The Western Balkans suffer from high and systemic corruption, which in certain cases has led to the capturing of regulatory functions and policies and/or to state capture. This has diminished general trust in public institutions and in elected politicians.

The Western Balkans have also become one of the regions in which Russia, amongst others, has increasingly sought to (re)assert its presence in the past decade. Thus far, the region has remained on its chosen course of EU integration towards a market economy and democratic transition.

Energy is, by nature, an area where multiple interests coincide – not only the interests of the state and public sectors, but also that of the private sector, as well as those of foreign and international actors, which is why such a plurality of interests is usually treated as a baseline.

Creating energy policies that serve the wellbeing of citizens is not easy. Building infrastructure that delivers a privately produced product: energy; while maintaining important public sector services: security of supply, affordability and sustainability requires know how, resources and a stable legal and investment framework. But put all this aside for a moment and think about the answer to a rather important question: Would the region of the Western Balkans be better off if oil, gas and good quality coal were no longer the most sought-after fuels worldwide but the sun, wind, water, earth energy and forests had replaced them? What would you say?
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Introduction

Security of energy supply, energy efficiency and the effects of climate change, have been major topics of discussion in recent years. What is the meaning of these topics for Serbia today? Serbia today is largely dependent on Russia for energy. There is only one supply route, which is highly unfavourable for Serbia. The prices that consumers have to pay are high, and looking into the future, the security of energy supply might thus be exposed to a very high risk. The above issues are particularly important in the context of Serbia’s European integration process and the approximation of its energy and environmental policies with those of the EU.

How can Serbia tackle all these looming challenges? The same problem is shared throughout the region that Serbia belongs to. The authors of the papers presented in this publication offer their respective views with respect to the region and global trends. At the very end of this publication, we look into the future and address the question of how a clean, secure and affordable energy supply might look in 2050. Energy perspectives are hard to plan and forecast, but given the importance of security of energy supply, this remains one of today’s most important issues.

Overview of the Current Situation in the Oil and Gas Sectors
Igor Novaković

Serbia is poor in primary energy resources and remains dependent on pipeline corridors for receiving oil and gas, primarily from the Russian Federation. Most of its electricity comes from domestic hydro and thermal power plants. Renewables and green energy are not sufficiently utilised.

The oil and gas sectors have a major political importance in Serbia due to the dubious relationship between its oil and gas companies and Gazprom. This influences the dynamics of Serbia’s relationship with Russia and consequently the EU.

Serbia receives oil through a pipeline from the direction of Croatia. In the oil sector, oil supply, refining and transportation have been diversified since 2005, with the creation of a new public enterprise – Transnafta - which was separated from the then Oil Industry of Serbia (NIS). Thus, the oil sector in Serbia is mostly regulated in line with the EU acquis and the rules of the Energy Community. However, oil production, refining and distribution is dominated and indirectly controlled by NIS, which has been, since 2008, under the majority ownership of Russian Gazprom, and remains a major producer, wholesale and retail company in the country.

The situation in the natural gas sector is much more complicated. In 2005, the government of Serbia reformed NIS. It separated the sectors of gas transportation, distribution and storage from it and tasked a newly formed public company Srbijagas to manage these sectors. Despite the push from the government and Srbijagas, this lasted almost 10 years. Serbia is still not an intensively gasified country, and the gas distribution network is relatively developed only in the Province of Vojvodina. Serbia currently has only one source of natural gas that comes from Russia via the Ukrainian route through Hungary. The capacity of the pipeline is limited, and Serbia cannot obtain more than around 14 million cubic meters (mcm) per day. Most of the transportation and distribution network is owned by Srbijagas, while the transportation pipeline...
from the town of Pojate, in the south, towards the city of Nis and the connected distribution network belong to Yugorosgaz, a company which is also under the majority ownership of Gazprom. Although obliged by the rules of the Energy Community and the EU accession process, Srbijagas and Yugorosgaz have failed to transform and legally and practically separate transportation and distribution functions.

The diversification of natural gas sources is a necessity for Serbia. The announced closure of the "Ukrainian route" for transport of Russian gas in 2019 could produce instability in the natural gas sector in Serbia. Most logical would be to explore the possibilities of buying gas on the open market, but to date this has not happened.

How Did Serbia Become Dependent on Russia in the Oil and Gas Sectors?

Serbia became dependent on Russia through a string of events between 2006 and 2008, culminating in the 2008 Serbia-Russia Energy Agreement. The cause was the Kosovo issue, together with Serbia’s need for closer ties with Moscow concerning Serbia’s interests in the international arena.

As a first step, Gazprom managed to install an intermediary company, Yugorosgaz, for gas trade with Russia, thus increasing the price of natural gas for citizens and companies. Secondly, the same company, which was initially a joint Serbian-Russian venture (with equal ownership shares), established to help the gasification of Serbia, in a manner lacking transparency, managed to assume ownership of an existing major pipeline in strategically-important southern Serbia (from Pojate to Nis) and the exclusive right of gasification of the territory of Serbia south of Pojate. The third step was the 2008 Agreement.

