

# NECPs as governance tools for climate policy in South East Europe

---

*Policy note*

---

*Guidance for developing NECPs in line with the energy transition in South East  
Europe*

---

Budapest, June 2020



## IMPRESSUM

**Delivered** by Klimapolitika Ltd. to Agora Energiewende

**Prepared** by Ágnes Kelemen and Dóra Csernus

**Supervised** by Ágnes Kelemen



### Disclaimer

The analysis was performed under the project "South East Europe Energy Transition Dialogue" which is part of the European Climate Initiative (EUKI). EUKI is a project financing instrument by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). The EUKI competition for project ideas is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. It is the overarching goal of the EUKI to foster climate cooperation within the European Union (EU) in order to mitigate greenhouse gas emissions.

The opinions put forward in this publication are the sole responsibility of the author(s) and do not necessarily reflect the views of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Supported by:



Federal Ministry  
for the Environment, Nature Conservation  
and Nuclear Safety



European  
Climate Initiative  
EUKI

based on a decision of the German Bundestag

# Table of contents

IMPRESSUM.....	2
1. Introduction.....	4
2. Level of ambition .....	4
3. Economic and social implications of decarbonisation .....	8
4. Governance process .....	11
5. Capacity needs.....	12
References.....	14

## List of tables

Table 1 Emissions per capita in SEE countries excluding LULUCF, 2016 .....	7
Table 2 Transition indicators in SEE countries, 2018 ***.....	7
Table 3 National capacity for modelling in SEE .....	13

## List of figures

Figure 1 Current Nationally Determined Contributions compared with 2 degree and 1.5 degree scenarios.....	5
Figure 2 Emission trajectories of Bulgaria, Greece and Romania 2020-2050 .....	6
Figure 3 Incentives to coal and renewables in the Western Balkans.....	9
Figure 4 Regional exposure to sectors that will decline (left) and transform (right) .....	10

## 1. Introduction

The aim of this paper is to allow decision makers and other stakeholders such as civil society organisations, energy industry, professional organisations, academics and others in South East Europe (SEE) to gain a better understanding of the purpose and expectations regarding the development of National Energy and Climate Plans (NECPs) and Long-Term Strategies (LTSs). The focus is on providing an overview of EU energy and climate governance. The paper complements two other papers assessing the ambition level of EU member state SEE countries' draft (Agora Energiewende, 2019) and final (Klimapolitika, 2020) NECPs prepared within the framework of the SE3T.net project. The requirements related to process, capacity needs and content of NECPs and LTSs is discussed in this follow-up paper.

The aim of the paper is to serve as guidance for SEE MS when updating their NECPs (either as a part of aligning with an increased level of ambition for 2030, if adopted, or as part of the 5-year review) and as a possible information source to non-MS countries in the SEE region. The latter group of countries are currently in the process of developing their NECPs as part of their commitments under the Energy Community Treaty, and the Energy Community Secretariat has developed draft guidelines on how to implement the provisions of the governance regulation. As such the paper also focuses on issues that have proved challenging in the SEE region based on assessment of the NECPs.

## 2. Level of ambition

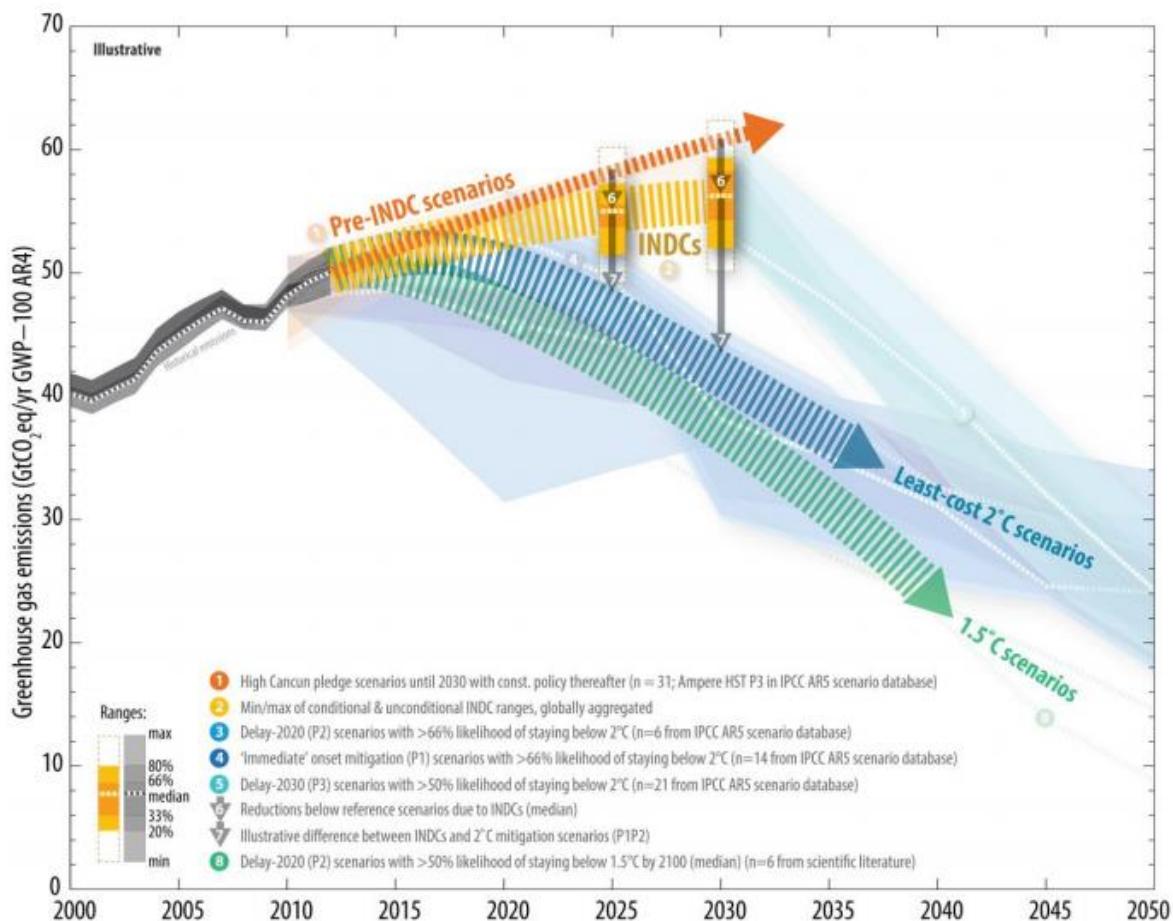
With the ratification of the Paris Agreement came a set of proposals from the European Commission in the form of the 'Clean Energy for All Europeans' package (European Commission DG Energy, 2019) which sought to update the EU's energy policy framework. The package resulted in an alignment of EU climate governance process with the Paris Agreement. The 'Clean Energy for All Europeans' package also reflects lessons learned from EU experience related to implementing climate policy over more than a decade. The suite of proposals included a regulation on Energy Union Governance and Climate Action (referred to as „the regulation” in the following text) which was adopted and entered into force in December 2018. The proposals had an impact on ambition as well as governance process.

