WB6 Energy transition tracker -
matching the political pledges to policies and measures

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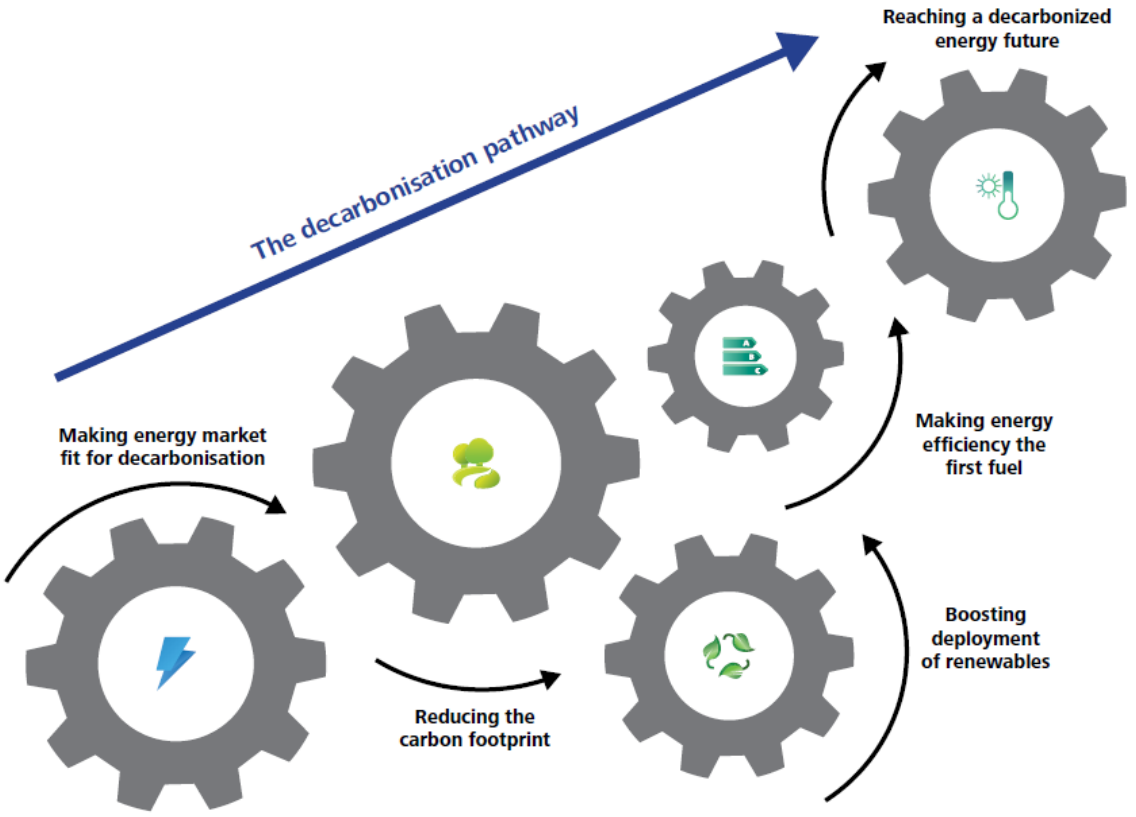
Energy Transition – matching the political pledges to policies and measures

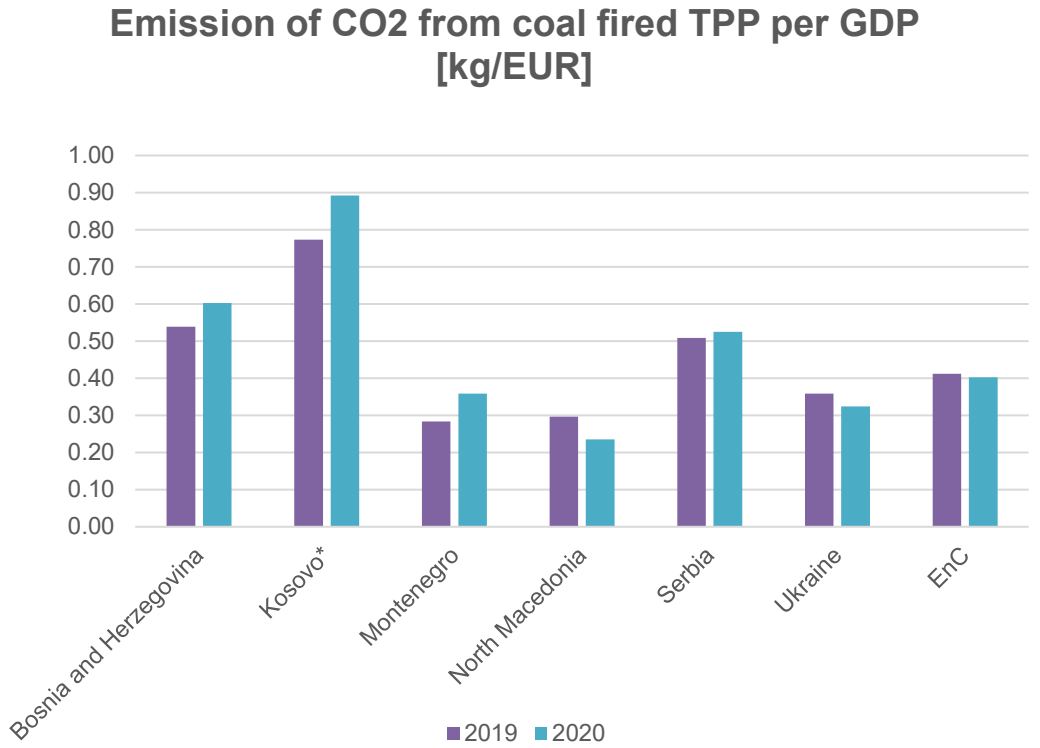
Energy transition drivers

- ✓ **Political commitments**
  - Paris Agreement
  - Sofia Declaration
- ✓ **Legal obligations**
  - Energy Community Treaty
  - Association Agreements
- ✓ **Plans, policies and measures**
- ✓ **Monitoring and Reporting**



Carbon footprint in the Energy Community

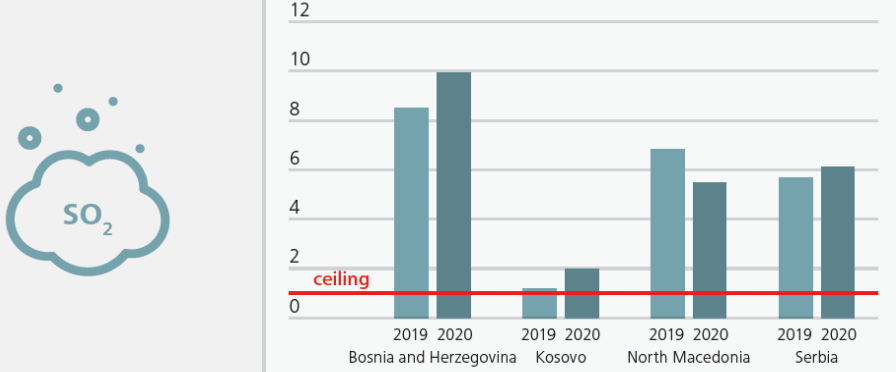
- More than 3 times higher carbon intensity of electricity production than in EU-27
- 10 times more CO_2 emissions to create the same amount of gross domestic product than EU-27

