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THE WIDER BALKAN REGION
*AT THE CROSSROADS OF A NEW
REGIONAL ENERGY MATRIX*



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The wider Balkan region at the crossroads of a new regional energy matrix

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Foreword

The 2022 Russian invasion of Ukraine shocked the world but galvanized a strong international response. One of the casualties was the breaking of a long-standing taboo regarding the sanctity of energy flows. In fact, ever since the earlier crisis in Ukraine in 2009, Russia's weaponization of energy has been a cause for concern and led at that time to initial reconfigurations of European energy supply chains. The invasion of Crimea in 2014 accelerated this process. Finally, Russia's 2022 invasion of Ukraine and its cynical weaponization of energy sealed the fate of the old energy order.

This study concisely charts the challenges spanning from North to South and describes the ensuing international scramble for energy, manifested through the emergence of new transportation networks and new regional players. The role of Greece has been enhanced as a gateway for gas flowing into Southeastern Europe. Likewise, significant gas deposits in the Black Sea territorial waters of Romania and Turkey also herald the possibility of a new regional balance, which would include the wider Balkan region. Slowly but surely, Western Balkan countries are connecting to supply routes eastwards and southwards. Even the Republic of Moldova has inaugurated an interconnector with Romania.

This study accurately identifies Romania, Turkey and Serbia as the pivotal energy players in the Balkan region. Gas interconnectors are being built within the region, strengthening

the aspiration for the region to be fully integrated into the European gas network in the following years.

The countries of the Western Balkans have a reputation for a turbulent history. The region's energy dependency on Russia has been a continuing factor in an otherwise agitated landscape. The Russian war in Ukraine only served to reinforce a well-known fact: energy is deeply geo-political. The path towards Euro-Atlantic integration now encompasses eliminating Russia's energy leverage against the region and implicitly opening up possibilities for a total geopolitical reorientation.

This study represents a serious reflection on the systemic developments currently unfolding in the energy realm and their deep geopolitical implications. The authors clearly recognize the ever-increasing regional importance of the Black Sea. They describe the subtle geopolitical mechanisms that dictate every move of the great energy game.

This study provides an excellent introduction to a subject meriting thorough ongoing consideration. While providing a penetrating overview of regional energy dynamics, the authors acknowledge the sheer complexity of the task at hand. Global warming, the COVID pandemic and the Russian war in Ukraine have all instilled a sense of urgency into this profoundly strategic discussion. In some ways, traditional crisis management thinking corroded our collective ability to confront this complex issue with a comprehensive approach. Dependencies established over decades will take time to unravel and could leave long-lasting traces.

The authors correctly point out the two elephants lingering in the room: how will newly-found gas and energy supplies get from their sources to where they are most needed, and what will be the geopolitical repercussions of the continent's new supply environment?

The current precarious geopolitical context could make it all the more tempting for states to engage in ruthless pursuit of perceived national interests in a perpetual search for secure energy supplies. In these trying times, the ability of states to secure energy supplies will come down to sound strategic planning and the capability of balancing short-term needs with long-term goals. New policies might often seem counter-intuitive in the heat of the moment when they are seen as representing pragmatic collaboration rooted in mutual interests and values.

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Crossing borders and taboos

The Cold War, like any other, was governed by a web of informal rules and norms. Towards the end of the 1960s, the great power struggle between the collective West and the Soviet Union was finally starting to settle into a systemic rivalry. Along with a commercial purpose, it tightly followed the Falin-Kvitsinky doctrine¹, a strategy aimed at complementing and substituting military influence with economic pressure where possible. By 1968, the first Soviet shipments of energy reached the Free World through the Baumgarten Station in Austria, today Europe's largest gas hub, CEGH. The gas pipeline network in Central and Eastern Europe was built starting with the 1960s.

In the aftermath of the 1973 oil crisis, the 1975 Helsinki accords the 1979 Islamic revolution in Iran, a three-pronged process emerged: a tightening of the oil supply corroborated with the liberalization of the global energy market and a fundamental change in perception regarding the Soviet Union, which could be trusted for sectoral collaboration. The result was a sprawling complex of pipelines and gas processing stations which allowed Europe to comfortably resettle in a state of energy security. In the 1990s, the economic downturn which followed the demise of the Soviet Union and the optimism which swept the Euro-Atlantic world translated into greater leverage, with low gas prices being tied to Western investment in the infrastructure, which was viewed as a win-win situation, as the West got its cheap gas, while the Kremlin's received the necessary resources to stay afloat while pursuing a path towards liberalization and democracy.

The 2007 Munich Security Conference proved to be a turning point, with Putin's speech² giving undeniable clues on how Russia's relationship with the West was about to change. In the aftermath, tensions started accumulating, with Western officials quick to downplay the onset of a new Cold War. The Bucharest NATO Summit sliced right through the pile of

¹ The doctrine assumed that in relation to, among others, the so-called camp of socialist countries, the military influence of the Soviet Union (Warsaw Pact) was to be replaced by the dependence of these countries on Russian gas and oil supplies.

² President of Russia, "Speech and the Following Discussion at the Munich Conference on Security Policy", October 2, 2007, <http://en.kremlin.ru/events/president/transcripts/copy/24034>

tensions with the ambiguous promise of NATO's eastwards expansion. Months later, Russia invaded Georgia with little to no repercussions. In 2009, as tensions rose between Moscow and Kyiv in the aftermath of the Orange revolution, Russia halted gas flow to Ukraine. The crisis had continental reverberations due to Ukraine's status as a transit country for an overwhelming majority of the Russian gas. As we will see further into the study, this compelled some European governments to think, prompting them to reluctantly draft and implement strategies meant to mitigate the risk of a gas cut-off.

Throughout the following decade, the quest towards a future powered by renewable sources of energy coincided with the belief that more economic interdependence will translate into more cooperation, or at the very least, a lack of aggression: why invest large sums of money into alternative gas sources when the Russian one seemed like it would keep on flowing at discounted rates? As a result, the "obedience bonus"³ went unchallenged throughout the early 2000s. The purpose of strategic planning is to think beyond such perceived certainties. Few European countries did, and the resounding success of the ones which did only became apparent in the aftermath of the illegal Russian aggression against its neighbour.

The struggle was mutual, as Moscow's gas disputes with Ukraine tarnished its reputation of a sound energy supplier. In a bid to remove this dependence on its neighbour, Gazprom rushed to implement a couple of its top energy projects: the Nord Stream, Nord Stream 2 and TurkStream pipelines, all of which were intended first and foremost to bypass Ukrainian transit routes. On the energy front, the past few months and years brought a wide range of energy related frictions: Germany (EU) vs. Russia; Turkey vs. Cyprus; Turkey vs. Israel, Morocco vs. Spain or Algeria vs. Morocco. These frictions were part of a wider trend of conflict hybridization, which include information warfare and the

³ The obedience bonus refers to the unspoken agreement between Moscow and countries importing vast quantities of Russian gas. Because Gazprom is a state-owned and concomitantly an extension of the Russian state, gas prices are set politically, not necessarily following a market-based logic. As a result, in the first two decades after the demise of the Soviet Union, the foreign policy towards the Russian Federation practiced by former Soviet states was conditioned by the possibility of Moscow using its gas prices as leverage in matters unrelated to energy.

instrumentalization of migrants, during the cynical use of refugees on the Polish border by Lukashenko's dictatorial regime.

The 2022 Russian invasion of Ukraine not only brought the first major European conflict since 1945 but it also broke a long-standing taboo: the sanctity of Russian gas flow into the European markets. The Russian cut-off of gas supplies to several European nations—Poland and Bulgaria first, followed by Finland, the Netherlands, and Denmark – signalled a paradigm shift which few thought possible: even during the most tense moments of the Cold War, energy was never on the table.

A supply revolution which started in North-Eastern Europe is now manifesting itself in South-Eastern Europe, with multiple pipeline and LNG projects converging towards a new energy landscape and equally new geopolitical realities. The entire continent, and especially the countries closest to Russia, have had to answer two fundamental questions: how will they transport gas outside the traditional East-West routes and who will provide this gas? As we will see below, the crystal ball of geopolitics is on duty as usual, providing a murky image of what the future holds. While energy has always been associated with national security, realpolitik and ruthless pursuit of perceived national interest, a mix of intentional and unintentional convergences on the supply and transport side shed some light on the not-too-distant future.

The study will debut with an overview of past, present, and future national and international initiatives aimed at diversifying energy supplies. In doing so, it will reveal the interplay of national efforts, which when viewed in ensemble create a new energy matrix, formed out of a sprawling web of gas pipelines, LNG terminals and newly discovered gas deposits. The rest of the study will be dedicated to an analytical effort geared towards identifying the profound geopolitical implications of those developments. The Western Balkans sit at the middle of these systemic shifts, with plenty incentives to join the energy game. Russia's brutal war in Ukraine brought a new sense of certainty when talking about the emergence of a new regional energy system. Within it, new players emerge, either as energy suppliers, such as Romania or transit countries, like Greece. Those developments

will fundamentally alter the energy landscape in the Balkans, with profound reverberations on their geopolitical standing. The great energy game brings with it new interstate relations, moulded by the need to cooperate both bilaterally and at a regional level. In a not too distant future, those tectonic shifts will culminate in a new geopolitical reality, on which the study dwells upon in its final section,

The scramble for gas – a wider perspective

Europe's gas import capacity, excluding pipelines to Turkey, as well as those proposed or under construction but not yet in operation, is currently 545 bcm/y through pipes and 185 bcm/y through liquefied natural gas terminals (LNG). The top three countries that sell natural gas to Europe by pipeline are Russia with 155 bcm, Algeria with 21 bcm and Azerbaijan with 14 bcm. Considering the gas supplied through pipelines, Russian imports account for 79% of the European supply, while Algerian imports account for 10%.

Ever since the 24th of February, the European Union (EU) has been scrambling to decouple from Russian gas. The RepowerEU initiative⁴ seeks to cut Russian gas imports by 155bcm per year through a wide mix of strategies, ranging from the diversification of supplies to reducing energy consumption. Imports from North Africa⁵, Azerbaijan⁶ and Norway⁷ vastly increased, bringing new geopolitical realities for the block. From across the pond, the shell gas boom in the US and recent technological innovations allowed for vastly increased LNG deliveries, with Washington putting its weight behind diverting some deliveries from partners in Asia.

⁴ European Commission, "REPowerEU: Joint European action for more affordable, secure and sustainable energy", March 8, 2022, https://ec.europa.eu/commission/presscorner/detail/en/IP_22_1511

⁵ Ziomecki, Mariusz. "North Africa's Natural Gas: No Panacea for the EU." GIS Reports (blog), July 19, 2022. <https://www.gisreportsonline.com/r/natural-gas/>.

⁶ "EU Signs Deal with Azerbaijan to Double Gas Imports by 2027." Accessed September 23, 2022. <https://www.aljazeera.com/news/2022/7/18/eu-signs-deal-with-azerbaijan-to-double-gas-imports-by-2027>.

⁷ Jucca, Lisa. "Breakingviews - Norway Gas Lifeline for Europe Is the Smart Move." Reuters, September 9, 2022, sec. Breakingviews. <https://www.reuters.com/breakingviews/norway-gas-lifeline-europe-is-smart-move-2022-09-09/>.

With it being clear that those efforts are insufficient, the war in Ukraine pushed Western governments into the unthinkable: a – hopefully brief – return to coal. After years of steady progress towards a political consensus on the need to accelerate the shift towards renewable sources of energy, the Kremlin’s weaponization of energy brought things to an abrupt reversal. The recent crisis in the Taiwan strait⁸, China’s almost global monopoly on rare earth minerals⁹ and US’s Inflation Act all point to a larger maze filled with anxiety: after years of globalisation and ever-expanding supply chains, national objectives on climate and energy transition suddenly face a cold geopolitical shower.

The reconfiguration of supply routes gives birth to three energy fronts. The first stretches from the United Kingdom to the Eastern Baltics, fuelled by the Norwegian gas fields. In the South, flows of North African gas and especially Algerian gas are directed towards Southern EU countries, with Italy accounting for the biggest share. In South-Eastern Europe, including the Western Balkans, the image is rather convoluted, but points towards systemic changes with newly emerging players, both in terms of gas extraction and transportation: Greece, Romania, and Turkey.

In this context, the recent push by some European countries, most notably France and Romania, to label nuclear energy and gas as green energy seems rather prophetic. Gas is here to stay while nuclear energy is making a rapid comeback: from East to West, countries are investing in existing and new gas and nuclear capacities, in the quest to make up for the loss of Russian energy supplies. Those changes might seem rapid in these turbulent times, but a closer examination reveals that they have been underway for over a decade, albeit at a much slower pace. As we will see below, the Kremlin’s energy power moves which started in the late 2000s alarmed some countries with historical sensitivities, while the 2014 annexation of Crimea pushed the issue into the regional mainstream.

⁸ “Taiwan Strait Crisis Strengthens US Resolve to Support Taiwan, Counter China.” Accessed September 23, 2022. <https://thediplomat.com/2022/09/taiwan-strait-crisis-strengthens-us-resolve-to-support-taiwan-counter-china/>.

⁹ “These Firms Want to Break China’s Monopoly on World’s Supply of Rare Earths | Fortune.” Accessed September 23, 2022. <https://fortune.com/2022/07/22/china-rare-earths-monopoly-lynas-pensana-iluka-us-supply/>.