The Agreement consisted of three legally separated parts:

- A portion of the transnational South Stream gas pipeline (also under the majority ownership of Gazprom) was supposed to be constructed in Serbia;
- Gazprom obtained the majority of shares of the then unfinished Banatski Dvor underground gas storage.

In total, without a definite obligation to construct the South Stream, Russia obtained NIS and Banatski Dvor, as well as the right to exploit oil and gas resources. The Agreement violated several domestic laws and the Constitution of Serbia, but also the rules of the Energy Community.

In short, it seems that the aim was to increase the firsthand influence of Russia over the oil and gas sector in Serbia and to hold back reforms in the energy sector, and consequently to increase Russian influence in other sectors, including the political sphere. Srbijagas in 2008 came under new management which is, according to media reports, close to Gazprom.

All subsequent deals and contracts related to elements of the Energy Agreement or the import of natural gas are not public, which is usually explained due to the request of a foreign partner due to sensitive information. This practice is not unusual including some companies from the West, too. Furthermore, some joint ventures of critical importance - such as the South Stream Serbia A.G., a joint Serbian-Russian company tasked with the construction of the South Stream over the territory of Serbia – were founded from the territory of Serbia - were founded from the territory of Serbia, hence national institutions are not able to control the operations of this company. Finally, in all joint ventures and projects with Russia, Serbia’s interests are represented by the same people from Srbijagas’ senior management. Despite the fact that they are, on paper, responsible to the Government, there is no system of checks and balances that could efficiently control their actions. When certain individuals and institutions tried to intervene, Moscow and several domestic politicians close to Russia reacted and prevented the reform. In the meantime, in 2013, Gazprom managed to push to conclusion a 10-year gas supply deal,
which effectively locked Serbia’s energy policy.

All this leads to the conclusion that the energy sector has been captured, and the Serbian government is prevented from exercising full control. Consequently, when it was announced in 2014 that the South Stream would not be constructed, it had no effect on the scope of Serbian-Russian cooperation or the joint ventures, nor on Serbian-Russian relations.

Examples of the Effects of the Capture of the Oil and Gas sectors in Serbia. Who Are the Ultimate Losers?

Within Serbia’s public discourse, information about the oil and gas sectors is scarce and often blurred by the statements of energy companies’ officials and politicians. Gas prices in Serbia are high, although some officials constantly claim that Serbia pays significantly lower prices for Russian gas than the majority of other countries in Europe. However, according to data provided by various sources, Serbia has for years been paying a much higher price than the majority of the other European states, especially those which have access to natural gas from other sources.

Srbijagas’ senior management has for years been effectively preventing the construction of a natural gas interconnector towards Bulgaria, by refusing to adhere to Energy Community rules and to legally and formally separate the transportation and distribution of natural gas.¹ This, in fact, has prevented Serbia from having an alternative source of supply and has strengthened Gazprom’s grip. With one source of supply, the options and potential leverages for negotiations are limited. Yugorosgaz continues to amass enormous profits from the intermediary fee for virtually no real services provided.

After the sale, NIS was allowed to continue to extract oil and gas from the Vojvodina fields, with the same conditions (a mining royalty tax of just 3%),

that were applied when NIS was a state-owned monopolist. NIS uses this position to extract considerably higher amounts of oil and natural gas than in the period before 2008 and amass huge profits. According to official NIS yearly reports, the extraction and processing of domestic oil has increased by more than 80% since 2011, in comparison with the amounts in 2009, the first year of Gazprom’s ownership of NIS. NIS has a mining permit until 2023, and some experts claim that before this date NIS will deplete the reserves.

Despite the claims that Serbia’s cooperation with Russia ensures the cheapest possible gas and that NIS has become a much more effective enterprise, previous examples suggest that the truth is the other way around. Gazprom exercises an invisible kind of monopoly that actually prevents key energy reforms in the country. This allows for an enormous extraction of capital, influence on the domestic political scene and a lack of freedom to pursue the energy policies that would suit the long-term interests of both the state and citizens. Furthermore, it challenges Serbia’s alignment with EU energy policies, undermines energy security and imposes high direct and indirect costs to citizens and companies.

¹ EBRD which approved the financing of the project, conditioned it with Srbijagas’ transformation.
The Kremlin Game-Manual for the Western Balkans
Martin Vladimirov

The Western Balkans suffer from high and systemic corruption, which in certain cases has led to the capturing of regulatory functions and policies and/or to state capture. This has diminished general trust in public institutions and in elected politicians and appointed bureaucrats, providing fertile ground for negative influence in the region. The Western Balkans have also become one of the regions in which Russia, amongst others, has increasingly sought to (re)assert its presence in the past decade. Thus far, the region has remained on its chosen course of EU integration towards a market economy and democratic transition. But the countries of this region not only need to recognise but also know their level of vulnerability, and work to close existing governance gaps.