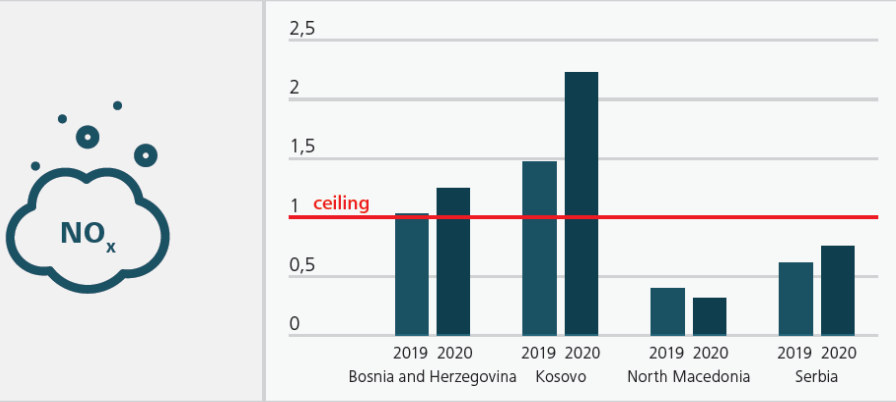


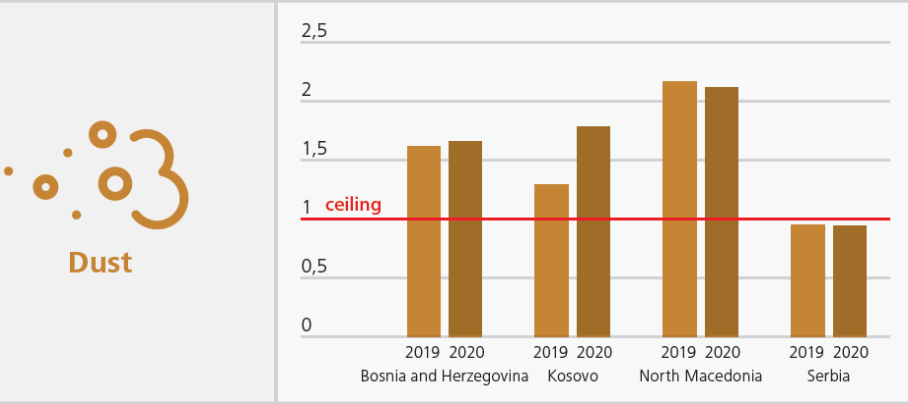
Source: EUROSTAT, UKRSTAT, ECS database, compiled by ECS

Large Combustion Plants Directive 2019 implementation

- Regulates the levels of sulphur dioxide (SO2), nitrogen oxides (NOx) and dust emissions from existing power plants
- Four WB6 parties (Bosnia and Herzegovina, Kosovo, North Macedonia and Serbia) opted to use an implementation alternative to comply with the LCPD by adopting a National Emission Reduction Plan (NERP)
- SO2 ceiling is exceeded by all four WB6 CPs
- NOx ceiling is not met by Bosnia and Herzegovina and Kosovo
- Dust emissions are higher than the ceiling in Bosnia and Herzegovina, Kosovo and North Macedonia, while Serbia narrowly met the limit.
- Negative trend in 2020 in comparison to 2019, due to the increased production of fossil-fuel plants in 2020 (4%)
- To address these breaches, ECS started infringement procedures against the 4 CPs in March 2021



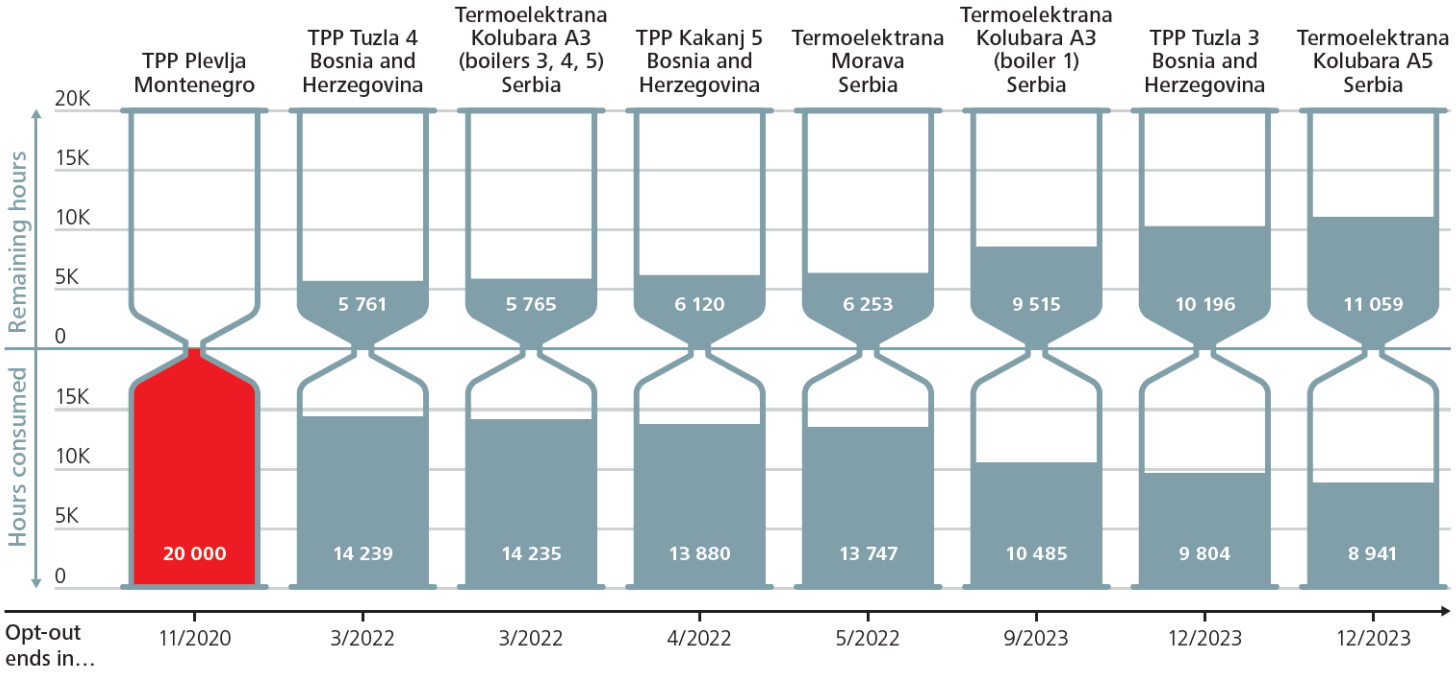




Large Combustion Plants Directive implementation – opt-out

- Opt-out period has started in 2018 for eight plants in WB6 (around 1000 MW of thermal capacities)
- These plants are not allowed to be operated for more than 20 000 operational hours between 1 January 2018 and 31 December 2023
- Secretariat launched dispute settlement procedure against Montenegro in April 2021 as TPP Pljevlja exhausted its 'opt-out' timeframe
- End of opt-out timeframe for remaining plants is not expected before 2022

