 also introduced a 2% tax on the turnover of energy companies licensed by ANRE and this 2% would go directly in ANRE's budget – which makes the regulator a key stakeholder with a direct benefit to gain from the Ordinance and explains why it has become so passive to Government and Parliament interference. The regulator's deterioration provided good opportunities for Russian interests, after the adoption of Ordinance 114, as will be explained below.

Weakening of the corporate governance of state-owned companies

70% of the electricity production and 50% of gas production, as well as transport of gas and electricity are concentrated in full state-owned companies or majority state-owned companies. Therefore, whether these companies are well governed is critical for the functioning of electricity and gas markets.

All through 2017, the law on corporate governance of state-owned companies (Ordinance 109/2011, enhanced by Law 111/2016) has largely been disregarded, for all energy producers, though from later 2018 onwards it has been partly implemented. The law sets clear criteria for the selection of the management and board and provides for a sound definition of the state's role as an owner for the companies. These principles have not been followed by energy SOEs in 2017, with many energy producers, where the mandate of the previous leadership expired, having instead temporary managers appointed politically for short interim mandates of up to 4 months. This "omission" in applying the law to these companies occurred because in parallel, the Coalition attempted to set up

[226] https://economie.hotnews.ro/stiri-energie-22075389-deputatul-iulian-iancu-amenintare-adresa-marianei-gheorghe-ceo-omv-petrom-cazul-care-nu-prezinta-personal-comisia-parlamentara-ancheta-anre-vom-declina-catre-diicot-dna-informatiile-care-vom-culege.htm?nomobile=
[227] https://economie.hotnews.ro/stiri-energie-22075389-deputatul-iulian-iancu-amenintare-adresa-marianei-gheorghe-ceo-omv-petrom-cazul-care-nu-prezinta-personal-comisia-parlamentara-ancheta-anre-vom-declina-catre-diicot-dna-informatiile-care-vom-culege.htm
[228] https://adevarul.ro/economie/stiri-economice/cine-dumitruchirita-omul-pus-psd-conduca-anre-1_59e62eef5ab6550cb8377bc1/index.html
[229] https://www.economica.net/dumitru-chirita-aduce-12-angajati-de-lux-la-anre-si-subordoneaza-si-mai-mult-institutia-comisiilor-parlamentare_149827.html?fb_comment_id=1832575246816890_1834711143269967

an "investment fund" with separate governance arrangements (no details given), which would have incorporated key energy companies such as electricity and gas producers and distributors, including the government's shares in privatized companies such as Electrica or Petrom. The interim mandates of existing energy SOEs were thought of as a "bridge" solution until the key energy companies would be excluded altogether from the application of Law 111 and become part of the investment fund. The "investment fund", finally approved by Parliament in 2018, was rendered unconstitutional in July 2018[230], though the ideas behind keep appearing, under various denominations and structures. In the end, the Government approved in Emergency decree 114 another "investment fund", this time as a public budget-financed plan for subnational infrastructure investments. It also approved - by yet another emergency decree, 100/2018 in late 2018 - some general principles for "sovereign investment funds". So far, a new sovereign investment fund has still not been created, but, as expected, Ordinance 100/2018 exempts the future sovereign investment fund from the constraints of corporate governance legislation, allowing political appointments at the top of the fund for at least 18 months, while companies in the fund could be exempted altogether from the Law 111. In 2019, an old idea of merging the electricity generation in one large player has been revived – at least declaratively[231].

All these initiatives have an indirect effect on the functioning of the energy market: if the companies return to old non-commercial practices that were the norm until 2012-2013, several incumbents will regain an uncompetitive advantage. The merger of the electricity sector in one or two large producers, a failed idea but strongly supported by the government between 2008-2012 and now back on the table, would have allowed cross-subsidies from hydro and nuclear to the coal-fired plants. But in addition, it would hide sales of "cheap" hydroelectricity (i.e., below market prices) to favored players such as certain energy traders and large electricity consumers. Before 2012, as explained in the previous report, alongside traders well connected politically and a large steel consumer owned by Mittal, one large Russian consumer benefitted preferential contracts from state electricity generators such as Nuclearelectrica and Hidroelectrica, - the aluminum producer ALRO (owned by the Russian Vimetco). Again, a case in which Russian interests benefit indirectly from bad governance for domestic interests.

Such deals are possible when the management of the state-owned companies is less accountable for maximizing the value for the SOE in a sound corporate governance environment than for signing onerous deals. The preferential contracts of Hidroelectrica and Nuclearelectrica with traders and large consumers at below market price, the norm between 2004-2012, had been "justified" to the public as definitely more advantageous to the state producers than the regulated market.[232] As may be guessed, this is a fallacious argument, since the assessment of the opportunity cost should have been made by comparison with the market price for liberalized consumers such as large industry, and not with the prices regulated for the time for social reasons at low levels for SMEs and households. An "integrated champion", combining all hydro and coal-fired plants, would concentrate over 50% of the generation and almost 100% of ancillary and balancing services. This distorts altogether the market prices and renders them a useless benchmark against which to compare the prices at which some players get energy from state owned companies. At the same time, preferential deals can be signed with various purchasers for the electricity generation of individual plants within the integrated company (e.g., just hydro), without the possibility to benchmark to a useful reference (market price, then distorted by concentration) to observe and document the level of advantage provided to these players.

Transgaz, Romania's gas TSO, has been particularly hit by worsening conditions in the governance environment. It has been required to provide dividends in advance to cover budget deficits (about 150-150 million EUR in the past two years), despite the board's opposition and the company's substantial financing needs to (co)finance its extensive plan for interconnections. There are pressures

[230] https://www.euractiv.ro/economic/fondul-de-investitii-propus-de-dragnea-este-neconstitutional-11340
[231] https://www.digi24.ro/stiri/economie/energie/nou-mamut-energetic-productia-hidro-ar-putea-fi-unificata-cu-cea-pe-carbune-1084708
[232] https://www.economica.net/ce-castiga-hidroelectrica-din-contractul-cu-alro_30937.html

from the main shareholder (Ministry of Economy) to extend the company's mandate to enhance distribution networks in certain areas with a stronghold of the ruling PSD, allegedly with the intention to give contracts for well-connected construction companies[233]. Under these circumstances, it is no wonder that the company's TYNDP 2018-2027 has been rejected by shareholders (mainly by the Ministry of Economy itself), as explained below. On top of this, both Transgaz and the state gas producer Romgaz have been consistently required to distribute as dividends 90% of their profits (just like all other state-owned energy companies), to cover budget deficits, which limits the companies' potential to invest.

Offshore law and Ordinance 114

In the second half of 2018 and early 2019, the energy market, but in particular the gas sector, has been shaken by two new pieces of legislation. The law concerning the **extraction of gas from deep offshore deposits (Law 256/2018)** was badly needed by the companies exploring the reserves in the Black Sea to clarify the approvals needed for the actual works from various public institutions. However, as the law was being discussed in Parliament, MPs also introduced several additional, last-minute clauses that were not properly debated and in fact discourage investments. Critically, the law confirms a high taxation for the offshore gas (copied from a "windfall tax" applied for the onshore gas extraction and no longer appropriate even for these¯see Box 1) and requires companies to sell 50% of the production on the Romanian gas exchanges. The first provision increases substantially the costs of the operation of gas deposits and it is uncertain whether the investments would remain profitable. The second, unless it is circumvented (such as selling on Romanian gas exchanges to Romanian subsidiaries of foreign gas traders, who then resell abroad), could be considered an implicit ban on gas exports.

Box 1. Windfall tax

In brief, the windfall tax was introduced in 2013 as a temporary measure during gas market liberalization. The liberalization entailed a calendar of increases of regulated prices until a theoretical market parity, over a few years. To give incentives both for the Government to liberalize and for gas producers to accept an increase of taxation despite a "fiscal stability" clause, the agreement was for Government and producers to "split" the additional gain from the gradual, administrative increase of gas prices, considering that most of the gas came from deposits already in use and without much additional investments needed. The "windfall tax" was supposed to be in force only by the end of the liberalization calendar in 2017; provides for very few deductions for investments; and should have been replaced by a comprehensive reform of the taxation of hydrocarbons by 2017. Instead, it has been extended by 1-year periods at the approval of each annual budget. The tax is obsolete for the onshore deposits; calculates taxation rates at price references that made sense at the time the liberalization calendar was issued - 2012; and, most critically, it allows very little deductions for investments, which is totally inadequate for a new, costly, sophisticated development such as deep off-shore. The taxation was also introduced overnight, just before the approval of the text. The offshore law, initially approved in July, was returned to Parliament by the President for re-examination for various reasons (including for the many changes that were introduced overnight by the decisional chamber and which breach the principle of two-chamber Parliament). By the end of the year the law had been approved with a taxation level even higher than in summer. Investors did not have the time to calculate the impact to make an investment decision, and the law itself was not based on a proper impact assessment.

On top of this new law, the government approved in late December an **Ordinance (114/2018) which sets new taxation and prohibitive regulation** for several sectors: banking, telecommunication, energy. The energy sector is hit both by the additional taxation on banks (which limits borrowing capacity) and by measures that regulate again the gas and electricity markets for households and large industrial gas consumers by February 2022, which had been liberalized in full in 2017-2018. The justification for the Ordinance is at best spurious: it seeks to correct high price increases in energy which are, in fact, self-inflicted (see Box 2).

[233] https://www.economica.net/ultimul-nume-pe-lista-demnitarilor-care-pun-transgaz-pe-foc_166182.html

Box 2. The self-inflicted electricity price crisis in late 2018

In the second half of 2018, wholesale electricity prices on OPCOM jumped (e.g., in September-December 2018 day-ahead prices were 40% higher compared to the similar period of 2017). This is caused by complex factors, but most notably by the elimination of one of the two price caps on the balancing market.

The balancing market is dominated by two SOEs, hydro producer Hidroelectrica (for rapid reserve) and coal-fired producer CE Oltenia (for tertiary reserve). Given the quasi-monopoly on these markets and the large demand for balancing after the entry of intermittent renewables in the market, the balancing market prices were regulated. Previously, prices offered on the balancing market should have met two conditions: not to exceed 450 RON + closing day-ahead price of the previous day and not to exceed 250 RON + the price of any other balancing offer, upward or downward, from the same company. The second condition was eliminated. The elimination of the latter price constraint, quite possibly at the pressure of the two companies, provided incentives for the two SOEs to withhold trading on the power exchange and instead sell in the balancing market, at prices as high as over 200 EUR/MWh (compared to 40-45 EUR on the spot market before 2018). Intermittent renewables limited their risk to create imbalances and pay prohibitive costs, placing sales offers for extremely conservative quantities in the power exchange, sometimes as low as 40% of their forecast production. Coupled with a mining strike in early 2019 – caused again by Ordinance 114, these factors reduced production, increased exports and enhanced pressures for excessively high electricity prices. High spot prices spiraled up the balancing market prices (capped at previous day closing spot price + 450 RON), creating a vicious circle. The plain truth is that this is a purely self-inflicted crisis: all these price increases are caused by poor regulation. These high price increases were the so-called justification for Ordinance 114 for the electricity provisions.

