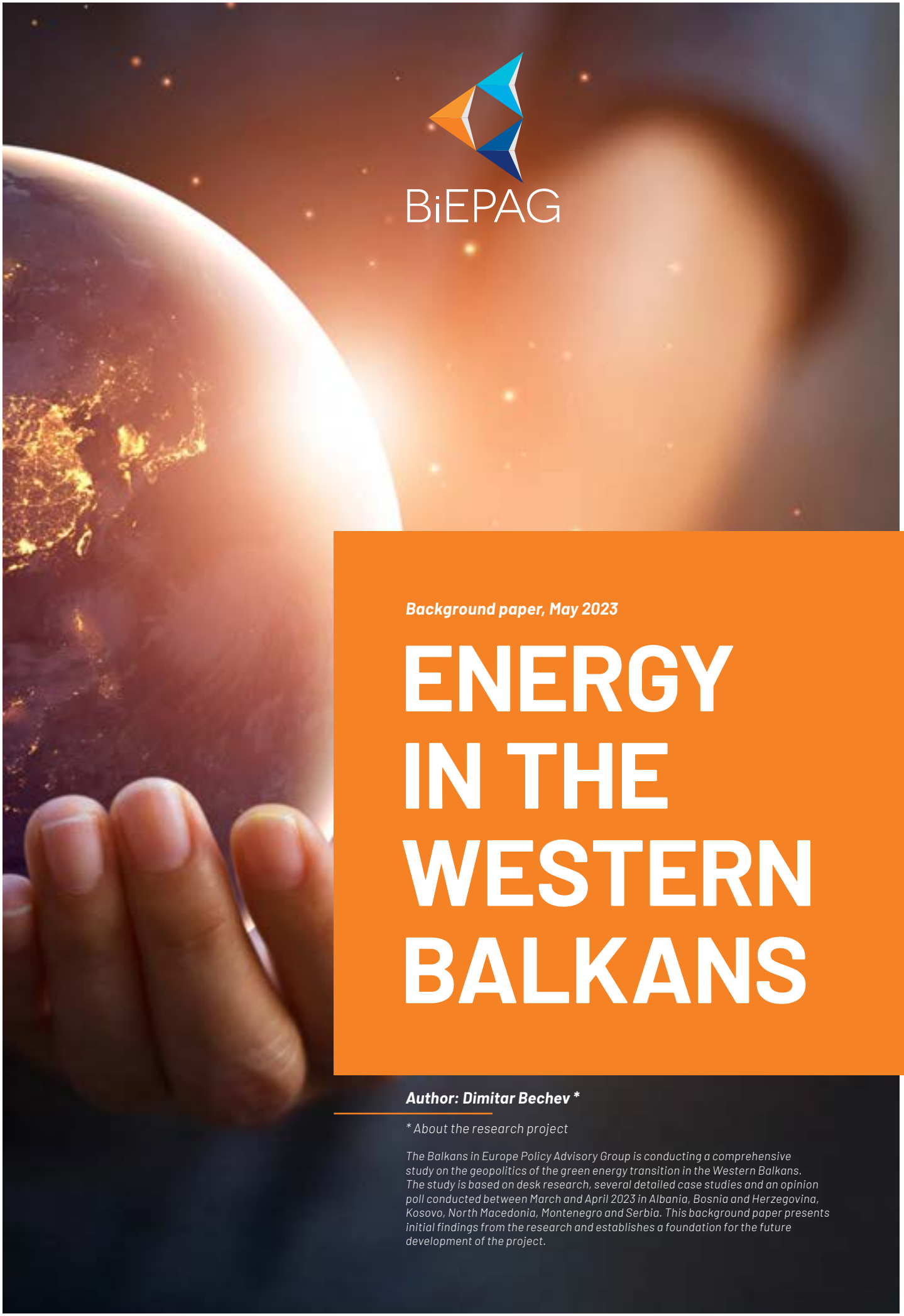

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Background paper, May 2023

ENERGY IN THE WESTERN BALKANS

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** About the research project*

The Balkans in Europe Policy Advisory Group is conducting a comprehensive study on the geopolitics of the green energy transition in the Western Balkans. The study is based on desk research, several detailed case studies and an opinion poll conducted between March and April 2023 in Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia. This background paper presents initial findings from the research and establishes a foundation for the future development of the project.

Abstract

The energy sector in the Western Balkans remains dependent on coal and exposed to corruption and rent-seeking. The EU has been seeking to promote radical reform by pushing towards decarbonisation and a transition to renewable energy through a policy of carrots and sticks. However, third parties such as Russia, China and Turkey – along with the United States – have all established a large foothold in the fossil-fuel-based economies of the region, cementing the status quo and aligning with vested interests in the energy sector.

To understand foreign influence over energy in the Western Balkans, one needs to consider the longer-term trends and structural features that define the sector. Much like other parts of the economy, energy is influenced by history and present-day political institutions. Since it cuts across the economy, society, politics and international affairs, it is arguably a mirror of the region as a whole. Macro-level phenomena and institutional legacies, as well as processes such as the disintegration of Yugoslavia and state-building in its wake, the post-communist transition, party politics and elections, privatisation, economic governance, state capture, EU integration and Europeanisation, sovereignty disputes, relations with non-EU actors, and regional cooperation, amongst others, all have an energy dimension.

What follows is a brief overview of energy in the Western Balkans. It is divided into four parts: (1) an historical overview of the development of the energy sector from the mid-20th century until the present; (2) a snapshot of the sector at present; (3) an analysis of how the EU-promoted green transition affects the region; (4) and a discussion of the role played by "external powers", that is Russia, China and Turkey. The section ends with some concluding remarks on how foreign actors relate to the EU policy of advancing the green transition in the Western Balkan countries seeking EU membership.

I. Historical overview

The energy systems of the Western Balkans are largely a function of the rapid industrialisation and urbanisation that took place during the Yugoslav period and Enver Hoxha's communist regime in Albania. Following 1945, energy demand grew at a steady pace. Between 1958 and 1979, for instance, consumption expanded at an annual rate of 6.7%, compared to a world average of 4.4%.[1] The state invested in facilities – thermal and hydro power plants (TPP/HPP) such as Kolubara in Serbia, Kosovo A near Prishtina, REK Bitola in North Macedonia, Koman on River Drin (Albania), the NIS refinery in Pančevo, Serbia, and the Adria Pipeline running from the Omišalj terminal in Croatia. Unlike the Soviet bloc countries, Albania did not have access to the capital resources, technology and expertise needed to develop nuclear power. Yugoslavia partnered with the US government and the energy company Westinghouse to build Krško NPP. Commissioned in 1983, this was a joint venture by the then socialist republics of Slovenia and Croatia.

Even during the socialist period, what would later become the Western Balkans were hampered by the scarcity of locally generated investment.

Even during the socialist period, what would later become the Western Balkans were hampered by the scarcity of locally generated investment. The Adria Pipeline, for instance – completed in 1974 – was partly financed by Kuwait, Libya, the World Bank, Hungary and Czechoslovakia. Increased reliance on foreign borrowing to underwrite both fixed capital investment and consumption became a structural feature of the Yugoslav economy from the 1970s onwards, causing major tensions in the federation throughout the 1980s. Albania's autarkic policy, particularly after the breakdown in relations with China in the mid-1970s, sought to depress internal consumption and boost the exports of hydropower-generated electricity as a valuable source of foreign currency.

Another legacy of the Socialist Federative Republic of Yugoslavia (SFRY) is dependence on foreign suppliers of fossil fuels, that is, crude oil and natural gas. By the 1980s, the SFRY extracted close to 1 billion cubic metres (bcm) of

1 *N. Bilcar, 'The questions of energy supply in Yugoslavia', Energija, 1983, https://www.osti.gov/etdeweb/biblio/5948466.*

gas from fields in Croatia (both inland and offshore in the Adriatic) but that fell well short of rising demand by industry and district heating in bigger cities such as Belgrade, Zagreb, Sarajevo and Skopje. The main supplier to emerge was the Soviet Union, with gas pumped into the Yugoslav distribution system through Hungary. Crude oil came again mainly from the USSR along with Libya and Iraq.

The disintegration of Yugoslavia had a disruptive effect. Problems included direct damage to physical infrastructure; the disconnection of the electricity grid from that in the rest of Europe; the negative impact of UN sanctions on what remained of Yugoslavia (Serbia and Montenegro), which included restrictions on oil exports; disputes over the ownership or distribution of assets (e.g. in the case of the Krško NPP which triggered complex legal wrangles between Zagreb and Ljubljana throughout the 1990s); underinvestment; and corruption and clientelism made worse by the semi-authoritarian regimes that emerged. As in other post-socialist countries, energy poverty became a pressing concern across the region, with hyperinflation (Serbia and Montenegro), war (Bosnia/Kosovo), the disruption of trade ties (North Macedonia), and government collapse (Albania) further exacerbating the situation.