A changing tide from the Baltic to the Adriatic

In the aftermath of the 2009 Russian-Ukrainian gas spat, Lithuania took a bold step and invested in an LNG terminal located in Klaipeda, by the Baltic Sea. Aptly named Independence, it became operational in 2014 at a cost of \$128 million.¹⁰

At the end of the inauguration ceremony, the then Lithuanian President rightly remarked that “this is a strategic geopolitical project that may decide the future of the whole region,” enabling Lithuania “to become an energy-security guarantor for the whole Baltic region.” With a capacity of 4 bcm/y, the terminal can cover 80% of the Baltic countries’ needs.¹¹

Lithuania’s efforts extended southwards, with a pipeline interconnection to Poland.¹² The first flows through the pipeline started on the 1st of May, 2022, shortly after the onset of the war in Ukraine. The capacity to transport gas from Lithuania to Poland is expected to reach 1.9bcm/y by September 2022, amounting for 95%¹³ of the gas transportation capacity between Lithuania and Poland, underlining the meteoric transport capacity that Vilnius managed to achieve in a decade, enabling it to be the first country to wean itself off Russian gas.

The government in Warsaw, in spite of its never-ending frictions over the rule of law with Brussels, managed to successfully implement an impressive strategic pivot, which started to pay off once the war in Ukraine started: with the Russian gas cut off, which was causing a dramatic increase in energy price, Poland did not experience a national security crisis. How was it possible?

¹⁰ “Lithuania Sees New LNG Terminal Easing Dependence on Russia.” Accessed September 23, 2022. <http://www.gasprocessingnews.com/news/lithuania-sees-new-lng-terminal-easing-dependence-on-russia.aspx>.

¹¹ Lithuania Sees New LNG Terminal Easing Dependence on Russia.” n.d. Accessed September 15, 2022. <http://www.gasprocessingnews.com/news/lithuania-sees-new-lng-terminal-easing-dependence-on-russia.aspx>.

¹² Inauguration of Gas Interconnection between Poland and Lithuania.” n.d. Text. Komisja Europejska - European Commission. Accessed September 15, 2022. https://ec.europa.eu/info/news/inauguration-gas-interconnection-between-poland-and-lithuania-2022-may-05_en.

¹³ Idem.

It all started in 2011, when the construction for the Świnoujście LNG terminal started. It was finished in 2015, with a capacity of 5 bcm/y, reaching 7.5 bcm/y in 2023 once an extension of the terminal will be completed¹⁴, covering almost a third of the country's needs. Those coordinated efforts expanded northwards, with the construction of the Baltic Pipeline, linking the gas fields in Norway to Poland via Denmark became operational in early October 2022¹⁵, with a capacity of 10bcm/y of gas, amounting to almost half of Poland's needs. The pipeline effectively replaces the Yamal pipeline which was the bedrock of Warsaw's energy dependence on Russia.¹⁶

The Świnoujście expansion, together with the Baltic pipeline and the newly acquired LNG carriers effectively cover almost all of Poland's needs, a remarkable achievement following five decades of dependence on Soviet and then Russian supplies. What we are seeing in the case of Lithuania and Poland are historical sensitivities vis-à-vis Russian expansionism translated into highly efficient strategies, which yielded outstanding results in the midst of the biggest European crisis since 1945.¹⁷

¹⁴ "Expansion of the LNG Terminal in Poland and Update on Gaz-System Infrastructure Projects". 2019. GRI SSE Stakeholders Group Meeting Prague, 27 November 2019. https://nra.acer.europa.eu/Events/26th-Stakeholder-Group-Meeting/Documents/%C5%9Awinouj%C5%9Bcie%20LNG%20Termina_R.pdf

¹⁵ Ptak, Alicja. 2022. "Baltic Pipe Connected to Polish and Danish Transmission Systems." Notes From Poland (blog). July 22, 2022. <https://notesfrompoland.com/2022/07/22/baltic-pipe-linked-to-the-transmission-systems-of-poland-and-denmark/>.

¹⁶ Poland's Energy Revolution Will Break the Kremlin's Gas Monopoly in 3 Years' Time." 2019. Warsaw Institute (blog). August 2, 2019. <https://warsawinstitute.org/polands-energy-revolution-will-break-kremlins-gas-monopoly-three-years-time/>.

¹⁷ For an overview of the gas related energy developments in the Balkans see: The Oxford Institute for Energy Studies. "The Baltic gas market: a microcosm of Europe's struggle to quit Russian gas", September 2022. <https://a9w7k6q9.stackpathcdn.com/wpcms/wp-content/uploads/2022/09/Insight-123-The-Baltic-gas-market.pdf>



Fig. 1 LNG Terminals in the Baltic Sea. Source: New Strategy Center.

About 1300 km to the south, Croatia embarked on a similarly bold project: the Krk FSRU LNG facility, which commenced operations in January 2021, with its 2.6 bcm annual capacity, is fully booked for the following three years¹⁸. When the project initially secured funding four years ago, it was regarded by many¹⁹ as a risky endeavour due to the low interests for LNG and potentially detrimental geopolitical consequences. Nowadays, the project is viewed in a completely new light, providing much needed breathing space in a period where demand for LNG surpassed levels which were unthinkable just 12 months ago.

¹⁸ Marinova, Krasimira. 2021. "First Croatian LNG Terminal Officially Inaugurated in Krk Island." Text. Innovation and Networks Executive Agency - European Commission. January 29, 2021. <https://ec.europa.eu/inea/en/news-events/newsroom/first-croatian-lng-terminal-officially-inaugurated-krk-island>.

¹⁹ Euronews. "Who Really Needs the Krk LNG Terminal? | View," March 25, 2019. <https://www.euronews.com/2019/03/25/who-really-needs-the-krk-lng-terminal-view>.

The project is of particular importance in an energy deprived region, fundamentally altering both transport and consumption dynamics in its immediate vicinity. On the cusp of an energy revolution, the Krk LNG terminal represents a first piece of a new energy landscape which will slowly manifest itself on the ground in the following decade. The Balkan region is in the middle of a wider regional energy struggle and reconfiguration of suppliers and transport routes. This will greatly impact the region's energy sector. The reverberations will be felt in the geopolitical arena, translating into the ability to break free from the current Russian dominance.

Turkey's regional ambitions and the energy game

Since the turn of the millennium, Turkey has been pursuing a policy of regional expansion, in line with a neo-Ottoman vision, in areas where historically it has had influence. What seemed like a relatively safe path towards Euro-Atlantic integration turned into a struggle for regional dominance spanning from Central Asia to northern Syria, the eastern Mediterranean and North Africa. In its quest for an augmented role in the region, the regime in Ankara threaded a fine line which it sometimes bluntly crossed, such as with the acquisition of the S-400 systems from Russia²⁰ after shooting down a Russian Sukhoi SU-24 fighter jet in the Syrian airspace²¹. Concomitantly, Turkey continued to expand its energy relations with Russia, while engaging in military maritime spats with its fellow NATO ally, Greece.²²

In terms of energy, Turkey has an ambivalent relationship with Russia; it is developing nuclear projects while simultaneously attempting to diversify its supplies and minimize its reliance on Russia through various suppliers or its own resources, such as those in the Black

²⁰ Macias, Amanda. "U.S. Sanctions Turkey over Purchase of Russian S-400 Missile System." CNBC. Accessed September 15, 2022. <https://www.cnbc.com/2020/12/14/us-sanctions-turkey-over-russian-s400.html>.

²¹ BBC News. "Turkey's Downing of Russian Warplane - What We Know," December 1, 2015, sec. Middle East. <https://www.bbc.com/news/world-middle-east-34912581>.

²² "Why the Turkish-Greek Island Spat Flares up Again and Again | Europe | News and Current Affairs from around the Continent | DW | 04.08.2022." Accessed September 15, 2022. <https://www.dw.com/en/why-the-turkish-greek-island-spat-flares-up-again-and-again/a-62713489>.

Sea. Ankara's first major gas transportation project became operational in 2002: the Blue Stream, allowing Turkey to import gas from the Russian gas facilities located in Stavropol²³. Times moved fast, and only 20 years later, the country is bidding to expand its regional influence in the energy field, with connections to the Caspian Sea²⁴ and stakes in gas fields in both the Eastern Mediterranean²⁵ and the Black Sea²⁶. Turkey's recent landmark project in the TurkStream, which went online in 2020 with a capacity of 30 bcm/y, allows Turkey to effectively double its imports of Russian gas²⁷. The pipeline ends in Eastern Thrace, 1km away from the TAP-TANAP pipeline junction, creating what was expected to be a fundamental alteration of energy regional dynamics. As we will see below, those changes are still quickly underway, but the war in Ukraine changed their centre of gravity away from the Russian gas supplies. The Kiykikoy entry point of TurkStream in Eastern Thrace can become a nodal point for future Turkish gas exports from its new Black Sea discoveries, especially due to the temptation to export as much as possible in order to gain much needed foreign currency for Ankara's depleted coffers.

²³ Warsaw Institute. "Russia Supplies Record Natural Gas To Turkey Via Blue Stream," January 31, 2022. <https://warsawinstitute.org/russia-supplies-record-natural-gas-turkey-via-blue-stream/>.

²⁴ "Turkey Looking to Transit Turkmen Gas via Azerbaijan | Eurasianet." Accessed September 15, 2022. <https://eurasianet.org/turkey-looking-to-transit-turkmen-gas-via-azerbaijan>.

²⁵ Meredith, Sam. n.d. "Turkey's Pursuit of Contested Oil and Gas Reserves Has Ramifications 'well beyond' the Region." CNBC. Accessed September 15, 2022. <https://www.cnbc.com/2020/08/18/turkey-greece-clash-over-oil-and-gas-in-the-eastern-mediterranean.html>.

²⁶ Bloomberg.com. "Erdogan Says Turkey Will Accelerate Black Sea Gas Production," June 14, 2022. <https://www.bloomberg.com/news/articles/2022-06-14/erdogan-says-turkey-will-accelerate-black-sea-gas-production>.

²⁷ "Turkey, Russia Launch TurkStream Pipeline Carrying Gas to Europe | Reuters." Accessed September 15, 2022. <https://www.reuters.com/article/us-turkey-russia-pipeline-idUSKBN1Z71WP>.



Fig 2. Turkish Stream route. Source: New Strategy Center

Turkey relies on piped natural gas sourced from Iran, Azerbaijan, and Russia and LNG imported from Qatar, the U.S., and spot cargoes in order to meet domestic demand. In 2019, the imported gas bill totalled \$41 billion²⁸ for approximately 45 bcm²⁹. In 2021, Russia provided Turkey with 25% of its oil and 45% of its natural-gas purchases (REF) with gas imports doubling in 2022³⁰. Turkey currently receives significant volumes of Russian gas through the Trans-Balkan pipeline which connects upstream to the Soyuz Pipeline in Ukraine³¹. Turkey has already contracted 15 bcm/y through the new TurkStream, which will leave Trans-Balkan pipeline mostly redundant and unused. When the second string of the

²⁸ Ackerman, Wayne, C. "Turkey: A New Emerging Gas Player with Resources and Infrastructure". *Middle East Institute*. June 15, 2022. Accessed September 15, 2022. <https://www.mei.edu/publications/turkey-new-emerging-gas-player-resources-and-infrastructure>.

²⁹ Idem.

³⁰ Kozok, Firat. "Turkey Looks to Ditch Dollar in Payments for Russian Energy." *Bloomberg*. July 19, 2022. Accessed September 15, 2022. <https://www.bloomberg.com/news/articles/2022-07-19/turkey-looks-to-ditch-dollar-in-payments-for-russian-energy>.

³¹ Dickinson, Peter. "Time for Europe to Rethink the Trans-Balkan Pipeline." Atlantic Council (blog), October 20, 2020. <https://www.atlanticcouncil.org/blogs/ukrainealert/time-for-europe-to-rethink-the-trans-balkan-pipeline/>.