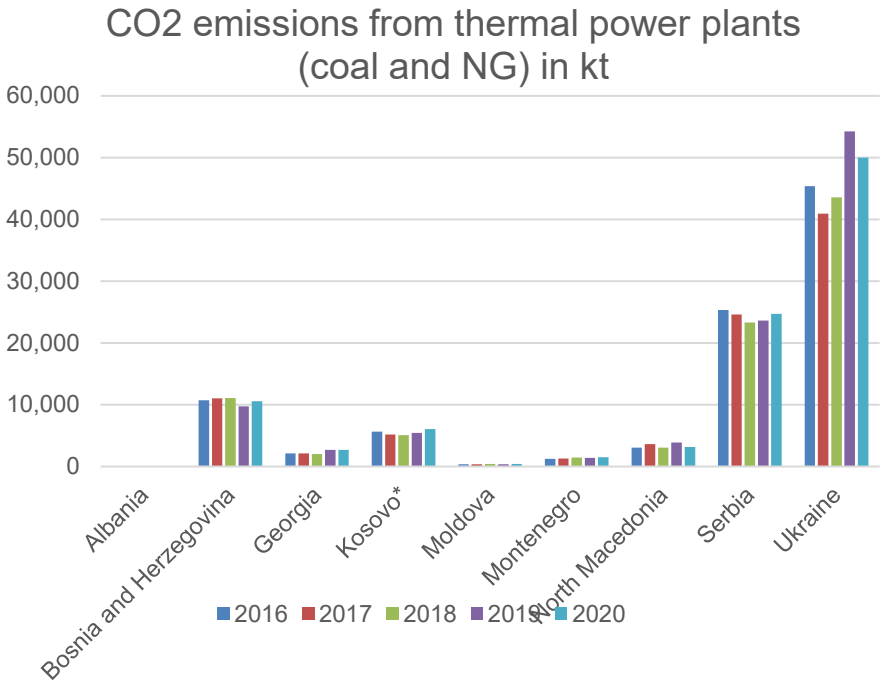
Expected closure of opted out plants

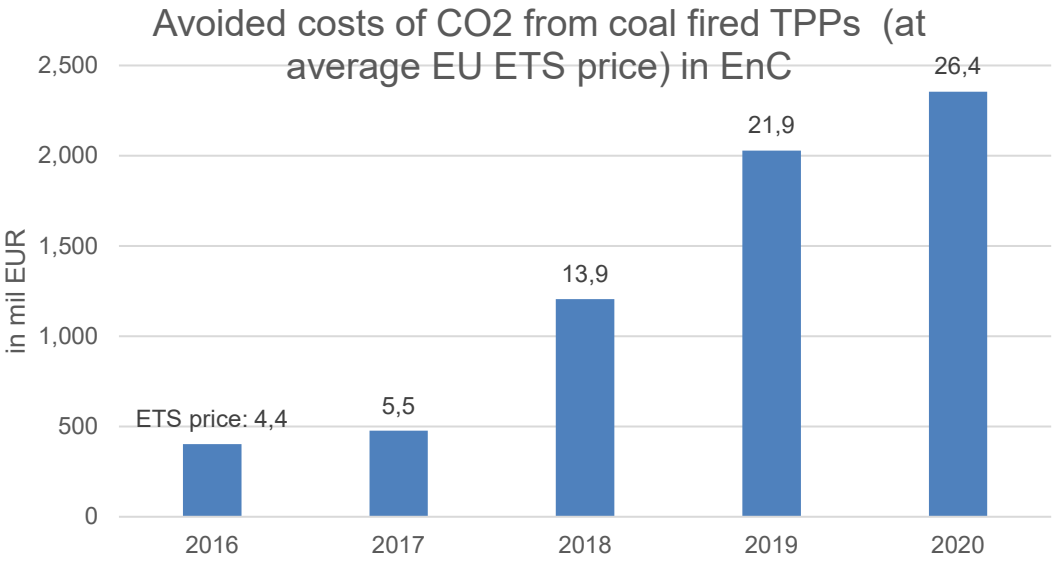


Source: compiled and calculated by the Energy Community Secretariat.

Avoided costs of CO2 emissions 2016-2020

Avoided costs of CO2 emitted from coal-fired thermal power plants in the EnC, measured at the average EU ETS price, exceeded EUR 1 billion in 2020 alone and more than EUR 3 billion in the last 5 years





Continue alignment with the EU ETS

Indicative timeline and steps for joining EU ETS

Stage 1 & 2

- EnC acquis updated
- MRV system is in place
- Allocation of allowances defined according to EU ETS practice
- Consider adjusting excise taxes on fuels

2021-2025

2025
AL: 100%
MK, ME: 30%
BA, RS: 25%
XK: 15%

Stage 3

- Most fundamental preconditions are met
- Bilateral cross-border trade of allowances is possible within the WB6 and with the EU

2025-2030

2030
AL: 100%
MK, ME: 60%
BA, RS: 30%
XK: 35%

Stage 4

- Cross-border trading and with EU MS
- Transfers of auction payment revenues to the WB6 to be defined
- All preconditions apply

2030-2035

2035
AL: 100%
MK, ME: 85%
BA, RS: 75%
XK: 65%

Stage 5

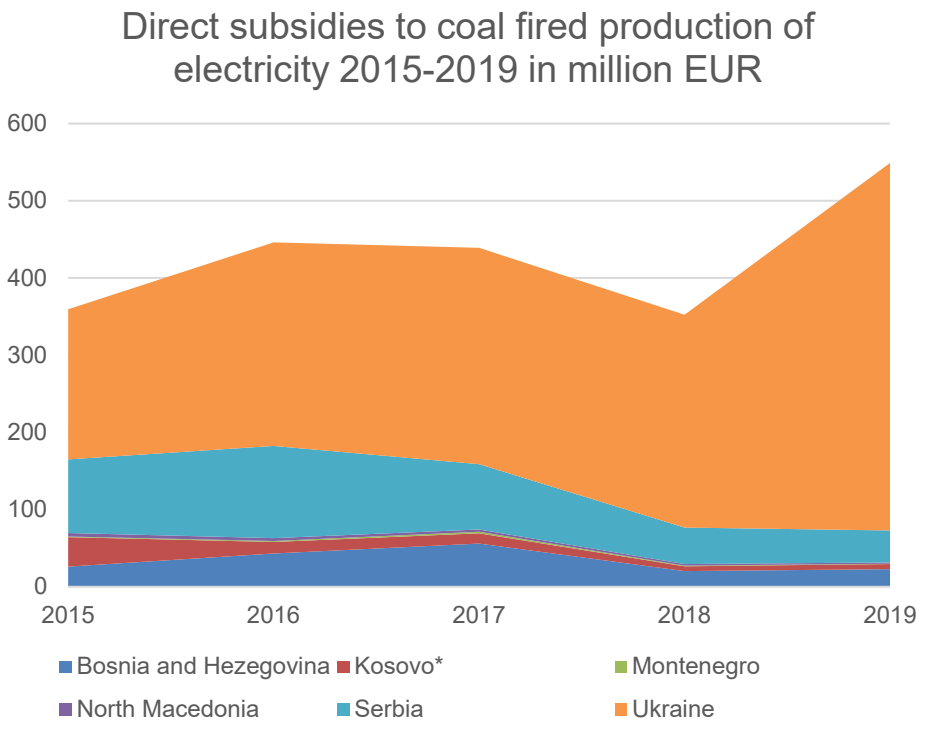
- WB6 adhere fully to the EU ETS
- No free allowances except if else specified in the transitory regimes approved