These legacies still weigh heavily on the political economy of energy in the Western Balkans. Privatisation in the oil and gas sector in the 1990s and 2000s benefitting political insiders continues to stir controversy in multiple countries. Governments are reluctant to carry out radical reforms in the electricity and natural gas sectors because this could lead to price increases and threaten social peace. Politicians and party clienteles use state-owned utilities to enrich themselves.[2] Russia has used advantages from the Soviet era to broaden its presence in the oil and gas sector. China has also instrumentalised the strong demand for external investment to ensure that legacy capacities continue to produce affordable electricity with the aim of advancing its "debt diplomacy" in the Western Balkans.

2 *Tena Prelec, 'The Transition Game: The persistence of elites and extractive practices in the energy sector in successor Yugoslav states (1980s-2010s)', PhD thesis, University of Sussex, 2020, http://sro.sussex.ac.uk/id/eprint/94329/.*

II. Structure of the energy sector

The energy sector in the Western Balkans – especially in Serbia and Bosnia and Herzegovina – is still dominated by state-owned utility companies. While this is particularly true in relation to electricity and natural gas, it is less so in the case of oil, where extensive privatisation has occurred. Of the three top energy companies in the region in terms of revenue and market capitalisation, two are in the public domain (Elektroprivreda Srbije or EPS and JP Srbijagas) and one is private, Naftna Industrija Srbije (NIS) – the former national oil company sold in 2008 to Russia's GazpromNeft.

Montenegro, North Macedonia and Kosovo are the partial exception. Podgorica sold a 41% stake in EPCG, its power production company, to A2A, an Italian utility company in 2009 (but later, in 2020, acquired back the stake). In 2005, North Macedonia split ELEM into MEPSO (taking over the electricity grid "Transmission System Operator", or TSO, to use the EU nomenclature) and ESM (production of power) – as a first step to eventually selling MEPSO to EVN (Austria).[3] In Kosovo in 2013, the former state-owned conglomerate KEK was split into two: KEK (lignite mines and generation) and KEDS/KESCO (distribution and supply). KEDS and KESCO were subsequently sold to Çalık-Limak, a Turkish consortium.

State-owned utilities perform important social and political functions. On the one hand, they are an instrument for maintaining affordable prices for consumers through various forms of energy subsidies and cross-financing. On the other, energy companies provide jobs and resources to political parties and their clientele. The general director of Srbijagas, for instance, is Dušan Bajatović, a prominent member of the Socialist Party of Serbia (SPS) and a former member of parliament. The director of EPCG, Nikola Rovčanin, was formerly a spokesperson for Democratic Montenegro, led by Aleksa Bečić, who is a key member of the governing coalition that took power after the August 2020 elections. Companies generate rents while losses and debts are eventually underwritten by national (or entity-level in the case of Bosnia and Herzegovina) budgets and the taxpayer.

The distinction between private and state-owned entities is often far from clear-cut in practice. As research by Tena Prelec has shown, both privatisations and non-privatisations in the Yugoslav successor states' energy sectors have

3 *In 2015, Elektromreže Srbije (EMS) bought 10% of the Montenegrin grid operator.*

borne the hallmarks of state capture.[4] Whether by transfer of public assets to politically-connected insiders with access to state subsidies and other resources or by carving out party fiefdoms within state-owned utilities, the pattern of relationships and the unwritten rules and assumptions underwriting them remains the same.[5]

Despite this pervasive informality and rent-seeking, the energy sector has undergone some reforms, which picked up speed during the 2010s. Having joined the Energy Community, all Western Balkan countries accept they must comply with EU legislation geared towards liberalisation.

Despite this pervasive informality and rent-seeking, the energy sector has undergone some reforms, which picked up speed during the 2010s. Having joined the Energy Community, all Western Balkan countries accept they must comply with EU legislation geared towards liberalisation. Vertically integrated[6] national electricity and gas companies must be divided into separate entities focusing on production and distribution/supply. This, along with other reforms such as the establishment of independent regulators and energy exchanges, is aimed at attracting foreign direct investment (FDI) into the energy sector, strengthening competition between traders, enabling businesses and households to choose between different providers and – over time – bringing down prices.

North Macedonia and Kosovo demonstrate how "unbundling"[7] works in practice. However, in many cases, national authorities have not rushed to transpose the EU acquis. Serbia, for instance, has not fully unbundled EPS to establish a fully autonomous TSO (Elektromreže Srbije, EMS) and has yet to transfer authority

4 *Tena Prelec, 'The Transition Game: The persistence of elites and extractive practices in the energy sector in successor Yugoslav states (1980s-2010s)', PhD thesis, University of Sussex, 2020, http://sro.sussex.ac.uk/id/eprint/94329/. See also, Will Bartlett, 'Economic transformation and democratization in the Balkans' in 'Experimenting with democracy', Routledge, 2000.*

5 *Vladimir Spasić, 'Power production and distribution companies in the Balkan region – governments still in charge', Balkan Green Energy News, 2017, https://balkangreenenergynews.com/power-production-and-distribution-companies-in-the-balkan-regiona-governments-still-in-charge/.*

6 *Vertical integration involves concentration of the production, import, storage, transmission, distribution networks and supply of electricity, natural gas or oil in the hands of a single economic entity, often a national monopoly.*

7 *Florence School of Regulation, 'Unbundling in the European electricity and gas sectors', 2020, https://fsr.eui.eu/unbundling-in-the-european-electricity-and-gas-sectors/.*

from the Energy Ministry to a regulatory body.[8] In Bosnia and Herzegovina, unbundling is at an advanced stage in Republika Srpska, but remains a work in progress in the Federation of Bosnia and Herzegovina and is entirely absent in the special district of Brčko, which benefits from an exception.[9]

Unbundling of the gas subsector is even further behind. It is most advanced in North Macedonia, with National Energy Resources (NER) as the TSO.[10] In April 2021, Serbia adopted a plan to split Srbijagas and Yugorosgaz to comply with Energy Community obligations. However, this plan has not yet been implemented and Transportgas Srbija — the network operator/TSO — is therefore not yet fully operational.[11] Gazprom is also the majority owner of the Panchevo TPP in Serbia (see table below). Unbundling is only partially complete in Bosnia and Herzegovina.

Table 1: **Gas-burning thermal power plants in the Western Balkans**
Source: Global Gas Tracker *Tracker Map - Global Energy Monitor*

Country	Power plant	Installed capacity, megawatt (MW) (electricity)	Technology	Ownership
North Macedonia	CHP TPP Skopje	230 MW	Combined cycle	Territorial Generating Company No. 2 (TGC-2), Russia 89.2%; Other 10.8%
Serbia	Panchevo TPP	189 MW	Combined cycle	Gazprom 78%; Republic of Serbia 22%
	Zrenjanin TPP	110 MW	Combined cycle	EPS
	Novi Sad TPP 250MW (2 units)	250 MW (2 units)	Steam turbine	EPS

Institutional and regulatory reforms are essential for enabling investment and diversifying energy supplies. This includes building renewable capacity which can compete against coal-generated electricity provided by existing companies. It would also be beneficial to open up national markets to natural gas suppliers and traders other than national companies, which tend to have long-term relationships with Russia's Gazprom.

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8 Energy Community, Implementation Report for Serbia, 2022, https://www.energy-community.org/implementation/report/Serbia.html

9 Energy Community, Implementation Report for Bosnia-Herzegovina , https://www.energy-community.org/implementation/report/Bosnia-Herzegovina.html

10 In 2021, NER bought private trader Makpetrol's share in Gasification Macedonia (GA-MA), establishing an independent TSO/DSO.

11 Energy Community, 2023, https://www.energy-community.org/implementation/Serbia/GAS.html#:~:texts=In%20April%202021%2C%20the%20Government,not%20being%20implemented%20as%20promised.

III. Dependence on coal

In the main, the Western Balkans lack indigenous energy resources. The only exception is lignite (brown coal) as well as hydropower, which is key to electricity production in Albania and Montenegro.[12] There are abundant deposits of coal scattered around the region, with Kosovo even claiming to have the fifth largest stock in the world. In 2018, there were 65 mines producing 93 million tons of hard coal and lignite – corresponding to one-fifth of the coal produced in the EU.[13] Serbia's proven reserves correspond to 192 times its annual consumption. Bosnia has 264 years' worth of deposits and Albania a staggering 6,000 years. By contrast, most oil and natural gas entering the region is imported. There is virtually no domestic oil production and the volumes of natural gas extracted are low. In 2019, for instance, Serbia extracted just 0.438 bcm, which corresponds to a little over a fifth of its annual demand.[14]

Unsurprisingly, coal and hydro are the backbone of the energy systems in the region. Kosovo, Serbia, and Bosnia and Herzegovina are in the world's Top 10 with regard to the share of coal in electricity production: 94.9%, 70% and 67.7% respectively (data for 2020). North Macedonia (51%) and Montenegro (41%) have relatively more balanced energy mixes. In 2017, the 18 gigawatt (GW) installed electrical capacity in the region was almost evenly divided between TPPs running on coal and HPPs. At present, however, coal accounts for 70% of electricity in the Western Balkans. Renewable sources (solar and wind) lag far behind and nuclear is non-existent if the Western Balkans' electricity imports from neighbouring Hungary, Romania and Bulgaria are disregarded.