The Paris Agreement sets out the ambition of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.

Despite the high level of ambition agreed at the global level, the global stocktake<sup>1</sup> exercise carried out by the UNFCCC Secretariat has shown that the sum of the nationally determined contributions is not consistent with any 1.5 °C scenario. **Globally, a 2 °C target is achievable with the current set of commitments, but not at least cost, as it will require sudden and deep emission cuts at a later date.** Taking into account current trends, without a sudden cut in emissions, the current commitments are consistent with a 3° C target if the trajectory remains unchanged. **The nationally determined contributions, to be submitted in 2020, will therefore need to become increasingly ambitious to ensure that the sum of global efforts is sufficient to limit dangerous climate change.**

<sup>1</sup>

Figure 1 Current Nationally Determined Contributions compared with 2 degree and 1.5 degree scenarios



Source: FCCC/CP/2016/2

At the EU level, a set of targets for GHG emission reductions, energy efficiency and renewable energy exist for 2030, and a target range exists for 2050.

The current 2030 targets adopted by the EU entail at least 40% cuts in greenhouse gas emissions (from 1990 levels), a 32% share for renewable energy as a share of consumption, and at least 32.5% improvement in energy efficiency. These EU-wide targets translate in different ways to targets at the level of the Member States:

- GHG emission reduction targets: The overall EU target for the non-ETS sector (mainly buildings and transport) is a 30% reduction in emissions. MS level targets are set for this sector by the Effort Sharing Regulation, with targets between 0 and -40%. The EU ETS sector (electricity production and large industrial emitters) will have to cut emissions by 43% compared with 2005. There are no national GHG emission reduction targets for the EU ETS sector and emission reduction takes place depends on cost-effective allocation of effort.
- Renewable targets: MS level targets have not been set. MS pledge targets in their NECPs and the European Commission assesses these targets based on a formula contained in Annex II of the regulation, which serves as a de facto target setting instrument.
- Energy efficiency targets: Similarly to the renewable energy target, there are no national energy efficiency targets and these are determined by MS in their NECPs and assessed by the Commission.

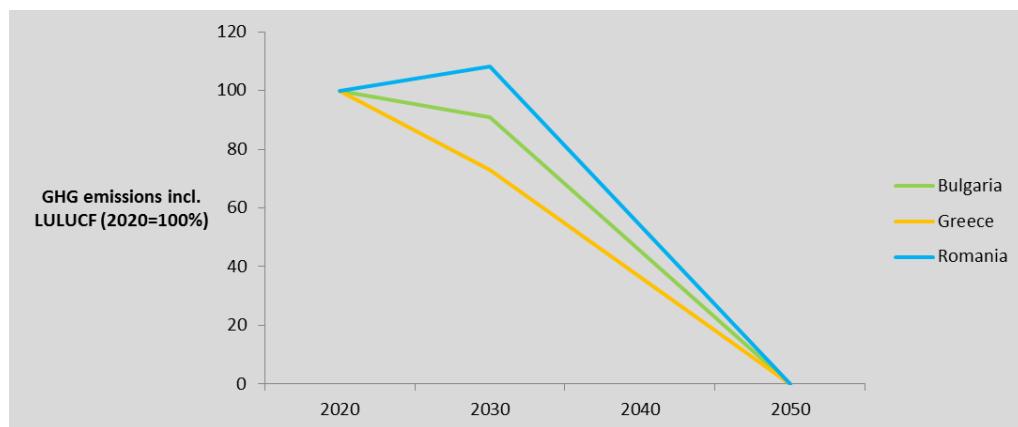
The EU long term ambition is to decrease emissions by 80 to 95% by 2050. This target was adopted in 2011 and has become outdated in light of international developments. The Commission's proposal