TurkStream opens, the additional 15 bcm/y available could flow, in part, through the TAP to Italy, with the remainder flowing through the Trans-Balkan Pipeline after a flow reversal to Bulgaria, Romania, and the Balkan States³². The TANAP pipeline, owned by 6 private international players and transiting as many countries, costs a whopping \$42 bn, 50% more than China's Three Gorges Dam and more than 50 countries are either directly involved or profess adjacent interests³³. The pipeline connects Turkey to the Southern European market, while complementing its gas export ambitions with the transit country status.³⁴

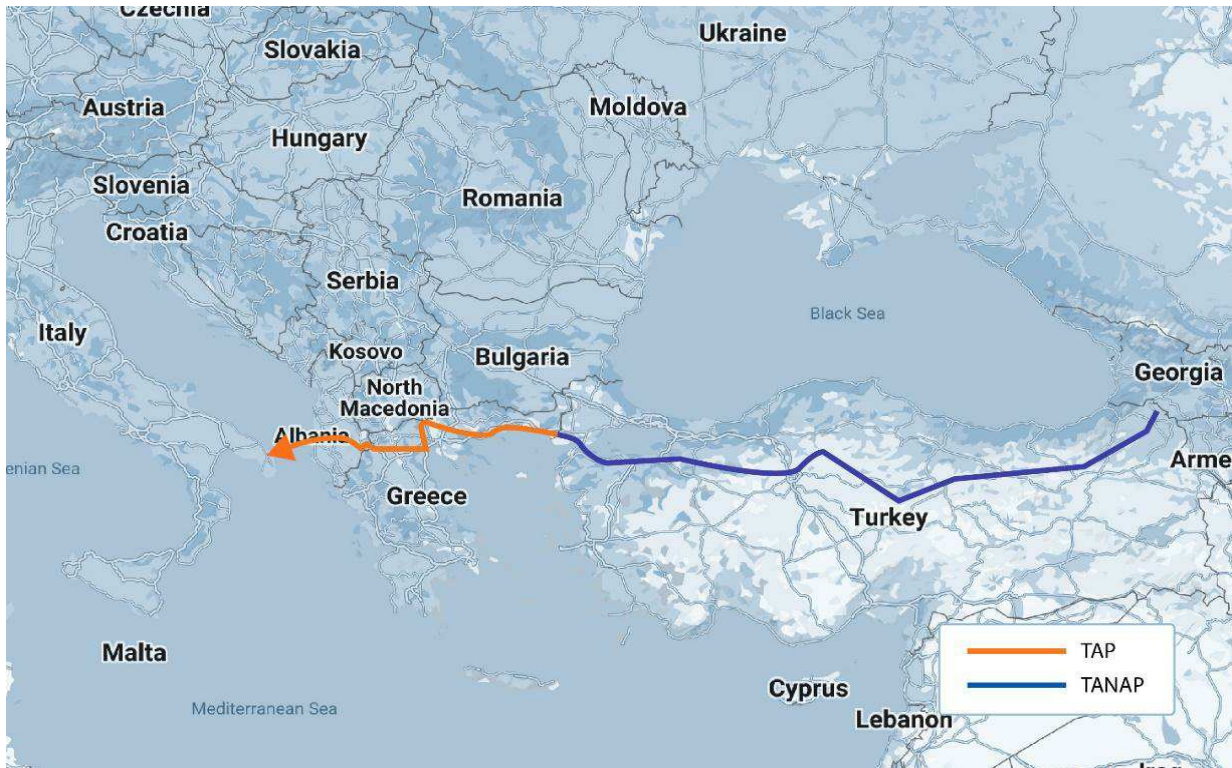


Fig 3. TAP and TANAP pipelines. Source: New Strategy Center

After several Romanian deep-water Black Sea discoveries, Turkey pivoted and commenced exploration efforts in 2020 with the Tuna-1 well³⁵. In August 2020, the Fatih drillship

³² Morrison, Lee. "Southern gas corridor: The geopolitical and geo-economic implications of an energy mega-project." *The Journal of Energy and Development* 43, no. 1/2 (2017): 251-291.

³³ Idem.

³⁴ Matalucci, Sergio. „Southern Gas Corridor project about to come on stream”. *Deutsche Welle*. November 11, 2020. <https://www.dw.com/en/southern-gas-corridor-project-about-to-come-on-stream/a-55555077>

³⁵ "Turkey Spuds Third Exploration Well in Black Sea | Upstream Online." Accessed September 15, 2022. <https://www.upstreamonline.com/exploration/turkey-spuds-third-exploration-well-in-black-sea/2-1-1171091>.

discovered 540 bcm of gas in the Western Black Sea ultra-deep offshore. The field, named Sakarya, is located near the intersection of Romanian, Bulgarian, and Turkish waters. The Sakarya gas field could³⁶ potentially supply up to 30% of domestic demand when it comes onstream in Q1 2023 with an estimated 3.6 bcm/y. It will reach its 14 bcm/y peak in the mid-late to late 2020s, covering almost 30% of the country's needs³⁷. Turkey's efforts to become energy independent expand well beyond the Western Black Sea: Turkey signed maritime delimitation agreements with the Turkish Republic of Northern Cyprus (TRNC) in September 2011 and with the Government of National Accord in Libya in November 2019³⁸, paving the way for future gas extractions.

Like in any other grand investments, the ones in energy make strategic sense when they take the form of a diversified portfolio. While focused on regional gas extraction and transit routes, Turkey also kept an eye out for the opportunity of joining the 32 countries which currently operate nuclear reactors³⁹. The Akkuyu nuclear power plant is a project currently under construction, in partnership with Russia's Rosatom, and is expected to be the first build-own-operate nuclear power plant in the world, advancing Russia' pretence of being a technology exporter. Once all four reactors will be completed, they will produce approximately 10% of Turkey's annual energy consumption⁴⁰.

³⁶ Ministry of Foreign Affairs of Turkey. "No: 216, 21 September 2011, Press Statement On The Continental Shelf Delimitation Agreement Signed Between Turkey And The TRNC / Republic of Türkiye Ministry of Foreign Affairs." Accessed September 15, 2022. https://www.mfa.gov.tr/no_-216_-21-september-2011_-press-statement-on-the-continental-shelf-delimitation-agreement-signed-between-turkey-and-the-trnc.en.mfa.

³⁷ "Turkey's Fatih Drillship Starts New Mission in Black Sea: Minister - Global Times." Accessed September 15, 2022. <https://www.globaltimes.cn/page/202202/1252463.shtml>.

³⁸ "Turkey-Libya Agreement Shakes up Eastern Mediterranean - Al-Monitor: Independent, Trusted Coverage of the Middle East." Accessed September 15, 2022. <https://www.al-monitor.com/originals/2019/12/turkey-libya-agreement-eastern-mediterranean-energy.html>.

³⁹ "Nuclear Power Reactors in Operation by Country 2022 | Statista." Accessed September 15, 2022. <https://www.statista.com/statistics/267158/number-of-nuclear-reactors-in-operation-by-country/>.

⁴⁰ Hamit, Dilara, Aydin, Havva Kara, Teslova, Elena. "Turkey's Nuclear Power Plant to Produce 10% of Electricity Need." *Andalou Agency*. March 10, 2021. Accessed September 15, 2022. <https://www.aa.com.tr/en/economy/turkeys-nuclear-power-plant-to-produce-10-of-electricity-need/2171480>.



Fig. 4 – Akkuyu nuclear powerplant under construction. Source: <http://www.akkuyu.com/third-tier-of-the-internal-containment-installed-at-akkuyu-npp-unit-1>

The first reactors will become operational in 2023⁴¹, while the remaining three will be integrated into the energy grid gradually, until 2026⁴². In spite of the war, Turkey’s nuclear project Russia is still going ahead, the largest site of the kind in the world.⁴³ In late July 2022 Rosatom Corp sent \$5 billion to the Turkey-based builder, with the project receiving funding from Russia’s biggest lender, Sberbank PJSC, thanks to Rosatom’s exemption from

⁴¹ Daily Sabah. “Initial Unit of Turkey’s Akkuyu NPP to Be Completed by May 2023.” Daily Sabah, September 17, 2021. <https://www.dailysabah.com/business/energy/initial-unit-of-turkeys-akkuyu-npp-to-be-completed-by-may-2023>.

⁴² “Akkuyu Construction to Be Completed by 2026, Says Project CEO: New Nuclear - World Nuclear News.” Accessed September 15, 2022. <https://www.world-nuclear-news.org/Articles/Akkuyu-fully-operational-by-2026,-says-project>.

⁴³ Kozok, Firat. “Russia Is Wiring Dollars to Turkey for \$20 Billion Nuclear Plant”. *Bloomberg*. July 29, 2022. Accessed September 15, 2022. <https://www.bloomberg.com/news/articles/2022-07-29/russia-is-wiring-dollars-to-turkey-for-20-billion-nuclear-plant>.

Western sanctions. The deal was confirmed by the leaders of the two states during the September 2022 SCO Summit held in Uzbekistan⁴⁴.

When taking into account the above, the conclusion is pretty straightforward: in the ever-evolving energy game of chess, Turkey is here to stay while carving out its own role. Despite numerous conflicting decisions on a geopolitical level, the country remains a reliable transit point for Azeri gas and the decision to support Finland's and Sweden's accession to NATO confirms that apart from small deviations, the country is committed to sitting at the same table as the Euro-Atlantic players.

Greece – the newcomer in the regional gas bonanza

Greece geographical position has it at the confluence of at least three major influencers, all and each bringing forth a particular risk. Greece is the place where the Balkans meets Eastern Mediterranean, with Turkish, Middle Eastern, and North African risks and uncertainties blending on its shores. Migrant crosses from North Africa and various military spats with Turkey over Cyprus and the gas reserves in the Eastern Mediterranean have placed Greece at the forefront of regional geopolitics. Those developments have not gone unnoticed by succeeding governments in Athens, which invested heavily in military aircraft⁴⁵ and frigates⁴⁶, as a deterrent to Turkish assertiveness in the Eastern Mediterranean. On the energy front, Greece stated its intention to become a regional gas hub as early as 2017⁴⁷ through a mix of schemes aimed at ensuring the country's energy

⁴⁴ Daily Sabah with Agencies. "Turkish Contractor IC İçtaş Reaches Deal with Russia on Akkuyu." Daily Sabah, September 16, 2022. <https://www.dailysabah.com/business/energy/turkish-contractor-ic-ictas-reaches-deal-with-russia-on-akkuyu>.

⁴⁵ Reuters. „Greece proceeds with purchase of 20 Lockheed F-35 fighter jets - PM". June 30, 2022. <https://www.reuters.com/world/europe/greece-submit-request-purchase-20-lockheed-f-35-fighter-jets-soon-sources-2022-06-30/>

⁴⁶ Reuters. „Greece buys six more Rafale fighter jets, frigates from France". March 24, 2022. <https://www.reuters.com/business/aerospace-defense/greece-buys-six-more-rafale-fighter-jets-frigates-france-2022-03-24/>

⁴⁷ Hellenic Republic - Ministry of Foreign Affairs. 2017. Energy Diplomacy, April. <https://www.mfa.gr/en/energy-diplomacy/>

independence from unreliable providers while opening up the possibility of acting as a transit country towards Italy and the Balkans.

The first such scheme was the Interconnector, linking the South Caucasus gas pipeline to Greece via Turkey. Greece was also eager to participate in the Russia-led South Stream pipeline⁴⁸, and, once this was scrapped, the Italy-Greece Interconnector (IGI)/Poseidon pipeline⁴⁹. At the same time, Greece joined the ongoing Transadriatic pipeline (TAP) project⁵⁰. TAP began operating in 2021 and is expected to operate at its full capacity of 10 bcm per year in 2022 and 2023. The potential expansion of TAP is being considered by Azerbaijan's SOCAR and other companies and may be put on a fast track. Northwards, an interconnector with North Macedonia part of a wider plan to link Greece with Bulgaria and Serbia will allow 5.5 bcm/y to flow into the Balkans⁵¹, fundamentally altering the regional energy matrix. As of October 2022, the first segment of the interconnector was officially inaugurated, connecting Greece and Bulgaria.⁵² Due to the Gazprom gas cut off to Bulgaria and failed negotiations in the aftermath, the government in Sofia turbocharged its energy diplomacy with an unofficial regional meeting on energy issues is potentially on Sofia's agenda for October, featuring European Commission President Ursula von der Leyen and the presidents of Bulgaria, Azerbaijan, Serbia, Romania and North Macedonia⁵³. These efforts were greatly augmented by the inauguration of the Greece-Bulgaria interconnector, improving Sofia's hand in its negotiations with Gazprom.

⁴⁸ Jirušek, M., Vlček, T., and Henderson, J. 2017. Russia's Energy Relations in Southeastern Europe: An Analysis of Motives in Bulgaria and Greece. *Post-Soviet Affairs* 33 (5), p. 340

⁴⁹ Siddi, M. 2017. The Southern Gas Corridor. Challenges to a Geopolitical Approach in the EU's External Energy Policy. FIIA Briefing Paper 216. Helsinki: FIIA, March. <https://www.tandfonline.com/doi/abs/10.1080/14650045.2017.1416606>, p. 12

⁵⁰ Idem.

⁵¹ Institute of Current World Affairs. "As War in Ukraine Intensifies, Greece Promotes Balkan Energy Security - ICWA," June 30, 2022. <https://www.icwa.org/greece-promotes-balkan-energy/>.

⁵² European Commission - European Commission. "Launch of the Interconnector Greece-Bulgaria." Text. Accessed October 5, 2022. https://ec.europa.eu/info/news/launch-interconnector-greece-bulgaria-2022-oct-01_en.