Table 2: **Coal projects in the Western Balkans**
Sources: Energy Community; Bankwatch; SeeNews data.

Country	Number of TPPs	Installed capacity (gigawatt) (GW)	Share in electricity
Albania	n/a	n/a	n/a
Bosnia and Herzegovina	5	2 GW	67.7%
Kosovo	2	1.2 GW	94.9%
Montenegro	1	0.2 GW	41%
North Macedonia	2	0.8 GW	51%
Serbia	6	4.3 GW	70%

12 *Two large hydropower plants, Perućica (307 MW) and Piva (363 MW) provide up to three-quarters of domestic power supply,*
13 *Pablo Ruiz Castello, Hrvoje Medarac, Julian Somers and Giovanni Mandras, 'Recent trends in coal and peat regions in the Western Balkans and Ukraine', European Union, 2021, https://publications.jrc.ec.europa.eu/repository/handle/JRC126154.*
14 *Energy community data.*

According to the European Commission, around 138,000 jobs are linked to coal in the six Western Balkan countries (90,000 in the mining industry and 49,000 in coal-based TPPs). Phasing out coal in line with EU policies could see the loss of 0.4% of all jobs in Montenegro, 0.5% in North Macedonia, 0.6% in Serbia, 1.3% in Bosnia and Herzegovina and 1.4% in Kosovo. In the latter two cases, coal accounts for an even higher percentage of employment than in Poland, where the respective share of the workforce stands at 0.7%.

Western Balkan governments have shown interest in new coal-burning TPPs due to chronic power deficits and the age of existing power plants, with most TPPs being more than 40 years old. In the 2010s, most Western Balkan countries launched projects to modernise existing TPPs and build new ones (see info box below).

BOSNIA AND HERZEGOVINA

Several new thermal power plant units have been planned in Bosnia and Herzegovina during the last decade, few of which have been completed, or even commenced construction. There has been involvement mostly from Chinese investors, but others, in particular CEZ, were also involved in some of the projects before 2010. If implemented, these projects could double Bosnia's lignite-fired generation capacity:

> Stanari TPP (300 MW): Located near Banja Luka, Bosnia, came onstream in 2016. The investment was financed from a loan by China Development Bank, with construction by China's Dongfang Electric Corporation.

> Tuzla Unit 7 (450 MW): A joint project financed by China's Exim Bank from 2017. Currently, the project is on hold.

> Banovići (350 MW) TPP: Close to Tuzla, in the proximity of the lignite mine of the same name. The investment was planned to be made by China's Dongfang Electric Corp and financed by loans from the Industrial and Commercial Bank of China. The power plant did not receive a construction permit and its environmental permit expired.

> Ugljevik 3 (600 MW): This was an expansion of the existing TPP, formerly to be financed from a Chinese bank loan which was cancelled in 2022. Prior to that a partnership between Republika Srpska and the Russian businessman Rashid Sardarov was to invest in the plant.

> Kakanj 8 (350 MW): Near Zenica-Doboj, FBiH, this was previously planned to be financed by Chinese banks, with investment carried out by the China National Electric Engineering Company. The project does not seem to have an investor currently. Plans for Kakanj 9 have also been announced.

> Gacko (350 MW): This project is in Republika Srpska. After CEZ backed out from initial plans to implement the project, a number of potential Chinese investors were named in connection with it, most recently a joint project with China Machinery and Engineering Corporation. These plans seem to have been abandoned and there is currently no confirmed investor with an interest in the project.

SERBIA

A number of expansions of existing thermal power plants have been planned in Serbia:

> Kostolac B3 (350 MW): This is a joint project of EPS with CMEC. The environmental permit of the project has been cancelled in court, but has been reissued by authorities. EPS seems committed to the project.

> Kolubara B: This project was initially to be financed by the EBRD, but support was withdrawn. Following this, implementation was planned in the form of a joint project between EPS and PowerChina. The cancellation of the project was announced by Serbia's Ministry for Mining and Energy in 2021, but it is not clear that EPS has given up on the project as it is being mentioned in the company's strategic plans for the period until 2035.

> Nikola Tesla B Units 3 and 4: The expansion of the existing plant would have been a joint investment by EPS and an Italian investor. The plans have been cancelled and permits have expired.

KOSOVO

> Kosovo C/Kosova e Re (500 MW): This was a joint project with ContourGlobal (UK) co-financed by the World Bank. The project was abandoned in 2020 after the World Bank withdrew support. Current scenarios include updating the existing units.

MONTENEGRO

> Pljevlja II (300 MW): This is an expansion of the existing TPP, which was completed in 1982. The project has been cancelled, following several years of lack of progress with Czech and Chinese investors.

Under pressure from the Energy Community Secretariat and some local opposition and court cases, several of the projects in Table 2 have been abandoned, including Kosovo C, Plevlja II and potentially Tuzla 7. In addition to the new lignite units listed above, a number of upgrades of TPPs are also planned, underway, or have been completed.

Despite EU policies on phasing out coal and the commitment of Western Balkan states to the Green Agenda (below), demand remains strong. In 2022, Serbia imported 2.8 million tons of coal (from Bosnia, Montenegro, Bulgaria and Romania, as well as from Indonesia through China) and is planning to bring in another 4.8 million tons in 2023.[15] In 2022, Kosovo imported coal worth EUR 1.5 million.

IV. Energy deficit

Investments in coal have been driven by the chronic power deficit experienced in the Western Balkans. In peak periods, the region imports electricity from neighbours – e.g. Romania, Bulgaria and Hungary, as well as from Greece, which has emerged as a renewables leader in the wider region of Southeast Europe.

Demand

According to the International Energy Agency, energy demand has followed different trajectories in Albania, Kosovo and North Macedonia, on the one hand, and in Serbia, Bosnia and Montenegro on the other. In the first group of countries, electricity consumption has expanded rapidly – by a staggering 267% in Albania and by a quarter in North Macedonia between 1990 and 2020. In Kosovo, there was a 90% expansion between 2000 and 2010. This was followed by a period of stabilisation before another 20% rise between 2018 and 2021. This shift is explained by population growth in Kosovo and, in Albania's case, increased consumption per capita related to economic changes after the end of communism.

In the second group of countries, demand has decreased – by 23.45% in Montenegro (compared to 2005), 11.59% in Bosnia and 2.8% in Serbia. Trends such as deindustrialisation, demographic shifts and outward migration have offset soaring private consumption. The fall of industrial demand has been particularly remarkable. In Serbia, industrial demand shrank by 60% between 1990 and 1993. In Bosnia, it went down by 90% over the same period, coinciding with the start of the war. While demand in Serbia recovered slowly afterwards, it has yet to do so in Bosnia. More recently, Montenegro saw the scaling down and eventual closure of its large aluminium smelter, KAP, which closed in 2022.

15 *Milica Rilak, 'Srbija planira da uveze 70 odsto više uglja nego u 2022. godini, ali i da izveze 39 odsto više struje', Biznis.rs, https://biznis.rs/vesti/srbija/srbija-planira-da-uveze-70-odsto-vise-uglja-i-20-odsto-vise-derivata-nego-u-2022-godini-ali-i-da-izveze-39-odsto-vise-struje/.*

Supply

Even so, domestic supply is at times unable to meet demand. This is especially true during the heating season (November to December) in cold winters. Subsidised retail prices – which are lower than wholesale market prices – and the general absence of district heating outside of big cities boosts electricity consumption by households. Coal-powered plants cannot keep up because of their outdated technology and mining bottlenecks. Meanwhile, in countries reliant on hydropower, such as Albania, low dam levels during the summer present a major challenge. Droughts induced by climate change make this situation worse. Deficits must be addressed by importing electricity, either from within the region or from neighbouring countries.

However, in milder conditions, countries like Serbia and Bosnia actually produce a surplus of electricity, which is exported to their neighbours. Coal-generated energy is price-competitive because the countries in question do not tax carbon emissions, in contrast to the EU.

