

# Annual Implementation Report 2022

Energy Community Secretariat 1 November 2022

## **Table of Contents**

01	State of Implementation
02	Introduction
03	Albania  Electricity  Gas  National Authorities  Oil  Renewable Energy  Energy Efficiency  Environment  Climate  Statistics  12  12  13  14  15  16  17  17  18  18  19  19  19  19  19  19  19  19
04	Bosnia and Herzegovina       32         Electricity       36         Gas       38         National Authorities       40         Oil       41         Renewable Energy       42         Energy Efficiency       44         Environment       46         Climate       48         Statistics       49

Energy Community Secretariat Am Hof 4 1010 Vienna AUSTRIA

Tel:+ 43 1 535 2222 Fax:+ 43 1 535 2222 11 Internet: www.energy-community.org E-mail: contact@energy-community.org Twitter: twitter.com/ener\_community

Design: Încotro Layout: Medium d.o.o. Pictures: www.shutterstock.com, The Energy Community Secretariat

05	Georgia																									
	-																									
	Gas																									
	National Authorities																									
	Oil																									
	Renewable Energy .																									
	Energy Efficiency																									.62
	Environment																									.64
	Climate																									
	Statistics																									
06	Kosovo*																									
	Electricity																									
	Gas																									. 74
	National Authorities.																									.75
	Oil																									.76
	Renewable Energy .																									
	Energy Efficiency																									
	Environment																									
	Climate																									
	Statistics																									
	Statistics	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	.04
07	Moldova																									86
	Electricity																									
	,																									
	Gas																									
	National Authorities.																									
	Oil																									
	Renewable Energy .																									
	Energy Efficiency																									.98
	Environment																									100
	Climate																									102
	Statistics																									103
00	N / a vata va a avva																									
US	Montenegro																									104
	Electricity																									108
	Gas																									110
	National Authorities.																									111
	Oil																									112
	Renewable Energy .					_											-	-								113
	Energy Efficiency																									115
	Environment																									117
	Climate																									117
	Statistics																									120

09	North Macedonia       122         Electricity       126         Gas       128         National Authorities       130         Oil       131         Renewable Energy       132         Energy Efficiency       134         Environment       136         Climate       138         Statistics       139
10	Serbia       140         Electricity       144         Gas       146         National Authorities       148         Oil       149         Renewable Energy       150         Energy Efficiency       152         Environment       154         Climate       156         Statistics       157
11	Ukraine       158         Electricity       162         Gas       164         National Authorities       166         Oil       167         Renewable Energy       168         Energy Efficiency       170         Environment       172         Climate       174         Statistics       175
12	Annual Report178
13	Report on Enforcement and Dispute Resolution Activities
14	Methodology Used to Define and Calculate Implementation Indicators 185



### 01 State of Implementation

The Implementation Report 2022 covers a period like no other before. The felonious attack by Russia against Ukraine is an attack against the principle and values of the Energy Community, which stands in unwavering solidarity with its Presidency-in-office. The war did not only engage the Ukrainian energy system in a struggle for survival, which our colleagues and friends from Ukraine fight with unparalleled bravery. It also wreaks havoc beyond the borders, most notably in Moldova, and exacerbates the energy crisis which had profoundly affected the Contracting Parties already before 24 February 2022.

Gas and electricity prices skyrocketed to unimaginable levels during the reporting period all over the continent. Less wealthy than Northern and Western Europe and with energy sectors often badly prepared on account of inadequate regulation and underinvestment, war and crisis brutally exposed the specific weaknesses of many Contracting Parties' energy sectors. By consequence, they were forced to concentrate their efforts on crisis management rather than on systemic reforms. Many Contracting Parties operated in a state of emergency and intervened in markets with subsidies and regulatory measures at an unprecedented scale. The Secretariat will continue to ensure that these measures do not turn into obstacles for energy transition and recovery, sustainable sector reforms and the diversification of energy resources so fervently pushed for by all of Europe these

days. In doing so, we will keep its focus on designing specific measures to help the energy poor, an area where Moldova can showcase its energy vulnerability fund established in 2022.

The war has also deeply affected the work of the Secretariat. Supporting Ukraine in these dark times requires new levels of commitment. Quickly after the war started, the Secretariat set up a task force supporting the delivery of in-kind donations by Western companies for the repair of infrastructure devastated by the Russian attacks. Ukraine also established a Ukraine Energy Support Fund which channels financial support to fasttrack procurement of equipment which cannot be donated. And the Secretariat is actively engaging in the preparations for reconstructing the country. It has all the potential for a green energy sector fully integrated with Europe to become a pillar of its economy after the war, and for building a global showcase. This will be a great and noble task for an Energy Community, which was conceived and built on the ruins of Balkan wars some twenty years ago. And indeed, even in these darkest moments for Ukraine and Europe, there are signs of hope. The synchronization of Ukraine and Moldova with the electricity network of Continental Europe in March this year will prove to be irreversible and complemented by further pro-European reform and market integration measures. In this respect, Mr Putin has already lost his war.

#### Overview of Implementation Performance by Contracting Parties 59% 44% 49% 58% 56% 69% 64% 65% 64% + 3% 👚 + 2% 1 + 4% 👚 + 0,1%👚 + 7% 1 +4%1 + 3% 1 + 3% 1 100% 90% 80% EnC average: 59% + 3% 70% 60% 50% 40% 30% 20% 10% 0% Albania Bosnia and Georgia Kosovo\* Moldova Montenegro North Serbia Ukraine Macedonia Herzegovina Implementation Ratio Electricity Implementation Ratio Sustainability · · • · · Overall score 2022 Implementation Ratio Gas ♣ ↑ Annual change (%)

From today's perspective, it is clear that system and market integration proved to be the right choice in the past and will be one of the leitmotifs of the Energy Community's future work. Until now, that work has been very effective in domestic reforms, including important milestones such as unbundling of the infrastructure operators. It is fair to say that the Contracting Parties' energy systems, with few exemptions most notably in the gas sector, share one legal and regulatory DNA with the European Union. And yet, on the eve of establishing organized wholesale markets in those Contracting Parties which until now have failed to do so, it is evident that domestic action is not sufficient. With the possible exception of Ukraine, the domestic markets are too small to allow for liquid trade and continue to be foreclosed by the sheer dominance of the respective utilities as well as the significant underutilization of cross-border infrastructure. The only remedy is speeding up the pace of market and system integration, both regionally and with the European Union.

On 15 December 2022, the Ministerial Council is expected to take a decision on which the Energy Community and all stakeholders involved have been working throughout the year. This package will pave the way for the full integration of the electricity markets of South East Europe and Eastern Europe not only on a regional level but with the rest of Europe. It is based on a novel approach in the Energy Community which complements the one-directional export of the European model as its main mode of operation so far. The 2022 package consisting of the full Clean Energy Package as well as the remaining market and system network codes will transcend the simplistic one-way export pattern. It will allow for true reciprocity in the relations between Contracting Parties and European Member States as well as their market participants and authorities. And it will confer a privilege to the Energy Community countries not yet enjoyed by other non-EU countries: being full members of (re-) powered Europe.

Adopting, transposing and implementing this package will not only constitute a milestone for the sake of market liquidity and increased energy resilience. It will also pave the way for stronger focus on the energy efficiency first principle in the Energy Community and faster deployment of renewable energy. Energy savings and more rapid deployment of renewable energy are key for the fight against climate change which has manifested itself in droughts and worsened hydrology this summer. It is also key for the urgent modernization of power generation in the Contracting Parties which have been relying unilaterally on declining coal and water resources. And again, it will only be successful through an increased level of regional and European integration.

The Contracting Parties in the Western Balkans and their European supporters have rightfully put this in the centre of a declaration on energy security and the energy transition adopted at the Berlin Summit this November and the Western Balkan-EU Summit in Tirana in December. It will be complemented by the further implementation of the seminal Decarbonization Roadmap adopted by the Ministerial Council last year: the

adoption of 2030 targets for energy efficiency, renewables and greenhouse gas emission reduction for 2030 and the upcoming work towards establishing a carbon pricing mechanism later this decade. The latter is of particular importance also to make the Contracting Parties ready for coping with ramifications of a future carbon border adjustment mechanism.

In working down this agenda, the Energy Community effectively joins the European Green Deal. The energy and climate plans to be adopted over the next months by the Contracting Parties under the Governance Regulation are the key strategic planning instruments in the profound transition ahead of us. If done well, they can provide the reference documents for external financial support needed to accomplish this transition in a successful and socially acceptable manner. This will allow the Energy Community to tap into its full green potential, and not only catch up with the rest of Europe but make a significant contribution to the continent's joint goals.