⁵³ Nikolov, K. 2022. "Bulgaria hopes to host Azeri gas leadership meeting. Euractiv.bg https://www.euractiv.com/section/politics/short_news/bulgaria-hopes-to-host-azeri-gas-leadership-meeting/

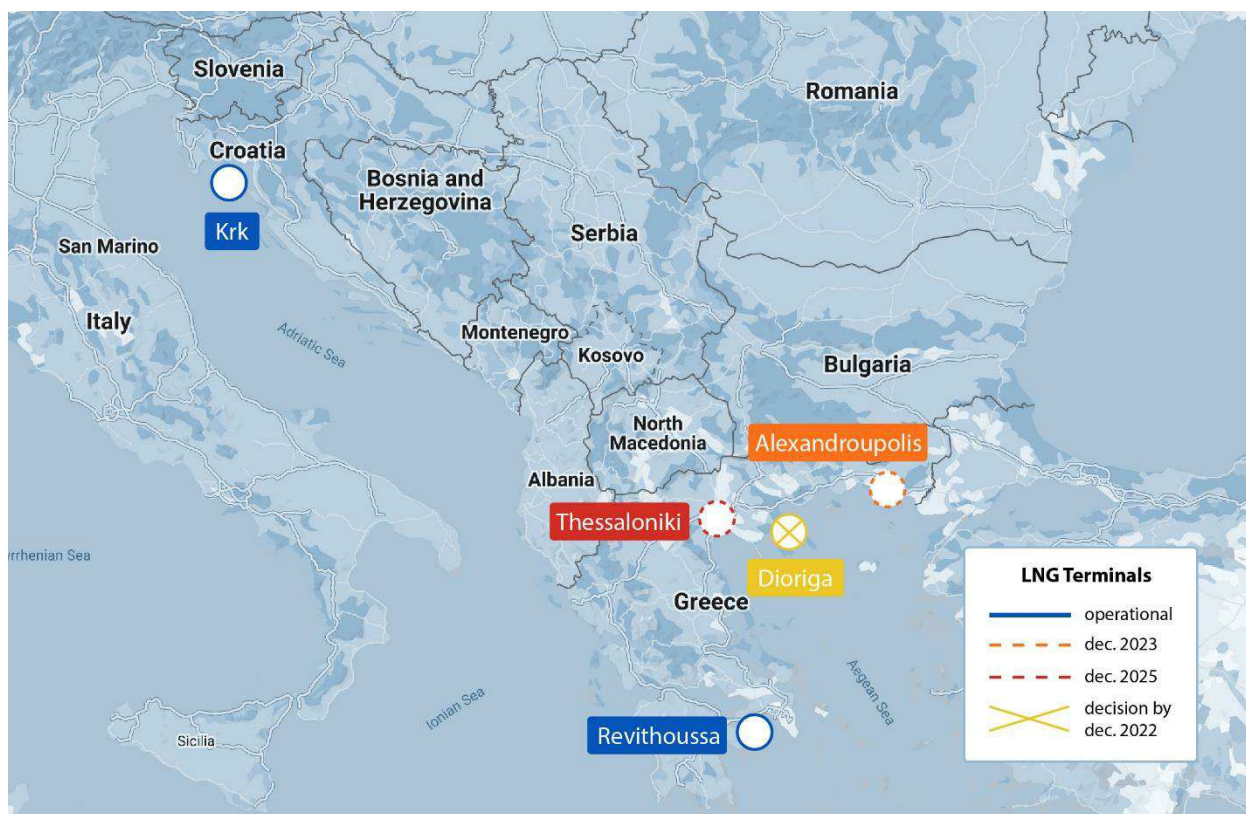


Fig 5. LNG Greece and Croatian LNG terminal. Source: New Strategy Center

Greece’s energy strategy also expands overground, with the well-timed construction and planning of LNG terminals. The DESFA terminal located in Revithoussa became operation in 2000. A 20-year hiatus followed, with no terminals being constructed due to low gas prices and pervasive economic problems in the aftermath of the euro crisis. As of now, there are multiple LNG terminals under construction. The first one will become operational in December 2023 and is located in Alexandroupolis⁵⁴. The Thessaloniki FSRU is set to become operational by 2025⁵⁵ while by the end of 2022 a decision will be reached on the construction of the Dioryga LNG terminal, with a projected capacity of 2.5 bcm/y.⁵⁶

⁵⁴ Aposporis, Harry. “Launch of Works on Alexandroupolis LNG Terminal in Greece.” Balkan Green Energy News, May 3, 2022. <https://balkangreenenergynews.com/launch-of-works-on-alexandroupolis-lng-terminal-in-greece-heralds-reduced-dependence-on-russian-gas-for-the-balkans/>.

⁵⁵ “Greek Gastrade Launched Construction of Alexandroupolis LNG Terminal.” Accessed September 16, 2022. <https://neftegazru.com/news/lng/736299-greek-gastrade-launched-construction-of-alexandroupolis-lng-terminal/>.

⁵⁶ Natural Gas Intelligence. “LNG, New Pipeline Connections to Help Poland, Bulgaria Fill Natural Gas Shortfall Left by Russia,” May 19, 2022. <https://www.naturalgasintel.com/lng-new-pipeline-connections-to-help-poland-bulgaria-fill-natural-gas-shortfall-left-by-russia/>.



Fig 6. Revithoussa LNG Terminal – DESFA. Source: <https://www.sofregaz.fr/projects-archive/revithoussa-lng-terminal/>

Greece's gas diversification strategy best highlights the highly contentious arena within which those efforts develop. The Elenic-Turkish competition in the Eastern Mediterranean is a prime example of energy realpolitik: TurkStream, which will carry Russian gas under the Black Sea, is a seemingly win-win situation in the Greek-Turkish competition, with a rather clear loser, namely Greece. The government in Athens had to settle for a transit country status, while the project advanced Turkish ambitions to become a regional energy hub. The pipeline risked becoming yet another entry point for Russian gas into the European market by terminating within 1km of the TAP-TANAP junction in Eastern Thrace, undercutting Greek LNG terminals with lower costs. But nothing is forever, as Russia's illegal invasion of Ukraine and the subsequent gas cut offs bring those projects at the forefront of the regional struggle for energy independence.

Despite being a liberal country with very strong commitments to the European project, the government in Athens professed a dual-pivot strategy. On the one hand, through the

Interconnector with North Macedonia, the Greece-Bulgaria interconnector (IGB) and the Trans Adriatic Pipeline, it advanced Western interests. On the other hand, its endorsement of the Russian-sponsored South Stream opened up a new energy front in the Mediterranean, which could have provided a bridgehead to the Russian gas infrastructure via the East Med project which was meant to link up to TurkStream. With the East Med project now shelved⁵⁷, as a result of the US pulling out of the project to avoid ramping up pressures in the region, the developments in Greece serve to advance European interests. Even so, the change in Washington's position was due to aggressive Turkish diplomacy⁵⁸, setting a dangerous precedent in the region which will most surely feed into Ankara's assertiveness. Even with this somewhat happy ending, the episode serves to show how energy hunger can bring out the worst in states, placing them at odds with long-standing partners.

North of Greece towards a new Balkan energy matrix

As with all developments within the geopolitical arena, the ones in Greece and Turkey give birth to reactions elsewhere. The Western Balkans are benefiting from these positive developments due to their geographical location and often precarious and absent gas infrastructure. As of now, gas consumption in the Western Balkans currently stands at about 3.6 bcm per year, mainly in heating and combined heat and power (CHP) systems in major towns and a few industries in Serbia, North Macedonia, and Bosnia and Herzegovina⁵⁹. The power sectors of these countries currently have different mixes of hydropower and thermal power, including significant coal and lignite use.⁶⁰ Serbia is the largest gas consumer in the Western Balkans, with over 2.7 bcm annual consumption.⁶¹ Due

⁵⁷ Stamouli, Nektaria. "EastMed: A pipeline project that ran afoul of geopolitics and green policies". *Politico*. January 18, 2022. <https://www.politico.eu/article/eastmed-a-pipeline-project-that-ran-afoul-of-geopolitics-and-green-policies/>

⁵⁸ Idem.

⁵⁹ "The War in Ukraine and Gas in the Western Balkans - Atlantic Council." Accessed September 16, 2022. <https://www.atlanticcouncil.org/blogs/energysource/the-war-in-ukraine-and-gas-in-the-western-balkans/>.

⁶⁰ Ichord, Robert, "The war in Ukraine and gas in the Western Balkans", *Atlantic Council*, June 30, 2022, <https://www.atlanticcouncil.org/blogs/energysource/the-war-in-ukraine-and-gas-in-the-western-balkans/>

⁶¹ "Serbia Natural Gas - Consumption - Energy." Accessed September 16, 2022. https://www.indexmundi.com/serbia/natural_gas_consumption.html.

to high energy intensity, the region’s energy problems will only increase as all but one energy generating plants is over 30 years old.⁶² The region will be forced to transition away from its current energy model, with gas bound to play an outsized role in this process.

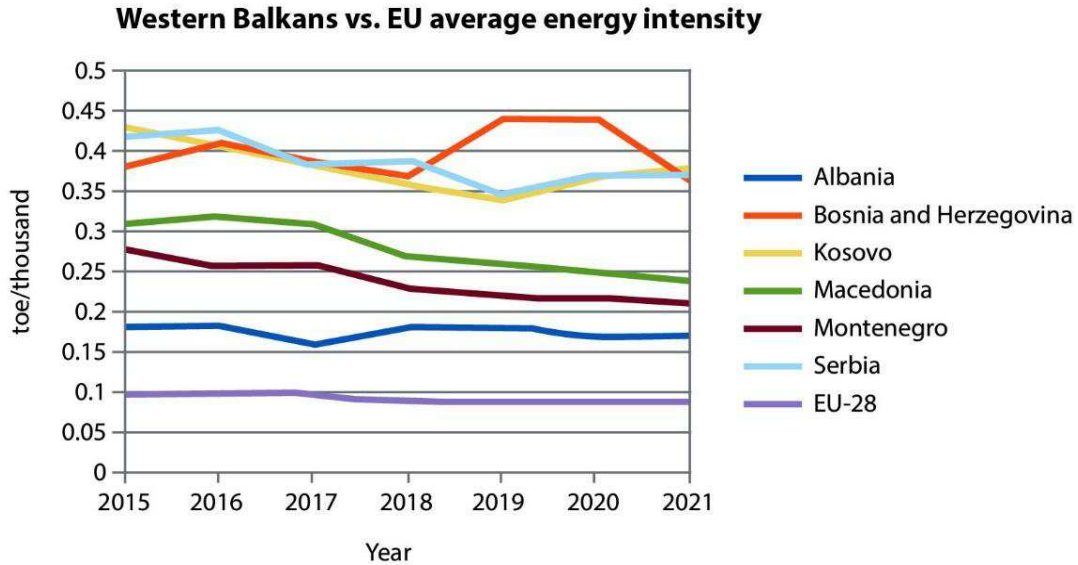


Fig 7. Western Balkans energy intensity – New Strategy Center

Bulgaria stands as a linkage point between the Western Balkans and the Black Sea, by hosting an important leg of the Trans-Balkan pipeline. Before the war, it seemed like⁶³ the inauguration of the TurkStream with its colossal transport capacity will dwarf the Trans-Balkan pipeline into irrelevance, especially its northern connection with Romania and Ukraine, becoming a secondary asset in Russia’s regional export monopoly, enabling it to export gas to its long-standing regional ally, Serbia. Since 2020, its section in Bulgaria from Malkoçlar on the Turkey–Bulgaria borders up to the compressor station in Provadia, north-

⁶² Energy Community. “WB6 Energy Transition Tracker”, 2021. https://www.energy-community.org/dam/jcr:c7db8188-0b04-443b-9f41-728ee182fc90/EnC_WB6_ETT3_062021.pdf

⁶³ POLYGRAPH.info. “TurkStream Will Deepen Bulgaria’s Dependence on Russian Gas.” Accessed September 23, 2022. <https://www.polygraph.info/a/turkstream-will-deepen-bulgaria-s-dependence-on-russian-gas-/6742151.html>.

east of Bulgaria, has been used for transportation of natural gas received from TurkStream, which as of now is only used to transport gas to Serbia due to Gazprom cutting energy supplies to Bulgaria⁶⁴. The pipeline is of particular importance in the context of the Ukraine war because it can also be used in reverse mode to receive Azerbaijani gas via the TANAP, alleviating some of the pressure created by the Kremlin's weaponization of gas. These two projects give Bulgaria an opening to its North and East, both as an entry point for gas and as a transit country. Southwards, the newly inaugurate IGB, the Greek-Bulgaria interconnector links it up with the TAP-TANAP junction and the LNG terminals in Greece. What used to be a one-way road of Russian gas export flowing into the region is suddenly becoming an intricate web opened to other sources, such as Azeri gas and American LNG. Moreover, Bulgaria is an important part of the BRUA pipeline network, which takes its name from the Romanian acronym of the participating countries: Bulgaria, Romania, Hungary and Austria, ending at the Central European Gas Hub, offering it a direct connection to the Central and Western European gas network. At the Bulgarian end of the project, BRUA will benefit from a connection to the TAP-TANAP junction, which will enable imports and exports of gas into the Southern European Market. The project, which through a mixture of incorporation or upgrading of existing gas lines, and the addition of extra compression and, in places, new lines, ensures connection through 4 EU countries with a capacity of 4.4 bcm/y, with ramifications to Ukraine and Moldova.

⁶⁴ Gotev, Georgi. "How Bulgaria Gave Gazprom the Keys to the Balkans." *EURACTIV*, October 30, 2020. <https://www.euractiv.com/section/energy/news/how-bulgaria-gave-gazprom-the-keys-to-the-balkans/>.



Fig 8. TransBalkan & IGB Pipelines – New Strategy Center

Thanks to its geographical proximity, North Macedonia will be the first to benefit from these new developments, with impending connections (ready or not) to Bulgaria, Serbia and perhaps most importantly, Greece. This investment project will build 23 km of gas pipeline, from Radovish – Deve Bair, at the Bulgarian border⁶⁵. In Serbia’s direction, another extension of 24 km in length will lead to the country’s border. When completed, the North Macedonia-Serbia interconnection will measure a total length of 65 km, 23 km in North Macedonia and 42 km in Serbia, linking the supply systems of the two countries.⁶⁶ Towards the Greek border, the interconnector will run near the Nea Messimvria

⁶⁵ European Commission. “New Pipeline Connects Gas Transmission Systems of Bulgaria and Greece-Projects.” Accessed September 16, 2022. https://ec.europa.eu/regional_policy/en/projects/Bulgaria/new-pipeline-connects-gas-transmission-systems-of-bulgaria-and-greece.