for a new EU Climate Law (European Commission, 2020d) has set a net zero target for 2050. As the achievement of the 32% renewables target and 32.5% energy efficiency target already guarantees a de facto emission reduction of 45%, an increase in the level of ambition would mean only a 5-10% increase in emission reductions to be achieved by 2030.

Parties to the Energy Community Treaty do not have similar long term targets in place. The Energy Community Secretariat initiated a target setting process for 2030, but the obligatory nature of this process has not been acknowledged by the Council of Ministers of the Energy Community. However, as all countries in the Western Balkans aim to become EU Member States, they need to consider EU targets in their planning processes.

Currently in the EU there is significant differentiation between Member States in terms of their non-EU ETS sector emission reduction target for 2030. This reflects different starting points and capacity to reduce emissions. As a result, **some countries in CEE and SEE have low or no emission reduction targets by 2030, and therefore their emission reduction trajectories show similar, cost-inefficient trajectories as the global trajectory, where little effort is made until 2030, followed by a steep reduction in emissions in the two decades after 2030 to achieve net zero emissions.** As can be seen from Figure 2, of the three SEE member states Greece is the only country with a linear GHG trajectory between 2020 and 2050, Bulgaria and Romania make a much lower effort to reduce emissions between 2020 and 2030 than what will be needed between 2030 and 2050.

Figure 2 Emission trajectories of Bulgaria, Greece and Romania 2020-2050



*\*Only 10-year intervals are shown and linear trajectory is assumed between these points. For Romania, no information on projections incl. LULUCF is available in the NECP, therefore LULUCF contribution was assumed constant from 2017 onwards.*

Emission reductions in countries in SEE which underwent an economic transformation during the 1990s has been significant, and this achievement can be interpreted by policymakers as a sign that countries can now slow their rate of emission reduction due to past achievements. Currently some **countries in the SEE region (Albania, Montenegro, North Macedonia and Romania) have a lower starting point in terms of emissions per capita than countries in the EU-27 as a whole. However, this cannot be interpreted as a sign of progress. With some exceptions, the lower or similar emission levels compared with the EU-27 are due to lower economic performance rather than progress made in transforming economies towards low carbon,** and with economic growth will come an increase in emissions unless this transformation takes place. This is clear from the table below, which shows **growth in emissions per capita compared with year 2000 emissions in all except 3 countries in SEE: Greece, North Macedonia and Romania. This is in contrast to steadily falling emissions in the EU-27 as a whole.** Of the three countries that have reduced their emissions,

only in Greece has the rate of emission reduction surpassed that of the EU-27 during the period 2000-2016.

Table 1 Emissions per capita in SEE countries excluding LULUCF, 2016

Country	Emissions per capita		
	2000	2016	Direction of change
EU-27	8.6	7.0	↓
Bulgaria	7.1	7.6	↑
Greece	11.0	8.1	↓
Romania	6.0	5.4	↓
Albania	2.7	3.3	↑
Bosnia and Herzegovina	5.0	8.0	↑
Montenegro	4.1	5.4	↑
North Macedonia	5.8	5.0	↓
Serbia	8.0	9.1	↑

Source: Climate Watch, 2020

Instead of assessing per capita emissions, or emission reduction achieved compared with 1990, countries in SEE should be assessing their level of progress based on indicators reflecting progress in the transition towards net zero emissions. These indicators show whether structural change is taking place towards a low carbon economy, i.e. whether low carbon and efficient solutions are being used. This can help identify deficiencies in progress even when factors such as low levels of economic development, low energy consumption by households due to low income, and other factors keep overall emissions low.

Such data are presented in Table 2 below. As more detailed data (on e.g. vehicle technologies and building renovation rates) is not available for countries in the Western Balkans, data from energy balances was used. It can be seen that apart from the buildings sector, where the use of solid fossil fuels is relatively low in comparison with EU countries due to a high share of biomass, and modern low carbon technology shares are close to EU levels, **the transformation towards a low carbon economy is generally lagging significantly behind EU levels in both EU SEE and the Western Balkans.**