V. The multifaceted crisis of 2021–22

The gap between demand and supply was particularly acute in the period spanning from late 2021 through 2022. Retail electricity prices reached levels that were ten times lower than record wholesale prices of electricity (linked to the price of natural gas on European exchanges).[16] In December 2021, a breakdown at the TENT TPP serving Belgrade – caused by poor-quality lignite from underinvestment and poor management of pits – forced EPS to import unprecedented volumes of coal. In July 2022, Energy Minister Zorana Mihajlović declared up to EUR 1 billion was to be spent on imports of both coal and electricity by the end of the year.[17] Kosovo suffered power outages in the winter of 2021/22, while North Macedonia had to restart an old TPP at Negotino which runs on highly polluting heavy fuel. Hydropower could not compensate for the deficit. Prices of biomass – an alternative fuel used for heating homes and cooking – also rose dramatically.

These developments were already underway before 24 February 2022, the start of the war in Ukraine, which pushed up prices across Europe and reinforced the

16 *Mirza Kušljugić and Damir Miljević, 'Energy transition in Western Balkans – how to move forward', Balkan Green Energy News, 2022, https://balkangreenenergynews.com/energy-transition-in-western-balkans-how-to-move-forward/.*

17 *Vladimir Spasić, 'Serbia to spend EUR 1 billion on electricity, coal imports by end of year', Balkan Green Energy News, 2022, https://balkangreenenergynews.com/serbia-to-spend-eur-1-billion-on-electricity-coal-imports-by-end-of-year/.*

sense of insecurity in the Western Balkans. In late July 2022, the price of thermal coal reached as high as USD 407.47 per ton, compared to USD 165 in January 2023. By August, Kosovo considered introducing energy rationing.[18] North Macedonia declared a month-long "state of emergency", which it later extended until April 2023. The crisis also compelled Western Balkan governments to delay the phasing out of coal. North Macedonia postponed the target date for this from 2027 to 2030.

VI. The green transition

In principle, the Western Balkan countries have committed to phase out coal in accordance with EU policies, the Energy Community Treaty and other international commitments such as the Paris Climate Accords. Albania, Montenegro and North Macedonia have joined the Powering Past Coal Alliance launched by Canada at the COP23 summit (2017). In addition, the Energy Community Treaty contains provisions to limit pollution from power plants. However, these provisions do not include the phasing out of coal or even reduced output. Instead, they refer to the modernisation of existing capacity, for instance through the installation of scrubber systems to reduce CO2 and SO2 (sulphur dioxide).

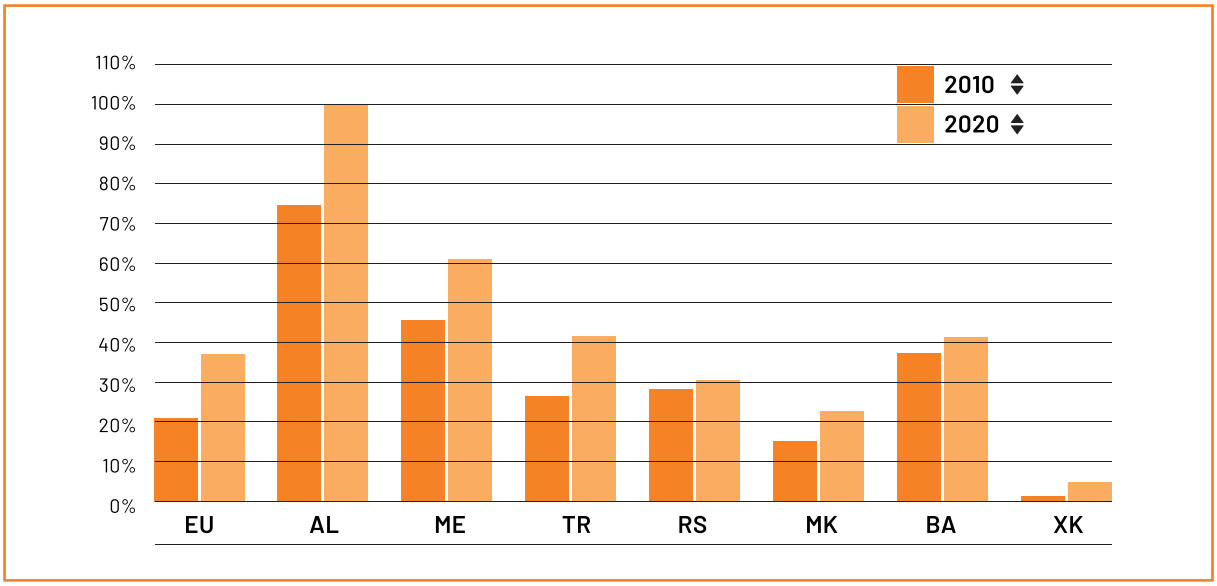
Transitioning from coal to renewables is part of moving closer to the EU. In October 2020, leaders from the region adopted the Sofia Declaration on the Green Agenda for the Western Balkans. This committed to full alignment with EU Climate Law with a view to achieving emissions neutrality by 2050 and reaching energy and climate targets by 2030. The Western Balkans will also be subject to the so-called Carbon Border Adjustment Mechanism (CBAM), which will take effect in 2026. The Sofia Declaration speaks of continuing alignment with the EU Emissions Trading Scheme as well as the introduction of other pricing instruments at the regional level to promote decarbonisation. Thus far, only Montenegro – which sees itself as the regional leader in adopting EU energy and climate standards – has introduced a national cap-and-trade scheme. This covers the Plevlja TPP, the KAP aluminium smelter (shut down in December 2021) and the Tosčelik steel mill. However, the results have been mixed, not least because of the unambitious nationally-determined contribution (NDC).[19]

18 *Valentina Dimitrievska, 'Albania steps in to help Kosovo avoid electricity rationing', bne IntelliNews, 2022, https://intellinews.com/albania-steps-in-to-help-kosovo-avoid-electricity-rationing-253547/?source=kosovo.*

19 *NDCs are pledges by signatories to the Paris Climate Agreement. For further information, see Pippa Gallop, 'The cautionary tale of Montenegro's emission trading scheme', Bankwatch, 2022, https://bankwatch.org/blog/the-cautionary-tale-of-montenegro-s-emission-trading-scheme.*

Beyond goals such as improving emissions standards and improving the energy efficiency of homes, the transition will require a focus on renewable sources. The Kosovo Energy Strategy (2022) foresees the installation of some 1,600 MW of renewable capacity by 2031, compared to the 900-1,200 MW of all capacity in operation now provided by TPPs. Overall, the share of renewables has grown in the region, albeit unevenly.

Table 3: **Electricity generated from renewable energy sources, 2010 and 2020 [% of gross electricity consumption]**
Source: Eurostat



*Country codes: AL = Albania, ME = Montenegro, TR = Turkey, RS = Serbia, MK = North Macedonia, BA = Bosnia and Herzegovina, XK = Kosovo**

**This designations is without prejudice to positions on status, and is in line with UNSCR 1244/ 1999 and the ICJ Opinionon the Kosovo Declaration of Independence.*

Note: Data for Turkey supplied by and under the responsibility of the national statistical authority.

Bosnia and Herzegovina: 2019 data instead of 2020.

The bulk of electricity generated from renewable sources comes from hydropower. This is problematic as hydropower – particularly when used in small projects – often has a negative environmental impact.[20] There was an explosion in the number of such ventures in the 2010s. By 2021, 490 new hydro plants with a capacity below 10 MW had been built in the Western Balkans, a nearly five-fold increase compared to 2009.[21] This expansion was driven by preferential feed-

20 Tijana Dušej Ristev, 'Ekologija, reke u Srbiji i male hidroelektrane: Šta donose izmene Zakona o zaštiti prirode i gde je zabranjena gradnja MHE', BBC News na srpskom, 2021, https://www.bbc.com/serbian/lat/srbija-58025526. See also, M. Mitić, 'Meštanima Dadinca i aktivistima donirane jakne kao podrška u odbrani Rupske reke', Južne vesti, 2023, https://www.juznevesti.com/Drushtvo/Mestanima-Dadinca-i-aktivistima-donirane-jakne-kao-podrska-u-odbrani-Rupske-reke.sr.html.

21 Pippa Gallop, 'Republika Srpska moves ahead of its neighbours in virtually halting hydropower subsidies for new plants', Bankwatch, 2022, https://bankwatch.org/blog/republika-

in tariffs established by governments and legislators.[22] In addition, politically-connected companies have profited from support schemes targeting the hydro sector.[23] And although they generate attractive rents for insiders, the output from these ventures remains insignificant.