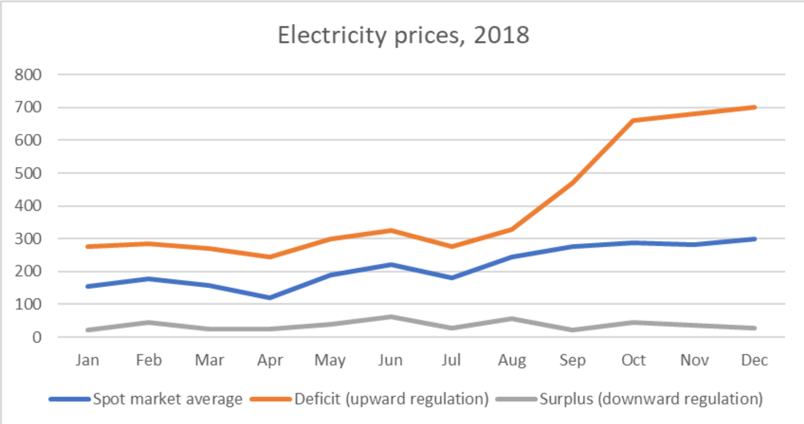


Figure 2. *Electricity prices spiked in the balancing market, pulling the prices on the spot market*
Source: Raluca Rusu, renewables industry, based on data from OPCOM and Transelectrica

Instead of solving the issue, the Ordinance actually reinforces the pressures on the electricity market. At the beginning of the year, suppliers expected ANRE's methodology for the regulated prices and placed purchase offers on the spot market, instead of the less speculative market with longer term contracts, where prices had been less volatile. This pushed again up the electricity prices on the day-ahead market, which were in January 18% higher than in December 2018 and 126% higher than in January 2018. In the following period, after ANRE's methodology was approved, regulated suppliers will get lower regulated prices, whereas the more "expensive" energy will be available in the market for the eligible consumers. Both regulated and unregulated consumers will also have to pay the 2% turnover tax, which companies transfer in prices to consumers. In effect, both ANRE's Order 31/2018 that created the initial problem and Ordinance 114 created a substantial generation gap which limits Romania's perspective to export and strained the available capacity to import[234] beyond the normal needs for the winter season[235].

Unless the structural causes are solved, the energy prices will likely continue to remain high. In a previous report[236], we mentioned that the electricity interconnection between Romania and Moldova is highly feasible even if financed in purely economic conditions, as the electricity price in Romania was at the time consistently 15-20% lower than in Moldova. This is no longer the case. The interconnection would reduce Moldova's dependency on the Russian-owned electricity plant in Transnistria. The nonsense done in the energy sector in Romania works indirectly to consolidate Russia's regional dominance not only in gas, but in this case also in electricity.

[234] https://www.profit.ro/povesti-cu-profit/energie/analiza-ordonanta-114-transforma-romania-in-importator-net-de-energie-se-anunta-vremuri-grele-pentru-producatorii-autohtoni-18824181?fbclid=IwAR1XNN-ef88zwEaGmjpMPCH6S4IKq5aAzjMU0Nv92dBIQMM1dLCOW4PIn14
[235] https://www.zf.ro/companii/energie/romania-a-atins-un-maxim-istoric-in-importul-de-energie-electrica-17853375
[236] https://expertforum.ro/en/the-bridge-over-the-prut-version-2-0/

The Ordinance also caps the gas prices for the domestic production on the wholesale market to 68 RON/MWh (compared to 90-95 RON/MWh on the gas exchanges at the time of the Ordinance). Most of the provisions of energy market regulation in Ordinance 114 focuses on households; however, for gas, there is a small addition in one of the provisions specifying that the gas price of 68 would apply for "households *and eligible consumers*". In effect, the end-user gas price (for both households and "eligible consumers" – non-households) would contain the regulated transport and distribution tariffs, a regulated supply tariff, and the commodity price calculated as an average of domestic gas prices and imported gas prices, weighted with the shares of domestic vs import. Even from the beginning, certain commentators argued that the Ordinance favors Ioan Niculae, the owner of a large fertilizer group Interagro, who would receive cheap gas for his plants now in insolvency after the market liberalization and after having spent some years in prison for corruption[237]. Other beneficiaries include the former regulated suppliers, which regain a captive market[238].

The Ordinance came at a shock to the energy industry, with price increases of 14% on the power exchange OPCOM in just one day after the announcement that the Ordinance was approved and a stock exchange crash including for the listed energy SOEs[239]. The Ordinance is broadly contested by the business community[240], while the European Commission has initiated infringement procedures for the breach of Gas Directive 2009/73/EC[241]. Even some state-owned companies, despite increased political control over the leadership, have publicly opposed the Ordinance[242]. For the first three months of 2019, the Ordinance caused havoc on the Romanian energy market, because it was unexpected and major provisions remained unclear, such as whether the tax is applicable retroactively for the turnover in 2018, whether all companies or only some are required to pay the 2%, whether the 2% will be applicable in effect twice, for production and for supply at the end-user price or just for the "value-added" by suppliers and so on.

ANRE issued since the beginning of the year regulations that clarify some of the provisions of the Ordinance 114 and these confirm the worst fears. Thus, after 3 months of implementation, certain concerns have already been confirmed:

- Despite the fact that the Ordinance was presented as a means to reduce energy prices for household consumers of electricity and gas, this assertion is contradicted by reality. The **2% turnover tax, as per an order of the regulator, is fully reflected in regulated end-user prices**[243], while overall gas and electricity prices are expected to be a bit higher than in the previous year[244].

[237] https://www.g4media.ro/marele-castigator-al-oug-114-ioan-niculae-confirma-ca-ordonanta-lacomiei-ii-redeschide-combinatele-falimentare-de-ingrasaminte-chimice.html
[238] https://economie.hotnews.ro/stiri-energie-22974104-niculae-havrilet-ministerul-energiei-oug-114-fost-solicitata-cei-care-castiga-din-energie-marii-castigatori-sunt-furnizorii-piata-reglementata.htm
[239] Just from the shock of Ordinance 114, the state lost in 2018 about 300 million EUR from the value of its energy SOEs. https://www.zf.ro/companii/energie/statul-roman-a-pierdut-1-16-miliarde-de-lei-din-capitalizarea-companiilor-din-energie-in-2018-17851186?fbclid=IwAR1i8ZkKrcob8bpoSFAP0qXIvYlSNYA_0i-or0vXwvxCbY1IdWeUIllkuog
[240] See, for example, the position of the oil and gas industry: http://www.ropepca.ro/lib/foto/POZITIA_ROPEPCA_CU_PRIVIRE_LA_OUG_114.2018.pdf
[241] Internal energy market: Commission calls on ROMANIA to correctly transpose EU rules: http://europa.eu/rapid/press-release_MEMO-19-1472_en.htm.
[242] https://cursdeguvernare.ro/companiile-energetice-despre-oug-114-limitarea-profitului-prin-ordin-anre-este-neconstitutionala.html
[243] https://cursdeguvernare.ro/ordin-anre-consumatorii-vor-suporta-integral-taxa-de-2-pe-cifra-de-afaceri-companiilor-din-energie.html
[244] Prices are reported by ANRE with delays of 6 months, so for the moment we know only that regulated prices would include higher imports of gas; higher distribution tariffs to cover the 2% turnover tax; recovery of losses from previous years; and an explosion of electricity prices immediately after Ordinance 114 in the power exchange, which affects the largest suppliers. https://www.profit.ro/must-read/record-absolut-in-urma-

There has been no proper assessment on why energy prices have increased indeed substantially in the second half of the year 2018 and correct those imbalances, instead of imposing regulated prices (see Box 2).

- For gas, indeed the **regulated prices will apply also to large industrial and other eligible consumers**. This is an idea that was rather unclear from the Ordinance (except for a "small print" in one of its provisions) and from the initial public statements, but very much in line with the recent public positions of various politicians in the Government[245]. As per the Ordinance, beneficiaries of regulated gas prices and quantities would not be only households, but also "eligible consumers", to read including large industrial consumers of gas that had been deregulated (with some exceptions) since 2006. In other words, the large fertilizer complex Interagro, with its various chemical and fertilizer plants, would be supported with dedicated quantities of domestic gas (1.8 TWh in April-September 2019, or some 26% of the total regulated quantities for the same period for eligible consumers) at prices regulated at 68 RON/MWh. By comparison, the domestic production quantities set aside for household consumers are about 16 TWh[246]. Ironically, among beneficiaries of the "cheap domestic gas" are also Russian traders of imported gas like Wirom (owned by Gazprom through a Swiss subsidiary); WIEE (Gazprom) and CONEF (Vitali Machitsky, who also controls ALRO). Romanian producers Romgaz and Gazprom are thus required by regulation to sell gas at regulated prices to Russian gas traders.
- The domestic gas production cannot for the moment cover the entire domestic demand even at market prices, and is less able to do so at prices regulated 30% below the market level which increase demand and reduce supply. This means that **Romania must import additional quantities of gas**. As per the Ordinance (confirmed by two orders of the regulator[247]), in order to regulate gas prices, all consumers will get gas at fixed proportions of domestic production and imports, at a regulated, weighted average price. In other words, Ordinance 114, capping the domestic gas price, creates a market for Russian gas. What is worse, in a normal monopoly market, gas importers would not be able to increase prices indefinitely, being constrained by the demand elasticity. In the Romanian regulation, ANRE will respond to increases of prices from Gazprom with increased requirements from domestic gas producers to supply gas to the market at the regulated price of 68 RON/MWh. For the moment, the two gas producers Petrom and Romgaz not only have to sell some 25% of their 2019 production at 68 RON/MWh[248], but they are required to actually purchase gas from imports for their own consumption to meet the regulation[249]. What is worse, Romgaz and Petrom, which also have gas-fired electricity generation, will be required to purchase Russian gas to operate their own power plants. ANRE's decision 474/2018 actually requires Romgaz to fully use Russian gas for its operation of the Iernut power plant in April-June 2019[250].

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adoptarii-oug-114-cea-mai-scumpa-tranzactie-cu-energie-a-tuturor-timpurilor-din-romania-18828290?fbclid=IwAR30cW2srilSdqupFPutZCeW54bxcbZehEW4lbFXlcr0yONxu5nTTPSQLNc. We cannot compare the regulated prices of 2019 with the previous year because in early 2018 prices were not regulated.

[245] https://adevarul.ro/economie/stiri-economice/olguta-vasilescu-despre-oug-114-e-ioan-niculae-ajutat-i-plafoneaza-pretul-gaze-1_5c92415b445219c57e75a14a/index.html

[246] In effect, the subsidy to be received by the magnate Ioan Niculae, owner of Interagro, for April-September 2019, is only about 20 million EUR (the gap between the market price, which has now jumped to about 120 RON/MWh on the gas exchanges, and the price cap of 68 RON/MWh, multiplied with the quantity of 1.8 TWh, roughly 93 million RON or 20 million EUR).