During this reporting period, the Energy Community also proved that it can act faster. An example is the speedy adoption by the Ministerial Council of the Gas Storage Regulation as a matter of urgency. Full underground gas storage facilities are needed to provide additional gas in the event of high demand or supply disruptions this winter and beyond. The invitation to the Contracting Parties to join the gas demand aggregation and joint purchasing mechanism to be set up by the European Union will also not only help diversify their supplies; it is yet another token of the swift and effective integration of the Energy Community in the REPowerEU programme. The gas supply crisis shows how solidarity is manifest between the European Union and the Energy Community.

Our efforts to overcome the crisis, to reconstruct and to eventually win the future will need to rely on what continues to be the backbone of the Energy Community: full implementation of the European acquis communautaire. As every year, the present report highlights the successes and failures in the endeavours by Contracting Parties. Those countries most severely affected by the war and energy blackmailing have developed well. Despite the struggle for survival and the Russian atrocities, Ukraine managed to keep its market model in electricity largely intact, and provided assurances that the emergency measures taken in the gas sector will be phased out quickly once the war is over. Moldova in particular developed a new dynamism in taking steps towards market reforms and integration which have been almost unthinkable a year ago.

As a response to the surge in electricity import prices, other countries prioritized stabilization measures, and are yet to take the decisive steps which will allow them to yield the full benefits of domestic reforms. In Albania, Georgia, Kosovo\*1, Montenegro and North Macedonia further steps towards the establishment of spot markets in electricity have been made but are yet to materialize. Serbia still needs to liberalize its gas sector whereas North Macedonia made progress in the better usage of its interconnector with Bulgaria. The development in Bosnia

<sup>1</sup> Throughout this Implementation Report, this designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.

and Herzegovina remains stalled. The implementation of environmental law, both in terms of pollution standards and in the quality of permitting procedures remains a concern as reflected in a number of infringement procedures. At the same time, all Contracting Parties progress in the transposition of the Clean Energy Package, in particular the Renewable Energy and Energy Efficiency Directives. Auctions for market-based renewable energy support progressed in Albania as well as North Macedonia.

The reporting year 2022, the most challenging so far in the history of the Energy Community, turned out to be a true turning point for the energy sectors of its Contracting Parties. The

Avtur Londonsi.

organization is adapting to this challenge and will have to adapt further. Granting EU candidacy status to Ukraine and Moldova and clear recommendation by the European Commission to grant this status to Bosnia and Herzegovina brings the Energy Community to the heart of the enlargement process. Its values and principles, such as the integration in the European Green Deal, functioning markets as the best available instrument for allocating scarce resources, social fairness as well as enhanced cooperation for the sake of regional and pan-European resilience, remain more relevant than ever. In translating them into tangible results, the Energy Community moves to the next level.

Artur Lorkowski

Dirk Buschle

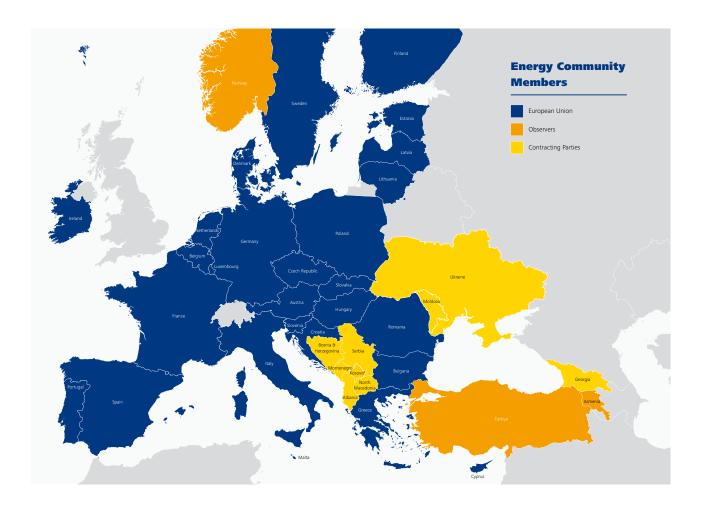


#### **02 Introduction**

#### a. Presenting the Energy Community

The Energy Community extends the European Union (EU) internal energy market to its neighbouring countries. The principle objectives of the Energy Community are to create a regulatory

and market framework which is capable of attracting investments for a stable and continuous energy supply. By signing the Energy Community Treaty, the Contracting Parties committed to implementing key EU energy legislation within a fixed timeframe.



#### b. Members

The Treaty establishing the Energy Community was signed in October 2005 in Athens. Following ratification by all Parties, the Treaty entered into force on 1 July 2006. As of 1 November 2022, the Parties to the Treaty are the European Union, and nine Contracting Parties, namely Albania, Bosnia and Herzegovina, Georgia, Kosovo\*, North Macedonia, Moldova, Montenegro, Serbia and Ukraine. Armenia, Norway and Türkiye are Observers under Article 96 of the Treaty.

#### c. Institutional setting

The Energy Community has its own institutional framework. The highest decision-making body is the Ministerial Council, which meets once a year to establish key priorities and adopt new legislation.

The Energy Community Secretariat, based in Vienna, is independent and performs the day-to-day work of the Community. The Secretariat is responsible for reviewing the progress made by the countries in transposing and implementing European energy law incorporated by the Energy Community Treaty.

#### d. Dispute settlement

The Energy Community Treaty provides for a dispute settlement procedure, which is meant to ensure the enforcement of the commitments under the Treaty.

A preliminary procedure precedes the submission of a case of non-compliance to the Ministerial Council under Article 91 of the Treaty. It may be initiated by the Secretariat by way of an Opening Letter to be followed, as the case may be, by a Reasoned Opinion and Reasoned Request to the Ministerial Council. The procedure is closed upon compliance by the Party concerned with its obligations under the Treaty at any time of the preliminary procedure or with a decision of the Ministerial Council. If a breach identified by the Ministerial Council has not been rectified, a procedure for a decision under Article 92 of the Treaty may be initiated. If a Party to the Treaty persistently fails to comply with its obligations, the Ministerial Council may suspend certain rights derived from the application of the Treaty, including voting rights and right to participate in meetings or mechanisms provided for in the Treaty.

The Report includes open cases under both Article 91 and Article 92 of the Treaty, as well as cases where the procedure under Article 91 of the Treaty has been closed with the adoption of a Ministerial Council decision, but the breach has not been rectified yet. Cases in which the Ministerial Council has adopted a decision under Article 91 and have been followed up by opening a procedure under Article 92 of the Treaty, are reflected only in the boxes related to Article 92.

It also includes cases where the breaches are not rectified despite adoption of Ministerial Council decisions establishing a serious and persistent breach or imposing measures under Article 92 of the Treaty.

#### e. Acquis

Since 2006, the Energy Community acquis has significantly evolved to incorporate new directives and regulations. Presently, the acquis covers legislation on electricity, gas, oil, infrastructure, renewable energy, energy efficiency, competition and State aid, environment, statistics, climate and cybersecurity.

The June 2022 informal Ministerial Council reached a high level of ambition on targets for energy efficiency, putting a cap on the amount of final and primary energy consumption, boosting renewables and reducing greenhouse gas emissions by 2030, in line with the commitment to achieve climate neutrality of their economies by 2050. The targets are expected to be formally adopted at the Energy Community Ministerial Council in December 2022. As regional electricity market integration is one of the most cost-efficient ways to support the achievement of the decarbonization targets, the adoption of the Electricity Regulation, Network Codes and related acts will also be tabled for the 2022 Ministerial Council.

The tables below display the core Energy Community acquis communautaire presently in force<sup>2</sup>. The implementation deadlines have been set by the respective Ministerial Council decisions. Due to their later accession, some of the implementation deadlines differ for Moldova (2010), Ukraine (2011) and Georgia (2017).



