



# Clean energy transition in the Western Balkans

October 2022

The note is prepared to serve as background note for the 2022 Berlin Process Summit, for the Energy Ministers' meeting (24 October) and Leaders meeting (3 November). Drawing on predominantly findings of the OECD's regional assessments, namely the *Competitiveness Outlook 2021* and the *SME Policy Index 2022*, it first provides an overview of the state-of-play of the energy sector and related policies in the Western Balkans. It then outlines the key challenges affecting the sector's competitiveness and green transition. It finally concludes by summarising the key policy recommendations as a way forward.

## Key messages

- Western Balkans' energy mix is dominated by coal, with renewable energy generation other than hydro being rather modest.
- In the context of the ongoing energy crisis, the region's main vulnerability is related to price shocks in the regional wholesale electricity markets – as most economies rely on imports of a significant share of their total electricity consumption – and less so to imports on gas and oil from Russia.
- Power generation and heating are important causes of environmental degradation in the region, with WB6 capitals being the most polluted cities in Europe.
- Decarbonisation of the energy sector started, but has been slowed down by policy responses introduced to mitigate effects of the energy crisis.
- To accelerate clean energy transition and increase resilience against future shocks, governments should invest further in replacing/refurbishing ageing energy infrastructure, diversify energy supply and energy sources/routes, prioritise energy efficiency and foster regional integration and co-operation on energy.

## Energy supply context – energy mix and the impact of the ongoing energy crisis

### ***The energy supply in the Western Balkans is over-reliant on coal, with renewable energy being dominated by hydro generation***

All six Western Balkan economies (WB6) **rely on domestic coal** for a large share of their total energy supply ([Figure Error! No text of specified style in document..1](#)) except for Albania, which relies primarily on hydropower ([Error! Reference source not found.](#)). Coal accounted for over 60% of gross generated electricity in 2020 in the WB6 (from 29.2% for North Macedonia to 57.9% for Kosovo\* (Eurostat, 2022<sup>[1]</sup>).

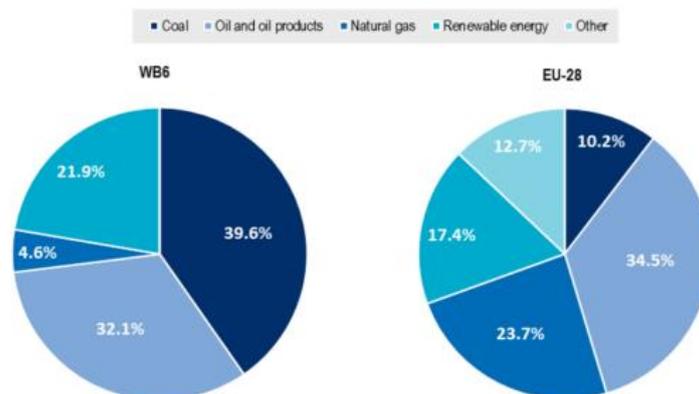
**Oil (and oil products) plays a significant role** in the energy mix of all WB6 economies, **due to its widespread use for transport**. It accounted for a share of the total energy supply ranging from 21.7% in Bosnia and Herzegovina to 49.5% in Albania.

**Natural gas in the WB6 accounts for a considerably smaller share** of the primary energy consumption mix than in the European Union (EU) ([Figure Error! No text of specified style in document..1](#)). This is due in large part to the fact that Kosovo and Montenegro do not have a natural gas market and Albania was only recently connected to an international natural gas pipeline via the Trans-Adriatic Pipeline (OECD, 2021<sup>[2]</sup>).

---

\*This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

**Figure Error! No text of specified style in document..1. The WB6 energy mix compared with the EU (2020)**



Note: Energy mix reflects primary consumption excluding geothermal and net imported or net exported electricity. Nuclear heat also accounts for 12.7% of the EU's energy mix. The major types of renewable energy sources: biomass (wood and wood waste, municipal solid waste, landfill gas and biogas, biofuels), hydropower, geothermal, wind, solar.