[247] http://www.energynomics.ro/ro/reglementatorul-a-decis-care-companii-vor-cumpara-cat-gaz-din-productia-interna-si-de-la-cine-la-preturile-stabilite-de-guvern/

[248] https://www.profit.ro/must-read/omv-petrom-si-romgaz-obligate-de-anre-sa-furnizeze-in-urmatoare-6-luni-peste-25-din-productia-de-gaze-anuala-la-pret-plafonat-18946773

[249] https://www.profit.ro/povesti-cu-profit/energie/aberatiile-oug-114-anre-obliga-romgaz-si-petrom-sa-importe-gaze-rusesti-la-pretul-pietei-si-sa-vanda-gaze-romanesti-la-pret-plafonat-catre-cei-doi-importatori-gazprom-18946931

[250] https://adevarul.ro/economie/stiri-economice/psd-nearunca-bratele-gazpromului-dragul-ioan-niculae-afectatasecuritatea-aprovizionarii-crescute-artificial-importurile-rusi-1_5c97e496445219c57e9f4492/index.html

- The effects of the Ordinance on imports of Russian gas are already visible. **The imports of gas have increased 10-fold at the Hungarian border** in the first two months of 2019 compared to the similar period of 2018[251]. In January, immediately after the Ordinance, total imports increased by 60% compared to January 2018, at prices higher by 37%[252]. After the approval of the offshore law and Ordinance 114, OMV Petrom, which holds the largest concession (Neptun Deep) in partnership with Exxon, announced that it postpones the investments in the Black Sea deposits. BSOG, which has a smaller concession, announced it will undertake the investment decision, though it will fight the new taxes and the condition to sell 50% of its production in the Romanian gas exchanges[253]. It must be noted that the regulation of electricity and gas prices introduced by Ordinance 114 have a deadline (February 2022), which would be before the gas from the Black Sea would enter the market. However, given the manner in which the new legislation has been introduced, there is an increased risk of legislative and regulatory instability which discourages investments. In fact, Petrom also announced its intentions to reduce its current investments in onshore gas extraction. All this nonsense takes place while Gazprom intends to bypass Ukraine for the gas transit in 2-3 years and the future availability of Russian gas for the region becomes uncertain.

It is unclear to what extent these actions were just the effects of poor governance or whether there have been also Russian interests involved. On one hand, governance has deteriorated in most sectors, mainly in the justice system (with various amendments to the Criminal Code, partially successful attempts to intimidate the prosecution against corruption and replace key prosecutors). Critical administrative controls, such as regulators (telecom, energy, Competition Council), the Court of Accounts, fiscal responsibility mechanisms, intergovernmental fiscal transfers have been weakened and key institutions politicized or captured for vested interests[254]. The deterioration of governance in the energy sector generally follows broader trends. The latest hot debate with stakeholders about cancelling parts of the Ordinance (e.g., to exclude industrial consumers; to postpone by May 2019 the price cap of 68 RON/MWh after contracts have already been signed etc., approved also ad hoc at the end of March[255]) indicate that the ordinance is just another botched piece of legislation produced in a poor governance environment.

However, there were certain instances in which Russian influence could be suspected, in particular in the gas sector[256]. Thus:

- Prior to the adoption of the offshore law, obscure media outlets[257] started a campaign against the development of the offshore gas deposits. These arguments were then taken over by Iulian Iancu, the chairman of the committee in charge with energy in the Chamber of Deputies, who also chaired the investigation committee on ANRE and is generally an opponent to the implementation of the Third Energy Package. Iancu's name appears in a corruption case where the fertilizer magnate Niculae was convicted of paying a 1 million EUR bribe to Mircea Geoana's presidential campaign in 2009 in exchange for a promise that Iancu would be appointed Minister of Economy (energy). While

[251] https://www.profit.ro/stiri/economie/efectele-oug-114-romania-al-patrulea-producator-din-ue-si-a-majorat-in-2019-de-10-ori-importurile-de-gaze-din-ungaria-tara-fara-rezerve-18945889?source=biziday
[252] https://www.profit.ro/insider/energie/explozie-a-importurilor-de-gaze-volume-mai-mari-cu-60-preturi-majorate-cu-40-18950152
[253] https://adevarul.ro/economie/investitii/black-sea-oilgasa-luat-decizia-investi-productia-gaze-marea-neagra-1_5c5bc18cdf52022f7578c804/index.html
[254] For a detailed report, https://freedomhouse.org/report/nations-transit/2018/romania
[255] https://www.profit.ro/stiri/politic/ultima-ora-confirmare-oug-114-bis-publicata-in-monitorul-oficial-plafonarea-pretului-gazelor-amanata-pentru-1-mai-in-pofida-declaratiilor-lui-dragnea-18957135
[256] Kremlin Playbook 2, forthcoming, Romania chapter.
[257] Most notably Sorin Rosca Stanescu, "Catastrofă la Marea Neagră", 2018. http://www.sroscas.ro/site/2018/04/13/catastrofa-la-marea-neagra/. Sorin Rosca Stanescu is a former journalist with a former criminal conviction for insider trading.

no credible connection between Iancu and Gazprom has been demonstrated, Iancu has been accused several times of supporting measures that at least favor Gazprom[258].

- Key positions in government are filled by people connected to a controversial businessman, Gabriel Comanescu, and his company Grup Servicii Petroliere (GSP). Comanescu, a very influential businessman, had managed to acquire Petrom's Black Sea platforms to his company shortly after Petrom's privatization in 2004 and has virtually developed a monopoly of platforms used for gas extraction in the Black Sea. Comanescu later built a large company, operating internationally, GSP, which he controls indirectly through another company, Upetrom. In 2009 GSP concluded a contract providing services to Gazprom amounting to 270 million EUR[259], the largest deal ever concluded by a Romanian entity with a Russian company. Comanescu appears in Forbes with a total wealth of EUR 500 million, obtained from oil and gas operations in Romania and post-Soviet countries[260]. In 2012, media reported that Comanescu was also working for Gazprom on research and support for South Stream[261]. Comanescu is very well connected to Iulian Iancu (who is also a MP elected in Constanta, where Comanescu operates his businesses).

Two investigations highlight the links between Comanescu and Iulian Iancu through a PR company, AMICOM, which is also connected to key actors from the secret services[262]. Comanescu managed to put his people in key government positions with influence on the energy sector and in the developments of the offshore gas deposits. Constantin Gheorghe, a former employee of GSP, is the president of ACROPO, a new agency set up in 2017 to monitor offshore gas developments during the extraction phase whether gas companies follow the law. Another GSP employee, Florin Ciocanelea, was appointed as deputy minister for Energy[263]. Constantin Gheorghe issued controversial statements in support of an amendment to the Offshore law that would include an obligation for offshore developers to work only with Romanian companies[264]. Such an obligation would have provided business for GSP, a virtual monopoly, but could have also blocked the offshore developments, as very few and only international companies have the required experience. It is uncertain whether the move was designed to ensure business for the company or to block the gas developments altogether, in the benefit of Gazprom. In the meanwhile, through the taxation in the Offshore law and through the provisions of Ordinance 114, the offshore gas developments could be already compromised, as explained above.

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[258] For example, former energy minister Razvan Nicolescu stated publicly that "the greatest beneficiary" [of amendments proposed by Iancu to the law transposing the gas directive] is Gazprom". https://economie.hotnews.ro/stiri-energie-22058115-fostul-ministru-energiei-razvan-nicolescu-acuza-iulian-iancu-psd-face-jocul-rusilor-gazprom.htm?source=biziday. Iancu's name appears also in a Wikileaks document, where his party colleague Georgian Pop accuses him to be "owned by Gazprom".

[259] Rise Project, "Reteaua Comanescu", https://www.riseproject.ro/articol/reteaua-comanescu-iii-un-cuvant-de-30-de-milioane-de-euro/

[260] Rise Project, 2017, http://www.economica.net/panama-papers-cum-a-luat-comanescu-platformele-de-foraj-ale-petrom-rise-project_118484.html

[261] http://www.romaniatv.net/compania-unui-magnat-roman-se-ocupa-de-mega-proiectul-rusesc-south-stream-de-15-miliarde-euro_11637.html

[262] http://sorinamatei.ro/exclusiv-reteaua-amicom-faza-pe-regate-sponsorizate-din-banii-prietenilor-personali-si-colegilor-din-kgb-ai-presedintelui-rus-vladimir-putin-sri-nu-confirma-nu-infirma-dar-lasa/ and Marius Florian, "Clubul prietenilor Moscovei (II): AMICOM, firma care subminează interesele americane în România", 2016. According to one of these investigations, AMICOM has also been employed by Chevron for PR services, but allegedly the company had leaked inside information to fuel anti-shale gas protests in 2013.

[263] https://www.g4media.ro/oamenii-lui-gabriel-comanescu-promovati-in-posturi-cheie-de-premierul-dancila-comanescu-romanul-cu-cele-mai-mari-contracte-in-rusia.html

[264] http://www.bursa.ro/gheorghe-constantin-acropo-companiile-petroliere-din-marea-neagra-sa-lucreze-cu-firme-romanesti-3...&s=companii_afaceri&articol=348620.html. In the end, for fear of an infringement on EU's competition law, the provision was dropped and replaced with a milder condition that all subcontractors must have at least 25% Romanian employees.

Political will: do we want to export gas or not?

At least declaratively, Romania supports the idea of opening its energy (and in particular gas) market for exports, though its actions, as detailed above, contradict this. As examined in more detail in the Moldova chapter, the Romanian TSO Transgaz has committed to finalize the interconnection with Moldova in both countries. Transgaz has started the tenders for the works in Romania and Moldova, though the project will not likely be finished before 2020, while Moldova's contract with Gazprom expires end 2019 and should be renegotiated – the renegotiation could have been done in much better terms for Moldova, if the country had an effective alternative through its connection with Romania before then. Transgaz is also moving ahead with the works for the BRUA project, which have already started for the first phase, while the second phase is expected to start this year[265].

Despite the ambitious investment plans of Transgaz, in March 2019, its shareholders have rejected the TYNDP 2018-2027, based on the argument that there is not enough certainty that the quantities of gas would justify the economic feasibility of the company's interconnection projects[266]. Transgaz also has problems in convincing suppliers to reserve the interconnection capacity for BRUA, with previous bidders cancelling the contracts before end-2018. In short, Romania will not be able to export gas and compete with Gazprom either in the region or at home if investments are discouraged in gas extraction and in the development of the network.