#### Acquis on Electricity

Directive 2009/72/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC

Directive (EU) 2019/944 on common rules for the internal market for electricity

Regulation (EC) 714/2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) 1228/2003

Regulation (EU) 838/2010 on laying down guidelines relating to the inter-transmission system operator compensation mechanism and a common regulatory approach to transmission charging

Regulation (EU) 543/2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) 714/2009

Regulation (EU) 2016/1388 establishing a network code on demand connection

Regulation (EU) 2016/631 establishing a network code on requirements for grid connection of generators

Regulation (EU) 2016/1447 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules

Regulation (EU) 1227/2011 on wholesale energy market integrity and transparency



#### Acquis on Gas

Directive 2009/73/EC concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC

Regulation (EC) 715/2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) 1775/2005

Regulation (EU) 2015/703 establishing a network code on interoperability and data exchange rules

Regulation (EU) 2017/459 establishing a network code on capacity allocation mechanisms in gas transmission systems

Regulation (EU) 2017/460 establishing a network code on harmonized transmission tariff structures for gas

Regulation (EU) 1227/2011 on wholesale energy market integrity and transparency

Regulation (EU) 312/2014 establishing a network code on gas balancing of transmission networks



#### Acquis on Security of Supply

Regulation (EU) 2017/1938 concerning measures to safeguard the security of gas supply

Regulation (EU) 2019/941 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC



#### Acquis on Governance and Climate Action

Regulation (EU) 2018/1999 on the governance of the energy union and climate action

Commission Regulation (EU) 2020/1044 supplementing Regulation (EU) 2018/1999 with regard to values for global warming potentials and the inventory guidelines and with regard to the Union inventory system

Commission Implementing Regulation (EU) 2020/1208 on structure, format, submission processes and review of information reported by Member States pursuant to Regulation (EU) 2018/1999



#### Acquis on Environment

Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2014/52/EU

Directive (EU) 2016/802 relating to a reduction in the sulphur content of certain liquid fuels

Commission Implementing Decision (EU) 2015/253 laying down the rules concerning the sampling and reporting under Council Directive 1999/32/EC as regards the sulphur content of marine fuels

Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants

Chapter III, Annex V and Articles 72(3)-(4) of Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)

Article 4(2) of Directive 79/409/EEC on the conservation of wild birds

Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage, as amended by Directive 2006/21/EC, Directive 2003/31/EC and Directive 2013/30/EU

Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment



#### Acquis on Renewable Energy

Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources



#### Acquis on Energy Efficiency

Directive 2012/27/EU on energy efficiency

Directive 2010/31/EU on the energy performance of buildings

Regulation (EU) 2017/1369 setting a framework for energy labelling



#### Acquis on Infrastructure

Regulation (EU) 347/2013 on guidelines for trans-European energy infrastructure



#### Acquis on Oil

Council Directive 2009/119/EC imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum

Recommendation 2018/02/MC-EnC on preparing for the implementation of Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC



#### Acquis on Statistics

Regulation (EC) 1099/2008 on energy statistics

Regulation (EU) 2016/1952 on European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC

Implementing Regulation (EU) 2019/803 concerning the technical requirements regarding the content of quality reports on European statistics on natural gas and electricity prices pursuant to Regulation (EU) 2016/1952



#### ■ 1 Acquis on Competition

The acquis on competition (Articles 18 and 19 of the Energy Community Treaty) rests on three pillars:

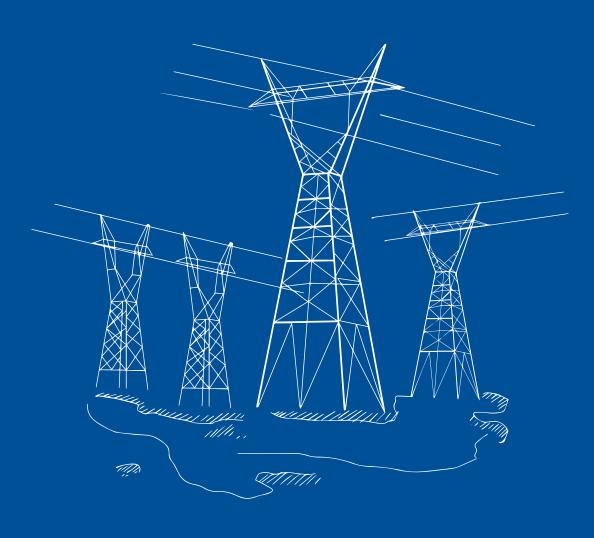
- 1. The prohibition of anticompetitive agreements established by Article 101 of the Treaty on the Functioning of the European Union (TFEU);
- 2. The prohibition of abuse of a dominant position provided for in Article 102 of the TFEU; and
- 3. The prohibition of State aid granted in violation of Article 107 of the TFEU.



#### Cybersecurity

Procedural Act 2018/02/MC-EnC on the establishment of an Energy Community Coordination Group for Cybersecurity and Critical Infra-

# Albania







#### **SUMMARY IMPLEMENTATION**

SUMI	MARY CATORS	IMPLEMENTATION STATUS	2022 HIGHLIGHTS
<b>F</b>	Electricity	68%	Activities on the establishment of the organised dayahead market advanced but the date for the launch of the day-ahead market is still to be defined.
4	Gas	52%	Albania has nearly completed its regulatory framework for the gas market, enabling the country to take advantage of the gas infrastructure running through its territory.
<b>S</b>	Oil	45%	Albania made progress by drafting two Regulations to align the existing industry-related model with the oil acquis.
	Renewable Energy	62%	Albania is one of the three Contracting Parties which achieved its 2020 renewables target. It continued to be a frontrunner when it comes to implementation of auctions for renewables projects.
A B	Energy Efficiency	50%	Albania progressed with the implementation of energy efficiency requirements for buildings, training of experts for energy audits and issuing of building energy performance certificates.
8	Environment	55%	Albania has recorded some progress in the field of nature protection but must pay more attention to the environmental assessments of hydropower projects.
	Climate	78%	Albania was the first Contracting Party to adopt its NECP. Albania is strongly encouraged to update the plan with the 2030 targets and the Secretariat's Recommendations.
<u></u>	National Authorities	61%	ERE executes its legal regulatory obligations and competences on a regular basis. The State aid authority's independence is not guaranteed. More rigorous enforcement of the competition and State aid acquis is required.
<u>ılı</u>	Statistics	69%	Although not fully compliant yet, Albania made significant steps by clearly assigning the responsibility over energy statistics to the Agency for Natural Resources and improving the completeness of price statistics.

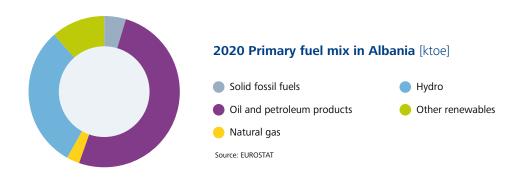


#### **State of Energy Sector Reforms**

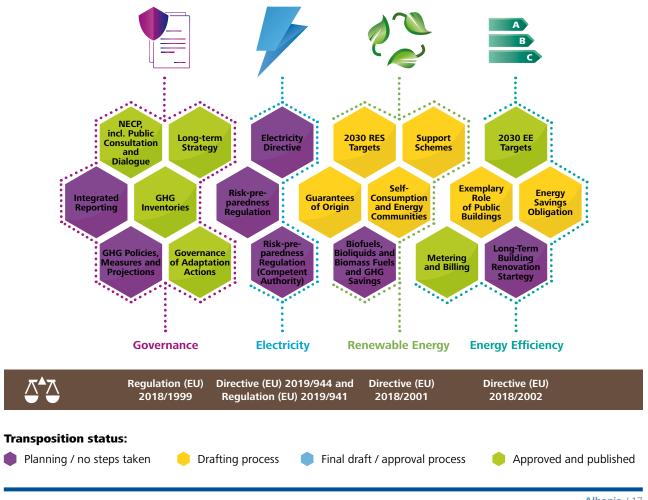
Albania has achieved moderate progress in terms of electricity and gas market reforms. When it comes to renewables, the country continued to be a frontrunner in the implementation of auctions for renewables projects and achieved its 2020 renewables target. Albania advanced in the implementation of the Energy Performance of Buildings Directive but more progress in the area of energy efficiency is needed especially in the context of the energy crisis. Environmental concerns regarding hydropower development on the Valbona and Vjosa rivers continued.

Implementation of environmental impact assessment legislation remained insufficient.

Albania has adopted a first version of its National Energy and Climate Plan and the Governance Regulation is partially transposed. The transposition of the 2021 electricity legislation is yet to begin, while the transposition of the new Renewables and Energy Efficiency Directives is at an early stage.



# **Decarbonisation readiness - 2021 Clean Energy Package transposition**





#### **ELECTRICITY IMPLEMENTATION**

#### UNBUNDLING

89% 1



The transmission system operator is unbundled and certified.

Legal unbundling of the distribution system operator from the supply branch was completed by the restructuring of the former integrated utility OSHEE into a holding of three subsidiaries, licensed respectively as a universal service provider (FSHU), electricity supplier (FTL) and distribution system operator (OSSH). Functional unbundling is still to be completed by the appointment of the compliance officer and completion of rebranding, which are still pending.

#### ACCESS TO THE SYSTEM





Access and use of the system, including for cross-border exchanges, is implemented in accordance with the Third Energy Package. Tariffs for the use of the transmission network are reviewed every three years, whereas tariffs for the use of the distribution network are reviewed on an annual basis.

The Connection Codes are transposed but their implementation is still pending.

The Transparency Regulation is transposed and partially implemented.