Currently, the focus is on shifting to solar and wind projects, which are more environmentally friendly but also cost-effective and do not require incentives in the form of feed-in tariffs and subsidies. In April 2021, Serbia adopted a new law on renewables which overhauls state aid and limits the scope of feed-in tariffs.[24] However, the changes have encountered significant opposition from publicly owned utilities (EPS and EMS), which have cited the stability of the grid as their main concern. Similar changes have taken place in Kosovo and the Federation of Bosnia and Herzegovina.

Yet the shift also raises other issues such as guaranteeing the provision of baseload power (the minimum amount of electricity to be supplied to the grid at any given time, especially during peak periods), which now depends on coal-fired TPPs.[25] This is why natural gas has attracted a great deal of interest as an alternative to lignite with a lower carbon emission footprint. North Macedonian authorities and the electricity company ESM, for instance, have plans to close the coal-fired unit 1 of TPP REK Bitola and replace it with a 250 MW cogeneration unit running on gas in 2024.[26]

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srpska-moves-ahead-of-its-neighbours-in-virtually-halting-hydropower-subsidies-for-new-plants.

22 Pippa Gallop, 'Republika Srpska moves ahead of its neighbours in virtually halting hydropower subsidies for new plants', Bankwatch, 2022, https://bankwatch.org/blog/republika-srpska-moves-ahead-of-its-neighbours-in-virtually-halting-hydropower-subsidies-for-new-plants.

23 Vladimir Kostić and Dina Đorđević, 'Small hydroelectric power plants: the state and companies connected to Vučić's best man profit most', Center for Investigative Journalism of Serbia, 2018, https://www.cins.rs/en/small-hydroelectric-power-plants-the-state-and-companies-connected-to-vucics-best-man-profit-most/.

24 Igor Đorđević, Teodora Vujošević and Ivan Gazdić, 'High interest in renewables in Serbia – new regulation in a nutshell', Balkan Green Energy News, 2021, https://balkangreenenergynews.com/high-interest-in-renewables-in-serbia-new-regulation-in-a-nutshell/.

25 In Serbia, the debate around renewables is mostly focused on the challenge of balancing the grid. However, once the phase out of coal becomes an objective enshrined in law, concerns about baseload are likely to crop up, as in the EU member states of Central and Eastern Europe.

26 SEE Energy News, 'North Macedonia: ESM to replace gas capacity for TPP Bitola unit 1', 2021, https://serbia-energy.eu/north-macedonia-esm-to-replace-gas-capacity-for-tpp-bitola-unit-1/.

VII. Foreign influence in the energy sector

Out of all the non-EU players involved in the region, Russia has the largest footprint in the Balkan energy sector. This influence has several aspects: (1) most of the natural gas consumed in the Western Balkans – 2.7 bcm in 2021 – is supplied by Russia; (2) Russian state-controlled entities own critical gas transit and storage infrastructure, such as the TurkStream pipeline in Serbia and the Banatski Dvor storage facility; (3) Russia owns key oil assets, including Serbia's national company NIS (Naftna Industrija Srbije), refineries, storage, distribution and retail networks; and (4) Russia supplies crude oil to the local market.

Natural gas in the Western Balkans
Source: Reuters; ERC.org.mk; Stat.gov.rs.

Country	Annual imports from Russia [2019]	Gas demand
Serbia	2.1 bcm	2.5 bcm
Bosnia	0.236 bcm	0.236 bcm
N. Macedonia	0.296 bcm	0.296 bcm

Serbia's dependence on Russian gas supplies is a legacy of the Yugoslav era. In 1976, Petrol (Ljubljana) and INA (Zagreb) concluded a contract with the Soviet Union for 1.5 bcm to be imported annually via Austria using a pipeline constructed by the Austrian company OMV. In 1978, another 1.65 bcm was contracted for delivery through Hungary.[27] Until the launch of the TurkStream pipeline in 2020, the Hungarian link remained the main import channel for Gazprom, the heir to the Soviet Gas Ministry. While post-Yugoslav Croatia and Slovenia managed to diversify their gas supplies through contracts with western companies and domestic production (Croatia), Serbia still trades exclusively with Russia. The same is true of Bosnia and Herzegovina as Sarajevo receives gas from Serbia. North Macedonia receives its gas through a connection with Bulgaria that dates back to the 1990s.

27 *Per Högselius, Red Gas: Russia and the Origins of European Energy Dependence, Palgrave Macmillan, 2012, pp. 171-2.*

As with other parts of Eastern Europe, Russia's dominance of the gas sector in the Western Balkans reflects factors such as the dominant position of state-owned utilities over national markets, limited cross-border connections to facilitate the diversification of supplies, and the country's close links with political actors that have influence over the energy sector.[28] An additional factor, specific to the Western Balkans, is the small size of the regional market. Collectively, the six countries consume between 2.7-4 bcm annually, two-thirds of which goes to Serbia. Limited demand reduces the incentives for external suppliers, other than Gazprom, to seek access and invest in transit infrastructure. This leaves governments in charge. While governments also face financial constraints, the Serbian government can fall back on its close political ties with Moscow.

The Western Balkans' dependence on Russian gas has been an issue of concern for both the EU and the United States. Starting from the cut-off of supplies in January 2009, the EU policy in the region, as well as in wider Eastern Europe, has focused on building interconnectors and pushing for the liberalisation of domestic markets, allowing for gas-to-gas competition.

The Western Balkans' dependence on Russian gas has been an issue of concern for both the EU and the United States. Starting from the cut-off of supplies in January 2009, the EU policy in the region, as well as in wider Eastern Europe, has focused on building interconnectors and pushing for the liberalisation of domestic markets, allowing for gas-to-gas competition. This is an objective that has also been supported by successive US governments. However, little has been achieved, with the possible exception of the Transadriatic Pipeline (TAP) that passes through Albania. The war in Ukraine may provide a boost to diversification. The US is supportive of a liquefied natural gas (LNG) floating storage and regasification unit (FSRU) at Alexandroupolis, northeastern Greece, which is due to come online in late 2023 or soon after. Serbia could receive gas from there once it completes a 1.8 bcm per year interconnector with Bulgaria, a Project of Common Interest (PCI) backed by the EU. There are plans for linking up Bosnia and Croatia's grids, which will open up supplies through the Krk LNG

28 For example, the Socialist Party of Serbia's functionary Dušan Bajatović, discussed above.

terminal (currently upgraded from 2.9 bcm to 6.1 bcm a year). The EU is also supporting an interconnector pipeline between Greece and North Macedonia, which could be instrumental for the planned shift from coal to gas electricity generation. Last but not least, Albania, Montenegro, Croatia and Bosnia have long had plans for a so-called Ionian Adriatic Pipeline connecting TAP to the port of Split.

Investments in new infrastructure are banking on a scenario where gas demand in the region rises. This could occur as part of a transition away from coal. Under some scenarios, gas-fired electricity capacity in the Western Balkans could experience a nearly three-fold increase, from 779 MW to 2,442 MW. There are also gains to be made if households use gas for heating and cooking purposes, which would reduce reliance on polluting hard fuels and subsidised coal-generated electricity. However, such a scenario has its pitfalls as it would lock in dependence on fossil fuels and the highly volatile international gas markets. A wholesale re-orientation to gas could further delay the deployment of renewable energy and the Western Balkans' green transition, which is already progressing slowly.[29]

In the 2010s, China made inroads into the Western Balkans energy sector. Its soft-loans, the core of the so-called Belt and Road Initiative (BRI), have been channelled to modernise and expand coal-burning TPPs such as Kostolac (Serbia), Tuzla, Gacko and Stanari (Bosnia). Typically, Beijing-funded projects are implemented by Chinese contractors with little investment landing in the receiving state economy.[30] In September 2021, Xi Jinping pledged to the UN General Assembly that China would stop financing coal projects abroad.[31] However, in the Western Balkans, there is limited evidence of this change in policy. The BRI is nevertheless currently being scaled down, with China looking at more nimble and less financially demanding projects with the potential to generate higher returns. Going forward, such a shift implies that funding for coal might dry up while small-scale renewable installations, compatible with the EU-demanded changes in national energy strategies and legislation, could pick up. Compared to Russia, China can marshal far larger financial and technological resources while also adapting to shifting conditions in target countries.

Turkey's investment portfolio has been more diverse. Çalık-Limak owns Kosovo's electricity distribution company KEDS. Turkish firms have also invested in

29 Bankwatch, 'Western Balkans: EUR 3.5 billion gas build-out poses economic, energy security risks and threatens green transition', 2023, https://bankwatch.org/press_release/western-balkans-e3-5-billion-gas-build-out-poses-economic-energy-security-risks-and-threatens-green-transition.

30 The same is also true to some extent of Russia as Gazprom brings in its own contractors and at best involves local firms as subcontractors.