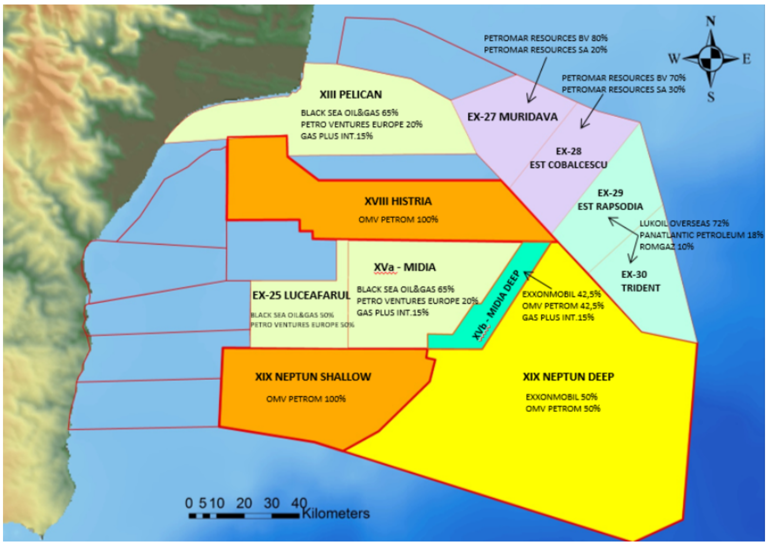

Figure 3: Offshore perimeters in the Black Sea

Source: Romanian Black Sea Titleholders Association, rbsta.ro

But behind the enthusiastic rhetoric that Romania could become a "regional gas hub" and promotes interconnections, a more prosaic reality becomes apparent once we examine the existing transit pipeline Isaccea-Negru Voda. An extensive investigation of ICIS[267] finds that, despite the expiration of

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265 https://www.profit.ro/povesti-cu-profit/energie/transgaz-si-omologul-sau-din-ungaria-au-prelungit-pana-in-vara-procedura-de-rezervare-de-capacitate-de-care-depinde-soarta-extinderii-gazoductului-brua-18914940

266 https://www.economica.net/actionarii-transgaz-resping-planul-de-dezvoltare-a-sistemului-national-de-transport-2018-2027_165977.html

267 The investigation is covered in three articles in ICIS.
https://www.icis.com/explore/resources/news/2018/06/11/10230529/key-eastern-gas-route-remains-blocked-despite-eu-access-rules/?redirect=english
https://www.icis.com/explore/resources/news/2018/07/05/10238532/romania-s-transgaz-confirms-no-eu-rules-at-key-interconnection-point-because-of-gazprom/
https://www.icis.com/explore/resources/news/2018/06/12/10230776/russia-s-gazprom-obstructs-romanian-cross-border-trading-sources/

two transit contracts with Gazprom in 2016 and the fact that this pipeline is fully on EU territory, the pipeline is still not open to third party access. The transit pipelines are not (yet) connected to the Romanian network, but they belong to Transgaz and must comply with EU rules. Romania and Bulgaria affirm they apply TPA at the interconnection point between the two countries; however, TPA is not applied at the interconnection point between Ukraine and Moldova. Gazprom still has a long term contract with Bulgargaz for the delivery of 2.9 bcm/year until 2022 on the pipeline T1, with a capacity of 5 bcm. Effectively, the transit pipeline Isaccea-Negru Voda does not apply TPA because:

- **At the interconnection point between Ukraine-Romania** Gazprom invoked the mismatch between the Russian and EU gas days, which makes implementation of EU network codes at the border virtually impossible. As ICIS finds, at the expiration of the legacy contracts in 2016 Gazprom refused to sign new protocols with the Ukrainian and Romanian parties. Such protocols required the implementation of EU network codes and the transfer of the metering from the Ukrainian side of the border to Romania. Invoking the gas day pretext, Gazprom threatened to interrupt gas flows in the winter of 2016, forcing Romania and Bulgaria to sign an amendment to the existing agreement which postponed the implementation of EU rules well beyond the winter of 2016.
- **At the interconnection of Romania-Bulgaria**, though both countries apply TPA, in effect the capacity appears “congested”, and the remaining physical capacity of 2.1 bcm (on top of Gazprom’s contract) is not available for third parties. In theory, the spare capacity could be put up for auction, as well as the 2.9 bcm booked by Gazprom if it is not fully used. It is unclear why the capacity is not opened up to competition and why Transgaz does not implement principles available by EU rules such as the “use it or lose it” principles to actually ensure TPA for the interconnection point for available capacity and capacity not fully used by Gazprom. Backhaul is also not used on either of the interconnection points.

This case is particularly relevant because the transit pipeline, used in reverse flow, could be a substantial improvement of Moldova’s (and to a lesser degree, Ukraine’s) gas security. In fact, the Iasi-Ungheni interconnection between Romania and Moldova, has been initially envisaged as a more costly, but more secure alternative to the reverse flow on this transit pipeline, as neither the EU, nor Ukraine or Moldova could rely on the fact that third party access would be enforced as long as Gazprom still holds the upper hand in the gas supply.

In the investigation undertaken by DG Competition in 2010 on Gazprom’s abuses in 8 member states, Romania was not included – probably because the country’s almost self-sufficiency on gas was thought a safeguard against such abuses. However, the case documented by ICIS indicates that certain forms of abuse from Russian giant Gazprom can easily be overlooked and, what is more, they continue even after Gazprom has been slapped on the wrist with mild reprimands but no fines and made solemn promises to fully implement EU’s conditions[268]. This case shows that EU tends to overlook the type of abuses involving TPA issues for transit pipelines crossing the territory of member states – which is precisely the matter at stake with the controversial Nord Stream 2.

[268] https://www.politico.eu/article/gazprom-escapes-eu-fine-competition-probe/

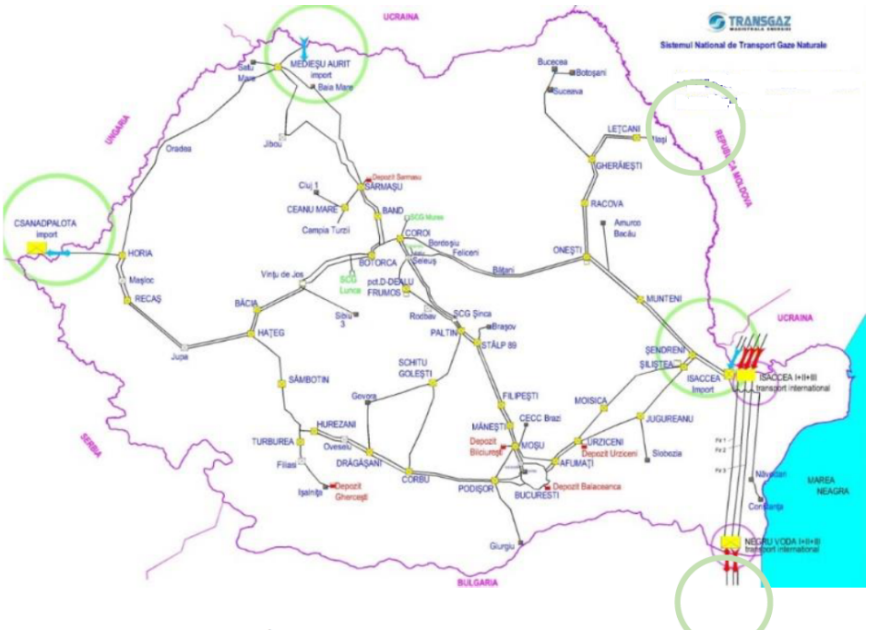

Figure 4: Interconnections and the transit pipeline. Source: Transgaz

RECOMMENDATIONS

1. Learn from Romania's experience with the Isaccea-Negru Voda pipeline: if Gazprom has any leverage, it will block third party access, even with the threat to cut supplies. This can happen with both Nord Stream 2 and Turkish Stream.
2. Accelerate infringements on the energy sector and make them more visible. Ordinance 114 is a breach of several directives on every sector that it covers. The offshore law is also a virtual limitation of exports by requiring 50% of the quantities produced to be sold in Romania. Both pieces of legislation have been issued in violation of various legislative procedures in Romania, but weakened institutions (Ombudsman, regulators, and possibly even courts) are less able to block such initiatives in a rapidly deteriorating governance environment.
3. Examine the breach of state aid rules in the regulation for gas prices for eligible consumers. All eligible consumers receive gas at below market prices through regulation, which is illegal state aid and may hurt competition in the EU. For example, Interagro has been a large exporter of fertilizer to the EU in the years prior to 2014, subsidized by cheap Romanian gas.
4. EU and US companies must use all available mechanisms to push for better governance in the energy sector. This includes legal proceedings, going as far as the European Court of Justice for the full implementation of EU rules in energy in Romania. At the same time, they should promote good governance, protest against abuses and refuse solutions of compromise, such as the promised partial amendments to Emergency Ordinance 114, and fully support publicly EC's infringements against Romania.

A difficult detachment – Hungarian energy policy with Russia after 2014

Andras Deak, Daniel Bartha, Sandor Lederer

Introduction

While Hungary's policy towards Russia has often been interpreted in an ideological, transformative or opportunistic context, PM Viktor Orbán's Eastern opening fitted relatively well into the foreign policy set of the early-2010s. Hungarian diplomacy turned very forcefully towards foreign economic issues, highlighting its utilitarian and downsizing the value-based characteristics. The economic dimension has prevailed at the expense of conventional diplomatic considerations. The Hungarian Foreign Ministry was renamed Ministry of Foreign Affairs and Trade, where in the Hungarian version „Trade" stands before „Affairs". Not surprisingly, the Western reception of Hungary's good relations with Russia do not represent a matter of major concern in Budapest, as long as these ties are compatible with the general foreign policy line of the country. Hungarian foreign policy and its Russian nexus has been formed on a „Hungary first" basis, where national interest is defined on a narrowly utilitarian logic.

In the early 2010s Russia seemed to be a desirable partner for economic cooperation. Until 2013 it represented the biggest non-EU trading partner and export destination for Hungary. Expectations were high regarding energy cooperation, Russia was perceived as a huge potential market for Hungarian exports, investments and potentially even other political or foreign policy benefits were expected to come if political relations enhance bilateral rapprochement. For PM Viktor Orbán, a staunch critic of Russia in opposition, it took three years after 2010 to come round and efface his past hostility. The new era symbolically started in January 2014, when Hungary agreed to launch the construction of two new nuclear blocs (Paks2) and contracted the project with Rosatom for 12.5 bln EUR. While the speed and suddenness of this turn was shocking for many Hungarians, the step itself fitted well into the emerging set of Hungarian foreign policy and economic priorities.