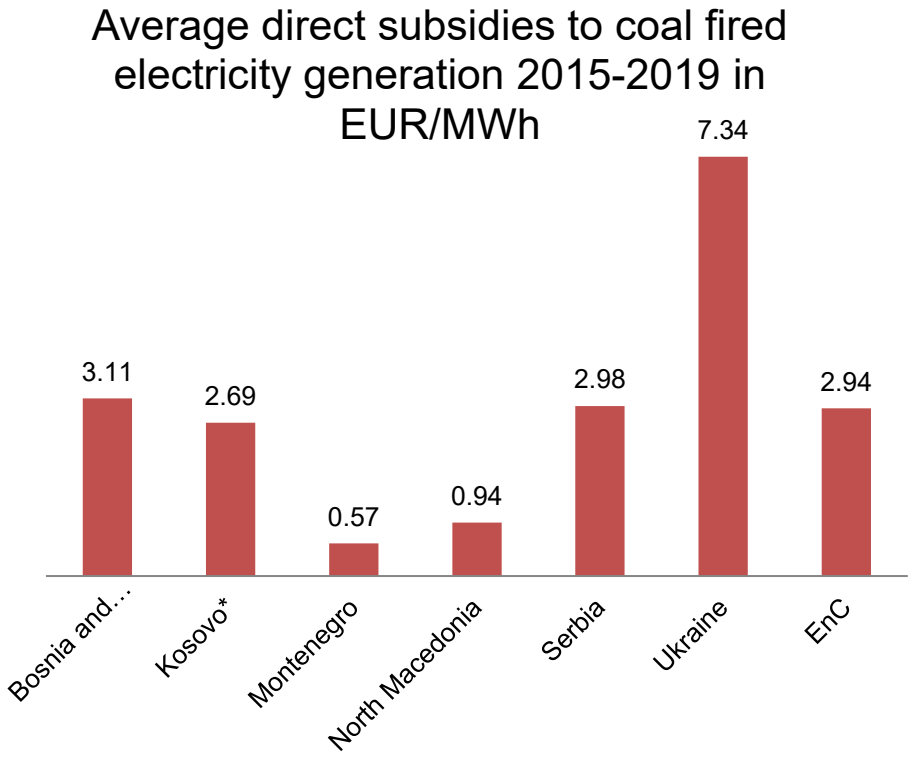
2035-2040

2040
AL: 100%
MK, ME: 100%
BA, RS: 100%
XK: 85%

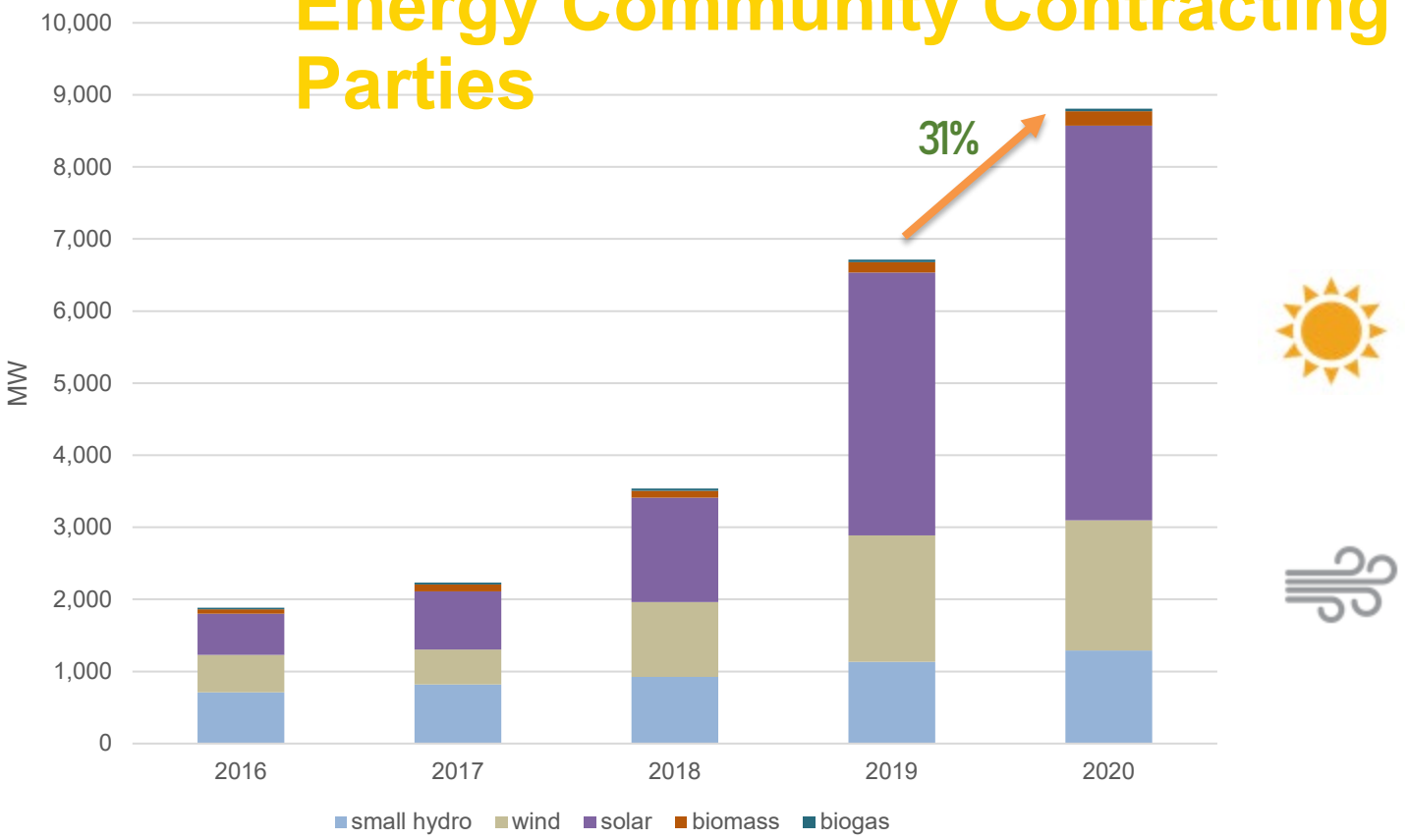
Coal subsidies to be decreased and gradually phased-out

- **The total amount of direct subsidies** to coal mines and coal-fired thermal power plants reached EUR 548 mill in 2019.