#### WHOLESALE MARKET





KESH has a public service obligation to provide electricity for universal service and, as of July 2022, losses in the transmission network for the duration of the emergency situation. Electricity supplier FTL has an obligation to sell electricity for covering distribution losses to OSHH. This is not in compliance with Energy Community law and limits the potential for competition significantly.

The power exchange ALPEX was established by the transmission system operators of Albania OST and Kosovo\* KOSTT to become the day-ahead and intraday market operator for Albania and Kosovo\*. The establishment of electronic platforms for trading, clearing and settlement is ongoing and a training for the participants will commence in December 2022. However, the date for the launch of the day-ahead market in Albania is still to be defined. Day-ahead market rules were submitted to the regulator for approval. In November 2022, the Parliament approved amendments to the VAT Law, excluding imports and trading on ALPEX markets from VAT. ERE has adopted the procedure for the designation of a nominated electricity market operator.

The competitive balancing and ancillary services market is established, but still operates with limited liquidity.

REMIT Regulation (EU) 1227/2011 is transposed and implemented.

#### RETAIL MARKET

50% II



The universal service provider FSHU holds the major share of retail supply, either as a universal service supplier to 0,4 kV customers or as a supplier of last resort, selected via tender procedure in March 2022, to customers connected at 20 kV, 10 kV and 6 kV voltage level. Customers connected to 35 kV and the high voltage level are obliged to be supplied at the free market.

Primary legislation defines vulnerable customers. Currently, financial support to vulnerable customers is provided through two Government decisions on compensations for electricity consumption.

#### REGIONAL INTEGRATION

58% 1



The Decision on the Approval of Practices for the Promotion of Joint, Regional Investment in Energy Infrastructure transposed TEN-E Regulation (EU) 347/2013. However, the bulk of its provisions has not been implemented. There was no progress in the reporting period.

The PECI project, 400 kV overhead line between Albania (Elbasan) and North Macedonia (Ohrid - Bitola), is under construction, to be completed by 2023.

All cross-border capacities are allocated through SEE CAO, except split auctions on the interconnection with Serbia. The Albania - Kosovo\* (AK) control block cooperates on cross-border balancing. Market coupling between Albania and Kosovo\* is envisaged to take place in parallel with the launch of the dayahead market in Kosovo\*.

#### SECURITY OF SUPPLY

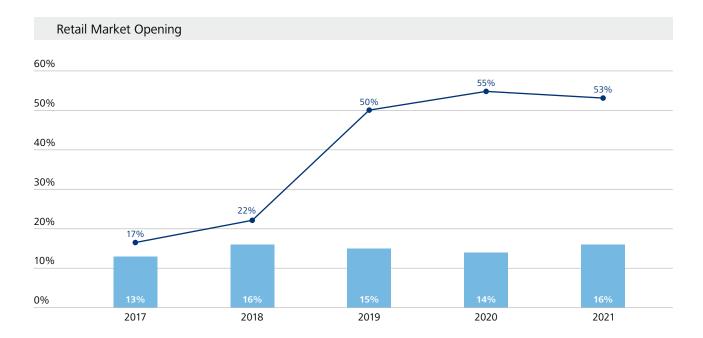
61%

Directive 2005/89/EC is transposed but no rules on security of supply, as required by the Power Sector Law, have been adopted to date.

Based on the Regulation on Cybersecurity of Critical Infrastructures in the Power Sector and the Regulation on the Content and Method of Documenting Security Measures, infrastructure operators must submit a self-assessment to the energy regulator. OST undertakes emergency measures to minimize the possibility of an attack on the computer network and platforms, whereas OSHEE implements basic measures.

#### **RECOMMENDATIONS / PRIORITIES**

Albania should launch the day-ahead market along with the phasing out of the bulk supply agreement between the production company KESH and the universal supplier FSHU. This will help unlock the development of competition and liquidity in the market. Connection Codes should be implemented through amendments to the Network Codes. Functional unbundling of the distribution system operator should be completed so that the open infringement case can be closed.



Supply to active eligible customers in % for Albania

Supply to active eligible customers in % for the Energy Community (weighted average %)

Source: Ministry of Infrastructure and Energy, compiled by the Energy Community Secretariat



#### GAS IMPLEMENTATION

#### UNBUNDLING

**76% J** 



The Trans Adriatic Pipeline (TAP) is certified and unbundled in line with the exemption decision under the independent transmission operator model. The national transmission system operator Albgaz is certified under the ownership unbundling model. However, all the conditions set in the certification decision are not yet met such as the complete transfer of competencies over investment decisions to the ministry exercising control over Albgaz.

#### ACCESS TO THE SYSTEM

70%



Network Codes are transposed and operationalised by TAP and Albgaz in separate codes. In practice, Albgaz is acting as a company engaged in the maintenance of TAP under a separate contract. Implementation of third party access is performed only by TAP, in line with the exemption conditions. During the reporting period, the Energy Regulatory Entity (ERE) adopted the LNG and storage tariff methodologies and licensing rules for LNG.

#### WHOLESALE MARKET

15% |

Albania has no national natural gas market. The REMIT Regulation was transposed by ERE. ERE has adopted all acts envisaged by the law save the market rules.

#### **RETAIL MARKET**

31% ||

Despite the lack of a national gas market, secondary legislation regulating supply to customers was adopted.

#### INTERCONNECTIVITY, REGIONAL INTEGRATION

21% J



Following the operationalization of Trans Adriatic Pipeline (TAP), Albania is formally connected to gas markets. Albania has become a transit country, as TAP has commenced its commercial operation last year and is performing a market test for the expansion of its capacities. As of late, Albania has been promoting an LNG-based source of supply to its long-abandoned project of converting the thermal power plant (TPP) Vlore to gas. At the same time, it looks at becoming also a transit route of LNG to Italy via TAP, as the construction of exit facilities of TAP towards a future Albanian network may need to revert its direction into an entry point to TAP. Nevertheless, no progress in terms of developing its own gas infrastructure took place.

The Albania - Kosovo\* Gas Pipeline (ALKOGAP) is a Project of Energy Community Interest (PECI). The Ionian Adriatic Pipeline (IAP) is a Project of Mutual Interest (PMI).

#### SECURITY OF SUPPLY

60%

Gas emergency rules are in place. The Gas Law was amended in 2021 to transpose certain elements of Security of Gas Supply Regulation (EU) 2017/1938.

#### **RECOMMENDATIONS / PRIORITIES**

Albania should implement the certification conditions for Albgaz and accelerate its efforts to make it an operational transmission system operator.

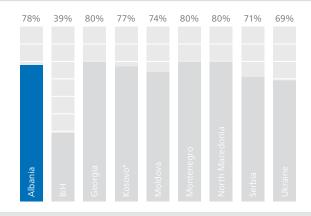
Albania should take coherent and targeted actions to establish a functional gas market in order to utilise the potential of the infrastructure present in the country and to create a market basis for the infrastructure development plans.



# Albania National Authorities

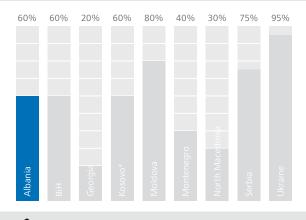


#### Regulatory Authority



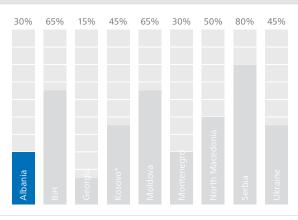
The Energy Regulatory Entity (ERE) launched steps for implementation of the REMIT Regulation, approved rules for designation of the NEMO in line with EU practice, approved a new transmission code and continued active participation in ECRB. The regulator did not make available a price comparison tool for customer switching. A methodology for the calculation of the renewable energy surcharge to be paid by all final consumers of electricity is pending in line with the revision of the new renewables law, which is under public consultation.

#### Competition Authority



Activities of the Albanian Competition Authority (ACA) in the energy sector are limited to opinions and recommendations regarding compliance of decisions by ERE with the Law on Protection of Competition. Full compliance with the Treaty's obligation on enforcement of the competition acquis requires more rigorous enforcement activity by ACA in terms of investigating and sanctioning anti-competitive conduct.

#### State Aid Authority



The institutional structure and the enforcement mechanism continue to be a cause of concern. Staff originally assigned to the State Aid Control Unit (SACU), which provides technical and administrative support to the decision-making body (the State Aid Council, SAC), was transferred to other departments and only provides support to the SAC on an ad hoc basis. The establishment of a working group to reassess the institutional structure did not lead to any structural change. Furthermore, the independence of the members of the SAC from the Ministry of Economy and Finance is questionable. Full compliance with the Treaty's obligations in the area of State aid would require an independent State aid authority with sufficient human and technical resources, which actively enforces the acquis.