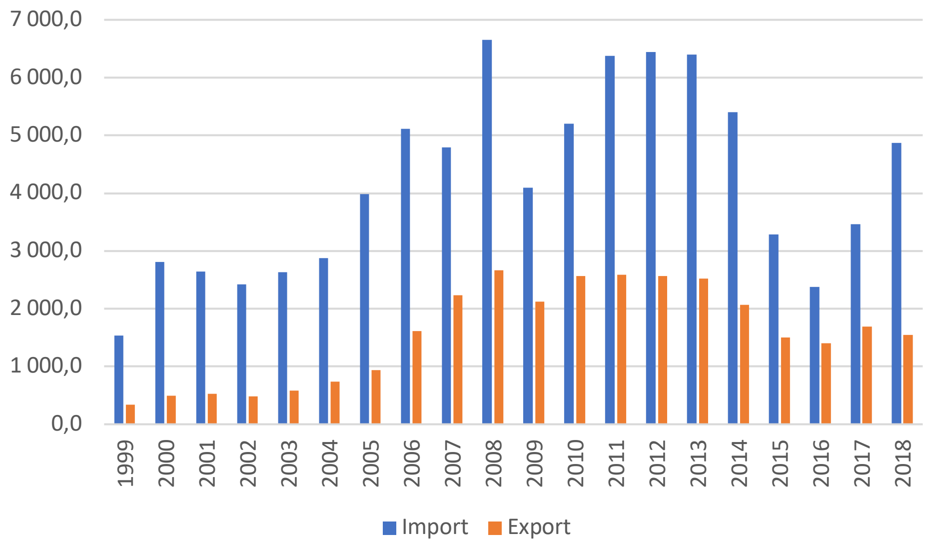

Figure 1. *Hungarian-Russian foreign trade, mln EUR, 1999-2018*

Source: Eurostat

Bad timing is a recurrent feature of Hungary's Russia policy. By the time of PM Viktor Orbán's visit to Moscow the Euromaidan against Victor Yanukovych was already in full swing. In just a couple of months Yanukovich fell, Russia invaded and annexed Crimea, provoked a bloody conflict in Eastern Ukraine and the Western community imposed sanctions on Russia and its subjects. Prospects for an export offensive was washed away by the incoming Russian recession and collapsing imports, the political and foreign policy costs of nurturing good relations with Moscow have increased dramatically overnight. Viktor Orbán's grand opening became skewed. Having a good deal of irreversibility because of the Paks2 nuclear deal, he could not easily and potentially he did not want to retreat in his Russia policy. Perhaps Budapest even envisaged the new situation as a chance to struck better terms and get preferential treatment due to its tenacity. At the same time the short-term benefits were definitely gone and all what could be expected realistically, was some sort of Western-Russian settlement in the longer run or receiving some sort of reward from Moscow for Hungarian loyalty.

In early 2019 none of these developments are to be seen. The end of the sanction policy does not seem to be closer than four years ago, Russia's economy has been niggling, while instead of compensating Budapest for its loyalty, Moscow seems to be pushing for even more. Thus Hungary had to change to a more rationalistic approach and cautiously ease its ties with Russia, cooling down bilateral relations, even if without damaging its fundaments. The expected results have not been delivered even according to Fidesz' utilitarian factors of success, on a „Hungary first" basis. The low-hanging fruits have already been collected and there is nothing attractive what Russia may offer at the moment. At the same time there is not too much reason to publicly give up Russian cooperation, retreat from past commitments or even to launch a conflict again. Consequently, Hungary has been distancing itself from Russia in energy related matters in small steps, changed to a "wait and see" behavior and awaits new, positive impulses. Nonetheless, this detachment from Moscow remains highly difficult regarding the Paks2 nuclear issue and despite obvious progress, still hides a number of challenges in the gas sphere.

From internal transformation to geopolitics – cooperation in the energy sector

The new reality in the Hungarian energy sector

Since the mid-1990s, when the Socialist-liberal coalition privatized large chunks of the energy industry and the utilities, multinational companies have been representing the system-building entities in the whole branch. Fidesz had consistently criticized the privatization and aimed to reestablish stricter state control over the sector. After 2010 PM Viktor Orbán marked out four sectors (banking, media, energy and retail), where he expected the domestic capital to take over the dominant positions from foreign ownership. Consequently the government gradually introduced a restrictive system of price and other controls, decreasing sectoral profitability. Simultaneously it expressed its wish to buy out the strategic parts of the branch from foreign multinationals. Except some tensions, the European Commission accepted the new regime, and only a few investigations were launched.

Russia did not and does not have considerable assets in the Hungarian energy industry. While in the 1990s Gazprom established a small foothold based on bilateral gas trade, this became largely insignificant by the late 2000s. The most notable case was the purchase of 21.2% of MOL (Hungarian oil and gas company) from OMV by Surgutneftegas in 2009. Nonetheless, this "adventure" was closed in 2011, when the Hungarian government bought these shares at a large premium. Thus Russia was directly not involved in Fidesz' renationalization campaign. Energy relations to a large extent remained outside the bilateral political relations, since these were governed by private companies on the Hungarian side. Nevertheless, after 2013 energy came back as the central topic of Hungarian-Russian negotiations, enhanced by a massive state-ownership thorough the industry.

While the years between 2010 and 2015 can be described as a transition from foreign-owned to renationalized energy systems in Hungary, after 2015 the sectoral landscape became relatively quiet.

By this time the majority of assets and exclusively all strategic companies were in state or domestic private ownership. The sector was strictly regulated especially as far as residential utility tariffs and ownership relations regarded. In a number of selected issues decision making was transferred to the Prime Minister's Office. These include the Paks2 project entirely, which was separated from the existing nuclear industry, even from issues connected to the functioning Paks1 nuclear blocs. Questions related to natural gas imports and the long-term supply contract (LTSC), its renegotiation and the Russian pipeline projects were also delegated to the political level. Both PM Viktor Orbán and especially foreign minister Péter Szíjjártó actively discussed gas related matters with Gazprom and senior Russian officials. External gas policy dossiers were moved from ministries, responsible for energy industry to foreign ministry.

Company	Focus	Organizational model	Organizational changes	Mergers and other transactions	Strategy
E.ON	Electricity and gas	Strategic holding	Universal service in lagally separate unit from january 2014. Declaration of termination the gas universal services April 2015.	Selling of gas-wholesale and storage units to the Hungarian state in 2013. Selling gas USP unit to ENKSZ/FŐGÁZ.	Focus on free market trading and network services. "wait and see" strategy in electricity USP segment, financial optimalization.
RWE	Electricity (and gas)	Operative holding (ELMŰ és ÉMÁSZ)	Free-market trading unit legally separated and owned by ELMŰ and ÉMÁSZ	Selling of FŐGÁZ minority stake in 2014 to a state owned bank.Selling of Mátrai Power Plant in 2017.	Similar to E.ON, some structural questionmarks. Selective development of electricity free market segment with concentrating on some innovative activities.
EDF	Electricity	Operative holding	Selling of EDF-DÉMÁSZ holding company to the state owned NKM Zrt in 2017.	Selling of Budapesti Power Plant (BERT) to EPH (2015) As a part of the holding, electricity DSO also sold to NKM (2017)	Leaving the HU market
GDF-SUEZ	Gas (and electricity)	Mixed governing structure (two separate mother	Selling of free-market electricity (2014) and gas(2015)positions to MET. Declaration of termination the gas universal services April 2015.	Selling of Dunamenti Power Plant to MET (2014)	Leaving the HU market
ENI	Gas	Operative holding	Selling gas USP unit to ENKSZ/FŐGÁZ in 2016.	Selling TIGÁZ Zrt including the gas DSO nad the free marejt trading to MET.	Depletion of assets, leaving the market.

Figure 2. *Foreign multinationals adaptation strategies and state buy-outs between 2010-2015*

Source: Balázs Felsmann: "Corporate performance under institutional constraints", Summary of Thesis[269]

The new division of labor emblematically demonstrated both a veer away of the government's attention from energy and a growing differentiation between its internal and external aspects. Given the change-over within the industry and its consolidation, energy policy required a less transformative approach and related decision making became a part of the daily routine. While the cabinet and especially the prime minister preserved their captivity regarding energy, their adherence became more geopolitical and outward. Practically this resulted in the separation of two major "assembly lines" within the sectoral decision making. Gas and nuclear issues, bearing more political and geopolitical content, were delegated to the Chancellery and Foreign Ministry. In other, primarily electricity-related issues, renewables and climate-matters, the responsible ministries could preserve much of their leverage and elaborate more policy-specific initiatives.

[269] http://phd.lib.uni-corvinus.hu/1009/13/Felsmann_Balazs_ten.pdf (18 March 2019).

It is important to underline that these later issues have been emerging as the main challenges for energy policy and security in particular. While gas policy issues are perceived as more or less regulated or manageable within the given ramifications, EU climate policies, energy transition and the region's growing power generation scarcity puts electricity security into the spotlight. A critical decision will have to be made in the first half of the 2020s not only in Hungary, but also in a number of regional capitals. This trend diminishes the role of Russia in energy policy. Electricity imports come from the CEE region or Germany, renewable segments are totally independent from the Russia factor, regulation mainly comes from the European environment. It is very telling that the share of natural gas in Hungarian electricity generation fell from 38.3% to 14.5% between 2008 and 2014 (climbing back to 19.4% by 2017). Simultaneously the share of electricity imports increased from 9.5% in 2008 to 28.3% in 2017[270]. This represents a major switch from Russian gas imports for power generation purposes to direct electricity imports from the EU.

Currently optionality is given and imported electricity seem to be cheaper than gas imports for domestic generation. At the same time, it is highly questionable how long this situation can be sustained, whether the necessary investments will be made to maintain adequate power generation capacity in Europe. Nuclear fleets in France, Germany and CEE countries are about to be decommissioned due to political reasons or their end of their respective life-time. A growing number of national capitals declare their willingness to stop coal power generation in the foreseeable future due to climate considerations. All these trends create major uncertainty about the availability of cheap electricity on the EU markets in the years to come. In the Hungarian case the perceived emerging scarcity on the EU markets was a major reference point of the nuclear lobby in favor of the Paks2 project, despite its anticipated high construction cost.

The new settings of energy decision making, especially as far as its external aspects regarded, are much less transparent than previously. This was partly due to the steep decrease in the number of actors involved. There is no necessity to include companies, definitely not private or foreign owned corporations into the negotiations. Most of the discussions happen on a government-to-government basis, sometimes only with the minimal inclusion of state-owned companies. In the case of Paks2 project, even this later actor was excluded, the Prime Minister's Office directly coordinates it without any corporate representation. In the gas field, since October 2013[271] negotiations regarding LTSC are conducted (besides the senior political level) between the respective two national champions, MVM and Gazprom. Gas pipeline matters require the inclusion of the gas TSO, FGSZ, owned partly by the state, partly by domestic private owners through its mother company, MOL. Gas wholesale trade has also been consolidated and the market was divided between two major companies. MET Hungary, a subsidiary of Swiss-based MET Holding AG supplies predominantly the industry and the competitive sectors, while MVMP, owned by MVM, serves the residential and public demand. Given its past ownership patterns and activity record, the MET Group, a medium-size energy trader within Europe, allegedly belongs to senior Hungarian private persons and decision makers. In this landscape PM Viktor Orbán can control any processes within the industry.