31 BBC News, 'China pledges to stop building new coal energy plants abroad', 2021, https://www.bbc.co.uk/news/world-asia-china-58647481.

renewable projects in both Kosovo and North Macedonia. The energy group Guris has led efforts to build a wind farm at Kitka, which has been partly financed by the EBRD. Fortim Energy is developing a solar plant next to the Oslomej coal mine in North Macedonia, in partnership with Bulgaria's Solarpro Holding. As Turkey is experiencing a boom in new renewable capacity, it is likely to channel more investment into the Western Balkans.

What is common to Russia, China and Turkey is that their investments tend to be highly political. Foreign investors are backed by their governments, who are in direct contact with their Western Balkan counterparts. Often, the connection is between political leaders who are the ultimate guarantors for external investors and act as a substitute for the rule of law. Such relationships are embedded in a system of rents, subsidies and other forms of side-payments for both political elites and the business entities in question. In this sense, foreign influence in the Western Balkans energy sector is both a function of and a contributing factor to the state/policy-capture that defines the political economy of the region.

Russia and China's policies and preferences are at odds with the EU-driven green transition. Russia is interested in preserving the status quo and preventing alternative gas suppliers from gaining a foothold in the region. This indirectly cements the leading role of coal in national energy systems in key countries such as Serbia and Bosnia. Due to its scarcity and relatively high cost, gas cannot serve as a transition fuel in the shift to a low-carbon economy. This means that Balkan countries will need to make a leap directly from coal to renewables rather than relying on gas as a bridge, as North Macedonia has attempted to do. China's negative impact is even easier to pin down because of the financial support it has extended to lignite-burning TPPs. Such funding blunts EU pressure on governments for phasing out coal in line with their commitments under the Energy Community Treaty. The appearance of potential Chinese investors from 2010 onwards delayed decisions on alternative pathways for developing the power sector. Investments did not materialise at a significant scale – and in fact China is now selecting BRI projects more judiciously compared to its initial engagement with the region. However, the countries of the Western Balkans have lost a decade in the meantime because politicians bet on Beijing resuscitating coal-burning plants.

VIII. Conclusion

The energy sector in the Western Balkans is largely a product of local conditions and path dependencies, from the legacy of socialist-era modernisation to the experience of post-communist transformation and state disintegration/state-making amid conflict in the 1990s. Domestic players such as political parties, individual leaders, business lobbies and key societal constituencies have played a central part in shaping the sector. And for the most part, they remain in favour of the status quo, which is centered on fossil fuels and lignite coal first and foremost, as well as large, state-backed companies providing rents to special interest groups and underwriting short-term social stability.

At the same time, the countries of the Western Balkans have been exposed to foreign influence, which has grown over the past decade and a half. There are several ways that foreign influence permeates the region's energy sector.

First, state-owned foreign companies or companies with state backing control critical assets in the natural gas, oil and electricity sub-sectors. Serbia, where Russian firms such as Gazpromneft, Gazprom and Lukoil play an important role, is the prime example but hardly an outlier. Even in western-leaning countries such as North Macedonia, Russia remains an important player in public utilities such as the combined-cycle gas power plant near Skopje. In the same vein, EU and US-based companies and governments have been at the forefront of the development of gas transit infrastructure such as the Trans-Adriatic Pipeline crossing Albania.[32]

Second, foreign financing (direct assistance, loans, FDI) is essential for developing both infrastructure and generation capacity. Both Russia and the EU have invested in gas transit with a view to pursuing their objectives: locking in regional markets or market liberalisation and promoting diversification of supplies. China – but also the US[33] – has been involved in coal: e.g. by providing soft loans and investment for the rehabilitation of old TPPs and building new capacity. The renewables sector is likewise attracting increasing interest, with EU and Turkish companies bringing investment to the Western Balkans and China providing key technology (e.g. solar panels and wind turbines).

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32 SNAM, controlled by the Italian state, holds 20% in TAP as does SOCAR, Azerbaijan's gas utility, and the publicly traded British multinational BP.

33 The cancelled project by ContourGlobal in Kosovo is an example of US coal projects. The company has invested in other parts of the region such as Bulgaria. The US remains the third largest country globally in terms of coal-based capacity after China and India.

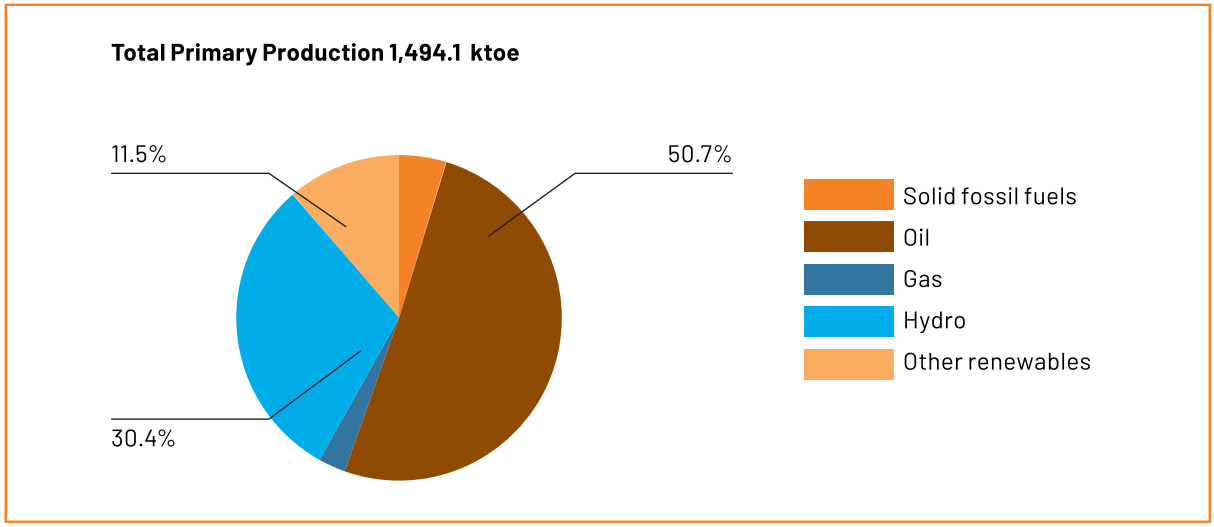
Taken together, foreign ownership and financial flows from abroad weigh heavily on policy and strategic planning. As China's interest in TPPs in Serbia, Bosnia and Montenegro shows, the prospect of soft loans to prop up local industries of interest to political elites has led to a delay on key decisions regarding the future trajectory of the sector.

Third, foreign actors help shape the regulatory environment. The EU has been pushing hard for candidate countries in the Western Balkans to align their legislation with the energy and climate acquis. In contrast, Russia has taken advantage of Serbia and Bosnia's lack of progress in aligning with EU rules to consolidate its dominant market position by adding control over transit infrastructure to its existing status as a monopoly supplier. In the same vein, China's investments in coal were made possible by the fact the Western Balkans are yet to implement carbon-pricing schemes mirroring the EU framework. This reduced the incentives for decision-makers to quickly achieve legislative alignment despite their professed goal of joining the EU.

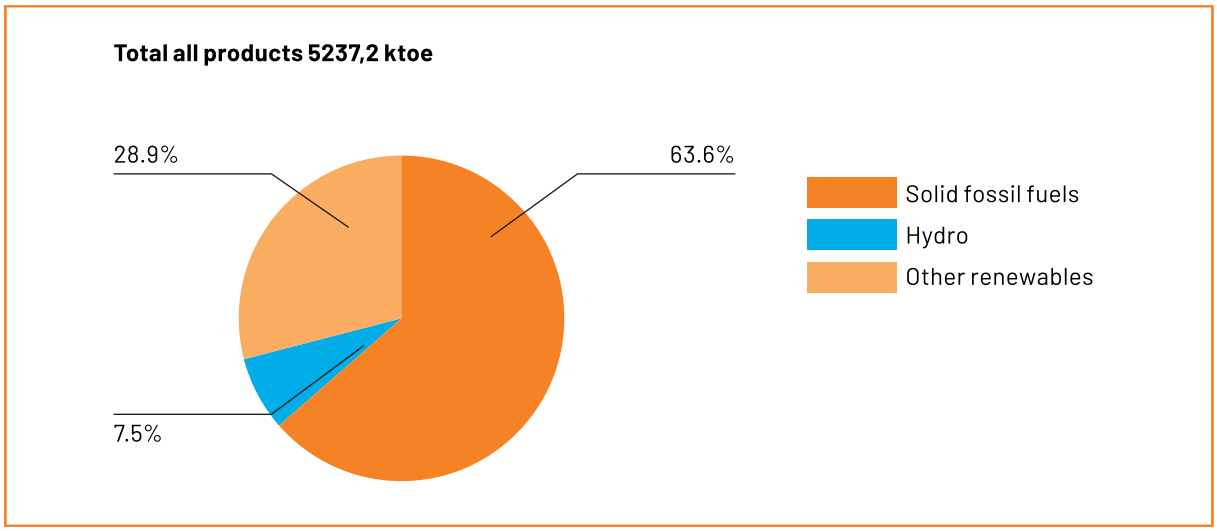
Finally, the focus of countries in the Western Balkans on fossil fuels creates dependence on imports. This is most visible with natural gas because of the peculiarities of the market and the reliance on physical interconnections and long-term contracts. But it also applies to crude oil and increasingly to coal as well, as local mines fail to meet peak demand. This is why a strategy prioritising renewable energy – a sector where the Western Balkans has an advantage due to its local resources – provides a better path forward in terms of both security of supply and environmental sustainability.