Table 2 Transition indicators in SEE countries, 2018 \*\*\*

Country	Carbon intensive technology share *			Modern low carbon technology share **				Energy intensity
	Electricity	Buildings	Industry	Electricity	Buildings	Transport	Industry	
EU-27	23.94%	2.35%	5.18%	53.43%	11.35%	7.18%	9.23%	1.238
Bulgaria	43.77%	3.39%	8.39%	47.12%	17.61%	5.68%	8.78%	414.36
Greece	43.94%	0.06%	10.11%	14.92%	10.93%	2.98%	5.21%	136.31
Romania	32.72%	0.35%	8.81%	40.78%	10.01%	6.15%	3.69%	197.48
Albania	0.00%	0.46%	49.77%	100.00%	1.72%	13.37%	1.94%	n.a.
Bosnia and Herzegovina	83.35%	6.10%	17.67%	14.67%	6.11%	0.41%	1.99%	488.94
Kosovo	97.90%	1.49%	2.56%	1.80%	2.08%	0.00%	5.22%	445.87
Montenegro	64.59%	1.17%	2.01%	35.41%	0.06%	0.65%	6.13%	278.33
North Macedonia	68.41%	0.23%	27.14%	15.40%	6.76%	0.16%	1.51%	300.23
Serbia	76.45%	6.41%	11.38%	11.33%	14.15%	1.51%	7.23%	428.60

Source: EUROSTAT, 2020a, EUROSTAT, 2020c, EUROSTAT, 2020b

\* Carbon intensive technologies are understood as the share of solid fossil fuels

*\*\* Modern low carbon technology shares are understood to mean RES and nuclear in the electricity sector, district heating, geothermal, solar and ambient heat in buildings, renewables and electricity in transport, and renewables in industry.*

*\*\*\* Colour coding was used to reflect progress in countries compared with EU27 average values. Green depicts values which are close to or exceed EU levels, orange depicts values which lag by 50% or less compared with EU27 values, and red depicts more significant lags compared with EU27 values.*

In summary, it is clear from the above, that the SEE countries overall are not on a pathway to transform their economies to low carbon and must do more:

- Ensure that their planned emission trajectories do not result in delayed action, but ensure a smooth pathway to net zero emissions in 2050,
- Ensure that the share of transformative technologies in energy production, industry and transport is, as a minimum, in line with EU-27 values, and
- Following an initial fall in emissions after the economic transformation in the 1990's (compounded with war in the Western Balkans region), emissions in several countries in SEE have increased since 2000. Countries therefore need to do more to ensure that economic growth is decoupled from emissions.

### 3. Economic and social implications of decarbonisation

Significant efforts are needed over the medium term to reduce GHG emissions, with deep emission cuts over the long term leading to zero emissions. As noted earlier, the relatively low per capita emissions in some SEE countries do not reflect a transformation towards a low carbon economy, but are rather indicators of relatively low economic performance. Transformation of entire economies affecting all sectors will be required, which, with a few exceptions, such as the transformation away from coal in the Greek electricity sector, has not yet started. The transformation will leave no socio-economic subsystem unaffected, with impacts on employment, skills, energy poverty, technology, infrastructure, etc. This fact is recognised by the Energy Union Governance Regulation, which contains several provisions related to social and economic impacts, and by the separate proposal made by the Commission on a Just Transition Mechanism.

The socio-economic transformation will require governments to focus on two main policy areas: (1) actively promoting the transition and (2) ensuring that when the transition takes place it is implemented in a just way, leaving no one behind.

The first policy focus, actively promoting a transition, requires a combination of measures which include:

- Removing harmful subsidies;
- Making polluters pay;
- Promoting new technologies and solutions through subsidies and by removing other barriers.

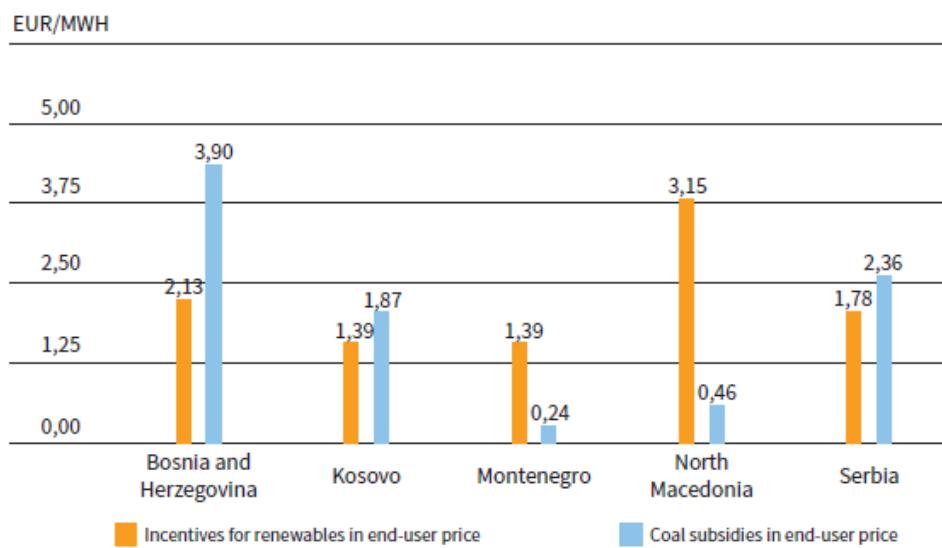
Harmful subsidies are present in all countries in the region. Coal or lignite is an important domestic source of energy and receives a large amount of direct and indirect subsidies. Szabó et al., 2020 find subsidies of EUR 450 million in Bulgaria, close to EUR 900 million in Greece, and EUR 200 million in Romania per year for coal and lignite-fired electricity production. Miljević, Mumović, & Kopač (2019) assessed the extent of direct and indirect subsidies to coal in the Western Balkans. They find that direct subsidies to coal in the three-year period 2015-17 was EUR 505 million in the Western Balkans, and an additional EUR 1,066 million was provided as hidden subsidies, in the form of foregone return and carbon costs, in 2017 alone. These harmful energy subsidies help maintain the status quo of

fossil fuel-based energy production, sending the wrong signal to investors and consumers, and waste resources that could be channelled towards renewables and energy efficiency.