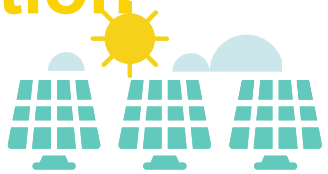




Installed electricity generation capacities from RES (excl. large hydro) in the Energy Community Contracting Parties



Auctions in action



Albania

Fixed purchase price/Contract for Difference

Best achieved price: 24,89 EUR/MWh

In Albania, auctions were designed to convert the fixed purchase price awarded to producers into Contract for Difference (CfD) once a day-ahead market is operational. In May 2020, Albania announced results of a second solar PV auction for 70 MW where a remarkable price of 24,89 EUR/MWh was achieved. In March 2021, price of 29,89 EUR/MWh was achieved on third auction in Albania.

North Macedonia

Feed-in premium (FiP)

Average: 4 - 11 EUR/MWh

In North Macedonia, auctions were based on the bids for an additional fixed Feed in Premium (FiP), on top of the price realized by the sale of each kWh produced on the wholesale electricity market. The average achieved FiP for solar PV for offers on state-owned land was 4 EUR/MWh, while the average FiP for offers on private land was 11 EUR/MWh.

Regional system for guarantees of origin

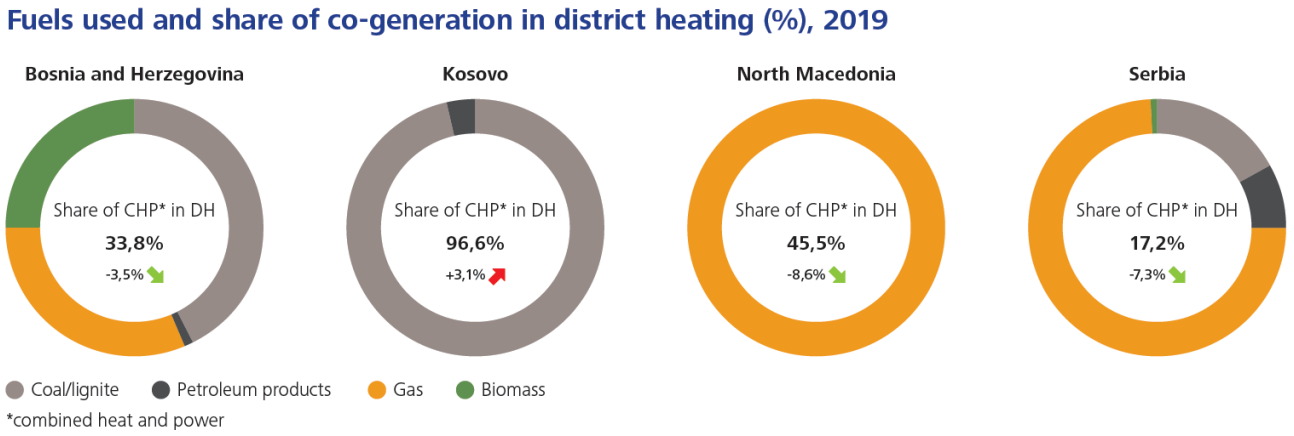
- With the primary goal to certify the renewable origin of energy sold to final consumers, the demand for guarantees of origin (GOs) is rapidly increasing, especially in the corporate sector.
- However, the electronic system needed to issue and trade GoOs is not yet established in the Energy Community Contracting Parties (CPs), except in Serbia, despite mandatory under the Renewable Energy Directive.
- To facilitate the process, the Energy Community Secretariat is supporting the implementation of a regional system, which will:

➢ **save costs** for the individual CPs,

➢ encourage a **harmonised process** and simultaneous progress,

➢ enable bilateral **trade of GOs among CPs**.

RES in District Heating (DH) systems



Mostly based on hydrocarbons and coal/lignite or inefficient use of wood

In Bosnia and Herzegovina use of biomass in DH increased for 18% in 2019

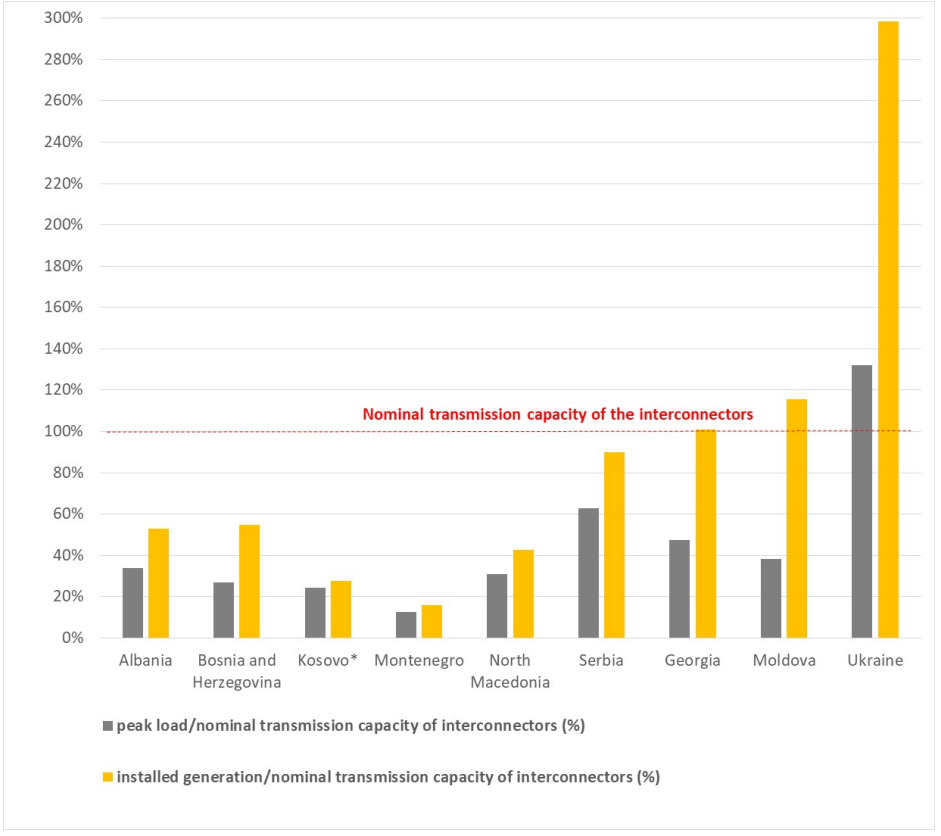
Around 13% of total heat demand (~800 ktoe) is produced and distributed to final users in DH systems

DH based on RES or residual heat is the most economic, clean and efficient solution for supplying heating services to high population density urban areas. In WB6 hydrocarbon based DH is dominant, but:

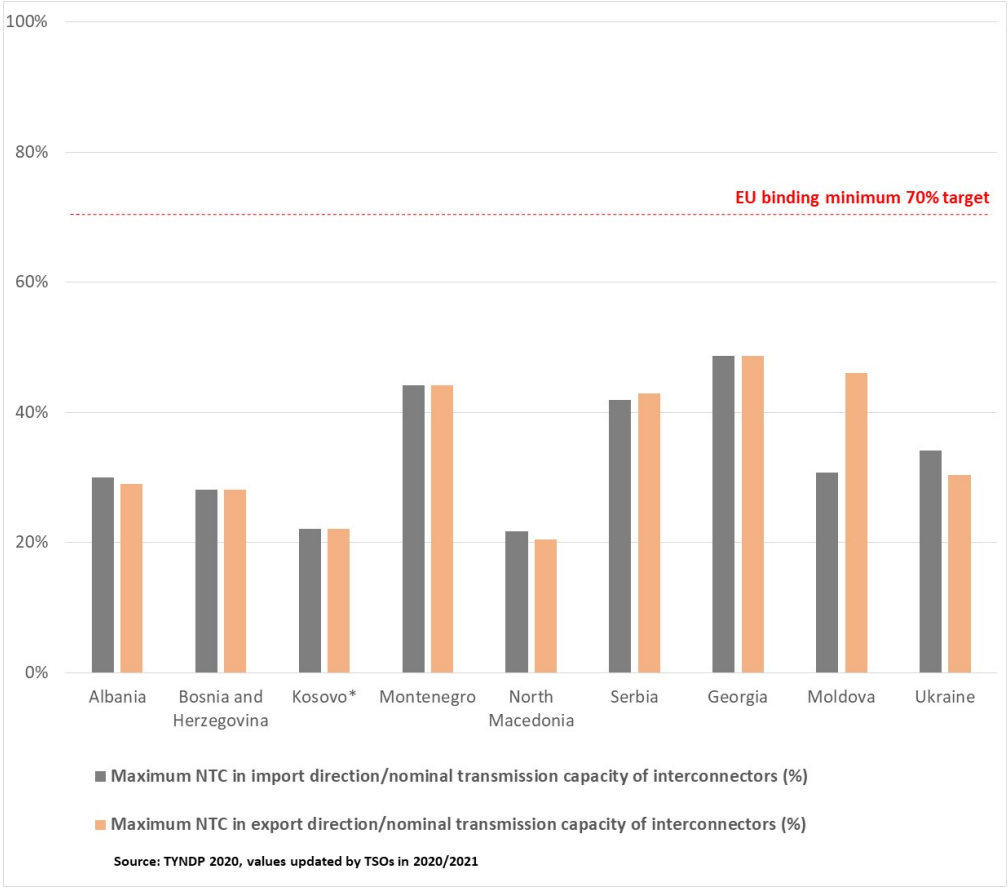
Albania: 1 (new greenfield DH system based on several renewable heat solutions); Bosnia and Herzegovina: 2 (heat pump utilising geothermal heat and industrial waste heat); Kosovo: 1 (solar thermal): Montenegro: 1 (greenfield biomass-based DH); Serbia: 8 (5 solar thermal, 3 heat pumps utilising heat from a waste water treatment facility)