The tools Russia has used in expanding its influence are not new to the region – political pressure, soft power instruments, including cultural, religious and media campaigns, but also economic leverage, which has ranged from the traditional control and acquiring of critical energy sector assets, the financing of political parties and the media, to using the presence of real estate, banking, oligarchic investments and so on.

This has been underpinned by a concerted counter-EU, liberal democracy narrative supported by the Kremlin and all its tools of influence. It has fallen on fertile ground in the SEE region of unstable institutions of governance and the rule of law, marred by protracted systemic corruption at low administrative and higher political levels, amounting to policy, regulatory or even state capture. This mixture of weak local rule of law institutions and kleptocratic tendencies, media propaganda and geopolitical pressure from Russia and others, and the weakening of the anti-corruption drive in the EU have swayed many governments in the region to adopt policies that are inconsistent with their national security strategy or national development goals. This calls for a better understanding and re-assessment of the confluence of the political and economic factors of influence, which impact the development of the region now and in the future.

Assessing Russian Economic Influence in the Western Balkans

Russia’s economic footprint in the Western Balkans has remained more or less stable, declining in some countries, while deepening in others. In 2015, the share of Russian-owned or indirectly-controlled companies from the total revenues in the economy varied from as low as 1.5% in Macedonia to as high as 13% in Serbia.

In Montenegro, Russia’s corporate footprint fell from 29.4% in 2006 to around 5.5% in 2015. The decline has been related to the withdrawal of the Russian businessman, Oleg Deripaska, from the Podgorica Aluminium Plant (KAP), the largest Montenegrin company, which used to contribute approximately 15% of Montenegro’s GDP and 51% of exports. Over the last decade, Russia has been the single largest direct investor in Montenegro, with USD 1.27 billion in cumulative investments – equivalent to 13% of the total FDI stock and around 30% of GDP.

In Serbia, Russia’s corporate presence has remained relatively constant at around 10%. Russia-owned or indirectly linked firms in Serbia control revenues of over USD 5 billion. According to the official statistics, in the past decade, Russian direct investment in Serbia has amounted to USD 1.1 billion, or slightly less than 3% of the country’s GDP. But this figure underestimates the true size of Russian investments as many of them have come through EU member states such as Austria and the Netherlands. A much more potent source of Russian leverage over Serbia has been the direct government-to-government loan schemes, which have amounted to roughly USD 1 billion.

2 This assessment is based on a 2018 regional report - Russian Economic Footprint in the Western Balkans. Corruption and State Capture Risks, prepared by a team of experts from the Center for the Study of Democracy and four Western Balkan countries including Serbia, Macedonia, Montenegro and Bosnia and Herzegovina. The analysis was conducted in partnership with the Center for International Private Enterprise (CIPE).
In Bosnia and Herzegovina, Russia’s corporate presence has more than doubled over the past decade to 5.7% in 2015. Russia-controlled companies enjoyed a turnover of over USD 1 billion in 2016. Zooming in on the data, most of Russia’s footprint is concentrated in the Republika Srpska (RS) entity, where it amounts to around 8% of the economy. Bosnia and Herzegovina is 100% dependent on Russian gas supply, and Russian companies control the country’s two refineries. Russia’s FDI stock in the country has increased from USD 235 million in 2008 to around USD 547 million in 2016, equal to 8.1% of the country’s total FDI stock or 3.3% of the GDP.

Of the four case study countries, Russia’s economic footprint in Macedonia has been the most limited. Russian investments are also least visible in Macedonia where they occupy a 1% share of the total FDI stock. Yet, the revenues of Russia-owned companies operating in Macedonia have grown fourfold from EUR 63 million in 2006 to over EUR 212 million in 2015. And high profile Russia-linked investors have enjoyed close access to high-ranking government officials. The trade turnover between the two countries is minimal, albeit rising after 2014 as Macedonian agricultural producers benefited from the Russian embargo on EU farmers.

Figure 1. Russian Corporate Footprint (Share of Russian Revenues of the Total Revenues in the Economy, %)

*Data for Macedonia was unavailable for the year 2006.
Source: CSD Calculations based on a commercial corporate database

Figure 2 Russian Foreign Direct Investment (FDI) Stocks as Share of GDP (%)

Source: CSD calculations based on national central banks and UNCTAD statistics

Leveraging Governance Deficits

Russia’s economic footprint in the Western Balkans has been concentrated in a small number of strategic business sectors such as energy, banking, metallurgy and real estate.

The most obvious manifestation of the growing Russian economic presence in the Western Balkans is the gradual takeover of critical oil and gas assets in the region. Energy imports have contributed to persistent trade deficits in Serbia, Bosnia and Herzegovina, and Macedonia. In these three countries, between 75 and 95% of Russia’s imports are crude oil and natural gas. Energy dependence has increased the countries’ trade vulnerability. While the importance of gas as a geopolitical tool has declined in the past decade, it remains a potent lever for the future, as the region remains the most fragmented and isolated part of Europe in terms of energy.