⁶⁶ “Interconnection Macedonia–Greece Gas Pipeline, Greece.” Accessed September 16, 2022. <https://www.offshore-technology.com/marketdata/interconnection-macedonia-greece-gas-pipeline-greece/>.

compressor station to the customs station of Evzoni in Greece, then to Gevgelija and Negotino in North Macedonia.

The domino effect is complete when taking into account the future North Macedonia – Greece interconnector, which will give North Macedonia access to the TAP-TANAP junction and the TurkStream terminal in its vicinity, as well as to Greece’s LNG terminals. A well-rounded picture emerges when the interconnector to Serbia is combined with the Bulgarian Trans-Balkan sector, which has intersection points with BRUA and TurkStream.

One could wonder, and rightly so, about the rest of the Western Balkan countries. Currently, Russia supplies all North Macedonia, Serbia and Bosnia and Herzegovina through Bulgaria, bypassing Ukraine with Russian shipments via TurkStream reaching as far as Hungary due to the pipeline’s 8.5 bcm of annual capacity. Interconnections towards the Greek LNG terminals and the TAP-TANAP junction would enable the region to diversify its supply sources and increase their leverage with Gazprom. The proposed Ionian-Adriatic Pipeline (IAP), currently in need of \$600 million in funding⁶⁷, now seems more achievable than ever with the outbreak of the war and EU’s renewed attention for the region. The pipeline will commence from Fier, in Albania, linking to the gas network in Greece and crossing through Montenegro and Bosnia and Herzegovina. Its total length will be 516 km and it will carry approximately 5 bcm/y⁶⁸. This capacity has already been fully allocated: 2.5 bcm/y for Croatia, 0.5 bcm/y for Montenegro, and 1 bcm/y each to Bosnia-Herzegovina and Albania⁶⁹. Moreover, in Bosnia and Herzegovina, a 187 km Croatia-Bosnia gas interconnector, planned under an agreement between BH-Gas and Plinacro of Croatia

⁶⁷ Tsoneva, Annie. “IAP Gas Pipeline Project Needs 600 Mln Euro Investment - Report.” *Seenews*. Accessed September 15, 2022. <http://seenews.com/news/iap-gas-pipeline-project-needs-600-mln-euro-investment-report-771989>.

⁶⁸ Elliott, Stuart. “EU ‘keen’ on Extending Southern Gas Corridor into Western Balkans: Official,” December 21, 2020. <https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/natural-gas/122120-eu-keen-on-extending-southern-gas-corridor-into-western-balkans-official>.

⁶⁹ *Idem*.

for operation in 2024, will help expand and diversify gas supplies and link the country to the LNG flows at Krk terminal.⁷⁰



Fig 9. Greece – Northern Macedonia Interconnector – New Strategy Center

After securing initial investment from the Balkan Investment Framework, the ALKOGAP pipeline linking Kosovo and Albania has the chance of becoming the last link in the new Balkan energy order. This transmission supply project, of about 260 km total length would create the preconditions for the further development of the natural gas markets of Albania, and the creation and development of the natural gas markets of Kosovo in the estimated annual level of 1.5 - 2 bcm (1-1.3 bcm for Albania and 0.5 - 0.7 bcm for Kosovo).⁷¹

⁷⁰ Ichord, R.F. 2022. "The War in Ukraine and Gas in the Western Balkans." Atlantic Council (blog), June 30, 2022. <https://www.atlanticcouncil.org/blogs/energysource/the-war-in-ukraine-and-gas-in-the-western-balkans/>.

⁷¹ "Gas_13 / Albania - Kosovo* Gas Pipeline (ALKOGAP)." Accessed September 17, 2022. <https://www.energy-community.org/regionalinitiatives/infrastructure/PLIMA/Gas13.html>.

Energy at the forefront of geopolitics – a Serbian perspective

Energy dependence remains one of the three sources of influence that Russia has in Serbia and the Balkans, alongside Serbian dependence on Russian veto in the UN Security Council regarding the Kosovo dispute, and soft power, meaning Russian popularity among parts of the population.⁷² While Serbia has traditionally depended on Russia for its gas supply, there is a very powerful political background as well. In 2008, Serbia sold to Russia the majority shares in Naftna Industrija Srbije (Petroleum Industry of Serbia, a Serbian multinational oil and gas company).⁷³ On that occasion Gazprom acquired a 51% stake in NIS for 400 million euros in 2008, a transaction deemed below the market price since a professional service company Deloitte in its accounting assessment stressed that the market value of NIS is 2.2 billion euros.⁷⁴

This transaction was guided not by energy interests, but by political logic too as the acquisition of NIS to Russian Gazprom was motivated by the Serbian desire to secure Russian protection in the UN on Kosovo issue, and to secure Moscow's guarantee that now defunct gas pipeline project South Stream would be constructed over Serbian territory. Former Serbian President Boris Tadić during whose term the acquisition of NIS was completed, indirectly acknowledged this back in 2014.⁷⁵

Belgrade's gas dependence on Moscow frequently caused difficulties for Belgrade. In 2014, the South Stream pipeline project was cancelled because the European Commission opposed the project for being in collision with the EU competition norms.⁷⁶ Serbia was damaged by this decision given that it invested hopes, efforts, and resources in that project.

⁷² Vuksanovic, Vuk. 2019. "Why Serbia Won't Stop Playing the Russia Card Any Time Soon." Carnegie Endowment for International Peace. October 28, 2019. <https://carnegiemoscow.org/commentary/80188>.

⁷³ Shchedrov, Oleg. 2008. "Serbia signs strategic energy deal with Russia." Reuters. January 25, 2008. <https://www.reuters.com/article/uk-russia-serbia-idUKL2515142420080125>.

⁷⁴ Radio Slobodna Evropa. "Serbian Oil and Gas Privatization: Investigation Promised." August 19, 2014. <https://www.slobodnaevropa.org/a/serbia-oil-and-gas-privatization-investigation-promised/26539837.html>.

⁷⁵ N1. "Tadić uveren da će Južni tok biti izgrađen [Tadić is convinced that the South Stream will be built]." December 2, 2014. <https://rs.n1info.com/biznis/a16577-tadic-uveren-da-ce-juzni-tok-biti-izgradjen/>.

⁷⁶ Marusic, Sinisa Jakov and Andric, Gordana. "Russian Pipeline Halt Raises Concern in Balkans." Balkan Insight. December 2, 2014. <https://balkaninsight.com/2014/12/02/balkan-countries-mourn-south-stream-halt/>.

In October 2014, the same month when Vladimir Putin was a guest of honour at a military parade celebrating the 70th anniversary of Belgrade's liberation from Nazi occupation, Gazprom cut gas supplies to Serbia by 28% in response to unpaid debt of USD 224 million. Serbia was forced to draw reserves from the gas depot in the village of Banatski Dvor.⁷⁷

On January 1st, 2021, the Serbian branch of the Ruso-Turkish gas pipeline project TurkStream was inaugurated in Serbia, confirming the reality of Serbian dependence on Russia for gas supplies⁷⁸. In the background of this process there was a clash between pro-Western and pro-Russian currents in the Serbian government. While the dominant party of the ruling coalition is the Serbian Progressive Party (SNS), there is also the junior partner, the Socialist Party of Serbia (SPS) led by pro-Russian Ivica Dačić. In late 2020, when Serbia tried to get closer to the US under Trump and when it was uncertain whether the SPS will remain in government, there were clashes between pro-Western Deputy Prime Minister and Minister of Mining and Energy of Serbia, Zorana Mihajlović, with pro-Russian member of the SPS and the director of Serbia's state-owned natural gas provider, Srbijagas Dušan Bajatović.⁷⁹ When the TurkStream was inaugurated Bajatović attended the ceremony, but not Mihajlović who provided a dubious explanation to the press that she was on a business trip.⁸⁰

For Serbia, the gas dependency on Russia remains a potential point of vulnerability. This was evident even before the war in Ukraine. In November 2021, President Vučić met with President Putin in Sochi to discuss a new gas price deal as the old one was expiring and as the energy crisis began hitting Europe. Serbia agreed to pay USD 270 per 1,000 cubic meters for the next six months, and the amount of delivered gas would increase for the next six

⁷⁷ RTS. "Neće biti gasne krize [There will not be a gas crisis]." October 31, 2014. <https://www.rts.rs/page/stories/sr/story/13/ekonomija/1738367/nece-biti-gasne-krize.html>.

⁷⁸ Reuters. "Russia's Gazprom begins gas deliveries to Serbia, Bosnia via TurkStream pipeline." January 1, 2021. <https://www.reuters.com/article/russia-turkey-gas-idUKL8N2JC08N>.

⁷⁹ N1. "Srbijagas director removed from meeting with minister for "disrespecting" govt." October 31, 2020. <https://rs.n1info.com/english/news/a666982-srbijagas-director-removed-from-meeting-with-minister-for-disrespecting-govt/>.

⁸⁰ Đurović, Jovana. "'Srbija jedina u Evropi zavisi isključivo od ruskog gasa" [Serbia is the only one in Europe depending exclusively on Russian gas]." Glas Amerike. January 4, 2021. <https://www.glasamerike.net/a/nema-zemlje-u-evropi-koja-toliko-zavisi-od-ruskog-gasa-kao-srbija/5723862.html>.

months, given that Serbian gas consumption had doubled up to that point. The deal helped remove a major obstacle for the Serbian government that was about to undergo general elections in April 2022, but the question mark remained on what would happen upon the expiration of the six months period, and what political counter-favours Moscow asked for in return.⁸¹

The war in Ukraine underscored Serbian sensitivities even further, particularly since Russia began using energy and commodities to maintain its international partnerships, by offering them at a privileged price to countries deemed friendly to Russia. In May 2022, in a phone conversation with President Putin, President Vučić arranged a three-year gas supply contract, replacing a previous 10-year gas supply contract with Gazprom. The two sides agreed on a delivery of 2.2 bcm/y, although Serbia requires an additional 800 million cubic meters (mcm) due to the industrial development, and the price is estimated to be in between 340 to 350 per 1,000 cubic meters depending on the amount.⁸² The agreement was reached in the period when Russia cut off gas exports to EU members Finland, Poland, and Bulgaria.⁸³

Despite the agreements with Russia, if the EU were to ban the import of Russian gas, an unlikely prospect at this point in history, it would make it difficult for Serbia to receive Russian gas despite bilateral agreements between Moscow and Belgrade. At the same time, considering the investment needed in the sector, it is likely that Serbia might have problems with the oil and electricity supply as well. In April 2022, Serbia was exempt from the EU's fourth sanctions package against Russia, that banned the companies from doing business with a group of Russian firms, including Gazprom Neft and the subsidiaries in which it has stakes of over 50 per cent. As Gazprom owns Serbia's NIS it would have

⁸¹ Vuksanovic, Vuk. 2021. "Russia's gas gift to Serbia comes with strings attached." *Euronews*. December 4, 2021. <https://www.euronews.com/2021/12/04/russia-s-gas-gift-to-serbia-comes-with-strings-attached-view>.

⁸² Ozturk, Tahla. 2022. "Serbia secures new 3-year deal with Russia for gas supply." *Anadolu Agency*. May 29, 2022. <https://www.aa.com.tr/en/europe/serbia-secures-new-3-year-deal-with-russia-for-gas-supply/2600651>.

⁸³ Al Jazeera. "Serbia secures gas deal with Putin, as West boycotts Russia" May 29, 2022. <https://www.aljazeera.com/news/2022/5/29/serbia-ignores-eu-sanctions-secures-gas-deal-with-putin>.

prohibited Serbia to import oil, as Serbia imports 70 per cent of oil through Jadranski naftovod (Adriatic Oil Pipeline) or JANAF.⁸⁴

As the sixth energy package of the EU sanctions related to Russian seaborne oil is supposed to enter into force by November 1, 2022, Serbia will likely not be able to import Russian oil. Namely, Belgrade receives its oil from the Omišalj terminal on the Croatian island of Krk in Croatia from where it is transferred via JANAF Adriatic pipeline along the Danube, and ultimately from Novi Sad redirected to the refinery in Pančevo. Prior to this, for several months, Serbia redirected its oil import from Iraq and Kazakhstan to Russia, as Moscow offered lower oil prices, but now it has to alter suppliers which will result in higher prices and a more expenses for the ordinary citizens.⁸⁵

Despite the bilateral ties with Moscow, the government in Belgrade is not excluding the idea of diversifying the sources of its energy supplies. In August 2022, President Vučić negotiated with Azerbaijani President Ilham Aliyev on the purchase of Azerbaijani electricity, but more importantly the two also touched on the issue of gas supply. Namely, the idea is for Serbia to get the gas from the Shah Deniz gas field in the Azerbaijani Caspian Sea territory. This would be done through Serbia joining the EU initiative of Southern Gas Corridor, where Azerbaijani gas would be pumped to Europe through sections of the South Caucasus, Trans-Anatolian and Trans-Adriatic pipelines. Serbia joining this initiative is dependent on the completion of the Serbia-Bulgaria gas interconnector, a pipeline connecting Sofia in Bulgaria and Niš in Serbia, whose construction Serbia began and expects to finished next year.⁸⁶ In September 2022, during the visit by Turkish President Recep Tayyip Erdoğan to Serbia, the two governments talked on how to continue the

⁸⁴ Spasić, Vladimir. 2022. "Serbia to be exempt from EU's sanctions against Russian oil firms." Balkan Green Energy News. April 8, 2022. <https://balkangreenenergynews.com/serbia-to-be-exempt-from-eus-sanctions-against-russian-oil-firms/>.