Inefficient usage of interconnectors in CPs

Interconnectors, peak load and installed generation

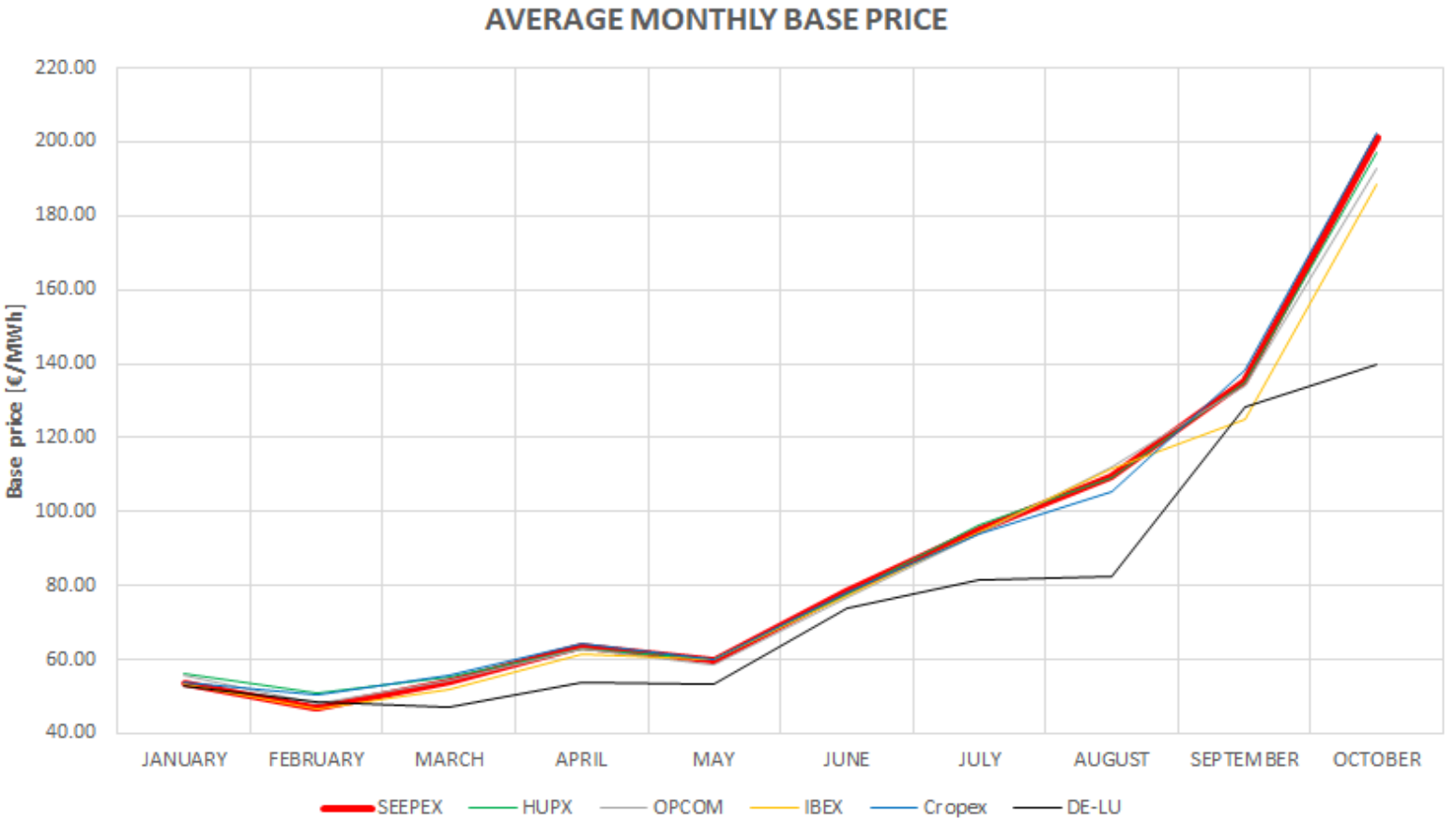


Maximum usage of interconnectors

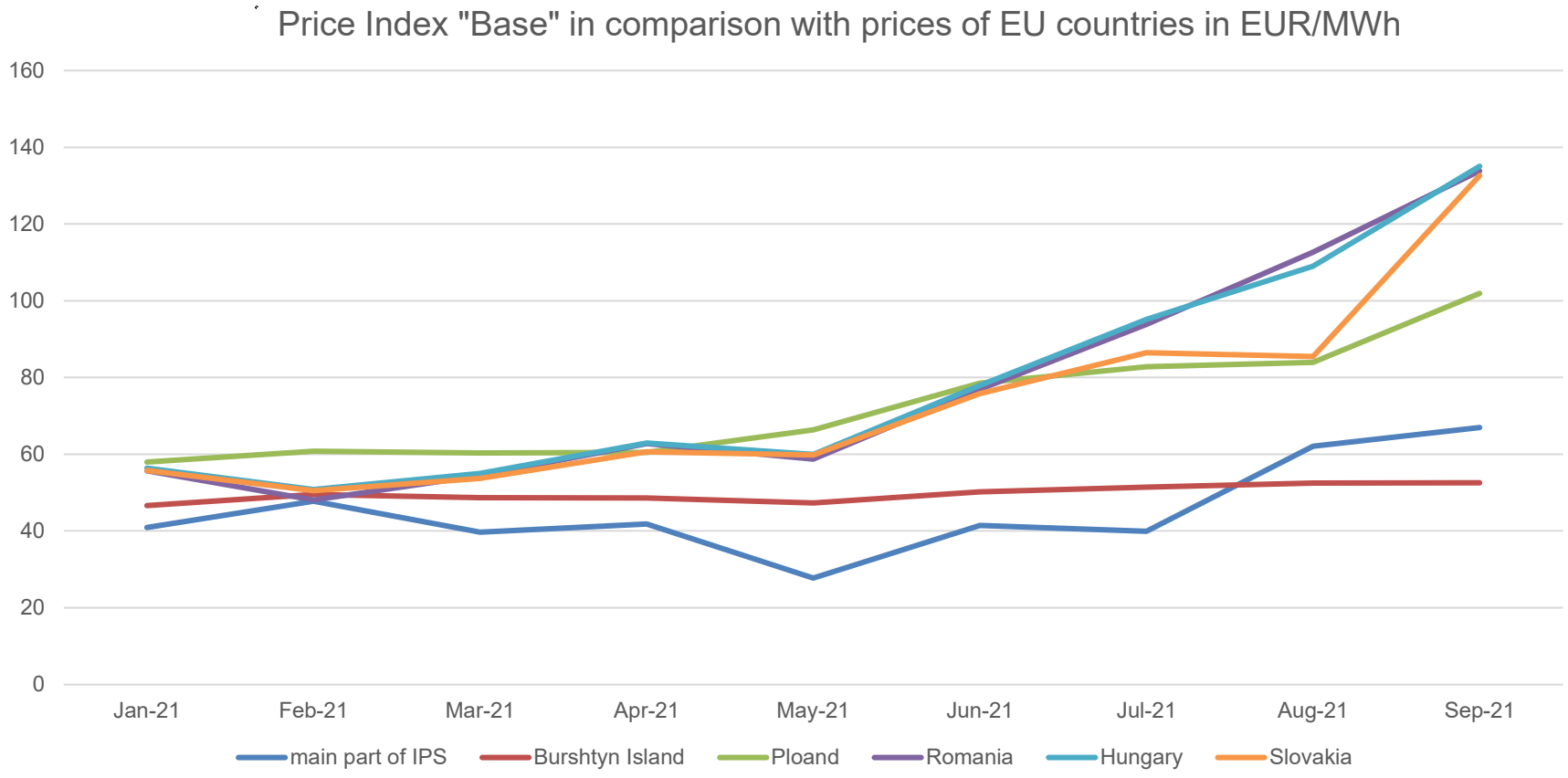


Source: TYNDP 2020, values updated by TSOs in 2020/2021

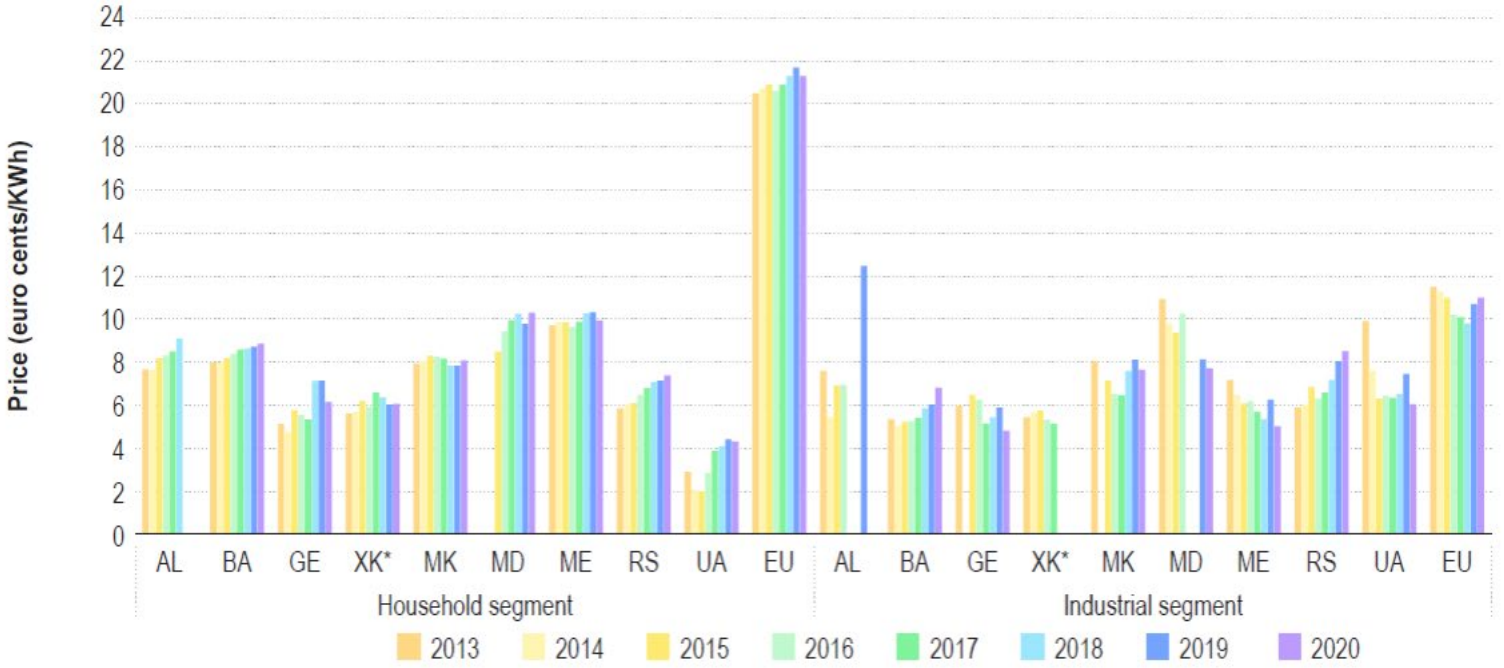
Wholesale market price convergence in SEE