MET International AG has become an important entity in another respect. While the holding was established as late as in 2010 in order to consolidate the MET Group's gas purchases, its activity very rapidly went beyond the national and regional magnitude. Currently it works in 28 countries with 6.1 bln EUR revenue. In 2017 it traded more than 35 bcm natural gas, started to invest intensively into gas and solar power generation assets. Simultaneously, the ownership structure has changed. The former Russian (Ilya Trubnikov) and Russia-related owners (Normestone), as well as those related to Viktor Orbán (István Garancsi, György Nagy) sold their shares to the management, first of all to CEO Benjámin Lakatos. Formally a major bank credit made it possible for the young CEO to buy the majority of the

[270] „Data of the Hungarian Electricity System", 2009 and 2017 yearbooks, Available at: https://www.mavir.hu/web/mavir/a-magyar-villamosenergia-rendszer-statisztikai-adatai (18 February 2019).
[271] In October 2013 the E.ON purchased the gas wholesaler, holding the Russian LTSC and the storage to state-owned MVM.

company. Nonetheless, the company seems to have close relations with the current government and behaves like a national champion in Hungary related matters. It became a stakeholder in the Romanian Black-sea gas issue by allocating pipeline capacities along the route and also a shipper in the „South Stream lite" Bulgarian section. All this suggests that, while MET tries to distance its public image from the Hungarian government regarding its ownership matters, it still collects the benefits of Hungarian gas diplomacy.

In the following pages three issues, analyzed in the previous edition of this report, will be reassessed. These are the Paks2 project, the evolving story of the new long-term gas supply contract (LTSC) with Gazprom and the highly relevant Romanian gas transit matter, and at last the issue of South Stream lite, stretching from Turkey to Hungary. The signs of a more cautious Hungarian approach, the end of high expectations from the Russian nexus are visible in all these cases. Nonetheless, Russia still can offer positive outcomes in the field of gas policy, thus Hungarian-Russian relations preserved much of their cooperative attitude. The changing logic of the relations is more visible in the nuclear field, where tensions are at hand, delays and some problems are publicly admitted. The gap between the respective motivations has widened in the last two years and Moscow may put an increasing pressure on Budapest in the years to come.

The Paks2 project

The Paks2 credit and construction contracts were signed in 2014-15 and envisaged the building of two 1200 MW blocs by 2025-27 for 12.5 billion EUR. The Russian side also offered an industrial credit-line worth 10 billion EUR until 2025 at a fix, tiered interest rate between 3.9-4.9% and a 40% localization rate within Hungary. The characteristics of the deal are similar to other construction projects of Rosatom in Belarus, Finland or Vietnam. The deal was prepared in total secrecy on the political level in the second half of 2013, announced at PM Viktor Orbán's visit in Moscow in January 2014. The government described the project as the „deal of the century"[272], referring especially to the credit-line agreement, which was described as highly attractive both in terms of size and interest rates. Preparations for the expansion of the nuclear plant were already ongoing during the socialist government, but at that time, foreseeing an international tender for the project. The swift and non-transparent decision brought great criticism for the project from many actors, who warned that the it is a hotbed for corruption. Many saw this fear justified when PM Orbán's former ally Lajos Simicska described in an interview for the news portal 24.hu how they prepared the takeover of the top commercial TV station RTL Klub. According to Simicska, Orban asked him about a possible price. "I told him I do not know but at first glance probably around 300 million Euro, 100 billion Forint, to which [Orbán] replied, 'That's no problem, Rosatom will buy it for me'."[273] Furthermore the fact that companies of Mr Simicska won procurements (future references) for works connected to the operating of the Paks power plant in 2013 supported the view that Paks2 will probably be an enourmous opportunity to channel public funds into the pockets of government-close oligarchs.

The first couple of years were relatively silent in terms of project management. The contracts had to be approved by various EU bodies and from a number of different aspects. The European Commission investigated the project in three regards. The government refused to give the project to a separate corporate entity and kept it directly within the state administration, financing it from tax-payers money. This was an obvious case of state-aid, thus its effects on the market relations had to be assessed. The government argued that under the contractual conditions the project is profitable and would be desirable on a normal, private company basis. In its March 2017 decision, DG Competition

[272] Among others: „A paksi bővítés az évszázad üzlete", 17 February 2016, Available at: http://www.miniszterelnok.hu/a-paksi-bovites-az-evszazad-uzlete/ (20 February 2019).
[273] Benjamin Novak: Simicska: Orbán planned to buy out independent TV station with Russian money. 4 April 2017, Budapest Beacon. Available: https://budapestbeacon.com/simicska-orban-planned-buy-independent-tv-station-russian-money/

only partly accepted these arguments, gave the project a green light only under some specific conditions in order to avoid market distortions from state-aid[274].

In the case of public procurement (lack of tendering), the Commission started an infringement procedure, but closed it in November 2016. Hungary successfully applied the so called „technical exclusivity exemption”, proving that only one company can fulfill the technical and safety requirements[275]. This practice was often referred in French projects and shielded the Hungarian decision efficiently as a precedent. At the same time the project partners were obliged to tender the subcontracts as much as it is possible, but at least up to 55% of the project value. The third disputed element was the government bill accepted in March 2015, exempting the project, its past and future documentation from the Freedom of Information Act and classifying all information for 30 years. Nonetheless, this issue was not closely related to project management and the government had to gradually retreat in several respects under legal pressure.

Thus by early 2017 the EC gave green light to the project and the construction depended exclusively on the two sides. One would have expected, that the permitting process will be relatively fast and preparatory construction works can begin in late-2017 – early 2018, as anticipated by senior governmental managers. At the same time by early 2019 Rosatom did not even submit the documentation for the permitting process. While all stakeholders deny the delay or refer to the EU approval process, the Hungarian side requested a renegotiation regarding the financial conditions. Problems around technical and regulatory details may have also surfaced, causing debates around the technological content of the contract. Currently no one expects the construction to start before late 2020, causing articulated anger in Moscow but cautious silence in Budapest.

As far as the financial conditions regarded, the Hungarian side publicly signaled its dissatisfaction with its interest rates. According to Hungarian governmental officials, more favorable financing is available on the market, thus Budapest would like to by-pass the Russian credit-line or renegotiate it[276]. In February 2017 Putin signaled that renegotiation is possible and offered some alternatives, among others proposed to raise the Russian credit from 80% share to 100% of the project value. Another related issue is the timing of the credit line, according to which repayment shall start no later than 2026, independently from the status of the construction. Due to the obvious delay, this point shall also be modified, even if no information is available in this regard. It is not surprising that the Hungarian side has not taken significant amount of the credit-line, and even these sums were repaid as soon as possible.

Nonetheless, the debates around the credit line represent the more visible, but less important disputes around the project. Technical and regulatory tensions may handicap the project management even more. Rosatom's Finnish „twin-project” of the Paks expansion, the construction of the Hankihivi-plant was postponed by four years until 2028. The local project company, Fennovoima, owned partly by Rosatom, could not prove the design's safety at the Finnish nuclear regulator, STUK[277]. What is more, STUK ordered a confidential overview about the organizational and safety culture within the

[274] „State Aid: Commission clears investment in construction of Paks II nuclear power plant in Hungary”, European Commission press release, 6 March 2017. Available at: http://europa.eu/rapid/press-release_IP-17-464_en.htm (20 February 2019).
[275] „Hungary's Paks II project clears procurement hurdle”, World Nuclear News, 22 November 2016. Available at: http://www.world-nuclear-news.org/NN-Hungarys-Paks-II-project-clears-procurement-hurdle-22111601.html (20 February 2019).
[276] „Minek kellett az orosz hitel, ha rögtön visszaadjuk?”, Index.hu, 7 February 2018, Available at: https://index.hu/gazdasag/2018/02/07/paks_orosz_hitel/ (20 February 2019).
[277] „Setback for nuclear industry as Hanhikivi Power Plant is delayed by a further four years”, Helsinki Times, 27 December 2018, Available at: http://www.helsinkitimes.fi/finland/finland-news/domestic/16064-setback-for-nuclear-industry-as-hanhikivi-power-plant-is-delayed-by-a-further-four-years.html (20 February 2019)

Russian nuclear industry. The report[278] made alarming statements regarding the internal conditions and attitude towards safety. Partly on this basis STUK prolonged the permitting process by one year in 2017, and the Fennovoima consortium failed to deliver the necessary documentation even by this extended deadline.

The Finnish and Hungarian reactors' design, the AES-2006 model, had not been built at the time of contractual arrangements. Currently there are only two blocs that are on-line, the Novovoronezh II-1 and the Leningrad II-1, both in Russia. There is little to be known about its safety and functioning, these gaps complicate the regulatory process significantly. European safety regulations represent another problem. Within the EU and especially after the 2011 Fukushima-disaster the safety regulations became considerably stricter, raising the project costs compared to non-EU projects. Russia has never constructed nuclear plants within the EU territory, in many regards this is a first encounter for them (except some life-time expansions and upgrading in the new EU-member states). It remains unclear whether these aspects are duly taken into account at the contracting. The criticism in these regards is dismissed by the Hungarian government, saying that two turnkey nuclear blocs have been purchased from Russia, all the delivery risk is on the supplier's side. Nonetheless, the technical content has not been negotiated by the time of signature and there is no information how the contracts divide the related management and regulatory risks. Imre Mártha, former CEO of MVM Zrt., wrote in a leaked private letter to Mr Süli, minister in charge for the Paks2 investment in 2018 that the Paks2 contract was a Russian dictate and that Russia is not in possession of designs for the plant that comply with European Union regulation. He also claimed that myriads of small technical details have to be changed to fulfill EU requirements and this boosts the project's cost[279]. Indeed, in Vietnam Rosatom offered similar AES-2006 units at a 15-20% lower price, even if this happened some years before the Hungarian contract (in 2016 Vietnam denounced these projects). Thus these aspects may cause huge cost overruns and even derail the whole project.

At the same time the delay and the obvious non-action of the last two years is very telling about the underlying major tensions within the project. The Russian side urges the Hungarian government to launch the construction process as soon as possible. According to Rosatom the permitting process can run parallel to the construction[280], thus some works at the field could happen right now. Rosatom has already ordered the turbines and the process control system for approximately 1.3 billion EUR. Nonetheless, PM Viktor Orbán in September 2018 underlined that the deadlines were not as important, but the security and successful project management was crucial for all sides[281]. Until now, the spent funds have remained relatively small especially if compared to the total project value. This is the last point where the Hungarian government may „stand firm" without investing huge funds into an uncertain and highly risky endeavor. Consequently, Hungary's play for time is understandable.