Figure 3. Oil & Gas Imports as Share of GDP (%)

Source: CSD based on COMEXT Statistics of EUROSTAT and IMF Data for the GDP
Russia has expanded its presence in the regional financial sector mainly through the entry of state-owned Sberbank, which in 2012 bought the Volksbank International branches in the region. Sberbank’s share in the Serbian and Bosnian domestic markets has not expanded much. However, it became an important regional player through the provision of loans to the Croatian retail giant, Agrokor. The latter is the largest retailer in the region prompting governments in the Western Balkans to introduce special measures to shore-up its assets after its default in 2017. Agrokor directly employs 11,200 workers in Serbia, and delivers from at least 660 domestic suppliers, which are of enormous significance for small town economies. In Bosnia and Herzegovina, the company has eight subsidiaries, which in total have over 5,000 employees and more than 100 suppliers, including large meat and dairy plants. Following the inability of Agrokor to repay its debts worth around EUR 4.6 billion (one quarter of which are held by Sberbank and VTB), in early July creditors agreed on a debt settlement deal, in which the Russian state-owned banks would take 47% of the company. As a result, Russia is taking hold of one of the biggest Western Balkan companies, which would increase its economic reach to the core of the regional economy.

Outside the energy, banking and retail sectors, Russia’s economic footprint in the region has been dispersed in several sectors most notably metallurgy and real estate in Montenegro. The privatisation saga of the largest Montenegrin company, the aluminium plant KAP and its ongoing reverberations have been well documented. The tourism sector brings in an annual income of more than USD 800 million to Montenegro, and at least a quarter of that money comes from Russian tourists, who also own a considerable amount of property in the country.

Policy Recommendations

In the past decade, Russia has preserved and in some cases enhanced its economic power in the Western Balkans. The high concentration of Russia’s corporate footprint in strategic sectors such as energy, banking, mining and real estate provides additional leverage for influencing policy decision-making in the region. As the Russian economy gathers steam again under the influence of rising energy prices in 2018, the Kremlin is likely to return to its use of economic levers to achieve its foreign policy goals. The Western Balkan countries and their Euroatlantic allies would be well advised to take this into account and work towards quickly closing governance gaps in the region which have allowed corrosive capital to undermine democracy and the market economy.

Based on the findings of the regional assessment, governments in the region should consider the following non-exclusive list of policies:

- Diversify foreign direct investments.
- Improve the corporate governance of state-owned energy companies.
- Transpose and implement the EU energy acquis to allow for the full liberalisation of energy markets.
- Mandate national anti-trust authorities to provide bi-annual assessments of the state of play in markets with considerable economic presence from authoritarian states.
- Ensure all infrastructure projects are consistent with national regulations for transparency and competitive tendering procedures, and go through an independent cost/benefit analysis.
- Strengthen privatisation and post-privatisation monitoring.
- Abolish single-bidder privatisation tenders for assets over EUR 1 million in strategic economic sectors.
- Improve the investigative capacity of financial intelligence agencies, the tax administration and anti-money laundering institutions to identify and know the ultimate beneficial ownership of foreign investors.
• Strengthen banking and financial market supervision to flag systemic risks related to the concentration of loan portfolios.

• Expand central banks’ data coverage on foreign investments and corporate ownership to enable better assessment of foreign capital inflows.

The Challenges of Chapter 15 in the EU Accession Negotiations
Bogdan Urošević

(Non-)Existence of Strategic Commitment in the Energy Area

Energy is, by nature, an area where multiple interests coincide – not only the interests of the state and public sectors, but also that of the private sector, as well as those of foreign and international actors, which is why such a plurality of interests is usually treated as a baseline. However, one must not disregard the impact of energy and energy policy on people’s everyday lives in one society, on the one hand, and their impact on global society, on the other. Just as various and often opposing interests may be found in the energy domain, different spheres of social and political life may be intertwined too. Therefore, a country’s energy policy has an impact on its economy, market, standard of living, public health and quality of the environment. With all this in mind, not only must the energy policy course of the Serbian government and other democratically elected public authorities be precisely identified, but the democratic will of the Serbian people must be too.

What is, in fact, Serbia’s ‘official’ energy policy course? Apart from foreign capital, which may impact the government’s policy course, as discussed in the previous section, Serbia’s EU accession negotiations, i.e. the criteria set under Chapter 15: “Energy”, may also impact on its energy policy.

The outcome of the 2008 parliamentary elections, which almost assumed the character of a referendum along the lines of a pro-EU and anti-EU social rift, sent a clear message that Serbia’s foreign policy for the subsequent period would be predominantly oriented towards EU integration3. This outcome was well-illustrated by the composition of the Serbian parliament in the 2014-2016 period, which did not include a single MP with a

Eurosceptic agenda. It was in January 2014 that Serbia’s accession negotiations were officially opened at the first inter-governmental conference with the European Union. The official political course of the decision-makers, coupled with the results of the general elections, show that Serbia’s citizens, society and the political elite alike are predominantly committed to joining the EU, which implies essential and extensive reforms in various areas, including energy. Hence, it would be reasonable to assume that the requirements of Chapter 15 also represent the criteria that Serbia is strategically trying to attain in this domain.