Wholesale market price in Ukraine



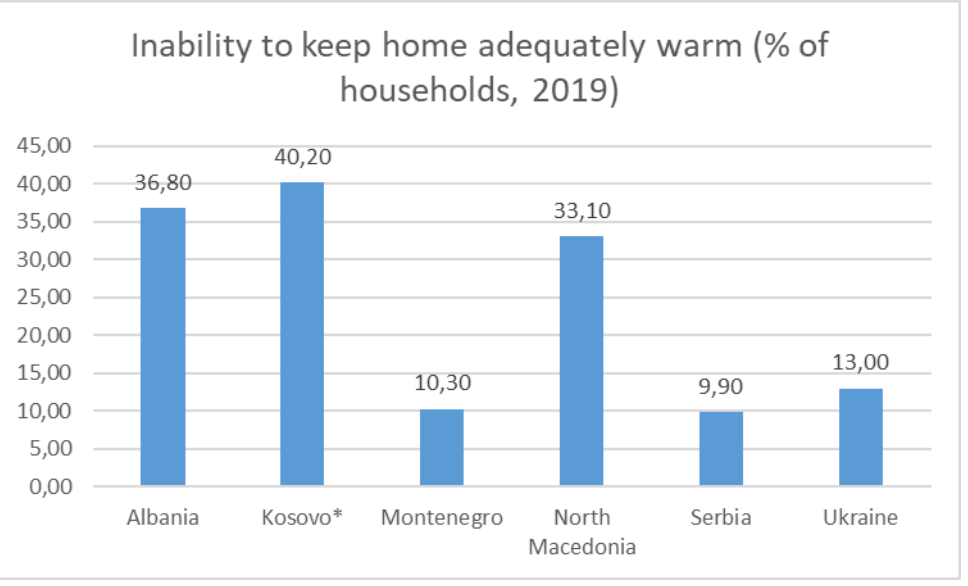
Lack of retail price signal



Source: ACER Market monitoring report 2021

Energy poverty

- Lack of reliable and harmonized data on energy poverty in the CPs
- Measures for protection of vulnerable customers in place in all CPs, however mostly of short- term nature to help paying energy bills (only in MKD energy efficiency measures for energy poor are in place)
- The Energy Community Secretariat's study on addressing energy poverty (publication end November 2021):
  - preliminary assessment of number of households in energy poverty, where possible, or proposal for improving statistics
  - recommendations for adequate objectives, policies and measures to address energy poverty



Source: EUROSTAT, UKRSTAT

Contributing to global climate efforts

- **Albania**'s revised National Determined Contribution (NDC2) was submitted to the UNFCCC (10/2021). It includes actions on AFOLU, gender and adaptation, with focus on coastal zones. The target is a reduction of 20,9% GHG emissions targets compared to BAU scenario;
- **BiH** NDC2 submitted to the UNFCCC Secretariat (04/2021); it includes increased investments in coal capacity, with an unconditional GHG emissions reduction target for 2030 of 12,8% compared to 2014 or 33,2% compared to 1990. The conditional target for 2030 is 17,5% compared to 2014, or 36,8% compared to 1990;
- **Georgia** NDC2 was submitted to the UNFCCC (04/2021); it includes an economy-wide target and sections on mitigation, adaptation, gender. It sets an unconditional target of 35% below 1990 level of its total domestic GHG emissions by 2030, and a target of 50 - 57% of its total GHG emissions by 2030 compared to 1990, conditional on international support;
- **Moldova** NDC2 was submitted to the UNFCCC Secretariat (03/2020); it features economy-wide mitigation and adaptation measures and gender crosscutting along the document; The country committed to unconditionally reduce its GHG emissions by 70% below its 1990 level in 2030, and by up to 88% when receiving technical, financial and technological support;
- **Montenegrin** NDC2 was submitted to the UNFCCC (06/2021); it puts forward a target of 35% GHG emission reduction by 2030 compared to 1990. It includes both mitigation and adaptation measures and focuses on disaster risk reduction and calculation of GHG emissions for land use, land-use change and forestry (LULUCF), measures on gender equality and vulnerable groups.
- **North Macedonian** NDC2 was submitted to the UNFCCC Secretariat (04/2021) with a 51% reduction of GHG emissions by 2030 compared to 1990 levels; it is focused on mitigation, while adaptation is to be included in a separate document. It is aligned with the NECP;
- **Serbian NDC2** has not been submitted yet and does not feature in the NDC2 register. It contains economy-wide mitigation measures, set to contribute to a just transition low-carbon development roadmap. Harmonization with drat NECP to be verified upon finalization of both documents;
- **Ukraine** was submitted to the UNFCCC (07/2021); It includes an economy-wide net domestic reduction of 65% in GHG emissions by 2030 compared to 1990. It focuses on mitigation, no actions on adaptation (separate document), while gender-sensitive actions are across the text. Harmonization with draft NECP is to be verified;

State of enhanced Nationally Determined Contributions (NDC2) preparation

	GHG other than CO_2 covered	All emission sectors covered	Adaptation strategy	Participatory process	Gender sensitivity	NDC2 submitted to the UNFCCC
Albania	●	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●	●
Montenegro	●	●	●	●	●	●
North Macedonia	●	●	●	●	●	●
Serbia	●	●	●	●	●	●
Georgia	●	●	●	●	●	●
Moldova	●	●	●	●	●	●
Ukraine	●	●	●	●	●	●

● In place ● In progress ● Not in place

Source: compiled by the Energy Community Secretariat.

Integrated energy and climate planning

State of National Energy and Climate Plans preparation

	Legal basis adopted	Working group operational	Modelling capacity exists	Policy section (A) drafted	Analytical section (B) drafted	Submitted to the Secretariat for peer review	Final version submitted to the Secretariat
Albania	Finished	Finished	Finished	Finished	Finished	Finished	Planned
Bosnia and Herzegovina	Planned	Finished	Finished	Finished	Finished	Started	Planned
Kosovo	Started	Finished	Finished	Started	Started	Planned	Planned
Montenegro	Finished	Finished	Finished	Finished	Started	Started	Planned
North Macedonia	Started	Finished	Finished	Finished	Finished	Finished	Planned
Serbia	Finished	Finished	Finished	Planned	Planned	Planned	Planned
Georgia	Finished	Finished	Finished	Finished	Finished	Started	Planned
Moldova	Planned	Finished	Finished	Started	Started	Planned	Planned
Ukraine	Finished	Finished	Finished	Started	Started	Planned	Planned

Finished Started Planned

Source: compiled by the Energy Community Secretariat.

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