For Russia the Paks2 project does not bear major financial risk. Even if according to the Hungarian sources Rosatom shall deliver two turnkey blocs by a particular deadline, little credibility can be given to these statements. The Russian side urges the launch of the construction, because its wish to reach a „point of no return" in the project. Rosatom has Hungary's legal obligation, signed construction

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[278] Marja Ylonen, Heli Talja, Nadezhda Gotcheva and Merja Airola: „Evaluation of safety culture of the Hanhikivi-1 project key organizations: Fennovoima, RAOS Project and Titan-2", 13 March 2017, Available at: http://www.stuk.fi/documents/12547/207522/1731883-loppuraportti-fh1-turvallisuuskulttuurin-riippumaton-arvio-2017-vtt-julkiset-osat.pdf/8fcdf721-52de-2e00-33ce-2486a75a7a91 (20 February 2019).

[279] Györgyi Balla: "Kedves Jani!" – a volt MVM-vezér utolsó figyelmeztetője a Paks II.-ért felelős Süli Jánosnak 20 November 2018, hvg.hu, Available: https://hvg.hu/gazdasag/20181120_paks_2_martha_imre_levele_suli_lajosnak

[280] András Szabó: „Kockázatos változtatásra készülnek Paks2-nél, ami az oroszoknak kedvezhet", 22 February 2019, Direkt36, Available: https://444.hu/2019/02/22/kockazatos-valtoztatasra-keszulnek-paks2-nel-ami-az-oroszoknak-kedvezhet (24 February 2019).

[281] „Orbán Viktor - Vlagyimir Putyin sajtótájékoztató", 18 September 2018, Available at: https://www.youtube.com/watch?v=YLo6rRlw320 (20 February 2019).

contracts and both their fulfillment or Budapest's exit may bring them financial reward. If the Orbán-government would like to postpone the project implementation, they can only hide behind regulatory details and refer to safety and technical weaknesses of the Russian design.

Gas imports and the Romanian gas transit issue

Hungary holds a long-term gas supply contract (LTSC) with Gazprom since 1994. The contract was originally signed for 20 years, but due to decreasing Hungarian import volumes and the Sides' consent it has remained in force even today, until the end of 2020. It has been modified several times and these changes reflected both the evolving European gas market realities and the shifting political and local sectoral trends. Nonetheless, the sides would like to conclude a new LTSC, valid from 2021 and this is a major opportunity for a grand renegotiation of the terms.

What makes this renegotiation process different from past rounds is the emergence of a new, medium-size source within the region: Romanian Black-sea shelf production may reach 6 bcm in the next 3-5 years. OMV and ExxonMobil develops the Domino and Pelican South gas fields, which hold proven reserves between 61 and 107 bcm combined. In order to market these volumes regionally, make them accessible outside Romania, the BRUA (an acronym for Black-sea-Romania-Hungary-Austria) pipeline project was designed with a total future capacity of 4.4 bcm between the fields and the Austrian CEGH (Baumgarten) hub. This is a major European project of regional importance: more than half of the total investment cost for the Romanian section (479 million EUR) was provided by various grants and credits of European entities[282].

The two processes, the development of Romanian gas fields and the renegotiation of Russian LTSC affect the Hungarian medium-term gas futures tremendously and offer optionality in these regards. Prospective volumes from Romania roughly equal to the current amount of gas imported through the Russian LTSC (between 4.5 and 5 in 2016-18), diminishes Gazprom's quasi-monopolistic market power and increases competition. Unlike Poland, a full offset of Russian gas imports is neither a goal, nor a possibility. What the Orbán-government would like to achieve, is the validation of its „Hungary first" principle, maximizing the sectoral and other economic benefits from this situation. This assumes relatively tough bargaining in both respects, in order to have the best terms possible. Nevertheless, the Orbán-government would like to maintain cooperation both with Gazprom and the Romanian Black-sea gas operators, ExxonMobil and OMV.

The „Hungarian entry" into this regional gas game came in July 2017, when the gas TSO, FGSZ abandoned the original concept of BRUA. This assumed the building of a dedicated, new pipeline from the Romanian border to Austria. At the same time, according to FGSZ (gas TSO) the existing Hungarian network was sufficient to transit the whole volume through Hungary and Slovakia to Baumgarten. This argumentation rested on the fact that, despite the longer route, but through an already existing system, the transit capacities could be contracted long-term at competitive fees. Within the Hungarian gas community for many years the underutilization of the existing network has been the most onerous problem and the construction of a new pipeline seemed to be absurd.

Nonetheless, the move enjoyed wider sectoral and political support. According to the original BRUA plans, the Hungarian role was constrained to transit and access to Romanian gas depended on negotiations with suppliers, most likely with OMV and ExxonMobil. The best what Hungary could hope for was some gas on a „Baumgarten netback" (the Baumgarten price minus some transit fees) basis. At the same time Hungary wanted to get better access to a larger amount of gas and even more importantly to play a distributor role within Central Europe. According to these arguments there was no sense to deliver natural gas to Austria back and forth, when it can be marketed in Hungary, Serbia, Croatia, Ukraine or Slovakia, markets lying much closer to the shipping route. Thus, even if the

[282] Among others the EBRD, EIB and the Commission provided the funds.

Hungarian section of the BRUA pipeline were built, its costs would be included into the gas price irrespective of its utilization and the real delivery services.

PM Viktor Orbán also wanted to have a stronger bargaining position and use the transit leverage to the benefit of Hungarian companies. In this new setup the auctioning of the pipeline capacities, both at the Hungarian-Romanian and the Hungarian-Slovak border was managed within the Hungarian jurisdiction. The former was preliminary given to MET and MVM, two major players on the Hungarian market, while the latter was auctioned on a long-term basis for a variety of companies[283]. This is in contrast with the original BRUA-concept, envisaging collective auctioning of the total capacity likely to OMV and ExxonMobil. In this regard the two firms did not have other option than to negotiate about the terms of transit through Hungary and get access through the local auctioning procedures. The move was more painful for OMV, who had the marketing infrastructure within the region and wanted to boost its regional hub, the CEGH, by these incremental volumes.

Both solutions have its benefits and risks. The original BRUA-project with its dedicated pipeline represents a more expensive model which likely brings the Romanian gas further away from the SEE and CEE regions. At the same time, it includes less stakeholders, provides marketing through established channels, even if these to a larger extent depend on the OMV's economic interests. The alternative Hungarian proposal would potentially offer distribution within the region through the existing network with long-term contracting of the pipeline capacities. Gas can be potentially cheaper, but substantial volumes will remain in Hungary or will be marketed by Hungarian companies either. Instead of relying on the OMV's financial rationale, PM Viktor Orbán and the Hungarian political-economic reality may influence the means of marketing.

The LTSC renegotiation process with Gazprom depends largely on the outcome of Romanian gas development prospects. In the past Hungary had an inflexible import volume necessity, consequently bargaining about prices and conditions was difficult and the negotiations one-sided. This may change, once Hungary will have contracts for Black-sea gas and access to its flows. Gazprom pricing may influence import volumes and Hungary can optimize its gas import policy better. Thus it is likely, that Budapest would like to harmonize the two processes. Thus hesitation about Romanian Black-sea gas development makes Budapest nervous and affects its Russia-connection indirectly. Much of the Hungarian anxiety regarding Romanian legal disputes are related to the growing time pressure[284]. Budapest shall conclude a new LTSC with Gazprom until the end of 2020 as latest, while the current postponement of Black-sea FIDs create a major source of uncertainty.

The regional gas landscape may further improve due to the FID regarding the Krk LNG-terminal in Croatia in January 2019. The project failed to get enough bids for the capacity, thus it will be constructed on a non-market basis by significant EU-support (a grant of 101.4 mln EUR in 2017) and state-ownership. While Atlantic LNG prices are currently not competitive in CEE and the small capacity of the terminal (up to 2.6 bcma) is not a full-fledged alternative for current pipeline networks, the sheer existence of an access to this source may increase local resilience substantially. Fast construction of the Krk LNG-terminal may also bridge some of the delay in Black-sea gas development.

[283] The Hungarian-Slovak cross-border capacity (4.3 bcma) was fully booked between 2022 and 2029 and partly until 2037. As for the Hungarian-Romanian cross border point, the preliminary booking procedure failed in December 2018, the respective companies gave back their offer due to the postponement of the Black-sea offshore gas FID decisions.

[284] In June 2018 foreign minister Péter Szíjártó called for increasing pressure on Romania to enable the development of the Black-sea deposits. „Román-magyar gázháború: sorsdöntő napok jönnek", Portfolio.hu https://www.portfolio.hu/vallalatok/roman-magyar-gazhaboru-sorsdonto-napok-jonnek.291302.html (18 March 2019).

The South Stream lite

Despite the strong statements from the Kremlin regarding the cancellation of the South Stream pipeline after December 2014, the project has not disappeared totally in the subsequent years. In different names and forms (Tesla, development of national sections) the idea and some official discussion remained present within the region. Hungary has been actively involved in these preparations, even if its enthusiasm diminished to a certain extent.

Despite Fidesz' harsh criticism of the South Stream project in opposition prior to 2010, it became one of the pet projects in the Hungarian-Russian relations by 2014. Due to the fall of Nabucco-West in mid-2012, South Stream remained the last transit project standing for Hungary. It promised a significant volume of annual transit around 30-32 bcma, 4-5 times the total import volume of the country. Budapest was in the midst of sensitive negotiations with Moscow, and South Stream seemed to be one of those few issues, where Hungary was on Russia's demand side. Similar to Sofia and Belgrade, it also took a considerable conflict with the EU during the preparations and the cancellation of the project was a surprise for many decision makers.

The cancellation, its unexpected announcement was a serious blow for Russia's credibility in pipeline matters. In different ways, but this issue remained sensitive both in the Bulgarian and Serbian relations and handicapped further cooperation. Moscow tried to re-engage Belgrade and by-pass Sofia in mid-2015 with some support from Budapest in the Tesla-project, unsuccessfully[285]. Gazprom was also occupied with the Nord Stream 2 project in these years, thus the SEE region remained relatively peaceful until late 2017.

Hungary remained relatively supportive to Russian attempts to revitalize pipeline projects in the SEE region. PM Viktor Orbán critized the EU for the failure of the South Stream, especially when compared to Nord Stream construction works[286]. Hungary also tried to lobby for the Tesla-pipeline, allegedly proposed by Gazprom and interconnecting Turkey with Austria through Greece, Macedonia, Serbia and Hungary[287]. This pipeline would have facilitated both Azeri and Russian gas shipments to the North, but the initiative failed to get considerable support[288]. Not surprisingly in July 2017 FM Péter Szíjjártó signed a memorandum on establishing a cross-border capacity with Serbia in Moscow and announced Hungary's readiness to join the Southern Gas Corridor after Bulgaria and Serbia[289]. This was Budapest's formal move to join the activities that can be labeled as „South Stream lite". Unlike South Stream, Gazprom's current attempt rests on national sections and their respective regulation in national capitals. The total volume of shipment would be around the capacity of a single line of Turkstream, much below 16 bcma (at the Serbian-Hungarian border around 8 bcma), four times less than envisaged by South Stream a couple of years before. The project preparation keeps a very low profile, with much less visible representation from the Russian side.