Source: (Eurostat, 2022<sup>[1]</sup>), EU energy mix and import dependency, [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU\\_energy\\_mix\\_and\\_import\\_dependency#Energy\\_mix\\_and\\_import\\_dependency](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_energy_mix_and_import_dependency#Energy_mix_and_import_dependency).

**Renewable energy** accounted for a relatively high share the WB6's energy mix in 2020, from 14% in North Macedonia to 33.1% in Albania (**Error! Reference source not found.**). Nevertheless, nearly all of it was derived from hydro generation, which has been an energy source in the WB6 for many years, despite the great potential for wind and solar generation. Renewable generation other than hydro remains in its infancy (OECD, 2021<sup>[2]</sup>).

**Table Error! No text of specified style in document..1. WB6 energy mix (2020)**

Economy	Coal	Oil and oil products	Natural gas	Renewable energy
Albania	6.8%	49.5%	1.7%	33.1%
Bosnia and Herzegovina	56.4%	21.7%	2.4%	24.4%
Kosovo	57.9%	28.0%	0%	15.1%
Montenegro	37.5%	32.5%	0%	29.4%
North Macedonia	29.2%	38.4%	10.7%	14.0%
Serbia	49.6%	22.5%	12.5%	15.7%
<b>WB6 average</b>	<b>39.6%</b>	<b>32.1%</b>	<b>4.6%</b>	<b>21.9%</b>
<b>EU average</b>	<b>10.2%</b>	<b>34.5%</b>	<b>23.7%</b>	<b>17.4%</b>

Source: (Eurostat, 2022<sup>[1]</sup>), EU energy mix and import dependency, [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU\\_energy\\_mix\\_and\\_import\\_dependency#Energy\\_mix\\_and\\_import\\_dependency](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_energy_mix_and_import_dependency#Energy_mix_and_import_dependency).

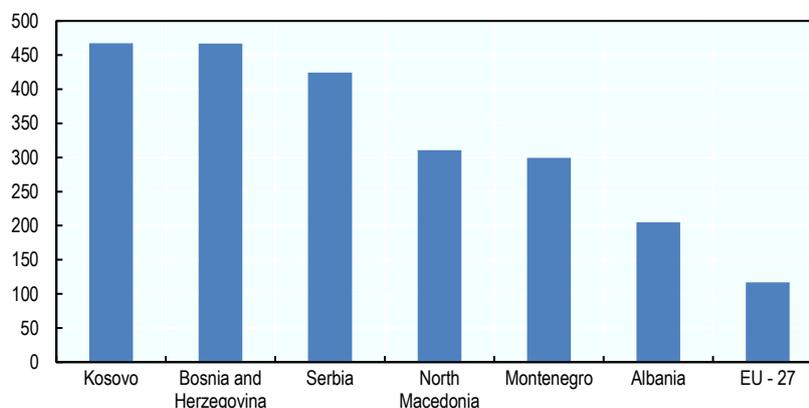
***Energy consumption of the WB6 has increased in the recent years, with energy intensity being higher than in the EU***

**Final energy consumption** in the WB6 represented on average 3096 thousand tonnes of oil equivalent (toe) in 2020. Contrary to recent trends in the EU (European Environment Agency, 2022<sup>[3]</sup>), energy consumption **slightly increased** in the past decade in the WB6 (average of 2985 thousand toe in 2011) (Eurostat, 2020<sup>[4]</sup>). Moreover, all WB6 economies had **higher energy intensity** of GDP than the EU in 2020 (**Figure Error! No text of specified style in document..2**), making their industries more vulnerable

to rising energy prices. High-energy intensity in the region is the consequence of the low-cost electricity supply based on lignite and hydro and the slow rollout of investments in energy efficiency.

## Figure Error! No text of specified style in document..2. Energy intensity (2020)

Gigajoule (GJ) per EUR 1000 purchasing power standard



Note: Energy Intensity is measured by the quantity of energy required per unit output or activity. It is the ratio between gross available energy and GDP in purchasing power standards.