⁸⁵ Carrano, Biagio. 2022. "From November, the flow of Russian oil to Serbia will stop." Serbian Monitor. August 22, 2022. <https://www.serbianmonitor.com/en/from-november-stop-russian-oil-serbia/>.

⁸⁶ Dragojlo, Sasa. "Serbia to Buy Electricity from Azerbaijan 'On Favourable Terms'." Balkan Insight. August 22, 2022. <https://balkaninsight.com/2022/08/22/serbia-to-buy-electricity-from-azerbaijan-on-favourable-terms/>.

supply of Russian gas through Turkish territory via TurkStream pipeline, but also on the supply of Azerbaijani electricity to Serbia via Turkish territory.⁸⁷

The list does not end there. The launch of works on floating storage and regasification unit (FSRU) close to the Greek port city of Alexandroupolis began in May 2022. The FSRU is expected to deliver LNG to Europe after the end of 2023. The high hopes invested in this project are confirmed by high profile dignitaries attending the launch of works, including President Vučić, Prime Minister of Greece Kyriakos Mitsotakis, Prime Minister of North Macedonia Dimitar Kovačevski and the EU Council President Charles Michel.⁸⁸ There are also those in the Serbian government who are in favour of further energy diversification, with the help from the US government, particularly Deputy Prime Minister and Minister of Mining and Energy of Serbia Mihajlović who frequently raises this issue with the US Ambassador to Serbia, Christopher Hill.⁸⁹

A new web of hubs in search of an energy provider – Romania answers the call

Up until this point, we saw an emerging matrix of pipelines which does a great deal to advance the goal of energy security, without addressing the elephant in the room: where will the gas travelling through these pipelines be sourced from? Wedged in between the Balkans and the Black Sea, Romania has a relationship with fossil fuel extraction dating back to the 19th century.

After the forced industrialization of Romanian communist dictator Nicolae Ceaușescu's regime and the economic adjustments of the 1990s, many industries ceased operating. During that decade, demand dwindled and so did the supply. As a result, Romania turned

⁸⁷ TASS. "Russian gas saved Serbia from catastrophe — Vucic." September 7, 2022. <https://tass.com/economy/1504489>.

⁸⁸ Bechev, Dimitar. "Russia's so-called 'gas weapon' is nothing but a myth." Al Jazeera. May 10, 2022. <https://www.aljazeera.com/opinions/2022/5/10/russias-so-called-gas-weapon-is-nothing-but-a>.

⁸⁹ N1. "Brnabic, Hill: Great potential for cooperation in the field of energy." August 5, 2022. <https://rs.n1info.com/english/news/brnabic-hill-great-potential-for-cooperation-in-the-field-of-energy/>.

from an energy importer to a self-sufficient country with export capacity. In the early 2000s, gas was discovered in the Black Sea⁹⁰, raising hopes for a much-needed source of income. Proposals for the necessary amendments to the Off Shore Law have been put forward throughout the 2010s, with various proposals debated and tabled without achieving the change of the Law⁹¹. Due to the number of resources required for gas exploitations, parties were split on how to attract investors. With some energy assets built under communism reaching the end of their lifecycle, the country became an energy importer starting with 2015.⁹²

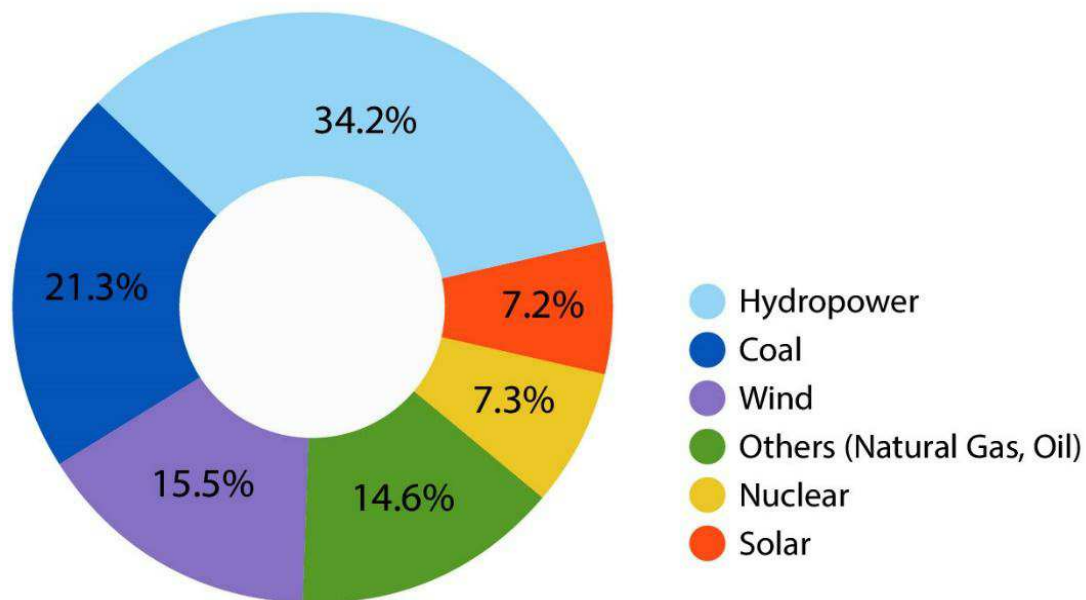
Some other sub-sectors of the energy industry fared better, with hydro power plants retaining and then increasing their share in the energy mix. The first two reactors of the Cernavodă nuclear powerplant became operational in the mid-1990s, while the 2010s saw a boom in solar and wind investments in Dobruja. Nowadays, the country boasts one of the most balanced energy mixes in Europe, with little reliance on Russian gas and many reasons to be confident in its future as a regional energy provider. As of now, Romania is the fourth largest producer of natural gas in Europe after Norway, the Netherlands, and the United Kingdom. With the closure of the gas pits in Groningen, Romania will soon become the largest exporter in the EU and will rival the UK in exports when the Neptune Deep project is complete.

⁹⁰ "The Black Sea's Oil and Gas Potential: The Reality and Prospects of Drilling a Unique Ultra-Deep Well on Zmiiny Island." Accessed September 23, 2022. <https://oil-gas.com.ua/news/The-Black-Seas-oil-and-gas-potential-the-reality-and-prospects-of-drilling-a-unique-ultra-deep-well-on-Zmiiny-Island>.

⁹¹ Chirileasa, Andrei. "Romania's Govt. Will Not Rush New Offshore Law." *Romania Insider*, February 11, 2021. <https://www.romania-insider.com/govt-no-rush-offshore-law-feb-2021>.

⁹² Business Review. "Lighting from abroad. Romania becomes a large electricity importer due to output shortages," May 13, 2019. <https://business-review.eu/news/lighting-from-abroad-romania-becomes-a-large-electricity-importer-due-to-output-shortages-200681>.

Energy Mix , in % , Romania, 2021



Source: National Regulatory Authority for Energy Romania

Figure 10. Romania Energy Mix, 2021. Source: National Regulatory Authority for Energy, Romania. <https://www.anre.ro/ro/energie-electrica/rapoarte/puterea-instalata-in-capacitatiile-de-productie-energie-electrica>

The country's Black Sea reserves amount to 200 bcm, with at least 84 bcm in the Neptune Deep offshore perimeter and 30bcm more in the Trident offshore perimeter. When running at full capacity in 2021, the Neptune Deep perimeter will pump 6.6 bcm/y, covering 50% of Romania's needs. Recently, the Ana perimeter became operational in 2022, covering almost 10% of the country's needs, operated by Black Sea Oil and Gas (BSOG), with ownership equally split between the American investor Carlyle and Romgaz a 50%.⁹³

⁹³ The Romania Journal. "Romgaz Signs Contract for the Black Sea Gas. First Neptune Deep Gases to Be Extracted by 2026." Accessed September 16, 2022. <https://www.romaniajournal.ro/business/romgaz-signs-contract-for-the-black-sea-gas-first-Neptune-deep-gases-to-be-extracted-by-2026/>.

The emerging gas network in the region will make the most out of the Black Sea perimeters. BRUA's reversible flow connectors to Ukraine and Bulgaria and connections to a southbound Trans-Balkan pipeline will add supply flexibility to the entire region, while facilitating of Romanian gas via the TAP into Italy. The Trans Balkan pipeline, with its renewed importance in the aftermath of the Ukraine war, will also play a crucial role in the distribution of the Black Sea gas resources. The pipeline has an extension on the Shebelinka-Dnipropetrovsk-Kryvyi Rih-Rozdilna-Izmail line in Ukraine, which then enters the Romanian region of Dobruja, passing through Constanța, the Black Sea's largest harbour. The project also impacts the Republic of Moldova, with an extension to Ungheni and then Chișinău, with a capacity of 1.5 bcm, covering half of the country's needs. In the current geopolitical climate, it will do a great deal to ease Chișinău's dependence on Tiraspol for its energy needs. The Ungheni-Chisinau is operated Vest Mold Transgaz, which is a subsidiary of the majority state owned Transgaz. It currently is the only pipeline on the territory of the Republic of Moldova not under Russian control, highlighting a paradigm shift underway. Moldova's European future is intimately tied with its energy security, Romania's Black Sea gas having the capacity of enabling the country to rid itself of Russian and Transnistrian energy dependence.

Going southwards, the pipeline system connects to the Bulgarian segment of the Trans Balkan pipeline, which then runs into Serbia. From there on, the Serbian gas network will ensure connections to North Macedonia, with one already in operation to Hungary.



Fig 11. BRUA pipeline route. Source: New Strategy Center

In a region where gas will continue to be in very high demand for the following decades as a means towards a fossil free future, renewable sources of energy are a crucial part of both issues: immediate energy needs and the green transition. In the short and medium term, a gas exporting country will always be faced with the same conundrum: using gas to satisfy your own needs is good, but saving it for export is always better. Romania is well poised to go for the latter, through its healthy share of renewable energy production (wind, photovoltaic and biomass) currently totalling 16% and forecasted to grow to 30% in the following decade through investments in wind and solar energy. The country is eyeing investments in its nuclear sectors, the expansion of the Cernavodă nuclear powerplant. Initially, the Romanian state has been in advanced talks with a Chinese company which did not bear fruit.⁹⁴ The project received a boost in 2021 with the involvement of Canada's

⁹⁴ Necsutu, Madalin. "Romania Cancels Deal With China to Build Nuclear Reactors". *Balkan Insight*. May 27, 2020. Accessed September 23, 2022. <https://balkaninsight.com/2020/05/27/romania-cancels-deal-with-china-to-build-nuclear-reactors/>.



Fig 12. Iron Gates on the Danube. Source: <https://www.hidroelectrica.ro/article/f5e9cc4f-2c02-3701-0316-76d5dc27d358>

Candu Energy in the construction of reactors 3 & 4 with financing from US's Eximbank. The decision has a deep strategic meaning and is part of a wider focus on the resilience of critical infrastructure. The new reactors are scheduled to become operational in⁹⁵ 2030-2031. As of now, the two reactors at Cernavodă generate 20% of the country's needs. Once completed, reactor 3 & 4 will free up important export capacity, enabling Romania to augment its role as an energy provider in the region. Alongside nuclear, hydropower forms the bedrock of Romania's energy mix, with a share of almost 28%, mostly generated by the mammoth Danubian project Iron Gates, in conjunction with Serbia, built during the communist era, which is the largest hydropower plant on the Danube.

Romania's wind sector is the second largest renewable energy source after hydropower, generated solely from onshore farms, amounting to 3GW per annum. In the medium-term, the sector has plenty to offer both onshore and offshore. On shore, as observable in the pic below, most of the easily accessible areas are concentrated in the Dobruja region, by the

⁹⁵ ROMANIA WIND ENERGY MARKET - GROWTH, TRENDS, COVID-19 IMPACT, AND FORECASTS (2022 - 2027). <https://www.mordorintelligence.com/industry-reports/romania-wind-energy-market>

Black Sea. The rest of the areas mostly lie at relatively high altitudes in the Carpathian mountains, away from the high capacity energy lines.