There is no doubt that the future of the Western Balkans lies in renewable energy. However, the combined effect of historical dependency on fossil fuels, weak institutions and foreign influence has made the region a laggard not only in Europe as a whole but also in comparison to other parts of Southeast Europe. To close the gap and accelerate the green transition, the EU should work more closely with local stakeholders such as government officials, business people, civil society and the expert community.

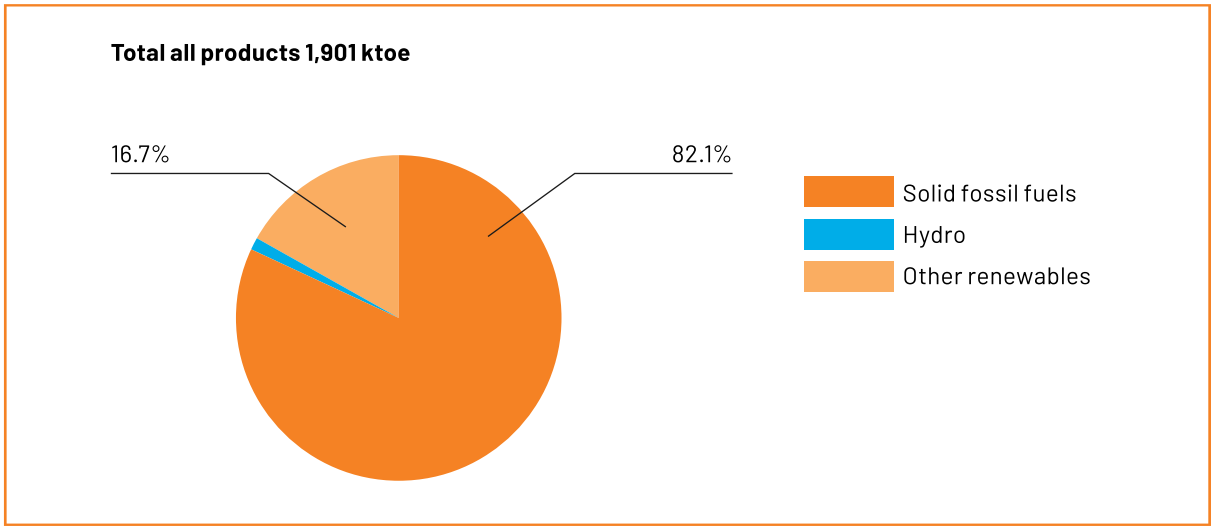
Primary fuel mix of Albania in 2020 [in ktoe]



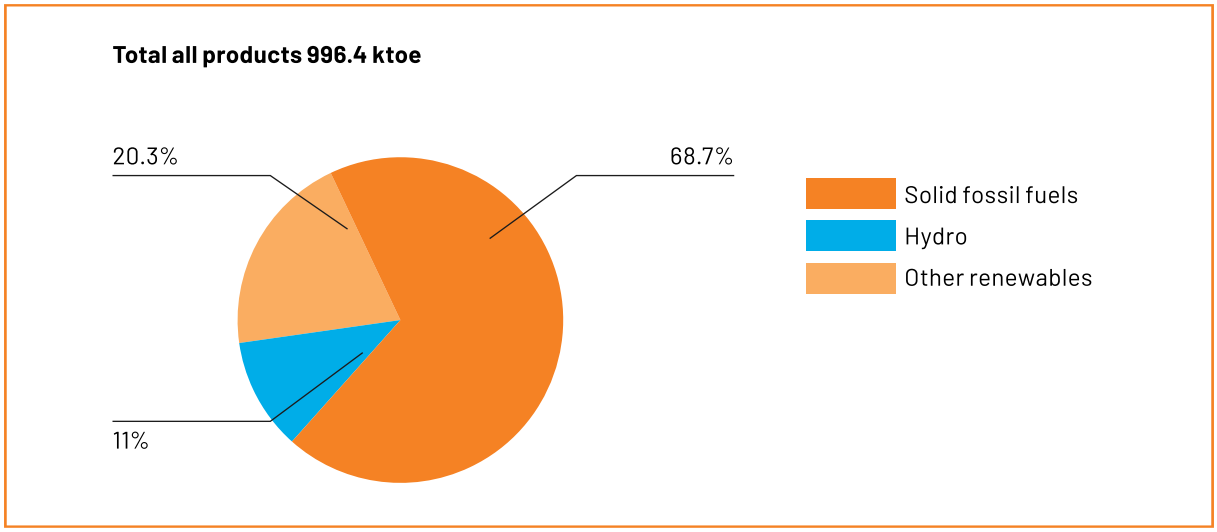
Primary fuel mix of Bosnia and Herzegovina in 2020 [in ktoe]



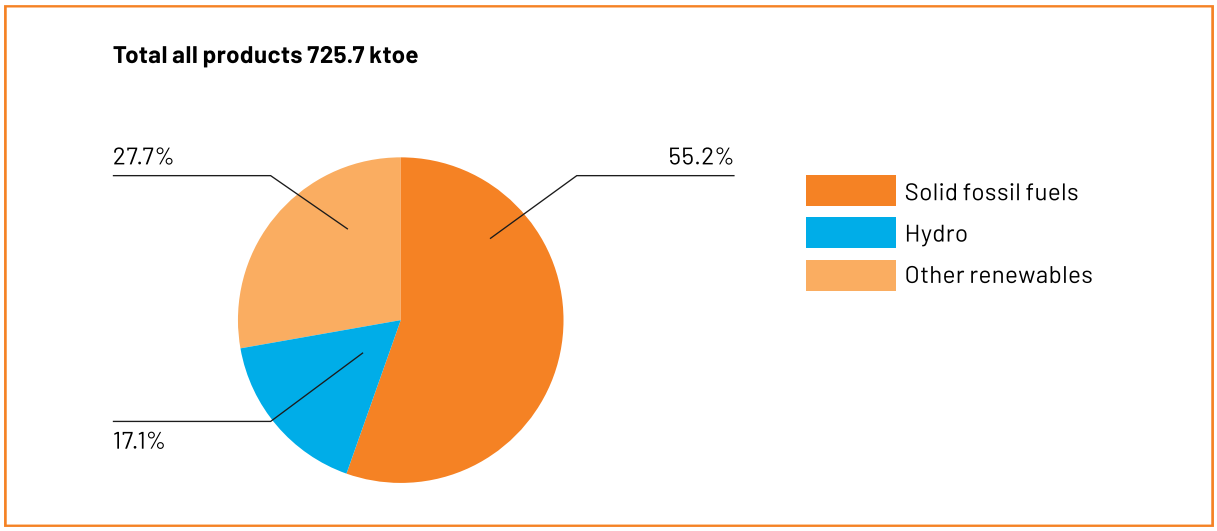
Primary fuel mix of Kosovo* in 2020 [in ktoe]



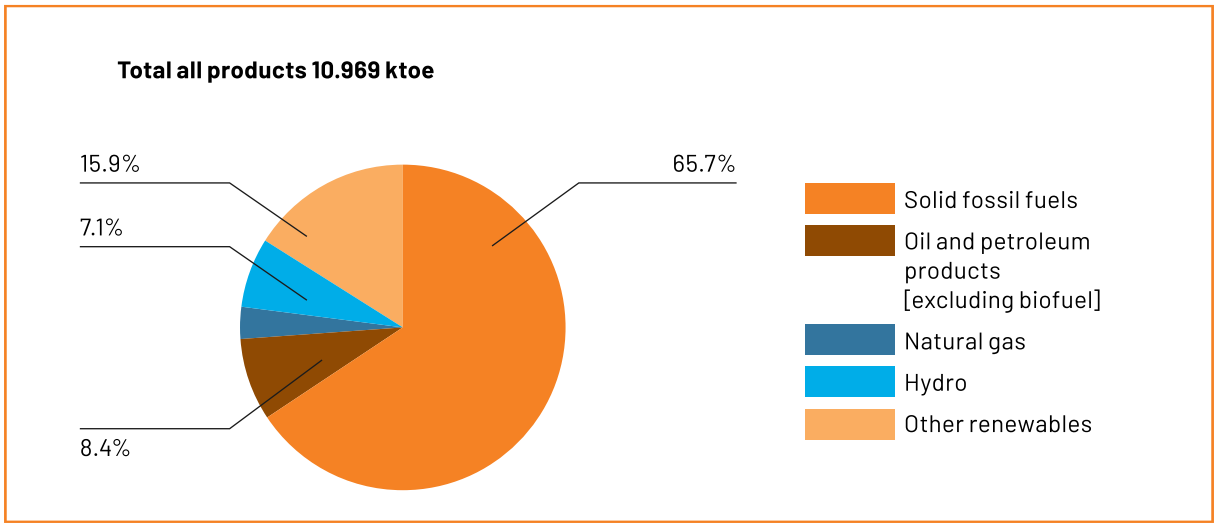
Primary fuel mix of North Macedonia in 2020 [in ktoe]