Source: (Eurostat, 2020<sup>[41]</sup>), Energy statistics, [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy\\_statistics\\_-\\_an\\_overview](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_statistics_-_an_overview).

### ***In light of the ongoing energy crisis, WB6 show different degrees of vulnerability to energy price shocks***

**Global energy prices have increased to unprecedentedly high levels** in Europe in the second half of 2021 and throughout 2022<sup>3</sup>, caused by a combination of short and long term factors that have led to demand and supply shifts. Such factors include the surging global demand for natural gas in the post-pandemic economic recovery, inadequate gas reserves or the rising price of the EU's emission trading scheme allowances (World Bank, 2022<sup>[51]</sup>). More recently, **Russia's ongoing large-scale aggression in Ukraine** and the international sanctions imposed on Russia, a major producer and exporter of both oil and natural gas, have disrupted global energy markets and impacted retail energy prices. Western Balkan economies have different degrees of vulnerability to energy price shocks, yet with limited impact on overall energy supply.

*At the aggregate level, the WB6 have limited vulnerability to imports on gas and oil from Russia*

While **Russia is the sole source of gas in the WB6**, the role played by natural gas in their energy mixes is relatively small (**Error! Reference source not found.**). WB6 are thus unlikely to face severe disruptions in energy supplies in case of limited or no gas imports from Russia. This is less true for **Serbia and North Macedonia**, whose reliance on Russian gas imports has grown during the past decade, and accounted for around 12.5% and 10.7% respectively of their total energy mix in 2020.

All WB6 economies are vulnerable to fluctuations in the price of crude oil and oil products, due to their widespread use for transport and the low quantities produced in the region (only in Albania and Serbia). Nevertheless, over the period from 2018 to 2020, **Russia's share in total imports of oil and oil products represented only 3%** in the region.

<sup>3</sup> In August 2022, energy inflation rate hit 38.3% in the Euro area (Eurostat, 2022<sup>[22]</sup>).

*However, most WB6 economies are highly vulnerable to increases in the price of energy imports*

Most WB6 economies rely on imports of a significant share of their total electricity consumption, in particular **Albania and North Macedonia** (32% and 24% in 2019, respectively), which makes them particularly vulnerable to price shocks in the regional wholesale electricity markets (World Bank, 2022<sup>[5]</sup>). **Kosovo** is forced to import significant amounts of electricity in winter months due to the widespread use of inefficient electric heating. Moreover, adverse meteorological conditions and accidents at several thermal power plants in **Serbia** has forced the economy to import large amounts of electricity in late 2021 and early 2022 (World Bank, 2022<sup>[5]</sup>). Recent data suggest that **Montenegro's** domestic supply and demand nearly matched in 2021 (Energy Community, 2021<sup>[6]</sup>). On the contrary, **Bosnia and Herzegovina** is a net exporter of 27% of its electricity production (mainly from coal generators) (World Bank, 2022<sup>[5]</sup>). Electricity producers in the economy are making profits from electricity exports, in part due to the absence of carbon pricing.

Moreover, **industrial customers in the WB6 are vulnerable to higher energy prices, especially in** those economies that have attracted high-energy industries such as aluminium, steel, or fertilizer production (**25.6% in Bosnia and Herzegovina and 24.2% Serbia**) see a higher share of their economy affected severely by increases of energy prices (Aspen Institute, 2021<sup>[7]</sup>).

## Energy policy overview – progress made and remaining challenges

### ***Progress was made in introducing energy frameworks that reflect international good practices on energy and climate***

**The WB6 have comprehensive legislative and policy frameworks governing the energy sector.** These frameworks are being updated to reflect new developments and goals as the economies are working on their National Energy and Climate Plans. All WB6 governments have **pledged to adhere to the European Green Deal** (Box Error! No text of specified style in document..1) and decarbonise by 2050 (Regional Cooperation Council, 2020<sup>[8]</sup>).