#### OIL IMPLEMENTATION

#### **OIL STOCKHOLDING OBLIGATIONS**

35% ▮

The draft Law on the Establishment, Maintenance and Management of Minimum Security Stocks of Crude Oil and Petroleum Products to align with Council Directive 2009/119/EC is not yet adopted.

A new package is being prepared that aims to comply with the Directive's obligations by introducing a system that would be more in line with the current industry-based model. It consists of two additional regulations that set out the reporting obligations and the method of calculating the minimum stocks as well as the National Response Plan.

Albania is yet to decide whether it will adopt the draft Law or adopt the two regulations and thus continue with the existing industry-related model.

#### **FUEL SPECIFICATIONS**

75% |

The main provisions of Directive 98/70/EC were transposed into Albanian legislation through the Government's Decision on the Quality of Fuel, Petrol and Diesel.

Legislation to ensure that sulphur content in gas oil for non-road mobile machinery is less than 10 mg/kg was not adopted yet. A system for fuel quality control is in place. Fuel quality monitoring is ensured through annual monitoring programmes.

#### **RECOMMENDATIONS / PRIORITIES**

If Albania would like to continue with the same model (industry related), it has to adopt the two drafted regulations and the intervention plan. As the final step for compliance, Albania's oil stocks must correspond to either 90 days of net imports or 61 days of inland consumption, whichever is higher.



#### RENEWABLE ENERGY IMPLEMENTATION

#### NATIONAL RENEWABLE ENERGY ACTION PLAN

80% 1

ADMINISTRATIVE PROCEDURES AND GUARANTEES OF ORIGIN

50% |

The share of renewable energy sources in Albania's energy consumption reached 45,01% in 2020, exceeding the target of 38%. The significant increase is attributed to the Covid-19 pandemic which led to a substantial drop in energy consumption, in particular in the transport sector. Although electricity production is almost 100% from renewable sources, the share is very small in the heating and cooling and transport sectors.

#### QUALITY OF SUPPORT SCHEME 72% |

The Renewables Law defines support schemes in the form of administratively set feed-in tariffs and the Contract for Difference (CfD). In practice, auctions with a fixed purchase price were conducted, envisaging conversion into CfD once a dayahead market is operational and liquid. A decision on making all renewables producers balance responsible was adopted on 1 April 2021.

#### **GRID INTEGRATION**

55% ||

Renewable energy producers have guaranteed priority access to the grid. Network operators have developed medium and long-term plans to accommodate new renewable electricity generators into the grid. The regulator publishes tariffs for connection to the network.

No progress has been made to simplify administrative procedures and establish a one-stop shop in the reporting period. Albania joined the Energy Community initiative to establish a regional system for guarantees of origin. The national electronic registry for guarantees of origin in Albania was created and can be utilized as soon as the energy regulator, as the designated

issuing body, signs a direct agreement with the service provider.

#### RENEWABLE ENERGY IN TRANSPORT

0% ||

Renewable energy producers have guaranteed priority access to the grid. Network operators have developed medium and long-term plans to accommodate new renewable electricity generators into the grid. The regulator publishes tariffs for connection to the network.

#### **RECOMMENDATIONS / PRIORITIES**

Provisions related to the sustainability of biofuels are still not transposed and the legal framework remains completely non-compliant with Directive 2009/28/EC. Thus, biofuels, which presently make up more than 10% of the fuel market, cannot be calculated towards the target.

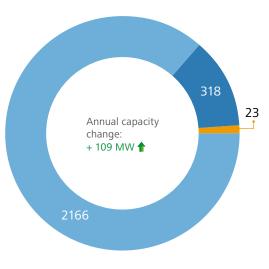
Albania should proceed with the adoption of amendments to the Renewables Law to transpose and implement Directive (EU) 2018/2001 by the end of 2022. Permitting procedures need to be simplified and streamlined to enable faster deployment of renewables. The energy regulator, as the designated issuing body for guarantees of origin, should sign a direct agreement with the service provider and start using the national electronic registry developed during the regional project.

#### Shares of Energy from Renewable Sources



Source: EUROSTAT

#### Total Capacities of Renewable Energy 2021 (MW)



Large hydropower

Small hydropower <10 MW</p>

Solar

Source: Ministry of Infrastructure and Energy

On 1 July 2022, the construction of the Karavasta solar PV power plant started. As a result of the auction conducted in 2019, 70 MW are envisaged to be supported via an offtake agreement for 15 years at the price of 24,89 EUR/MWh, while an additional 70 MW will be sold on the market.

In June 2021, Albania announced a 100 MW wind auction. Bidders can compete with projects between 10 MW and 75 MW and the winners will be awarded a 15-year power purchase agreement which will be converted into a CfD. The second phase was concluded in September 2022 resulting in six qualified bidders. The ceiling price for the bids is set at EUR 75/MWh and companies have until May 2023 to place bids.

The increase in installed capacity compared to 2020 is mostly due hydropower plants and 2 MW of solar rooftop installations operating under the net-metering scheme.

Total capacities of renewable energy (MW):

2507



#### **ENERGY EFFICIENCY IMPLEMENTATION**

#### **ENERGY EFFICIENCY TARGETS** AND POLICY MEASURES

60% 4

**ENERGY EFFICIENT** PRODUCTS - LABELLING

35%



Albania has met the 2020 energy efficiency target, and submitted its Annual Progress Report to the Secretariat in September

The amendments to the Energy Efficiency Law adopted in March 2021 transposed Directive 2012/27/EU. Three implementing by-laws (on local energy efficiency action plans, monitoring and verification platform and scope of application of building requirements) have been drafted. Their adoption is pending.

Albania introduced 2030 energy efficiency targets and policy measures in the first version of its National Energy and Climate Plan adopted in February 2022. The Plan is in the process of being updated to reflect new ambition levels.

In October 2022, the Government introduced mandatory 15% energy saving targets for the public sector and new measures for households, including a financing scheme for subsidising the installation of solar water heaters.

#### **ENERGY EFFICIENCY IN BUILDINGS**

82%

After the adoption of the relevant by-laws implementing the 2016 Law on Energy Performance of Buildings, Albania established an operational energy performance certification scheme. The Energy Efficiency Agency organizes training on energy audits and certification of buildings. A long-term building renovation strategy has not been adopted yet.

#### **ENERGY EFFICIENCY FINANCING**

**36% 1** 

No financing framework (state fund) for energy efficiency exists. Amendments to the Energy Efficiency Law promote the development of the energy service (ESCO) market model, and the relevant regulation and model contracts for energy performance contracting are in drafting phase. Several international technical assistance and investment programmes support energy efficiency improvements, especially in the buildings sector.

There was no progress with respect to updating existing or adopting new regulations as required by the Ministerial Council Decisions adopted in September 2014 and November 2018.

#### EFFICIENCY IN HEATING AND COOLING

38%



Albania predominately relies on electricity for heating and cooling purposes and does not have developed district heating or cooling systems. There is an ongoing assessment of the potential for establishing the first greenfield district heating and cooling system in the city of Korca, in line with the requirements of the Energy Efficiency Directive. The 2021 amendments to the Energy Efficiency Law envisage the development of guidelines and a comprehensive assessment of the national potential for the application of high-efficiency cogeneration and efficient district heating and cooling, which is under preparation.

#### **RECOMMENDATIONS / PRIORITIES**

Albania made progress with the implementation of the Energy Performance of Buildings Directive, including energy audits and issuing of building energy performance certificates.

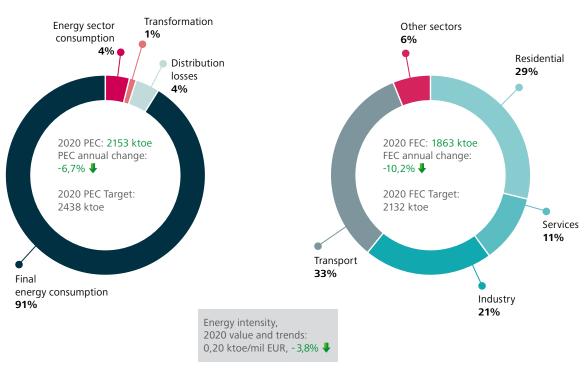
The adoption of by-laws to implement the Energy Efficiency Law, including the establishment of the energy efficiency obligation scheme, and the adoption of the labelling regulations remain a priority.

The Secretariat also recommends that the country proceeds with the comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling in line with its obligations under the Energy Efficiency Directive.