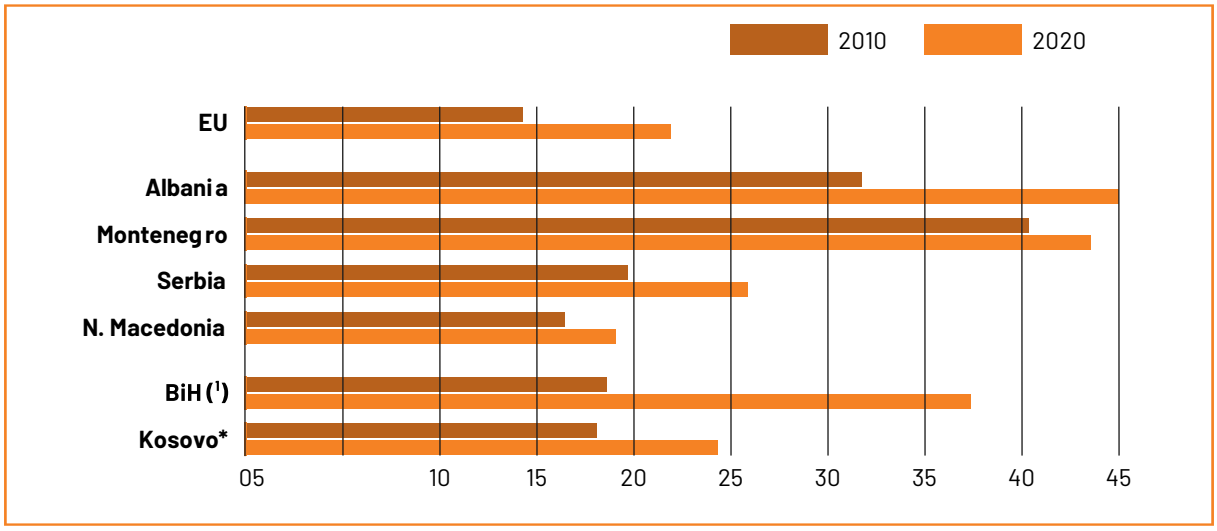
Primary fuel mix of North Montenegro in 2020 [in ktoe]



Primary fuel mix of Serbia in 2020 [in ktoe]



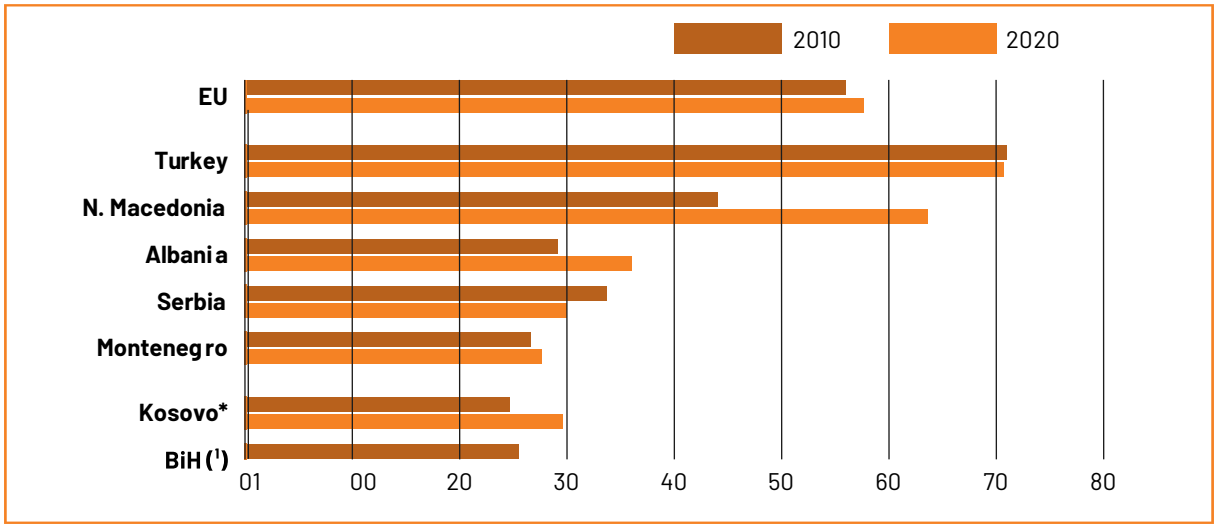
Share of energy from renewable sources, 2010 and 2020
[% of gross final energy consumption]



Source: Eurostat, European Commission

Country	2010	2020
EU	14.4	22.1
Albania	31.9	45.0
Montenegro	40.6	43.8
Serbia	19.8	26.0
North Macedonia	16.5	19.2
Bosnia and Herzegovina (1)	18.7	37.6
Kosovo*	18.2	24.4

Energy dependency, 2010 and 2020
[% of net imports in gross available energy, based on toe]



Source: Eurostat, European Commission

Country	2010	2020
Turkey	70.7	70.6
North Macedonia	44.0	63.3
Albania	28.9	35.9
Serbia	33.5	29.8
Montenegro	26.4	27.4
Kosovo*	24.6	29.5
Bosnia and Herzegovina ([1])		25.4

About us

The Balkans in Europe Policy Advisory Group (BiEPAG) is a joint initiative of the European Fund for the Balkans (EFB) and Centre for the Southeast European Studies of the University of Graz (CSEES) promoting the European integration of the Western Balkans and the consolidation of democratic, open countries in the region. BiEPAG is grounded in the values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights, including the rights of persons belonging to minorities. It adheres to values that are common to a society in which pluralism, non-discrimination, tolerance, justice, solidarity and equality between women and men prevail. It is composed of prominent policy researchers from the region and wider Europe with demonstrable comprehension of the Western Balkans and the processes shaping the region. Members are Florian Bieber (Coordinator), Bojan Baća, Matteo Bonomi, Dimitar Bechev, Srđan Cvijić, Marika Djolai, Milica Delević, Nikola Dimitrov, Vedran Džihić, Richard Grieveson, Donika Emini, Dejan Jović, Marko Kmezić (Assistant Coordinator), Srđan Majstorović, Jovana Marović, Zoran Nechev, Damir Kapidžić, Tena Prelec, Corina Stratulat, Nikolaos Tzifakis, Alida Vračić, Gjergji Vurmo, Natasha Wunsch.

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The European Fund for the Balkans is a joint initiative of the Erste Foundation, Robert Bosch Foundation and King Baudouin Foundation that envisions and facilitates initiatives strengthening democracy, fostering European integration and affirming the role of the Western Balkans in addressing Europe's challenges. Its strategy is focused on three overarching areas – fostering democratisation, enhancing regional cooperation and boosting EU Integration. The EFB supports the process of affirming the efficacy of EU enlargement policy across the Western Balkans, improving regional cooperation amongst civil society organisations based on solidarity and demand-driven dialogue. It provides means and platforms for informed and empowered citizens to take action demanding accountable institutions and democracy. The focus is on continuous reforms of the policies and practices of the Western Balkans countries on their way to EU accession.

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The Centre for Southeast European Studies was set up in November 2008 following the establishment of Southeast Europe as a strategic priority at the University of Graz in 2000. The Centre is an interdisciplinary and cross-faculty institution for research and education, with the goal to provide space for the rich teaching and research activities at the university on and with Southeast Europe and to promote interdisciplinary collaboration. The Centre also aims to provide information and documentation and to be a point of contact for media and public interested in Southeast Europe, in terms of political, legal, economic and cultural developments. An interdisciplinary team of lawyers, historians, and political scientists has contributed to research on Southeast Europe, through articles, monographs and other publications. The centre regularly organizes international conferences and workshops to promote cutting edge research on Southeast Europe. http://csees.

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