The WB6 have advanced the transposition **of the EU's Third Energy Package**. The Energy Community estimates that WB6 transposition of the EU's Third Energy Package rose from 48% in 2018 to 55% in 2020, thus aligning the energy sector with EU *acquis* and international good practices (OECD, 2021<sup>[2]</sup>).

The WB6 are nearing full implementation of international **good practice on unbundling**<sup>4</sup>. This is also true for allowing non-discriminatory third-party access to natural monopoly-owned infrastructures.

There has been significant progress in **deploying EU-style organised markets in energy**, most markets having been partially liberalised, and prices increasingly deregulated. Most recently, Montenegro, Albania, and Kosovo have established power exchanges.

**Energy efficiency is slowly being improved, although efforts remain modest.** While often limited to public buildings, energy efficiency policies targeting the private sector have recently gained momentum in strategic documents and financing programmes (notably through environmental and energy funds) in most WB6 economies (OECD, 2022<sup>[9]</sup>). Nevertheless, the shortage of technical staff and limited funding in responsible institutions, the lack of certification of buildings as well as the lack of trained and certified auditors are hampering these efforts (OECD, 2021<sup>[2]</sup>).

---

<sup>4</sup> Unbundling is the separation of energy supply and generation from the operation of transmission networks. This separation is necessary in order to avoid vertical integration and minimise monopolistic behaviour.

## Box Error! No text of specified style in document..1. Green Agenda for the Western Balkans (2020)

In the Sofia Declaration on the Green Agenda for the Western Balkans, agreed upon in November 2020, all six economies of the Western Balkans committed themselves to ambitious environmental and climate goals, structured along five pillars: **(1) climate, energy, and mobility; (2) circular economy; (3) depollution; (4) sustainable agriculture and food production; and (5) biodiversity.**

In line with the Paris Agreement, the WB6 have agreed to achieve climate neutrality by 2050, cutting greenhouse gas emissions 55% by 2030. In this regard, WB6 governments have committed to **pursuing a clean energy transition.** Several initiatives are envisaged by the EU to achieve this transition:

- Alignment with the *acquis* related to decarbonisation of the energy sector in the framework of the Energy Community
- Development of National Energy and Climate Plans
- Development of private and public building renovation schemes and securing appropriate financing, by extending the “EU renovation wave” to the Western Balkans
- Implement programmes addressing energy poverty in the region
- Associate the WB6 with the Coal Regions in Transition EU initiative
- Carry out an assessment of the socio-economic impact of decarbonisation in the region

The European Commission’s adoption of a series of legislative proposals in July 2021 to implement the Green Deal have further contributed to a sense of urgency in this regard. In particular, a **Carbon Border Adjustment Mechanism (CBAM)** proposes a carbon charge on imports of selected products at the EU border that could be enacted as soon as 2026.

Source: (European Commission, 2020<sup>[10]</sup>), Green Agenda for the Western Balkans, [https://neighbourhood-enlargement.ec.europa.eu/system/files/2020-10/green\\_agenda\\_for\\_the\\_western\\_balkans\\_en.pdf](https://neighbourhood-enlargement.ec.europa.eu/system/files/2020-10/green_agenda_for_the_western_balkans_en.pdf); (European Commission, 2021<sup>[11]</sup>), Delivering the European Green Deal, [https://climate.ec.europa.eu/eu-action/european-green-deal/delivering-european-green-deal\\_en](https://climate.ec.europa.eu/eu-action/european-green-deal/delivering-european-green-deal_en).

### ***Remaining challenges, including low resilience to risks will add pressure to the WB6 in the context of the current energy crisis***

*Energy poverty remains an overarching concern*

**Residential consumers in WB6 economies have a limited ability to absorb higher energy prices,** in particular among low-income households. In 2019, North Macedonia had the highest share of households in Europe reporting that they could not keep their home adequately warm (33.1%) (World Bank, 2022<sup>[5]</sup>).