Making polluters pay requires internalisation of the negative externalities of greenhouse gas emissions. Evidence from several studies shows that policy instruments to internalise externalities are not used to their full potential in the region. Bulgaria and Romania have some of the lowest energy taxes for household electricity prices in the EU (European Commission, 2019), while taxes and levies on household natural gas use are also very low in all three EU SEE countries (European Commission, 2020a), as are taxes on household coal and coke, and the excise duty on petrol is just above the minimum level in both Bulgaria and Romania (European Commission, 2020c). The low levels of taxation of energy products are largely due to energy poverty concerns, which are addressed with a blanket policy instruments rather than measures targeted at energy poor households.

Incentives for renewables and energy efficiency in the region are often insufficient to promote the level of investment that is needed to transform the economy to low carbon. In the Western Balkans, incentives to coal are often higher than incentives to renewables, as shown in Figure 3. Countries in the Western Balkans typically have not provided support to all RES technologies, but limit the scope of their schemes to a few preferred technologies. In EU SEE, Romania and Bulgaria both saw several years of moratorium on support for RES following implementation of a RES scheme where significant support was provided. The success of the newly restarted support schemes remains to be seen. In the EU SEE countries, spending of EU funds on the low carbon economy is lagging behind, with significant underspending compared with planned allocations. (European Commission, 2020b)

Figure 3 Incentives to coal and renewables in the Western Balkans



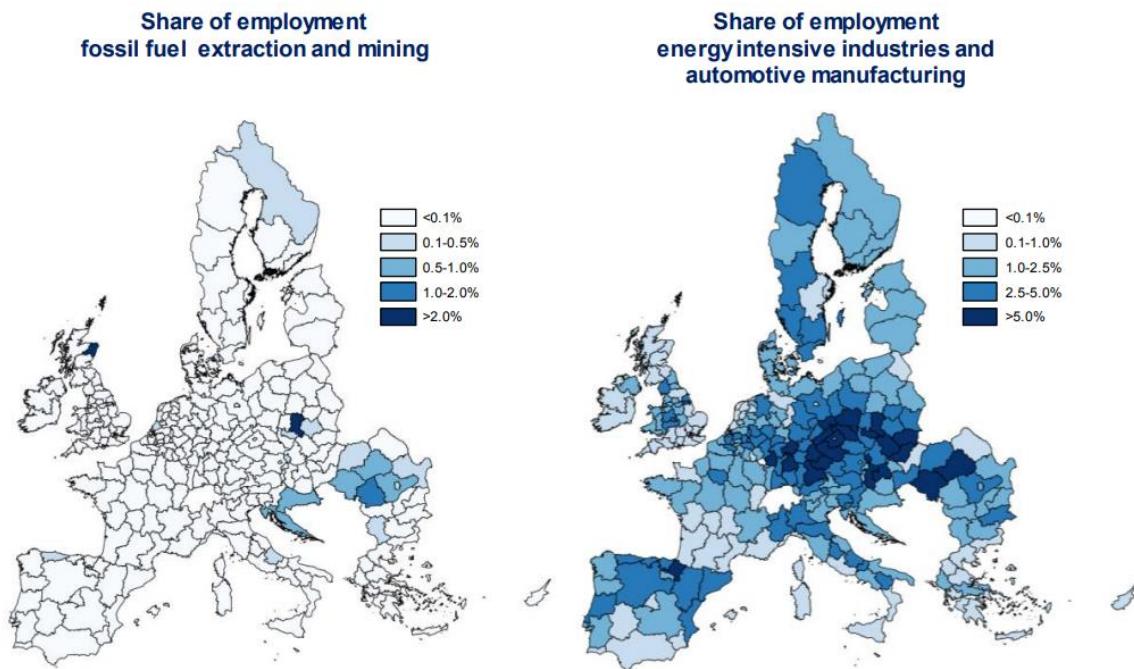
Source: WBIF, 2019

Apart from implementing a policy framework which ensures that obsolete and polluting technologies and industries will be replaced by cleaner sectors and means of production and consumption, policy makers also need to preparing for addressing the socio-economic impacts of the transition. The socio-economic impacts will manifest themselves through impacts on the viability and competitiveness of businesses, and through impacts on energy poverty. Some of these impacts will be negative, but positive impacts are also expected, e.g. on employment, air pollution and health.

The exposure of the EU SEE region to economic impacts from the transition is average to high in comparison to other regions, as shown in Figure 4. Impacts on employment need to be foreseen and managed through general measures to promote regional development, as well as targeted labour market measures and training, and measures which can attract new businesses to regions which are particularly impacted by job losses.