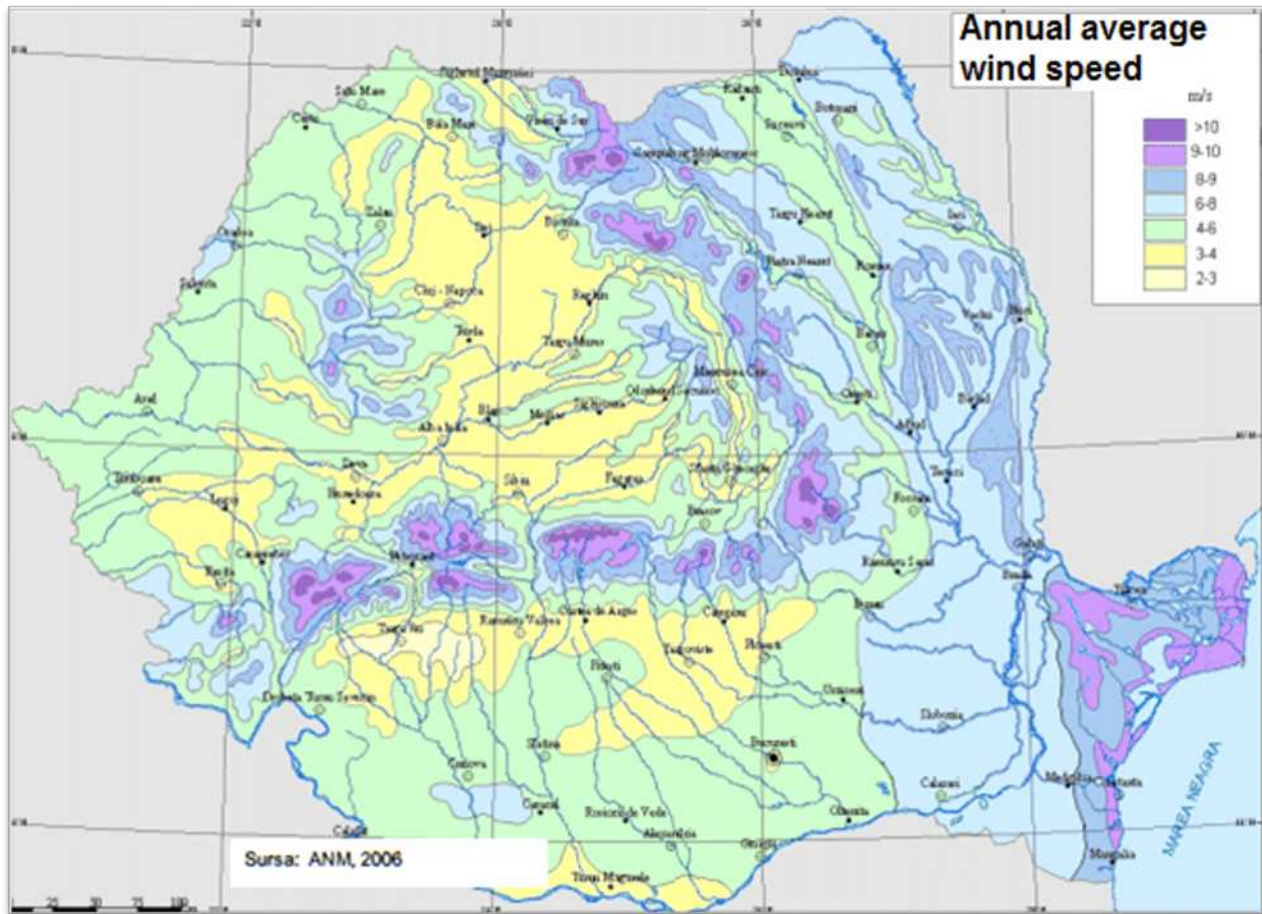


Fig 13. Annual average wind speed in Romania. Source: ANM

Recent technological developments made offshore fields an attractive investment, with the Black Sea having plenty to offer. Recently, Denmark announced \$1.4 billion investments in Romania’s offshore wind capacity⁹⁶ while the Romanian energy company Hidroelectrica announced in 2020 a half a billion USD offshore investment⁹⁷ for an offshore wind farm of 500mw capacity. These are just timid steps in what will be a decade long investment, but

⁹⁶ Energymoics. “Danish energy companies see significant market opportunities in Romania”. May 2022. <https://www.energymoics.ro/en/danish-energy-companies-see-significant-market-opportunities-in-romania/>

⁹⁷ OffshoreWind.biz. “Romania: Hidroelectrica Reveals 300-400 MW Offshore Wind Farm Plan. May 2022. <https://www.offshorewind.biz/2020/05/19/romania-hidroelectrica-reveals-300-500-mw-offshore-wind-farm-plan/>

the prospects are excellent. As observable in the map and table below, Romania's exclusive economic zone (EEZ) benefits from multiple areas where offshore wind farms can be installed, with various levels of technical difficulty. Of course, such an investment will also require adjacent changes to transport capacity back to the shore and further West towards the rest of the national territory and neighbouring countries.

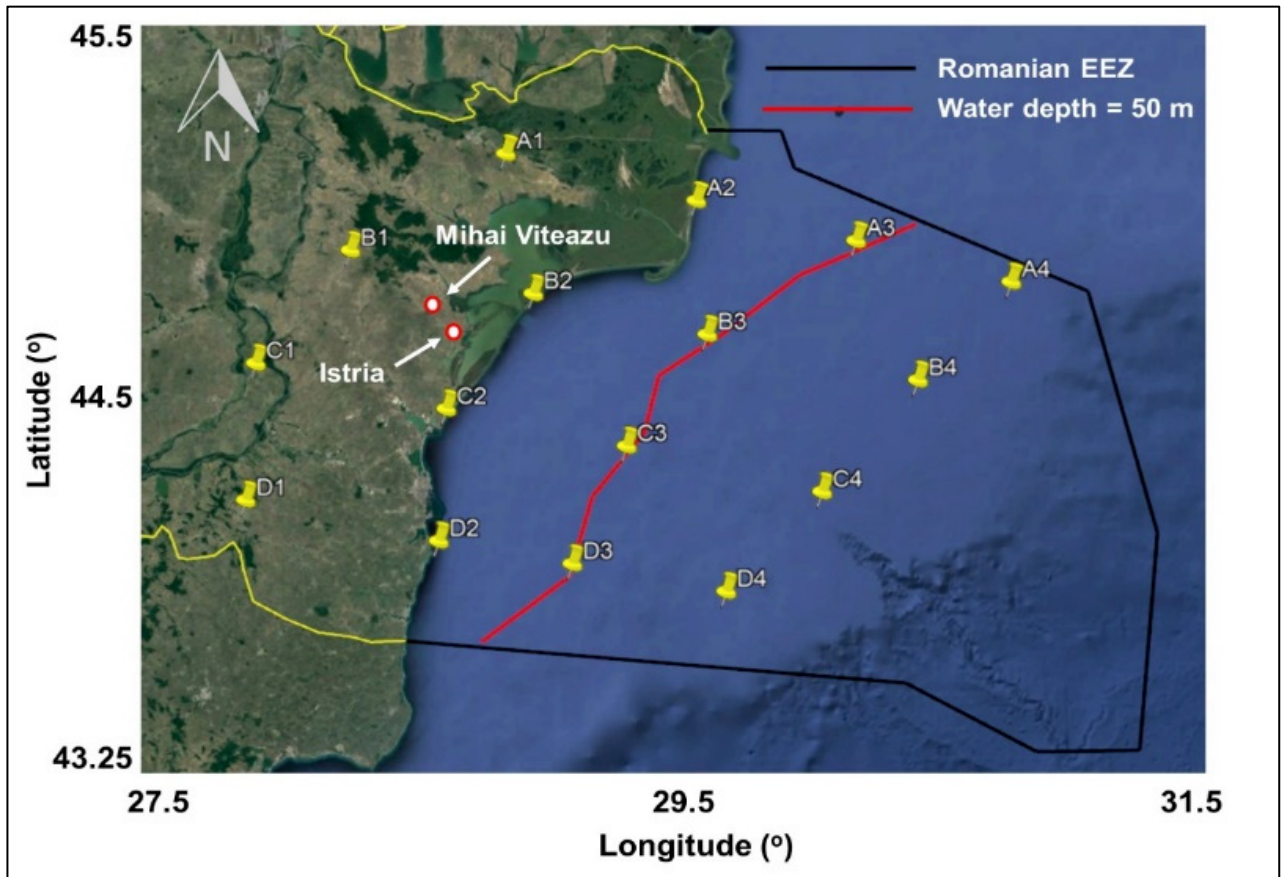


Fig. 14 Assessment of the Wind Energy Potential along the Romanian Coastal Zone – Girleanu et al. 2021.

Source: <https://www.mdpi.com/2411-5134/6/2/41/pdf>

ID	Location	Long (°)	Lat (°)	Distance to Shore (km)	Height/Depth (m)
A1	Land	28.899	45.084	60	68
A2	Shoreline	29.635	44.952	0	0
A3	Offshore	30.247	44.837	49	-50
A4	Offshore	30.839	44.716	100	-81
B1	Land	28.309	44.800	57	185
B2	Shoreline	29.015	44.683	0	0
B3	Offshore	29.680	44.569	55	-61
B4	Offshore	30.478	44.438	118	-84
C1	Land	27.960	44.471	60	11
C2	Shoreline	28.693	44.351	0	0
C3	Offshore	29.377	44.250	56	-51
C4	Offshore	30.114	44.122	115	-89
D1	Land	27.942	44.081	60	145
D2	Shoreline	28.675	43.976	0	0
D3	Offshore	29.179	43.916	43	-51
D4	Offshore	29.755	43.841	90	-83

Fig .15 Assessment of the Wind Energy Potential along the Romanian Coastal Zone – Girleanu et al. 2021.

Source: <https://www.mdpi.com/2411-5134/6/2/41/pdf>

American Small Modular Reactors (SMRs) are another hugely important development in the country's energy sector.⁹⁸ On the one hand, they will further contribute to the share of renewables in the energy mix. On the other hand, and perhaps most importantly, if successfully implemented, part of the supply chain will be located within the country. Romania's future know-how will alter the regional energy landscape while cementing Washington's presence in the region. The idea behind the SMR technology is to build components for the plants in factories and then assemble them at the site with the hope of achieving massive costs cuts compared to the long construction times associated with regular reactors.

Put together, the developments in the gas sector, conventional nuclear energy production and the impending roll out of SMRs have the potential to turn Romania from a modest energy importer into a regional energy powerhouse, capable of alleviating much of the insecurity generated by the Russian weaponization of energy. This in turn will have huge geopolitical implications, paving the way for a deepening of cooperation on other plans. A

⁹⁸ US Embassy in Romania. „Cooperarea dintre Statele Unite și România cu privire la reactoarele modulare de mici dimensiuni (SMR) (Fișă informativă)”, <https://ro.usembassy.gov/ro/cooperarea-dintre-statele-unite-si-romania-cu-privire-la-reactoarele-modulare-de-mici-dimensiuni-smr-fisa-informativa/>

renewed energy role for the country in the region, paired with its nearing OECD and Schengen accession, will not only turn it into a provider of energy and nuclear technology, but also of security and policy expertise for the Western Balkan's European integration quest.

This is not to say that the road ahead is without significant obstacles and perils. Developing the Neptune Deep perimeter, estimated at \$4 billion will prove more expensive than if the work had begun a few years ago due to very high commodity prices. The project is also a technical challenge, located 200km away from shore with depths of 1.7 km to 2 km. The Romgaz OMW Petron associations made concrete steps towards the implementation of the project, acquiring the site for \$1 billion to offset Exxon's initial investment.

Since 2017, the Russian Federation tested the waters by professing a hybrid instrument of lawfare⁹⁹ for blocking perimeters in the Black Sea and affecting the free movement of navigation. International norms stipulate that a country can organise military drills including in the international waters and economic exclusive zone area of other countries with prior notification. The Russian Black Sea Fleet abused those stipulations, with numerous exercises organized in Romanian and Bulgarian EEZ. The Snake Island, situated in the North-Western part of the Black Sea and in front of the Danube mouths, plays a pivotal role in this geopolitical struggle. It was occupied by Russia on February 24th, on the first day of the invasion in Ukraine. However, after further intense fighting, Russian forces withdrew from the island on June 30th. If Russia reoccupies the island, it will become a veritable platform for the installation of ISR (intelligence, surveillance, and reconnaissance) capabilities, as well as a persistent danger for the freedom of navigation in the Black Sea's Western part. Not far from the Snake Island area, gas resources have been identified in Romania's offshore zone, which does not rule out Russia utilizing hybrid warfare in Romania's EEZ to cause complications for the country's attempts to establish the infrastructure necessary to extract gas from the Black Sea. The stakes are that, for at least

⁹⁹ *Lawfare or legal warfare* is the use of legal systems and institutions to damage or delegitimize an opponent, or to deter individual's usage of their legal rights. Source: <https://en.wikipedia.org/wiki/Lawfare>

a decade, Romania can help to significantly reduce Gazprom's influence in the region, allowing nations such as the Republic of Moldova, Bulgaria, and Serbia to become more energy independent of Russia.

Romania's immense potential in terms of renewable energy brings its own share of challenges. On a national level, consuming locally outsourced renewable energy, while preserving hard sought-after gas for exports makes sense in both economic and environmental terms. Renewable sources of energy have a different impact on the national electric grid. With gas, it travels underground to a power station which then converts it into energy. Of course, the power station can be of almost any size, so the pressure on the wider energy grid is barely felt, as it can be localised at a micro level. With renewable energy, things are more complicated. Because such energy is often produced by projects on an industrial scale, be them dams, fields for solar panels or off-shore wind farms, they require the energy to be transported from a single point where it is concentrated to the rest of the national territory. For Romania, this is particularly complicated, as a vast majority of its renewable sources of energy and future potential is located in the Dobruja region. If investments flow in as hoped, winds, solar and nuclear energy will be produced in this relatively tiny region from a geographical point of view. It would then have to be transported around the country, with obvious strains in its immediate vicinity. The electric grid in the South of the country already runs at full capacity,¹⁰⁰ signalling the urgent need for large-scale investments in the energy grid, on top of the other infrastructure priorities dictated by the Green Deal and the Russian invasion of Ukraine

From a regional perspective, things get all the more complicated, as a robust national energy grid does not guarantee the ability to export significant amounts of energy. In the picture below, we can see how Romania's connections to the Balkans via Serbia are profoundly hindered by the absence of a large capacity transit point. The current 110 kw

¹⁰⁰ Koltsaklis, Nikolaos E., Athanasios S. Dagoumas, George Seritan, and Radu Porumb. 2020. "Energy Transition In The South East Europe: The Case Of The Romanian Power System". *Energy Reports* 6: 2376-2393. doi:10.1016/j.egy.2020.07.032.

capacity lines installed in the communist era which are a dip in the ocean relative to Romania's future export capacity and the Balkan's energy needs.