In addition, when facing higher energy prices, low-income households in WB6 economies often switch to cheaper energy sources for heating, such as firewood or waste, thereby **exacerbating negative local air pollution and health impacts.**

**Publicly-funded schemes for replacing obsolete heating devices remain scarce,** while subsidies that go up to 50% of the total cost of replacement fail to identify vulnerable groups as priority targets (RES, 2021<sup>[12]</sup>).

*Fossil fuel subsidies and energy price support measures hamper energy diversification and investments in energy efficiency*

**Coal-fuelled power generation is still being subsidised,** with an estimated EUR 72.71 million in combined direct subsidies being allocated to coal and lignite electricity producers in all WB6 economies

(with the exception of Albania) in 2019 (Miljević, 2020<sub>[13]</sub>). This further encourages coal-fuelled power generation and distorts the energy market.

Low energy prices, enabled by low-cost domestic electricity supply, have created **long-term disincentives that hamper short-term energy conservation measures, operational improvements, and investments in energy efficiency.**

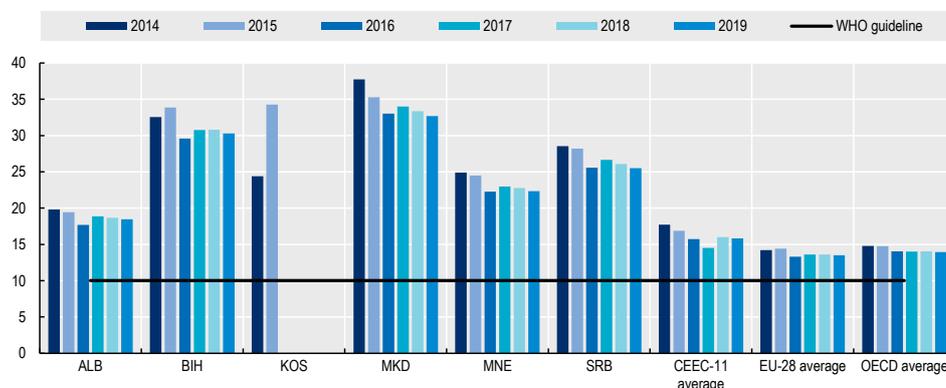
**Hence, the transition to renewables has been progressing very slowly.** Most of the renewable energy produced in the region comes from hydropower, despite the great untapped potential for renewable energy in all the economies, especially solar and wind, estimated at over 76 000 TJ for solar and 397 000 TJ for onshore wind (IRENA, 2019<sub>[14]</sub>).

*Power generation is an important cause of environmental degradation in the region*

The heavy reliance on poor quality lignite<sup>5</sup>, emitting substantially more per unit of heat generated than hard coal as well as the use of outdated thermal power plants represent **significant environmental (air pollution) and climate (carbon emissions) concerns** in the region.

Air quality is still a predominant concern, with pollution levels ranking among the highest in Europe, with PM<sub>2.5</sub> levels two to three times (WB6 average of 25.77 µg/m<sup>3</sup>) higher than the WHO recommended highest levels of 10 µg/m<sup>3</sup> (Figure Error! No text of specified style in document..3) (OECD, 2019<sub>[15]</sub>). In 2016, 16 coal-fired thermal power plants in the WB6 emitted more sulphur dioxide than all of the 250 plants in the EU combined (Balkan Green Foundation, 2016<sub>[16]</sub>). New policy developments in light of the current energy crisis might exacerbate the situation and decelerate clean energy transition (see next section).

**Figure Error! No text of specified style in document..3. Annual mean population exposure to PM<sub>2.5</sub> air pollution (2014-19)**



Note: PM<sub>2.5</sub> – fine particulate matter. Data for Kosovo only available until 2015.

Source: (OECD, 2020<sub>[17]</sub>), *OECD Environment Statistics* (database), [https://stats.oecd.org/Index.aspx?DataSetCode=EXP\\_PM2\\_5](https://stats.oecd.org/Index.aspx?DataSetCode=EXP_PM2_5).