Energy poverty impacts may also be high. Szabó et al. (2020) have shown that a coal exit in the EU SEE countries will result in a large, albeit temporary increase in electricity prices, which will likely impact energy poor consumers adversely, unless measures to reduce the price impact, such as aggressive roll-out of renewable energy and energy efficiency are taken.

Figure 4 Regional exposure to sectors that will decline (left) and transform (right)



Source: European commission, 2018

The far-reaching consequences for economies imply that governments need to take an active role in managing these impacts. To date, experience from NECPs of EU SEE countries shows that governments have not adequately considered these types of measures in their NECPs and only passing mention is made of the need for a just transition in the NECPs of Bulgaria and Romania.

In conclusion, countries in SEE must do more in order to

- Remove harmful subsidies, especially subsidies given to coal and lignite;
- Ensure that externalities are internalised through carbon pricing, energy taxation, and in the Western Balkans through implementing emissions trading prior to EU accession;
- Implement comprehensive support schemes for renewables and energy efficiency, including in electricity generation, district heating, housing, transport and industry;
- Implement policies to address the socio-economic impacts of the transition on employment, businesses and energy poor households.

## 4. Governance process

The system of governance set out by the Energy Union Governance regulation is unique in the way it integrates medium and long term planning as well as energy and climate planning. Components of the regulation work together to ensure that the governance elements are in place to enable EU Member States to decarbonise their economies while minimising economic costs, maximising benefits and ensuring security of supply within the context of the a fully integrated internal energy market. The new Governance Regulation has resulted in several changes compared with previous rules contained in the Monitoring Mechanism Regulation (MMR), with a shift in focus, increase in political relevance, changes in the balance between EU and MS level planning, stronger focus on regional cooperation, etc.

The Energy Union Governance regulation introduced NECPs and LTSs as a new governance tools. The significance of projections of GHG emissions has increased; these have been transformed from a simple reporting tool under the MMR, to instruments of strategic planning under Energy Union governance. The Energy Union Governance Regulation ensures stronger integration between energy and climate, and a broader systems-view of energy, which considers not only energy efficiency, decarbonisation but also energy security, energy market, and research, innovation and competitiveness.

With these changes come increased responsibility for the quality of projections, as well as increased complexity, with the projections now having to consider impacts on all five pillars of the energy union. This has implications for governance systems, as a much more serious effort is required on behalf of countries to set up the necessary institutions and ensure the required capacity to operate the national system for projections. Institutional capacity, understood broadly as the overall legal and administrative arrangements which provide the framework for preparing projections and proposing policies and measures, are limited in SEE, including in Bulgaria and Romania, and most of the Western Balkans.

An analysis prepared by the RIPAP project (RIPAP, 2018) found that the Western Balkans faced multiple challenges with respect to setting up the necessary legal and administrative arrangements to prepare projections:

- Most countries do not have separate legislation on climate change; instead, climate provisions are contained in legislation on environment or air protection. Changes in energy union governance at EU level require the drafting of new legislation.
- Due to a lack of high level legislation on climate change in most countries, the roles and responsibilities of ministries and government agencies are not clearly defined. Many times cooperation, e.g. related to sharing of data, rests on less formal arrangements, or on memoranda of understanding.
- Climate mitigation planning is not taken seriously and mitigation is often trumped by considerations of energy security and affordability, as the general view is that there is a trade-off between these pillars of energy planning. There is a need to elevate decision-making to a higher level on climate, considering its implications for overall economic development, and this has to be legislated.
- Despite the establishment of some type of inter-ministerial coordinating body on climate change in most countries, climate is not a priority, and integration of climate related aspects into sectoral strategies is extremely limited.
- The propensity for regional cooperation within the Western Balkans is generally low, and countries are still divided along ethnic/nationality lines, making regional coordination in the

planning of energy systems difficult, and driving policy makers to plan for energy self-sufficiency, which is not cost-efficient.

Similar, although less pronounced weaknesses related to governance exist in Bulgaria and Romania, in particular in relation to technical analytical capacity, with foreign consultants having been involved in preparing projections that served as the basis for NECPs. The legislative framework is also lacking, with no climate law in Romania and a climate law lacking long term elements in Bulgaria, as well as missing legislation on some elements of climate policy (e.g. legislation on energy communities) missing. There is a lack of political prioritisation of climate action in both countries, with other considerations, especially ensuring low energy prices for households, being more important when deciding on energy policy.

Since an ambitious climate policy is going to impact all sectors of the economy and all segments of society, governance processes need to involve all stakeholders, including businesses, trade unions and consumer representatives as well as representatives of civil society. Countries in SEE are generally characterised by a weak tradition of public consultation and dialogue, as well as low capacities in organisations representing most stakeholder groups, so further capacity building is needed in this area.

In general, countries in SEE need to give a higher priority to climate action. This is a prerequisite to providing sufficient resources to developing ambitious and successful climate policies and implementing capacity building, which needs to extend not only to government institutions, but to all potential partners and stakeholders.