The Republic of Serbia has indeed endorsed a number of strategic documents that refer to energy to some extent. These documents, such as “The Draft Energy Sector Development Strategy of the Republic of Serbia for the period to 2025 with projections to 2030” or “The National Renewable Energy Action Plan of the Republic of Serbia”, along with EU accession benchmarks, have set the normative framework in support of Serbia’s strategic commitment in the energy policy area. Serbia also ratified the Treaty Establishing the Energy Community in 2006, thus assuming obligations arising from relevant Energy Community directives, which are effectively an instrument and an interim step towards meeting the essential energy-related requirements of EU membership.

Where Are We Now and Where Do We Want to Be?

As for the set strategic goals, the facts show that, from the EU integration perspective, the level of Serbia’s readiness and alignment of its energy policy is dissatisfactory. The goal that Serbia has strategically chosen may well be summarised by the content of Chapter 15, which covers the security of energy supply, infrastructure, the internal energy market, consumers, renewable energy sources, energy efficiency, nuclear energy, nuclear safety and radiation protection.

Some of the main criteria of the European energy policy are contained in the EU’s 20-20-20 policy, i.e. in reaching the following targets by 2020:

- increase energy efficiency by 20%;
- increase the share of renewable energy to at least 20% of consumption;
- reduce CO₂ emissions by at least 20% compared with 1990 levels.

Under the Energy Community Treaty, Serbia has additionally undertaken to reach a level of 27% of renewable energy in overall electricity consumption by 2020, but this target has still not been reached as Serbia has secured only 21.8% of energy from renewable sources.

The latest European Commission Progress Report has also underscored that Serbia should:

- fully unbundle Srbijagas and develop competition in the gas market;
- fully implement connectivity reform measures in the energy sector;
- strengthen human capacity and promote investment in energy efficiency and renewable energy;
- initiate reforms to introduce cost-reflective electricity tariffs fully taking into account in-

vestment needs for EU integration and social security implications.\(^\text{12}\)

Even though negotiations on Chapter 15 are not open yet, all the preceding steps for opening the chapters, including what is called bilateral screening, have been completed. The bilateral screening report with its opening benchmarks has clearly underlined the reasons why Serbia is deemed not ready for opening Chapter 15. Among the key shortcomings, the need to comply with the obligation to align with the EU *acquis* with respect to minimum reserves of oil and oil derivatives has been singled out, as well as the need to endorse an unbundling plan in the gas sector, including the unbundling of the public enterprise integrated therein, which would effectively ensure liberalisation of the gas market.

Although the above requirements may not seem alarming at first glance, it is noteworthy that a continuous failure to comply with them may lead to serious difficulties.

On 3 July, 2018, the Energy Community Secretariat launched a dispute settlement procedure against Serbia over its non-compliance with the Third Energy Package with respect to unbundling in the gas sector.\(^\text{13}\) Of particular concern is that the key requirements from the bilateral screening coincide with the findings of the latest EC progress report of 2018, which may potentially point to a lack of capacities or political will to essentially remove the obstacles to opening Chapter 15 in the EU accession negotiations.

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**Serbia and Relevant Market Dynamics**

**Aleksandar Kovačević**

Serbia is a landlocked country located on the Balkan peninsula between the Black Sea and Western Europe along its East–West development axis (mostly along the River Danube transport corridor) and between the Mediterranean and Central Europe along its North-South corridors. While the Danube provides a natural transportation link, the North-South corridors (Belgrade – Sarajevo – Mostar; Belgrade – Nis – Skopje – Thessaloniki; Belgrade – Bar and Belgrade – Zagreb – Rijeka or alternatively, Belgrade – Zagreb – Ljubljana – Koper) comprise man-made transport infrastructures through the Dinaric mountains.

The versatility of the Belgrade transport hub and its ability to combine these corridors and to combine various transport modes is a key determinant of the economic development of Serbia. Although the labour-intensive development options may look politically or socially attractive, it is international trade that determines the well-being and the quality of life in Serbia: within the labour-intensive development pathway, Serbia inevitably remains uncompetitive in the international market and despite minimal remuneration for labour, return on capital remains sluggish and unattractive. Nevertheless, massive arbitrage and the competitiveness of the Belgrade transport hub (once it eventually crosses the minimum economy of scale threshold) provide access to trade margins that may push returns on capital (and labour remuneration) closer toward European standards.

However, market dynamics in key international markets create some challenges for the positioning of Serbia as a trade and transport hub. Below is a brief overview:

There are two major new trends that have been shaping international trade during recent years:

1. A massive turnaround in the USA’s position from large gas and oil importer to massive exporter of liquefied natural gas (LNG) and crude oil products, and

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2. A massive turnaround in the Russian Federation from net importer of cereals to the largest exporter of wheat in the world.