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[285] „Greece, Serbia, Hungary, FYROM to sign memorandum on the construction of the pipeline, which should connect the Turkish Stream pipeline with Austria", New Europe, 20 August 2015, Available from: https://www.neweurope.eu/article/russia-pushes-tesla-pipeline-through-balkans/ (24 February 2019).

[286] „Tárgyalások kezdődnek a 2021 utáni gázszállításról", 2 February 2017, Available from: http://www.kormany.hu/hu/a-miniszterelnok/hirek/megbecsulendo-a-magyar-orosz-egyuttmukodes (25 February 2019). „Orbán Viktor kormánya az Északi Áramlat-2 pártján áll", 28 August 2018, Available from: https://ujszo.com/gazdasag/orban-viktor-kormanya-az-eszaki-aramlat-2-partjan-all (25 February 2019).

[287] „CE/SEE Partners Eye EU Funds for Tesla Gas Pipeline Project", Available from: https://www.iene.eu/cesee-partners-eye-eu-funds-for-tesla-gas-pipeline-project-p2055.html (25 February 2019).

[288] Partly because of lack of credibility and also due to its high costs.

[289] „Szijjártó: 2019 végéig csatlakozunk a déli gázfolyosóhoz", Available from: https://index.hu/gazdasag/energia/2017/07/05/szijjarto_2019_vegeig_csatlakozunk_a_deli_gazfolyosohoz/ (25 February 2019).

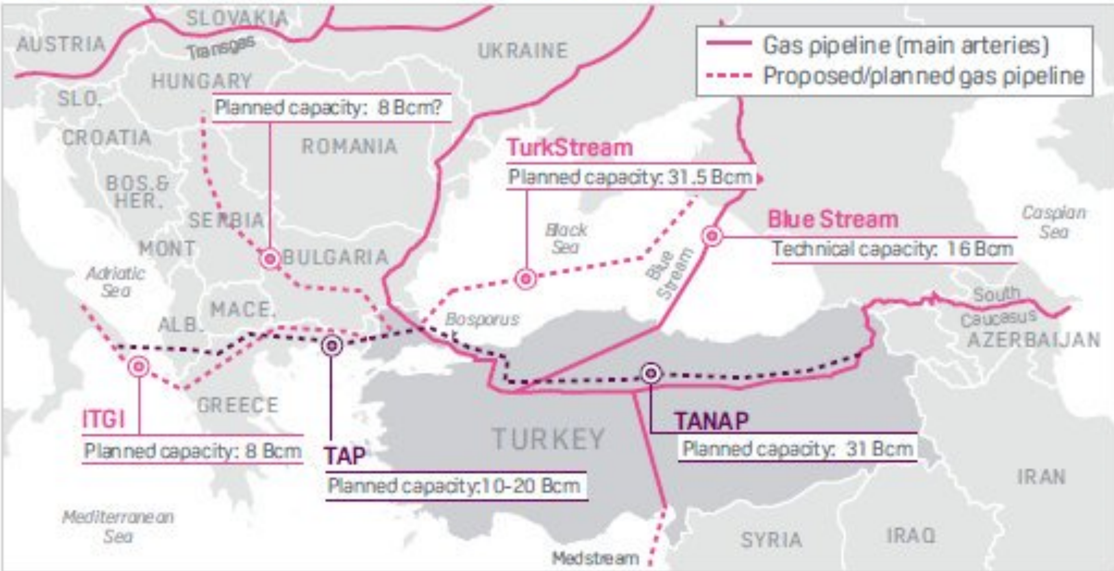

Figure 3. *Map: Pipelines in the Black-sea and SEE region (the discursive line through Bulgaria and Serbia represents the likely route for "South Stream lite")*

Source: Platts

Despite its supportive attitude, the Orbán-government's expectations remained rather low regarding the Southern interconnection. One of the reasons is the small magnitude of this renewed effort: the total cross-border capacity established on the Southern border would equal to max. 8-9 bcma, only slightly more than the total Hungarian import volume. If we add that Hungary would lose Gazprom's current transit to Serbia (between 1.5 and 2 bcma), no significant financial benefit will come from South Stream lite. Hungary may be supplied from the South instead of Ukraine, but transit volumes will be less than before. Second, unlike the situation in 2013-14, this time Hungary has a strong bargaining chip, the Black-sea gas. Budapest does not have to win Moscow's goodwill so desperately, it has more autonomy to form its balance. Third, Hungary has already experienced both the fiasco of South Stream and Tesla in less than five years. Consequently there is considerable fatigue and inflated credibility of Russian pipeline projects. Budapest would like to see more action in Bulgaria and Serbia before taking final decisions in details. Gazprom's low profile in the project does not help in this regard.

Hungarian receptivity stems from a number of various considerations. The national gas community is satisfied with the current Ukrainian transit route, but cannot ignore the high level of uncertainty regarding its future. Nord Stream 2 is seen as a highly unfavorable route for future Hungarian supply: as many regional gas TSOs and companies, it has been feared that development costs and high German transit fees will increase the import prices in the longer run. Nord Stream 2 does not offer any benefit for Hungary and assumes a relatively costly network adaptation process. In March 2016 the Hungarian government, together with seven other CEE states publicly criticized the Nord Stream 2 initiative as being a risk for energy security within the region, destabilizing the geopolitical situation[290]. This move was further emphasized by regulative measures, not allowing the long-term auctioning for Gazprom of the Austrian-Hungarian and Slovak-Hungarian cross-border capacities. The later one would be needed for Romanian Black-sea gas exports in a reverse mode, thus making the two projects, Hungarian transit from Romania and supply from the Nord Stream 2 incompatible with

[290] „EU leaders sign letter objecting to Nord Stream-2 gas link", 16 March 2016, Reuters, Available from: https://www.reuters.com/article/uk-eu-energy-nordstream/eu-leaders-sign-letter-objecting-to-nord-stream-2-gas-link-idUKKCN0WI1YV (27 February 2019).

the current network. Practically this represents a considerable pressure on Gazprom to solve the Hungarian supply from other directions and leave the Nord Stream 2 option only for emergency cases.

Thus „South Stream lite" and the related Turkstream project are perceived as the lesser of two evils. Understandably the Hungarian government cannot fully ignore Russia's wish for alternative supply routes. At the same time it may set a number of conditions during its implementation. These include issues related to more favorable conditions regarding the LTSC conditions, ownership and marketing conditions of the new pipeline and the respective shipments, but also can ask for a considerable role in the project. For the later, the emergence of MET, the Hungary-related Swiss trader among the shippers of the Bulgarian section of „South Stream lite" are highly indicative in this regard[291].

Outlook

Hungary's moderate detachment from strong cooperation with Moscow is full of contradictions. Most importantly, the Orbán-government conducts this move only half-heartedly. Budapest continues its quest for bilateral economic and energy benefits and does not have clear priorities in the major sectoral issues. Furthermore, the current regional landscape and developments make good relations with Moscow and energy diversification barely reconcilable. Both the development of Romanian gas deposits and even the Croatian LNG-terminal imply considerable tensions with Gazprom. Certainly, Moscow will test Hungary's resilience in these matters whether by sticks or carrots. It may be increasingly difficult for the Orbán-government to find a balance between old and new suppliers.The heavily criticized move to offer Budapest as the headquarters for the International Investment Bank[292] might be a step to compensate for the detachment in the energy sector.

At the same time the current statist Hungarian sector hides a high number of vulnerabilities. It remains highly sensitive regarding price issues due to the government's past populist measures in the residential sector. Current utility prices constitute a major political taboo, the government cannot raise the tariffs despite considerable increase in import prices. MVM weak financial liquidity and lack of funds for appropriate preparations for the winter seasons likely played a major role in Hungarian requests to use the Hungarian storage system by Gazprom in 2014 and 2017[293]. The autumn 2014 supply cut on the Hungarian-Ukrainian border may have also been related to Moscow's requests, while there were no technical reasons for it[294]. Nevertheless, the Paks2 deal remains by far the biggest bugset of management problems. Obviously the Hungarian government realized the challenges of the projects and would like to retreat in many regards. At the same time most of the contracts have been already signed, thus any kind of postponement or cancellation means an uphill battle for Budapest.

In the current centralized design, all these issues are interrelated. It was PM Viktor Orbán who wanted to raise all these energy issues to the highest bilateral level. Accordingly, he has to take the responsibility for all the negative developments and Moscow's criticism. Not surprisingly, bilateral relations have been hollowing for a while and Budapest actively tries to decrease their intensity. While Putin and Orbán met twice both in 2017 and 2018, their 2019 meeting has been postponed until

[291] „Bulgaria will build pipeline to transport Russian gas", 31 January 2019, Reuters, Available from: https://www.reuters.com/article/bulgaria-gas/update-1-bulgaria-will-build-pipeline-to-transport-russian-gas-idUSL5N1ZV6EN (27 February 2019).

[292] The Russian-inspired International Investment Bank moves to Budapest. 3 March 2019, Hungarian Spectrum. Available: http://hungarianspectrum.org/2019/03/03/the-russian-inspired-international-investment-bank-moves-to-budapest/

[293] 700 and 898 million bcm of gas was injected in 2014 and 2017 respectively with a buy option from the Hungarian side.

[294] „Az EU és Ukrajna is rossz néven veszi, hogy nem adunk gázt az ukránoknak", 444.hu, Available at: https://444.hu/2014/09/26/az-eu-es-ukrajna-is-rossz-neven-veszi-hogy-nem-adunk-gazt-az-ukranoknak (18 March 2019)

autumn, allegedly because of Hungarian request. It still has to be seen, how Hungary can benefit from the most advantageous regional gas landscape for decades, bearing all the burden of its past commitments to Moscow.

RECOMMENDATIONS

- Besides infrastructure development, the EC shall **turn more intensively towards major local production projects**. It may provide a broader set of technical and consultancy support from an earlier phase. While these remain sensitive issues, early-phase support on expert or administrative level may facilitate better outcomes later, on the political level. This activity may be transferred also to the Energy Community and achieve broader geographic cover.
- The EU shall consider what it can do in order to **decrease uncertainty regarding medium- and long-term planning in the gas and particularly in the electricity sectors**. While uncertainty is a major issue everywhere in the continent, it may raise future energy prices and in CEE and SEE region it constitutes a major asset for Russian (and in some cases Chinese) influence. Fears from future electricity supply scarcity increases self-sufficiency ambitions, opening major windows for Moscow.
- **Demand-management and policies regarding efficiency remain very weak** through the region. Arguments about future demand growth and supply-driven logic in energy policy favors Russian presence. The EC shall start more dedicated efforts in order to achieve shifts in regional sectoral planning and bring best practices from more progressive countries to these national capitals.
- **Direct funds towards renewable energies, regional EU energy projects can contribute to diversifying the energy portfolios** of EU MSs, strengthen ties/dependencies within EU countries stronger.

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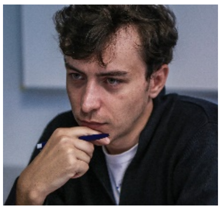

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