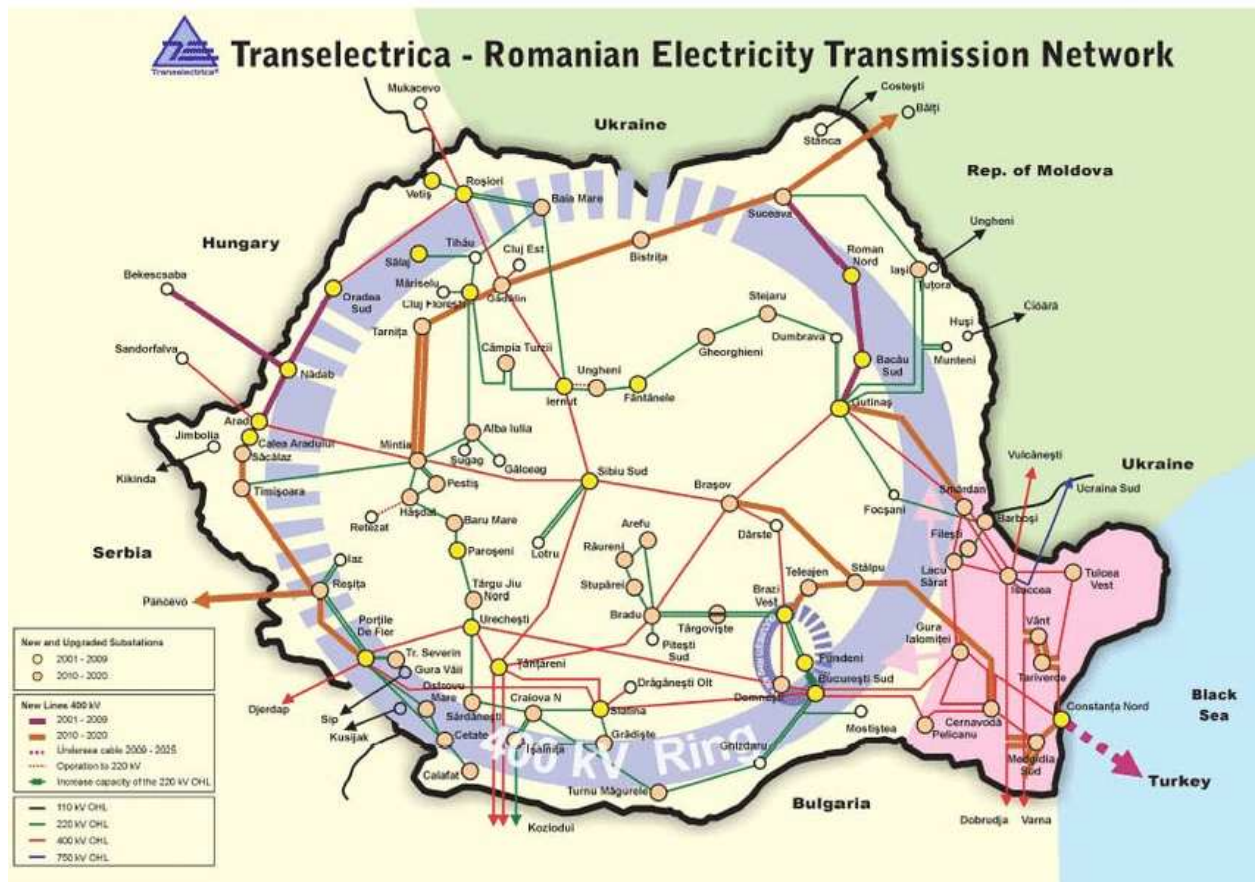


Fig 16. Romania Electricity Transmission Network – Transelectrica Romania. Source: <https://www.transelectrica.ro/en/web/tel/strategie>

When taking all the above into account, the final image gives a lot of hope, with the potential benefits outweighing the involved difficulties. In the future, the country's ability to play the big energy game will rest on two pillars: its ability to attract funding for existing and new energy infrastructure and the regional security environment. The country will most likely begin to make its presence felt as an energy exporter starting with the mid 2020s, cementing its role in the early 2030s when the current nuclear and gas projects under construction or planning will converge, allowing Romania to make a decisive contribution towards satisfying the region's energy needs.

It is now clear that the Black Sea is here to stay at the top of the EU and NATO security agenda. Europe's energy security is now intertwined with the security of the Black Sea, so that much needed gas exploitations can proceed as planned.

High hopes in testing times - concluding remarks

One legacy of the war in Ukraine will be a new energy order with global ramifications, most acutely felt in its near vicinity. With increased government involvement in energy and the fragmentation of the global energy market, the world will witness the emergence of regional energy blocks as a means to shield populations and industries from the weaponization of energy. Efforts by individual countries to diversify energy sources converge to create a newly emerging gas distribution system. With every country bidding to become *the* regional hub, a murky image emerges, subject to constant changes based on global dynamics. From a regional perspective, there are five gas pipeline projects that are of exceptional significance. These are, first and foremost: TANAP, TAP, IAP and TurkStream gas pipelines, as well as the floating LNG terminals in Greece and Croatia.

The Western Balkans will become more and more interconnected with the European grid, thanks to the sprawling pipeline complex under construction and planning. When all projects currently underway or in the advanced planning phase will be completed, we will witness the emergence of a single gas market formed by the networks in Greece, Serbia, and North Macedonia¹⁰¹, which the rest of the region's states will be able to join once completing the necessary infrastructure projects. This, of course, will have major geopolitical repercussions, capable of reorienting their foreign policy. In Moldova's and Ukraine's case, the geostrategic orientation came first, followed by the integration of their energy grids with the European one. In the Western Balkans, we will witness the opposite dynamic: if provided with the right infrastructure, energy will lead to issue-linkage,

¹⁰¹ Elliott, S. 2022. "Bulgaria eyes single gas market with Greece, Serbia, North Macedonia". Spglobal, May 2022. <https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/natural-gas/020922-bulgaria-eyes-single-gas-market-with-greece-serbia-north-macedonia-pm>

creating a ripple effect of collaborations in adjacent domains, gently nudging those states towards a liberal democratic pathway as a precursor to Euro-Atlantic integration.

Serbia, due to its importance in the region will play an outsized role, especially in relation to the largest country in the region, Romania. The countries have long-enjoyed friendly neighbourly relations, while having impressively collaborated for the construction of the Iron Gates hydropower plant, the largest of its kind on the Danube. Built almost 50 years ago, the plant is still jointly run by the two countries, highlighting both a healthy base of technical expertise and the ability to soundly collaborate over extended periods of time. Recently, Bucharest reaffirmed its support¹⁰² for Serbia's European integration.

The cases of Serbia and Romania show two sides of the same process. Both countries are part of the wider region of Southeast Europe, yet the two countries are completely different in terms of their position in the regional energy security infrastructure. Serbia is completely dependent on Russia for its gas supply. Romania stands in stark contrast as it barely imports any gas from Russia. However, even before the war in Ukraine, Serbia would not shy away from possibility of energy diversification. It is safe to say that while many of Belgrade's ties with Moscow will remain in place, Belgrade will explore and embrace any possibility for energy diversification projects. This creates an opening for stronger Serbo-Romanian cooperation. The two main theatres of Romanian foreign and security policy are the Black Sea and the Balkans. However, unlike the former, the latter has been neglected in recent years. The same goes for Serbia that has not fully explored its geostrategic position of standing at the crossroads between Europe by and wider Eurasia by establishing closer ties with a neighbouring Black Sea littoral country like Romania.

In concrete terms, the two countries are taking practical steps towards advancing their energy cooperation. During a meeting in May 2022, two projects which can yield almost immediate results were discussed. In the aftermath of the war in Ukraine, there was a

¹⁰² Ministry of Foreign Affairs of the Republic of Serbia. "Commitment of Serbia and Romania to the Strengthening of Cooperation." Accessed September 23, 2022. <https://www.mfa.gov.rs/en/press-service/statements/selakovic-strong-political-message-about-commitment-serbia-and-romania-deepening-cooperation-was-sent-bucharest>.

noticeable uptick in diplomatic activity, which in turn channelled the necessary political will for the speedy implementation of strategic projects. A 12.8 km gas pipeline running from Mokrin to the Romanian border will connect Serbia to Romania's Transgaz system and implicitly to the BRUA pipeline¹⁰³, further contributing to the diversification of its supply sources. The two countries are also discussing the possibility of constructing an oil pipeline from oil fields in western Romania to Serbia.¹⁰⁴ There have been reports¹⁰⁵ over the possible expansion of the Iron Gates hydropower, which would be the most ambitious collaboration between the two countries since the construction of the initial powerplant 50 years ago. Alongside vastly improving the energy standing of both countries, it would be yet another brick in Belgrade's attempt to construct a truly diversified set of energy sources and suppliers. Of course, a collaboration on such a scale would have a ripple effect on Serbia's European path. From the European funding that the project is bound to receive if pursued by both states, to the technical and administrative alignment and, most importantly of all, the free up of Belgrade's geopolitical space for manoeuvre, it would constitute a hugely important concrete step in Serbia's declared desire to join the European Union.

The two countries need to establish stronger ties in the domain of energy security. The system of bilateral consultation encompassing diplomats, government representatives in charge of energy affairs, but also the external experts from both countries needs to be established. Serbia can tap into Romania's experience and know-how on Romania's experience and expertise on energy diversification. Avenues need to be explored about the possibility of Serbia linking itself to interconnector in Romania. Based on joint bilateral cooperation, the two countries in tandem can lobby and request from the EU, financial and technical help for the completion of this project. The stronger collaboration on energy

¹⁰³ "Serbia and Romania to Speed up Realisation of Gas Interconnection - CEENERGYNEWS," May 25, 2022. <https://ceenergynews.com/oil-gas/serbia-and-romania-to-speed-up-realisation-of-gas-interconnection/>.

¹⁰⁴ Spasić, Vladimir. "Romania, Serbia in Talks on Pumped Storage Hydropower Đerdap 3, Energy Cooperation." Balkan Green Energy News, May 25, 2022. <https://balkangreenenergynews.com/romania-serbia-in-talks-on-pumped-storage-hydropower-derdap-3-energy-cooperation/>.

¹⁰⁵ Idem.

security front can also pave the way for stronger collaboration between the two neighbourly countries in other domains, like trade, infrastructure, and security. This is imperative if the two countries want to effectively leverage their attractive geographies in a turbulent regional and global strategic environment.

Russia's illegal war in Ukraine followed by its weaponization of energy spurred the impending emergence of a new energy matrix in the region. Before the war, low gas prices, Russian lobbying, and a lack of political will have direct impact on available financial resources led to an ambiguous image, far from promising in terms of a new energy system. The war in Ukraine had a two-pronged effect on the region. On the one hand, it underlined the fragility of the energy supply chains, shedding a new light on future infrastructure projects. On the other hand, it led to an awakening of the European project, with a renewed impetus towards the integration of the Western Balkans in the Union, with Albania and North Macedonia leading the way.

One cannot speak with much certainty in time of war about what a region's future holds, but one thing is sure: the regional energy balance has been decisively tilted towards a new regional energy matrix, away from Russia's long-standing monopoly. These changes will see the demise of well-established path dependencies while giving rise to new supply chains and geopolitical breathing space and aspirations. As the two largest countries in the wide Balkan region, Romania and Serbia will codetermine the region's energy and geopolitical landscape. Romania is a security provider soon to become an energy exporter, vastly increasing its standing in the region. With the impending accession to Schengen and OECD, the country will play an outsized role in the region's European integration. Serbia's place at the heart of the Balkans, both geographically and euphemistically, gives Belgrade the potential, if used rightly, to be a force for good in the region's destiny. By having by far the most extensive gas network in the region, it can act as the convergence point of multiple continental energy routes, enabling its smaller neighbour to liaise to the regional gas network.

La pièce de résistance in this regional puzzle are the Turkish and Romanian gas discoveries in the Black Sea, which will fundamentally tilt the balance in the region. Out of the two future exporters, Romania is the clear outlier. With a much more stable macroeconomic situation than Turkey, an impressive share of renewables in its energy mix and a profound commitment to the European project, the country has the will, capacity and strategic interest to focus its gas exports in its immediate vicinity. In doing so, thanks to the still timid gas markets in the Western Balkans and Moldova, it will be able to meet a fair share of those countries' energy needs, thus allowing them to break free from the Russian gas monopoly.

There are still problems on the horizon, the most acute being the transportation capacity. There have been plenty of debates about systemic transformations, but the discussion around the energy consequences of the war in Ukraine have been peculiarly narrow, mostly focused on outsourcing energy, not transporting it. Such a systemic shift would in turn require a profound reconfiguration on transport routes, both underground and overground. Gas pipelines have been at the forefront of this shift, while overground energy cables somehow fell in the background, in spite of the pivotal role that they play in energy transportation. During 2022, the key shift occurred at a political level, with great implications in strategic planning, which in turn will shape the flow of investment. For the first time, there is an almost complete consensus on the need to move away from Russian fossil fuels through a mix of gas and renewable energy, all achieved through regional collaboration. This in turn creates new focal points for security issues: alongside the multiplying sources of threat, energy stands out. Countries capable of first producing energy and/ or extracting gas and then transporting it abroad garner a renewed importance in the regional balance, as their ability to do so translates into the energy security of the wider region and the continent.

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