Although the USA still imports crude oil, it is increasingly exporting crude oil and petroleum products.

Diagram 1: USA crude oil exports and imports 2008-2018


In 2017, the USA exported nearly 2 billion cubic feet per day (Bcf/d) of LNG. This represents a huge increase in comparison with exports in 2016.

Diagram 2: USA LNG exports 2016-2017 per market

![Diagram 2: USA LNG exports 2016-2017 per market](https://www.eia.gov/todayinenergy/detail.php?id=35512)

Almost all of these exports originated from just one export terminal: Louisiana’s Sabine Pass liquefaction terminal. Four more terminals are under construction: Elba Island LNG in Georgia and Cameron LNG in Louisiana (to be operational) in 2018, followed by Freeport LNG and Corpus Christi LNG in Texas in 2019. Once these terminals are completed, USA LNG export capacity is expected to reach 9.6 Bcf/d – more than 4 times 2017 volumes. This will make the USA the third largest exporter in the world by 2020 with prospects for further growth.

As with other large exporters, Australia and Qatar are also increasing their export capacity while many more are approaching the market (including Russian LNG export potential). The LNG market is likely to dominate international cross-border gas trade soon after 2020. The technology to exploit this form of energy is emerging and this development offers vast productivity and efficiency gains.

It is expected that in the 2017/2018 wheat season, the Russian Federation will exceed EU-28 and the USA\(^{14}\) to become the world’s largest wheat exporter. This is the result of significant production growth that started in the mid 1990s as result of several interrelated trends: (1) an increase in agricultural land, (2) an increase in productivity, (3) an increase in use of fertilisers and (4) the availability of export infrastructure as well as (5) climate change global warming impacts\(^{15}\).

Diagram 3: Evolution of Russia’s wheat export


These trends in the Russian Federation are followed by Ukraine and Kazakhstan making the Black Sea area the largest wheat export market in the world today.

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\(^{14}\) [Factograph](https://www.factograph.info/a/28778054.html)

\(^{15}\) [Bloomberg](https://www.bloomberg.com/view/articles/2017-09-04/russia-is-an-emerging-superpower-in-global-food-supply)
Furthermore, the Black Sea is emerging as a key international market for fertilisers (the Russian Federation, Romania, Azerbaijan), crude oil (the Russian Federation, Kazakhstan, Azerbaijan) and oil products.

A major importer of LNG, crude oil and wheat is China (followed by other Far-East economies such as India and so on). These countries have been prompted to export labour-intensive goods and to improve competitiveness and sea-borne trade in containers is signal of this growth. A growing number of containers are approaching ports in the Balkans and the Black Sea creating an entirely new competitive landscape for the labour-intensive industry.

Although Serbia remains insulated from these developments by severe underutilization of the Danube's transport potential and the political tensions between the EU and the Russian Federation, the Black Sea market evolution is casting a shadow over land use, agriculture and fertiliser production in Serbia. The country is at a difficult crossroads in its development: to maintain the status quo, landlockedness and introversion in order to support its traditional land use patterns, perpetuate poverty and the political status quo or to explore international trade development opportunities, in which case it needs to re-think its spatial plans, infrastructure and land use patterns.

Serbia is effectively insulated from international sea-borne trade in crude oil, oil products and LNG as well as containerised goods by a lack of port infrastructure in (Aegean and Adriatic) ports as well as transport between these ports and the city of Belgrade. This is changing. The change is not smooth, not well organised, not as fast as the market may desire, but it is on the way.

This casts a shadow on Serbia's labour-intensive industrial policy, infrastructure development policy and spatial planning in the Belgrade area as well as its energy efficiency and renewable energy polices. A more detailed outlook could appear as follows:

• Efficient use of LNG for power generation and industrial energy wherever necessary is likely to outcompete inefficient fossil fuels. Serbia's energy supply is dominated by domestic lignite - less productive than the European average due to low productivity of this natural resource itself, extraction methods and its labour intensity. A cross-subsidy from depreciated hydropower assets is not likely to be sufficient to maintain a competitive edge for Serbia's electricity and its ability to support labour and energy-intensive industries. This is going to have a profound fiscal impact and the probability of a sudden materialisation of fiscal risks is growing.

• In addition, the growing risk of technical failure and deterioration of resource may spark rapid adjustment and a chain of divestments with profound fiscal and monetary impacts.

• The credit-rating of Serbia is going to be influenced by its dependence on an unsustainable domestic energy mix and high carbon intensity of GDP. As international financial institutions are de-risking their portfolios, Serbian sovereign bonds are going to be considered as a growing risk. This problem overlaps with other aspects listed here.