#### 2020 Energy Efficiency Indicators and Trends

#### Primary Energy Consumption (PEC)

#### Final Energy Consumption (FEC)



Source: EUROSTAT 2022 data and Contracting Party's Reports

#### Energy Efficient Products – Overview of Implementation of Labelling Regulation

	Ö		0= 0==	:	555	0= 0==		((())	\$\$\$ 	<b>BB 0</b>	
FRAMEWORK REGULATION*	Household dishwashers	Fridges and freezers*	Household washing machines	Televisions	Air conditioners and fans*	Household tumble driers	Electrical lamps and luminaires	Solid fuel boilers*	Space heaters*	Water heaters & storage tanks	Domestic ovens and range hoods

<sup>\*</sup> The new labelling package adopted by the Ministerial Council in November 2018 was assessed, as the transposition deadline expired in January 2020. Source: multiple sources of data (EECG reports, NEEAPs etc.), compiled by the Energy Community Secretariat

No progress with adoption/implementation

Compliance or implementation issues detected

Adopted and implemented



#### **ENVIRONMENT IMPLEMENTATION**

#### **ENVIRONMENTAL ASSESSMENTS**

53% 1

Albania failed to align the Law on Environmental Impact Assessment (EIA) with Articles 8 and 8a of the EIA Directive. The lack of proper transposition of the EIA Directive puts at risk the EIA processes and undermines its fundamental goal. Secondary legislation necessary for proper enforcement, in particular bylaws on certification of EIA experts and EIA screening criteria, is still lacking. Concerns regarding hydropower development on the Valbona and Vjosa rivers remain, while new concerns arose over hydropower project Skavica. Consultations with the public and relevant national authorities must be improved in order to secure their early and effective participation in the decision-making process.

The Strategic Environmental Assessment (SEA) Directive is transposed by Law No. 91/2013 and assessments are carried out in practice. The draft National Energy and Climate Plan was made subject to the SEA procedure and the first draft SEA report was consulted with the public and authorities concerned in December 2021. The revision of the SEA report and the plan itself to reflect the input from the consultation process took place after the adoption of the plan, which is not in line with Article 4(1) of the SEA Directive and the national SEA legislation. The Council of Ministers' Decision No. 219 on determining the rules and procedures for the consultations with interest groups and the public, as well as the public hearing during the strategic environmental assessment process should reiterate the obligation for carrying out the assessment during the preparation of the plan/programme before its adoption as stipulated in the SEA Directive.

#### SULPHUR IN FUELS

**67% ↓** 

The provisions of the Directive, including those on marine fuels, are transposed since 2019 by a Decision of the Council of Ministers. The Decision foresees the adoption of several Ministerial level decisions to implement and enforce the obligations for reduction of the sulphur content of certain liquid fuels, especially with regard to the provisions on sampling and analysis. This has still not taken place.

#### LARGE COMBUSTION PLANTS

100% ||

TPP Vlora, the only large combustion plant in Albania, is still not in operation. The Fier-Vlora gas pipeline is in preparation since June 2020, construction has however not started yet. This would enable the plant to switch its fuel to natural gas. Furthermore, a Memorandum of Understanding with different gas companies was signed to conduct a feasibility study for the development of an LNG terminal in the Port of Vlora. These are substantial changes to TPP Vlora and shall be made subject to an environmental impact assessment procedure. The new plant, if put into operation, must comply with the emission limit values of the Industrial Emissions Directive for new plants.

#### NATURE PROTECTION

67% |

The designation of protected areas based on the 2020 decision of the National Territorial Council is still not finalized. A declaration on the protection of the Vjosa river valley was signed, however, the official protection status of the Vjosa river valley as IUCN (International Union for Nature Conservation) category II protected area (national park) is still pending. The Government continued with the development of infrastructure plans and projects within Ramsar sites (e.g. National Park of Butrint) that are not compatible with the protection goals of the sites. The Red List on Protected Flora and Fauna was adopted.

#### **ENVIRONMENTAL LIABILITY**

0%

Albania has not transposed the provisions of the Environmental Liability Directive into national legislation.

#### **RECOMMENDATIONS / PRIORITIES**

Albania should further align its national legislation with the EIA Directive and adopt secondary legislation necessary for the proper implementation and enforcement of the EIA procedures. The legislation on SEA should be improved in order to secure that the consultation process is carried out before the adoption of the SEA plan/programme or its submission to the legislative procedure for approval. The upcoming revision of the NECP should be used as an opportunity to further align the plan with the outcome of the SEA.

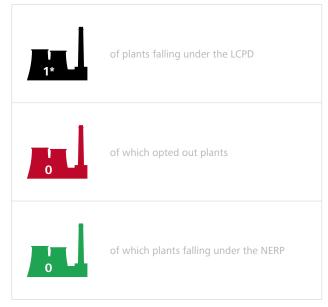
Albania should adopt the secondary legislation necessary for the implementation of the Decision transposing the Sulphur in Fuels Directive.

The environmental assessments of projects related to TPP Vlora have to be carried out and the plant has to comply with the Industrial Emissions Directive, when put into operation.

The protection status of the Vjosa river valley should be established in line with the scientific recommendations of the national and international expert community. Concrete measures and activities for the protection of the different groups of species that are part of the Red List on Protected Flora and Fauna should be developed and implemented. Plans and projects for infrastructure development within Ramsar sites should be reconsidered due to the carbon sinks role of such sites.

The provisions of the Environmental Liability Directive should be transposed without delay.

#### Installations under the Large Combustion Plants Directive



<sup>\*</sup> not in operation

Source: compiled by the Energy Community Secretariat



#### **CLIMATE IMPLEMENTATION**

#### NATIONAL GREENHOUSE GAS EMISSIONS MONITORING AND REPORTING SYSTEMS

65% ||

During this reporting period, Albania failed to deliver its fourth National Communication, which was expected to be finalized in early 2022. A law on fluorinated gases was expected to be finalized by December 2021.

#### NATIONAL ENERGY AND CLIMATE PLANS (NECPS)

92% 🛊

Albania adopted its Climate Change Law in December 2020. The Law and the related secondary legislation will need to be adjusted to ensure the transposition of the climate-related parts of the Governance Regulation.

Albania submitted its draft NECP to the Secretariat in July 2021, which provided its formal Recommendations on 17 December 2021. The Albanian Government adopted the NECP on 29 December 2021. In order to be able to fully accommodate the Secretariat's Recommendations and in order to reflect the Energy Community 2030 targets, the Albanian authorities have continued to refine the NECP in the course of 2022, with the objective to adopt the updated NECP in 2023 at the latest, subject to the availability of technical assistance. With the aim to promote regional/local NECPs, a workshop took place in October 2022 in the Korca Region.

#### **RECOMMENDATIONS / PRIORITIES**

The NECP is expected to be updated accommodating, the Secretariat's Recommendations and adjusting it to be in line with the Energy Community 2030 targets. Work on the full transposition of the Governance Regulation should continue.



#### STATISTICS IMPLEMENTATION

#### **ANNUAL STATISTICS**

86% 4



Albania has implemented the requirements of the acquis. The Agency for Natural Resources (AKBN) compiles annual energy balances and annual questionnaires and submits them to EU-ROSTAT. The SHARES questionnaire for 2020 was also transmitted, as well as the preliminary data for 2021.

The breakdown of energy consumption of households was also prepared, transmitted to EUROSTAT and published. The quality report from the first reporting cycle was transmitted in 2018 and published. The second quality report for the 2022 reporting cycle is underway.

#### **MONTHLY STATISTICS**

58% |

Oil, electricity and natural gas data are available and transmitted to EUROSTAT, although the deadlines for the submission of data are not observed. Monthly oil statistics defined in Annex C of Regulation (EC) 1099/2008, necessary to monitor stock obligations, remain unsatisfactory. Monthly coal data are not available yet.

#### PRICE STATISTICS

58%



The prices of electricity charged to end-users are not transmitted to EUROSTAT in accordance with the acquis. The prices of electricity charged to households per consumption band were transmitted, but the corresponding volumes are missing as well as the full breakdown of price components. In 2022, AKBN has started to transmit bi-annual data on prices charged to industrial end-users.

AKBN in cooperation with the regulatory authority is preparing a complete set of data on electricity and natural gas prices to begin with reporting data for first semester 2022.

The quality report on price statistics, which was due by 15 June 2022 in accordance with Regulation (EU) 2019/803, has not been transmitted yet. Its preparation is planned after completing the price datasets.

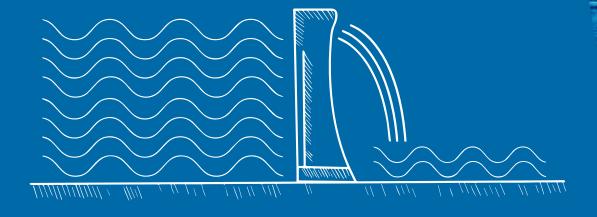
#### **RECOMMENDATIONS / PRIORITIES**

Priority should be given to completing the activities related to price statistics and monthly data reporting, in particular oil stocks, to meet reporting obligations under Regulation (EC) 1099/2008 and the oil acquis.