## 5. Capacity needs

Setting up a national system to prepare projections requires significant capacity for data collection, analysis of future scenarios, and preparation of policy proposals reflecting the results of the analysis. The analysis by the RIPAP project shows that capacity for implementing all three of these tasks is limited in the Western Balkans:

- With respect to data collection, there are multiple issues.
  - The legislative basis for inventory preparation does not always clearly define the roles and responsibilities of data providers and data suppliers.
  - Data sharing among government institutions is often ad hoc. Sometimes at least formal agreements exist in the form of an MoU between institutions, but sometimes data sharing is based on informal requests among institutions.
  - The statistical data collection in the energy sector is very much focused on the preparation of energy balances and more detailed sub-sectoral data or data disaggregated by energy end use is missing.
  - Several countries have data gaps with respect to data that is necessary for the preparation of high quality projections and proposals for evidence based policies and measures. Activity data and technology data (e.g. building typology or vehicle stock) is missing in several countries, cost and price data, demand elasticities and SAMs are often completely lacking.
  - Continuity of data collection is problematic, as data collection is often project-based.
- Technical/analytical capacity varies, but is generally low. In some countries, e.g. in Serbia and the former Yugoslav Republic of Macedonia, significant technical capacity exists, but only outside the public administration. In other countries, e.g. in Kosovo and Albania, there is very little in-country technical capacity to build on.

- Administrative capacity is limited or very limited in all countries, not only limited in the institutions dealing directly with climate change, but often also in other sectoral ministries and in statistical offices. This impacts all steps of the preparation of projections, starting from data collection to the preparation of policy recommendations based on analytical work.

The situation in EU SEE countries is better, especially in Greece, which has high capacity in all respects. However, in particular technical analytical capacity is lacking in Bulgaria and Romania, where the projections for the NECPs were prepared by international consultants.

**Table 3 National capacity for modelling in SEE**

<b>Country</b>	<b>Modelling tool</b>	<b>National capacity for modelling</b>
Albania	LEAP	University of Tirana, National Agency of Natural Resources
Bosnia and Herzegovina	LEAP	Faculty of Mechanical Engineering of the University of Banja Luka
Bulgaria	-	None
Greece	several	Several strong modelling groups in the country including NTUA, NOA and others
Kosovo	-	None
Montenegro	-	None
North Macedonia	LEAP, TIMES/MARKAL, MAED, WASP	Macedonian Academy of Sciences
Romania	-	None
Serbia	LEAP, TIMES/MARKAL (SEMS)	University of Belgrade

*Source: Kelemen (2018) RIPAP project presentation, SE3T.net partners*

Emphasis needs to be placed on collecting reliable data, building capacity for analytical work, as well as building capacity in public administrations to plan, implement and monitor climate policies.