• Labour-intensive industrial policy in the context of growing international competition creates a challenging trade-off. (1) obstruction of
international trade by maintaining a critical international transport bottleneck in Belgrade, a delay in infrastructure development (including, in particular, railways and Danube river-to-sea shipping) and maintaining various barriers to trade in order to protect the status quo in domestic industry and agriculture. This increases fiscal risks and a probability of spiking interest rates and/or inflationary pressures as well as exchange-rate risks. Alternatively, (2) a strategic opening up to international trade; a turnaround in energy and industrial policy may relax risks and create new growth opportunities. This option creates pressure to reduce fiscal burden and rationalise the political and administrative system. It also creates a demand for the restructuring of labour markets and intensive improvement in education and the quality of human capital.

- On-going investments in residential property, energy and transport infrastructure are to be considered as a growing sunk cost that is likely to make restructuring more expensive and less probable. Consequently, real estate is not retaining its value. Growing price discrepancies in the real estate market and intrinsic price volatilities are already signalling enormous risks associated with residential and retail property. A spread of agricultural land prices of 1:10 demonstrates this problem. The Belgrade stock exchange has already been rendered irrelevant and risks are increasingly embedded in the property market. Consequently, the materialisation of risks in any form (exchange rate; interest rate; political turmoil; social unrest) may suddenly diminish the value of collaterals and turn almost the entire domestic credit portfolio into a non-performing one.

- Furthermore, the risks may be (partially or temporarily) managed by a further decrease in labour remuneration including salaries, pensions, insurance and healthcare that is likely to further increase social tensions and further increase the costs of restructuring.

- Public subsidy in some form is already a prerequisite for almost any investment. It can remain available as long as the fiscal system and exchange-rate remain stable while foreign credit remains available. This can change at any moment and turn into a tide of divestments.

In short, this is the context that determines Serbia’s accession to the EU as well as the character of that EU which may accept Serbia into its membership. If Serbia remains the closed, introverted economy that it is now and eventually pull through its EU accession process, that will signal a continuation of the EU–Russia conflicts and insecurity as well as spur on EU openness to international trade. EU financial assistance and its willingness to moderate critical material preconditions (Energy Community Treaty, UNFCCC Paris Agreement, etc) are going to be the key determinants of such an accession pathway. On the other hand, if trade openness (and dissent economic development) is firmly established as a precondition for Serbia’s EU accession, this will signal an openness from the EU to international trade and its far better alignment with international markets.
Creating energy policies that serve the well-being of citizens is not easy. Building infrastructure that delivers a privately produced product: energy, while maintaining important public sector services: security of supply, affordability and sustainability requires know how, resources and a stable legal and investment framework. But put all this aside for a moment and think about the answer to a rather childish question: Would the region of the Western Balkans be better off if oil, gas and good quality coal were no longer the most sought-after fuels worldwide but the sun, wind, water, earth energy and forests had replaced them? What would you say?

Has anyone taken stock of the renewable energy resources we have? Are they sufficient for our energy needs? Is it feasible to use them? What obstacles might we face if we choose to catch up with energy transition instead of waiting for another external shock to restructure our industry?

The quality of data on renewable energy availability for our region is best regarding wind and sun potential. Hydro potential is more difficult to evaluate, while biomass potential is not static since its overall volume, annual yields and consumption patterns may be influenced, leading to significantly differing calculations of availability.

The International Renewable Energy Agency (IRENA) prepared a detailed study on the cost competitiveness of power generation for the WB region in 2017 which also covers the contracting parties of the Energy Community from this region. In different jurisdictions there is varying potential, but overall, plenty of renewable energy potential for electricity production. Much of this potential is already cost competitive. If the cost of capital in the WB region is lowered, we might have abundant quantities of renewable electricity at our disposal.

The South East Europe Electricity Roadmap (SEERMAP) study examined the possibilities for renewable electricity production in the broader region. The study’s authors imagined a perfect regional market in which plants with the least costs were built regardless of their location, while plants already included in national strategies were also built regardless of their cost competitiveness.

Three scenarios were examined:

- The ‘no target’ scenario reflects the implementation of current energy policy and no CO₂ target in the EU and Western Balkans for 2050;
- The ‘decarbonisation’ scenario reflects a continuous effort to reach significant reductions of CO₂ emissions, in line with the long-term indicative EU emission reduction goal of 93-99% emission reduction for the electricity sector as a whole by 2050;
- The ‘delayed’ scenario involves an initial implementation of current investment plans followed by a change in policy direction from 2035 onwards, resulting in the realisation of the same emission reduction target in 2050 as the ‘decarbonisation’ scenario.

The model results show that the least cost capacity options under the assumed costs and prices are renewables, in particular wind, hydro and solar in emission reduction target scenarios and a mix of natural gas and renewables in the ‘no target’ scenario. The results of the modelling display a level of renewably-produced electricity to be in a range of 58% to 86% by 2050.

Regional optimisation may leave some countries as net importers of energy. The solidarity principle was also underlined as one of the drivers of the Energy union and therefore seems to be critical also for the transition to clean energy. Regional optimisation enables higher penetration of renewable energy in electricity production for numerous reasons including resolving water management issues and flexibility of power systems to respond to changing demand and changing production from intermittent renewable energy sources.