Due care should be paid to metadata and publication of quality reports both for energy statistics and prices.

AKBN should be equipped with the necessary human and financial resources to fulfil the remaining tasks in a timely manner.

# Bosnia and Herzegovina







#### **SUMMARY IMPLEMENTATION**

	MARY CATORS	IMPLEMENTATION STATUS	2022 HIGHLIGHTS
<b>F</b>	Electricity	61%	There was no visible progress to implement due commitments under the Treaty.
<b>6</b>	Gas	24%	No progress was achieved in Bosnia and Herzegovina in this reporting year and the implementation of the gas acquis continues to hover at a low level.
<b>S</b>	Oil	8%	No progress occurred during the reporting period, and implementation remains at a low level.
	Renewable Energy	55%	Bosnia and Herzegovina came close to reaching its 2020 target. The new Renewables Law adopted in Republika Srpska in February 2022 partially transposed the REDII, while in the Federation a similar law was drafted.
A B	Energy Efficiency	49%	Limited progress was achieved in Bosnia and Herzegovina with respect to implementation of last year's recommendations and improvement of compliance with the energy efficiency acquis.
8	Environment	39%	In the area of environment, no progress occurred during the reporting period and implementation remains at a low level.
	Climate	48%	Apart from the ongoing work on the draft NECP on entity level, there is limited progress visible in the energy and climate field.
<u></u>	National Authorities	51%	The energy regulator's institutional framework does not comply with the acquis. Within its limited legal competences, SERC continues to pro-actively design the market. While the competition authority needs to enforce the competition acquis more rigorously, the State aid authority rendered three decisions in the energy sector.
<u>ılı</u>	Statistics	87%	Bosnia and Herzegovina maintained the achieved level of energy and price statistics by updating and completing the quality reports, but still falls short of improving the completeness of monthly statistics.

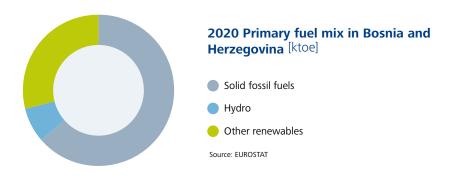


#### **State of Energy Sector Reforms**

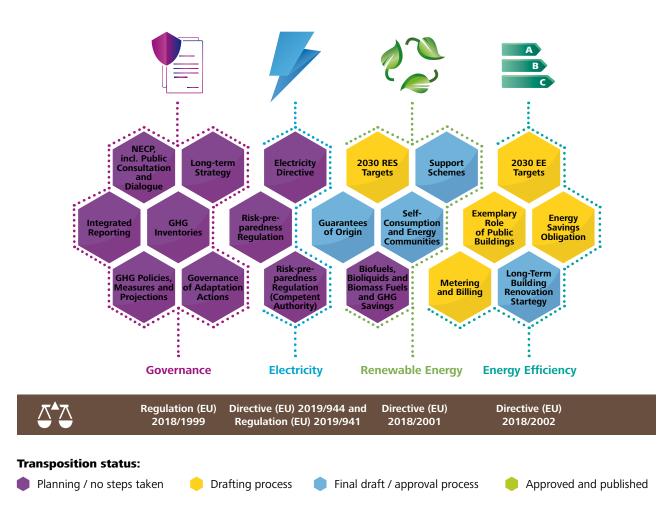
Bosnia and Herzegovina has achieved limited progress during this reporting period. The energy legal framework remained fragmented along entity lines, thus blocking much needed reforms. The non-compliant gas sector legislation continued to paralyze the country's gas infrastructure ambitious.

The Secretariat had to initiate infringement actions to address the country's breach of the Large Combustion Plants Directive in the case of Tuzla 4 and Kakanj 5, which continued to operate despite the expiry of their limited lifetime derogation period. Environmental standards remained low with levels of sulphur dioxide, nitrogen oxides and dust from large combustion plants above the ceiling.

Transposition of the Governance Regulation and the 2021 electricity legislation is yet to begin, while the transposition of the new Renewables and Energy Efficiency Directives is moderately advanced.



# **Decarbonisation readiness - 2021 Clean Energy Package transposition**





#### **ELECTRICITY IMPLEMENTATION**

#### UNBUNDLING

20% ||

The transmission network operator and the system operator are organised within two entities. Legal requirements for unbundling are not transposed and the transmission system operator is not unbundled, nor certified.

Three power utilities, Elektroprivreda Bosne i Hercegovina (EP-BIH), Elektroprivreda Hrvatske zajednice Herceg-Bosne (EPHZHB) and Elektroprivreda Republike Srpske (ERS) are vertically integrated with generation, distribution and supply activities. JP Komunalno Brčko is exempted from unbundling requirements, performing distribution and supply to less than 100.000 customers in the Brčko District.

Five distribution companies owned by Elektroprivreda Republike Srpske are legally and accounting unbundled from generation and supply activities. Functional unbundling and full management independence are not confirmed yet. Compliance officers are appointed, but compliance programmes are yet to be approved and implemented.

Distribution activities in the other two power utilities are operated within a single vertically integrated company, in breach of Energy Community law. The unbundling provisions are expected to be introduced by the new Electricity Law which is still pending approval by the entity government of Federation of Bosnia and Herzegovina.

#### ACCESS TO THE SYSTEM

95% 1

Network tariffs are published and implemented in a non-discriminatory manner. The State Electricity Regulatory Commission (SERC) reviewed the application of the transmission company (Elektroprijenos BiH) and decided to keep the transmission network tariffs unchanged for 2022 but increased the tariffs for the operation of the independent system operator (NOS BiH). Distribution network tariffs and public supply tariffs were increased in Brčko District only. The entity regulator in Republika Srpska reviewed tariff applications for distribution and public supply. Its decision is pending.

Connection Network Codes for transmission were transposed in 2019 through the corresponding rules, and implemented through the amended grid code and the decisions on derogation adopted by the SERC.

Entity authorities and distribution operators have transposed elements of the Connection Codes through simplified procedures for connection of small generators. Terms and conditions for connection to the distribution networks are published, together with certain technical requirements, but the distribution grid codes have not fully integrated all requirements from the Connection Codes.

The Transparency Regulation is transposed and largely implemented.

#### WHOLESALE MARKET

64%



The wholesale market is dominated by the three state-owned incumbent suppliers, trading through bilateral contracts. ERS trades also directly in foreign spot markets, whereas EPBIH and EPHZHB employ an agent to trade on their behalf.

The current Law on Electricity Transmission, Regulation and System Operation of Bosnia and Herzegovina of 2002, as amended, does not define the functioning of an organized spot market. The Ministry of Foreign Trade and Economic Relations, in coordination with entities' ministries, regulatory authorities and key energy undertakings, established a working group to define a pathway for setting up an organized market, following the Secretariat's proposal for amending the Law. The working group has made no progress.

The competitive market for balancing energy and ancillary services is in place since 2016.

SERC set the regulated price of electricity for losses in the transmission network, with limited scope and duration, for the periods in the course of 2022 when it cannot be purchased from public auctions, empowering the independent system operator (NOS BiH) to determine the volumes and the entities obliged to supply the missing volumes.

The Regulation on Integrity and Transparency of the Wholesale Energy Market (REMIT) is transposed and implemented in the electricity sector.

#### RETAIL MARKET



Supply takes place predominately by the three incumbent utilities, even more so following the price surge in 2021.

Regulated prices are available for customers entitled to universal service, namely households and small customers. In the Federation, two power utilities are responsible for providing universal service in their respective areas, at the prices calculated in accordance with the methodology defined by the entity regulator FERC. In Republika Srpska, prices for universal service are determined by the entity regulator RERS, based on the cost of production in the incumbent power utility ERS. Brčko District consumes around 2% of the country's electricity consumption, with prices for universal service determined by SERC.

In the competitive segment of the retail market, prices were freely negotiated until the price surge in the second semester of 2021. As the prices in bilateral supply contracts began to reflect European and regional spot market prices, the Chamber of Commerce in Republika Srpska assisted in striking a general deal with the dominant supplier ERS for supply of eligible customers. In the Federation, an amendment to the Electricity Law, adopted in December 2021, introduced a provision limiting the price increase for eligible customers to a maximum 20% per annum. As a consequence, concentration in the retail market increased.