## References

- Agora Energiewende. (2019). *Climate (Un)ambition in South East Europe. A Critical Assessment of the Draft National Energy and Climate Plans.* Berlin. Retrieved from [https://www.agora-energiewende.de/fileadmin2/Projekte/2019/Climate\\_Un-ambition\\_SEE/162\\_Climate\\_Un-ambition\\_SEE\\_WEB.pdf](https://www.agora-energiewende.de/fileadmin2/Projekte/2019/Climate_Un-ambition_SEE/162_Climate_Un-ambition_SEE_WEB.pdf)
- Climate Watch. (2020). Climate Watch Historical GHG Emissions Data. Retrieved from [https://www.climatewatchdata.org/ghg-emissions?breakBy=regions-PER\\_CAPITA&regions=EUU%2CALB%2CBIH%2CBGR%2CGRC%2CMKD%2CMNE%2CROU%2CSR&sectors=total-excluding-lucf](https://www.climatewatchdata.org/ghg-emissions?breakBy=regions-PER_CAPITA&regions=EUU%2CALB%2CBIH%2CBGR%2CGRC%2CMKD%2CMNE%2CROU%2CSR&sectors=total-excluding-lucf)
- European commission. (2018). In-depth analysis in support of the Commission Communication COM (2018 ) 773 “A Clean Planet for all A European long-term strategic vision for a prosperous , modern , competitive and climate neutral economy.” Brussels.
- European Commission. (2019). Factsheet on energy taxation. Retrieved from [https://ec.europa.eu/energy/sites/ener/files/qmv\\_factsheet\\_on\\_taxes.pdf](https://ec.europa.eu/energy/sites/ener/files/qmv_factsheet_on_taxes.pdf)
- European Commission. (2020a). *Energy prices and costs in Europe [SWD(2020) 951 final].* Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0951&from=EN>
- European Commission. (2020b). European Structural and Investment Funds Data - Low-Carbon Economy. Retrieved from <https://cohesiondata.ec.europa.eu/themes/4>
- European Commission. (2020c). *Excise Duty Tables - Part II Energy products and Electricity.* Retrieved from [https://ec.europa.eu/taxation\\_customs/sites/taxation/files/resources/documents/taxation/excise\\_duties/energy\\_products/rates/excise\\_duties-part\\_ii\\_energy\\_products\\_en.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/excise_duties/energy_products/rates/excise_duties-part_ii_energy_products_en.pdf)
- European Commission. (2020d). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law).* Retrieved from [https://ec.europa.eu/info/sites/info/files/commission-proposal-regulation-european-climate-law-march-2020\\_en.pdf](https://ec.europa.eu/info/sites/info/files/commission-proposal-regulation-european-climate-law-march-2020_en.pdf)
- European Commission DG Energy. (2019). Clean Energy for All Europeans. Retrieved from [https://ec.europa.eu/energy/topics/energy-strategy/clean-energy-all-europeans\\_en](https://ec.europa.eu/energy/topics/energy-strategy/clean-energy-all-europeans_en)
- EUROSTAT. (2020a). Complete Energy Balances. Retrieved from [https://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK\\_DS-1015839\\_QID-36FF04B5\\_UID\\_-3F171EB0&layout=SIEC,L,X,0;GEO,L,Y,0;NRG\\_BAL,L,Z,0;UNIT,L,Z,2;INDICATORS,C,Z,3;&zSelection=DS-1015839NRG\\_BAL,FC\\_OTH\\_CP\\_E;DS-1015839UNIT,KTOE;DS-101583](https://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-1015839_QID-36FF04B5_UID_-3F171EB0&layout=SIEC,L,X,0;GEO,L,Y,0;NRG_BAL,L,Z,0;TIME,C,Z,1;UNIT,L,Z,2;INDICATORS,C,Z,3;&zSelection=DS-1015839NRG_BAL,FC_OTH_CP_E;DS-1015839UNIT,KTOE;DS-101583)
- EUROSTAT. (2020b). Energy intensity [nrg\_ind\_ei]. Retrieved from [https://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK\\_DS-1064957\\_QID\\_54251551\\_UID\\_-3F171EB0&layout=TIME,C,X,0;GEO,L,Y,0;NRG\\_BAL,L,Z,0;UNIT,L,Z,1;INDICATORS,C,Z,2;&zSelection=DS-1064957INDICATORS,OBS\\_FLAG;DS-1064957NRG\\_BAL,EL\\_GDP\\_CLV10;DS-1064957](https://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-1064957_QID_54251551_UID_-3F171EB0&layout=TIME,C,X,0;GEO,L,Y,0;NRG_BAL,L,Z,0;UNIT,L,Z,1;INDICATORS,C,Z,2;&zSelection=DS-1064957INDICATORS,OBS_FLAG;DS-1064957NRG_BAL,EL_GDP_CLV10;DS-1064957)
- EUROSTAT. (2020c). Simplified Energy Balances. Retrieved from [https://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK\\_DS-1028916\\_QID\\_2D5DD69C\\_UID\\_-3F171EB0&layout=SIEC,L,X,0;GEO,L,Y,0;NRG\\_BAL,L,Z,0;UNIT,L,Z,1;TIME,C,Z,2;INDICATORS,C,Z,3;&zSelection=DS-1028916TIME,2018;DS-1028916UNIT,KTOE;DS-1028916INDICATORS](https://appsso.eurostat.ec.europa.eu/nui/show.do?query=BOOKMARK_DS-1028916_QID_2D5DD69C_UID_-3F171EB0&layout=SIEC,L,X,0;GEO,L,Y,0;NRG_BAL,L,Z,0;UNIT,L,Z,1;TIME,C,Z,2;INDICATORS,C,Z,3;&zSelection=DS-1028916TIME,2018;DS-1028916UNIT,KTOE;DS-1028916INDICATORS)

Klimapolitika. (2020). *An Assessment of final NECPs in South East Europe. Policy note - How do the NECPs of Bulgaria, Greece and Romania stack up against long term decarbonisation targets in the energy sector?*

Miljević, D., Mumović, M., & Kopač, J. (2019). *Analysis of Direct and Selected Indirect Subsidies to Coal Electricity Production in the Energy Community Contracting Parties.* Retrieved from [https://www.energy-community.org/dam/jcr:ae19ba53-5066-4705-a274-0be106486d73/Draft\\_Miljevic\\_Coal\\_subsidies\\_032019.pdf](https://www.energy-community.org/dam/jcr:ae19ba53-5066-4705-a274-0be106486d73/Draft_Miljevic_Coal_subsidies_032019.pdf)

RIPAP. (2018). *Report on National systems for projections and policies and measures in the Western Balkans and Turkey - Institutional needs and data gaps.*

Szabó, L., Mezősi, A., Kácsor, E., Resch, G., Liebmann, L., Vladimirov, M., Galev, T., Primova, R., Dudău, R., Cătuți, M., Covatariu, A., Bălan, M., Lalas, D., Gakis, N., Vaszkó, C., & Mustață, A. (2020). *Accelerated lignite exit in Bulgaria, Romania and Greece.* Retrieved from [https://www.se3t.net/pdf/SEE-Coal-Exit\\_WEB.pdf](https://www.se3t.net/pdf/SEE-Coal-Exit_WEB.pdf)

WBIF. (2019). *Investing in Clean Energy in the Western Balkans.* Retrieved from [https://energy-community.org/dam/jcr:1a9ef6ac-a74e-458a-bb4b-4707051092ef/WBIF\\_clean\\_energy\\_WB.pdf](https://energy-community.org/dam/jcr:1a9ef6ac-a74e-458a-bb4b-4707051092ef/WBIF_clean_energy_WB.pdf)