So, it is possible to join the world in implementing the Paris Agreement and combating climate change, although it might not be easy. How can we help the acceleration of change?

Financial limits seem to be the most significant barriers among many other types of challenges. Financial limits also depend on the quality of a given society. If you live in a good society, the barriers are lower for good energy.

For example: “Investments into renewable energies are highly capital intensive. Differences in costs of capital for renewable energy investments translate into significant differences in the revenues needed for a renewable energy project to be financially viable. In effect, it is significantly more expensive for consumers and taxpayers in some European countries to build new wind or solar power plants than it is in others – even if the weather conditions are equal”[17]. The weighted average cost of capital (WACC) for on-shore wind project development varies in the EU member states, according to a study by Agora Energiewende, from 3.5-4.5% in Germany, to 12% in Greece[18]. In the SEERMAP study authors used values in the range of 10% to 15% for a WACC range for the region. In its study, Agora proposes the establishment of a kind of insurance facility essentially underwriting the risks of the quality of institutions and governance in the EU member states: “Specifically, the facility seeks to close the gap between the ex-ante perceived cost of capital and the ex-post realised cost of capital. By establishing similar conditions for renewable energy sources (RES) investment across Member States, a single and deep pool of capital for RES investment would be created, thus optimising capital pricing while enabling more efficient capital allocation. Under the proposed Renewable Energy Cost Reduction Facility (RES-CRF), each Member State would have an opportunity (yet not an obligation) to negotiate the terms of its support for RES investment with a designated EU institution and would contractually agree with that institution to fully fund a given commitment to renewable energy. Backed by this contractual commitment from the Member State, a creditworthy central EU institution would provide investors in renewable energy with a payment guarantee. Agora proposed a similar kind of insurance facility for renewable energy investments in the contracting parties of the Energy community.

Crowdfunding and renewable energy cooperatives or other community-owned energy models are another innovative financing mechanism. This mechanism does more than just alleviate the risks of bad governance: it contributes to the emergence of a good society and at the same time facilitates energy transition. What precisely constitutes community-owned energy production and use is not clear cut, as there are different models of community ownership, different notions of community and different degrees of connection or disconnection between production and use[19].

Crowdfunding and energy cooperatives are complex concepts and may contain different institutional arrangements, different ownership struc-

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18 ibid
19 RES Foundation: “Energy cooperatives in theory and practice. The way forward for Serbia”
tures and even different incentives for those who participate. Their common value is that they bring together citizens to finance renewable energy projects directly. Some good examples are already present in Croatia such as the construction of a roof-top solar power plant in the city of Križevci\(^20\), or the construction of the Kom-Orjak-Greda wind power plant\(^21\).

Citizens seem to be ready for more environmentally-friendly development. According to the Regional Cooperation Council (RCC) 73% of citizens in the South East Europe region believe that climate change is either a very serious problem (36%) or quite a serious problem (37%)\(^22\). On the other hand, citizens are frequently not engaged in environmental campaigns and have little trust in the stakeholders\(^23\). Need better energy? Now you can directly invest in it.

There is some good energy in our societies. It must be networked to help build good society that will in turn give us more good energy. Political parties, NGOs, youth organizations - the floor is yours.

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\(^{20}\) https://www.zez.coop/ulaganja/

\(^{21}\) https://www.zef.hr/novosti/vijesti/zadruga-za-eticko-financiranje-sluzbene-potpisala-ugovor-o-kupnji-vjetroelektrane-kom-orjak-greda


\(^{23}\) From 55% to 71% of respondents either „totally distrust“ or „tend not to trust“ the following institutions: Courts and Judiciary, Parliament, Government, Ombudsman and Supreme Audit Institution.

Abbreviations

- Bcf/d – Billion Cubic Feet Per Day
- CO₂ – Carbon Dioxide
- COMEXT - Eurostat’s Reference Database for International Trade in Goods
- CSD – Current Source Density
- EC – European Commission
- EU – European Union
- EUROSTAT - Statistical Office of the European Union
- FDI – Foreign Direct Investment
- GDP – Gross Domestic Product
- GWh – Gigawatt Hour
- IEA – International Energy Agency
- IMF – International Monetary Fund
- IRENA – International Renewable Energy Agency
- KAP – Podgorica Aluminium Plant
- LNG – Liquefied Natural Gas
- Mcm – Million Cubic Meters
- MP – Member of Parliament
- NGO – Non-Governmental Organization
- NIS – Oil Industry of Serbia
- RCC – Regional Cooperation Council
- RES – CRF – Renewable Energy Cost Reduction Facility
- RES – Renewable Energy Sources
- RS – Republika Srpska
- SEE – South East Europe
- SEERMAP – South East Europe Electricity Roadmap
- UNCTAD – United Nations Conference on Trade and Development
- UNFCCC - United Nations Framework Convention on Climate Change
- USA – United States of America
- USD – United States Dollars
- WACC – Weighted Average Cost of Capital
- WB – Western Balkans
References


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