### **Further policy responses have been rolled out to mitigate the impact of the energy crisis**

*The crisis has prompted governments to take emergency actions to ensure the security and affordability of energy supply*

Measures have been taken to **provide liquidity and guarantees to transmission/distribution system operators** (TSO/DSO). This has been the case in Albania (through a EUR 100 million fund to its DSO), North Macedonia (through the injection of EUR 65 million into its TSO), in Kosovo (through a EUR 20 million direct subsidy to its state-owned generation company and by returning the dividends

<sup>5</sup> Lignite has the lowest carbon content out of all the coal ranks (25%-35%) and has a high moisture content, making it the lowest rank of coals.

announced by its TSO), and in Serbia (through cash subsidies and extended lending to its natural gas operator).

Policies were rolled out to **mitigate the impact of energy price increases for most vulnerable households** in North Macedonia (the VAT rate on electricity was reduced from 18 to 5% and financial support for energy expenditures offered to vulnerable households was expanded) and in Montenegro (the coverage and subsidy amounts of the bill discount programme were increased).

Measures were taken to **support companies**, such as in North Macedonia (through liquidity loans and loans for energy efficiency by the Macedonian Development Bank) and Serbia (which recommended the state-owned power utility to cap the energy price for companies).

A set of measures were also adopted to **reduce the energy demand**. Kosovo has launched an **awareness-raising campaign** to promote energy savings, reintroduced **block tariffs** to discourage the use of electricity for heating, and imposed **ban on cryptocurrency mining**. In addition, in December 2021, Kosovo was forced to briefly resort to **power rationing**: power outages of two hours' duration were introduced every day (World Bank, 2022<sup>[5]</sup>).

**Regional efforts to mitigate the crisis have been stepped up.** As members of the Open Balkan initiative<sup>6</sup>, Albania, North Macedonia and Serbia have established a working group on the energy crisis, with joint strategic projects (including the establishment of gas interconnections between economies) being planned (EIU, 2022<sup>[18]</sup>).

*Nevertheless, some policy responses might slow down the clean energy transition*

As in the rest of Europe, **some of the previous policy decisions related to the green energy transition have been reversed in the WB6** to mitigate the effects of the crisis.

Some economies are either considering **postponing their coal phase-outs** (North Macedonia – from 2027 to 2030) or have **postponed their objectives of setting clear timelines** for abandoning coal (Bosnia and Herzegovina and Serbia) (World Bank, 2022<sup>[5]</sup>).

Governments have **continued or started again to feed dated power plants**. North Macedonia recently launched negotiations to buy 3 million tons of lignite from Kosovo to feed its coal power plants and restarted the Negotino fuel oil-fired power plant, which has not been used for twelve years (World Bank, 2022<sup>[5]</sup>).

Moreover, the energy crisis could make WB6 governments **reluctant to introduce carbon pricing** as a means to account for the environmental cost of fossil fuels (in continuation of the reluctance to introduce incentives to improve energy efficiency incentives due to low domestic energy prices).

## The way forward

Based on the challenges outlined in the previous sections, this part provides selected key policy recommendations with a view to enhancing the Western Balkans' energy supply security and supporting the region's clean energy transition. All recommendations derive from the *OECD's Competitiveness Outlook 2021 for the Western Balkans* report.

---

<sup>6</sup> Open Balkan Initiative is an economic and political zone formed by Albania, North Macedonia and Serbia with an aim to encourage more intra-regional co-operation and integration in the Western Balkans.

***WB6 are recommended to undertake several reforms to accelerate the clean energy transition and increase their resilience against future crisis***

WB6 government need to **improve energy stability and security, primarily by phasing-out coal** from their energy mix. This will be particularly important, as energy-intensive economic sectors will be increasingly uncompetitive with the EU's Carbon Border Adjustment Mechanism in place:

- **Invest further in ageing energy infrastructure**, in particular to reduce the WB6 electricity distribution losses. The current infrastructure in the region is on average 35 years old and would need to be thoroughly refurbished or replaced by 2040 (Aspen Institute, 2021<sup>[7]</sup>).
- **Eliminate the subsidisation of fossil fuels and introduce some form of carbon gas pricing** (Emissions Trading Schemes (ETS), fossil fuel support (FFS), carbon, fuel excise and aviation taxes). This is particularly important given the rise of climate pressures on energy markets and the associated subsidisation of renewable energy.
- **Scale up investments in renewable energy beyond hydropower, in particular in solar and wind.** This could be done by implementing, in line with international standards, competitive assignment of renewable projects (such as auctions) and by adjusting support schemes from feed-in tariffs to feed-in premiums or contract-for differences. These changes should build investors' confidence as the new approaches imply increased sustainability in the market due to their competitive nature and alignment with market realities.
- **Increase investments in energy efficiency** to reduce domestic energy demand.
  - **Increase public acceptance through public information campaigns** on the need for and benefits of energy conservation. Targeted advisory services could be provided by a relevant public agency or through business associations for a more direct outreach to the private sector.
  - **Increase the availability and coverage of energy efficiency funding**—including for private endeavours—to accelerate energy efficiency measures across society. The widening of the financial support base can take different forms, from cheaper loans tied to energy efficiency requirements to direct financial support, or through favourable tax policies and exemptions on import charges for investments in green equipment.
- **Foster regional integration and cooperation** to ease price fluctuations, by improving cross-border interconnections; better regional market coupling; reducing regional barriers, including recognising licences from other economies; and accommodating regional market coupling by promoting cross-border trading activities. Integrated regional energy market would facilitate Western Balkans' integration into the European Union's internal energy market.
- **Protect the most vulnerable**, as this will be necessary in a just and sustainable energy transition. Government need to ensure that assistance programs are in place to support vulnerable consumers at risk of energy poverty.

# References

- Aspen Institute (2021), “Decarbonizing the Western Balkans: Economic Challenges and Opportunities”, *Implementing the Green Agenda for the Western Balkans*, [https://www.aspeninstitute.de/wp-content/uploads/2021\\_Aspen-Germany\\_Implementing-the-Green-Agenda-for-the-WB.pdf](https://www.aspeninstitute.de/wp-content/uploads/2021_Aspen-Germany_Implementing-the-Green-Agenda-for-the-WB.pdf) (accessed on 11 October 2022). [7]
- Balkan Green Foundation (2016), *Balkans United for Clean Air*, <https://www.balkangreenfoundation.org/uploads/files/2021/January/20/English1611131274.pdf>. [16]
- EIU (2022), *Western Balkan economies face energy supply and price shocks*, <https://viewpoint.eiu.com/analysis/article/1452367128/>. [18]
- Energy Community (2021), *Impact of the Electricity Price Surge in Energy Community Contracting Parties and Measures Undertaken*, [https://www.energy-community.org/dam/jcr:1388d596-0ce8-432f-a615-aa3d67d6238e/ECRB\\_EWG\\_EL\\_pricesurge](https://www.energy-community.org/dam/jcr:1388d596-0ce8-432f-a615-aa3d67d6238e/ECRB_EWG_EL_pricesurge) (accessed on 10 October 2022). [6]
- European Commission (2021), *Delivering the European Green Deal*. [11]
- European Commission (2020), *Guidelines for the Implementation of the Green Agenda for the Western Balkans*, [https://neighbourhood-enlargement.ec.europa.eu/system/files/2020-10/green\\_agenda\\_for\\_the\\_western\\_balkans\\_en.pdf](https://neighbourhood-enlargement.ec.europa.eu/system/files/2020-10/green_agenda_for_the_western_balkans_en.pdf). [10]
- European Environment Agency (2022), *Primary and final energy consumption in Europe*, <https://www.eea.europa.eu/ims/primary-and-final-energy-consumption>. [3]
- Eurostat (2022), *EU energy mix and import dependency*, [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU\\_energy\\_mix\\_and\\_import\\_dependency#Energy\\_mix\\_and\\_import\\_dependency](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_energy_mix_and_import_dependency#Energy_mix_and_import_dependency). [1]
- Eurostat (2022), *euroindicators*, [https://ec.europa.eu/eurostat/documents/2995521/14675409/2-31082022-AP-EN.pdf/e4217618-3f8e-4f54-2a3a-21c72be44c53#:~:text=Looking%20at%20the%20main%20components,and%20services%20\(3.8%25%2C%20compared](https://ec.europa.eu/eurostat/documents/2995521/14675409/2-31082022-AP-EN.pdf/e4217618-3f8e-4f54-2a3a-21c72be44c53#:~:text=Looking%20at%20the%20main%20components,and%20services%20(3.8%25%2C%20compared). [22]
- Eurostat (2021), *Complete energy balance*, <https://ec.europa.eu/eurostat/web/energy/data/database> (accessed on 3 March 2021). [20]
- Eurostat (2021), *Complete energy balance*. [21]
- Eurostat (2020), *Energy statistics*, [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy\\_statistics\\_-\\_an\\_overview](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_statistics_-_an_overview) (accessed on [4]

10 October 2022).

- IEA (2022), *Oil Market and Russian Supply – Russian supplies to global energy markets – Analysis - IEA*, <https://www.iea.org/reports/russian-supplies-to-global-energy-markets/oil-market-and-russian-supply-2> (accessed on 1 June 2022). [19]
- IRENA (2019), *Renewable Energy Market Analysis: Southeast Europe*, International Renewable Energy Agency, Abu Dhabi, <https://www.irena.org/publications/2019/Dec/RE-Market-Analysis-Southeast-Europe>. [14]
- Miljević, D. (2020), *Investments into the past – An analysis of Direct subsidies to coal and lignite electricity production in the Energy Community Contracting Parties 2018-2019*, [https://www.energy-community.org/dam/jcr:482f1098-0853-422b-be93-2ba7cf222453/Miljevi%C4%87\\_Coal\\_Report\\_122020.pdf](https://www.energy-community.org/dam/jcr:482f1098-0853-422b-be93-2ba7cf222453/Miljevi%C4%87_Coal_Report_122020.pdf). [13]
- OECD (2022), *SME Policy Index: Western Balkans and Turkey 2022: Assessing the Implementation of the Small Business Act for*, OECD Publishing, Paris, <https://doi.org/10.1787/b47d15f0-en>. [9]
- OECD (2021), *Competitiveness in South East Europe 2021: A Policy Outlook*, Competitiveness and Private Sector Development, OECD Publishing, Paris, <https://dx.doi.org/10.1787/dcbc2ea9-en>. [2]
- OECD (2020), *Exposure to air pollution, OECD Environment Statistics (database)*, [https://stats.oecd.org/Index.aspx?DataSetCode=EXP\\_PM2\\_5](https://stats.oecd.org/Index.aspx?DataSetCode=EXP_PM2_5). [17]
- OECD (2019), *OECD Environment Statistics*, [https://stats.oecd.org/Index.aspx?DataSetCode=EXP\\_PM2\\_5](https://stats.oecd.org/Index.aspx?DataSetCode=EXP_PM2_5). [15]
- Regional Cooperation Council (2020), *Sofia Declaration on the Green Agenda for the Western Balkans*, <https://www.rcc.int/docs/546/sofia-declaration-on-the-green-agenda-for-the-western-balkans-rn> (accessed on 10 October 2022). [8]
- RES (2021), *Energy poverty in the Western Balkans*, <https://www.resfoundation.org/energy-poverty-in-the-western-balkans-100-for-the-invisible-millions/>. [12]
- World Bank (2022), *Western Balkans Regular Economic Report No.21: Steering Through Crises*, World Bank Group. [5]