The concept of vulnerable customers is defined in the primary legislation of Republika Srpska, however, the exact criteria for obtaining the status of a vulnerable customer are still to be developed and implemented. In Federation of Bosnia and Herzegovina, the concept of vulnerable customers is not explicitly provided in the legislation, nevertheless, there is a programme for subsidizing the below-average consumption implemented by EPBIH and EPHZHB. The Electricity Law of Brčko District includes the definition of a vulnerable customer. A programme for subsidizing vulnerable customers of electricity is being implemented.

#### REGIONAL INTEGRATION

40% 4

As Bosnia and Herzegovina has still not transposed the TEN-E Regulation, it does not rectify the infringement established by Ministerial Council Decision 2018/8/MC-EnC. The realisation of the part of the Transbalkan corridor, a PECI project, that goes

through Bosnia and Herzegovina (OHL 400 kV Visegrad - Bajina Basta) hinges on the completion of the necessary work in Serbia (OHL 2x400 kV Obrenovac - Bajina Basta).

Interconnection capacity on the borders with Montenegro and Croatia is allocated annually, monthly and daily through regionally coordinated auctions at SEE CAO. The allocation of capacity for all timeframes on the border with Serbia and the intraday capacity auctions on all borders is bilaterally coordinated between the respective system operators.

Cross-border balancing is implemented within the SHB control block shared with Slovenia and Croatia. The market rules were changed with the aim to implement system operation and electricity balancing guidelines. Bilateral exchanges of balancing energy with the operators of Serbia and Montenegro are applied.

#### **SECURITY OF SUPPLY**

66%

Directive 2005/89/EC is only partially transposed through the laws governing electricity sector on entity level.

There is no state-level legal framework on cybersecurity and the Law of Republika Srpska on Information Security does not transpose NIS Directive (EU) 2016/1148.

#### **RECOMMENDATIONS / PRIORITIES**

Adoption of the new state-level Electricity Law, which would establish the legal ground for unbundling and certification of the transmission system operator and the establishment of the day-ahead market, remains an essential precondition for the further development of the electricity market and its integration.

On entity level, Federation of Bosnia and Herzegovina should urgently transpose and implement the requirements for distribution system unbundling.

#### Retail Market Opening 60% 55% 53% 50% 50% 40% 30% 20% 10% 0% 2017 2018 2020 2019 2021

Supply to active eligible customers in % for Bosnia and Herzegovina

Supply to active eligible customers in % for the Energy Community (weighted average %)

Source: State Electricity Regulatory Commission, compiled by the Energy Community Secretariat



# **Bosnia and Herzegovina**

#### GAS IMPLEMENTATION

#### UNBUNDLING

35% 4

Gas Promet Pale, one of two operators in Republika Srpska, is certified under the ownership unbundling model by the entity's regulator. The second one, which performs transport, distribution, system operation and supply, is still not unbundled. In Federation of Bosnia and Herzegovina, one company operates the transmission network, as an exclusive and sole task in line with the Decree on Organization and Regulation of the Gas Sector, but there is no legal basis for unbundling under the Third Energy Package.

Distribution of gas in both entities is bundled with the supply and trade of natural gas as allowed by the Directive's de minimis clause.

#### ACCESS TO THE SYSTEM

25% 4



Third party access is granted under regulated tariffs for the gas network in Republika Srpska, while access is negotiated in the Federation. Tariffs are determined by the entity governments as part of the gas price at the distribution level. Third party access is not established under the Network Codes provisions in both entities.

#### WHOLESALE MARKET

Bosnia and Herzegovina has a foreclosed gas market, organised in two parallel entity gas markets. Republika Srpska's wholesale market prices are not regulated, however, there is only one dominant gas importer. This is also the case for Federation of Bosnia and Herzegovina, where wholesale prices are determined by the entity government. All transactions are based on bilateral contracts. A virtual trading point for Republika Srpska is not functional and it does not exist in the Federation.

The REMIT Regulation was not transposed.

#### RETAIL MARKET

10% ||

In Republika Srpska, all retail market customers are supplied under non-regulated prices and switching rules are in place. The public supplier for households has not been appointed yet. The dominant supplier, the public company GAS RES, serves circa 85% of the retail market in Republika Srpska. Customers

in Federation of Bosnia and Herzegovina are still captive and supplied under regulated prices.

#### INTERCONNECTIVITY, REGIONAL INTEGRATION



For the single interconnection point between Serbia and Bosnia and Herzegovina, there is an interconnection agreement signed between the adjacent operators.

There is no gas PECI project on the territory of Bosnia and Herzegovina, but two PMI projects: Interconnector Bosnia and Herzegovina - Croatia North and Interconnector Bosnia and Herzegovina - Croatia South. The former one, on the territory of Republika Srpska, is in the feasibility stage albeit it has not matured further during recent years.

The interconnector Bosnia and Herzegovina - Croatia South is in the design and permitting phase. The project would enable Bosnia and Herzegovina, and particularly the Federation, to access alternative sources of gas, contribute significantly to its security of supply and enable access to competitive gas markets of the European Union via Croatia, thus bringing in price competition. The project would introduce natural gas in new territories of the Federation.

#### SECURITY OF SUPPLY

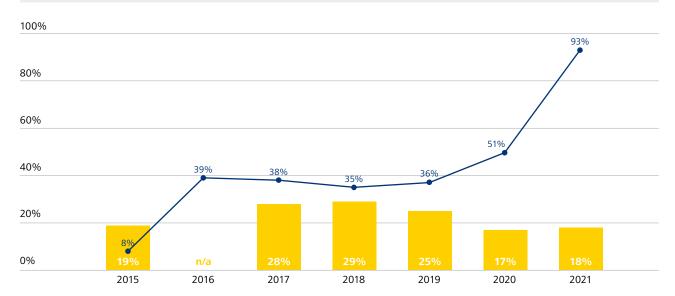
25%

Bosnia and Herzegovina has not yet started with the transposition of Regulation (EU) 2017/1938. Only rudimentary provisions are in place in Republika Srpska.

#### **RECOMMENDATIONS / PRIORITIES**

Bosnia and Herzegovina should adopt a state law that would transpose the Third Energy Package in gas. In the absence of a single legislative framework, Bosnia and Herzegovina's two entities have adopted two distinct regulatory regimes, which are widening further apart. Third party access and operation of the systems should be brought in compliance with the Network Codes, which is crucial for market development and regional integration. The absence of a proper framework for the security of gas supply in the Federation and at the state level could have negative implications in the case of an energy crisis. The situation should be remedied as soon as possible.

#### **Retail Market Opening**



Gas supplied to active eligible customers as % of total supply in Bosnia and Herzegovina

--- Gas supplied to active eligible customers as % of total supply in the Energy Community

Note: The weighted average level of market opening in the Energy Community was calculated assuming the full opening of gas retail market in Ukraine for the whole 2021. However the full retail market opening took place on 1st May 2021.

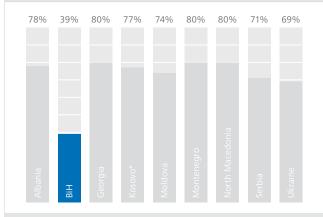
Source: State Electricity Regulatory Commission (SERC), compiled by the Energy Community Secretariat



# Bosnia and Herzegovina National Authorities

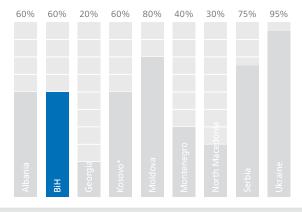


#### **Regulatory Authority**



In the reporting period, the State Electricity Regulatory Commission (SERC) continued efforts to implement the acquis within the limits of the powers granted to the regulator by state-level legislation. This included preparation of regulatory rules for power exchange establishment and NEMO designation subject to the transposition of the missing primary legislation. SERC remains the only Contracting Party regulator whose set-up does not comply with the Third Package requirement for a single regulatory authority for electricity and gas, which constitutes a serious and persistent breach of the acquis. SERC actively performed in the implementation of REMIT by using investigation tools. On regional level, SERC is an active ECRB member, including working group chairmanship.

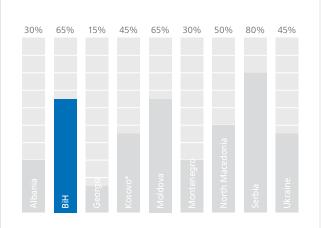
#### Competition Authority



The Competition Council's enforcement activities in the energy sectors generally focus on concentrations. In the reporting period, the Competition Council did not assess any case nor did it render any decision in the energy sectors. Effective enforcement of competition law, in particular with regard to anticompetitive agreements and the abuse of dominance, is needed in order for Bosnia and Herzegovina to comply with its obligations under the Treaty.



#### State Aid Authority



The State Aid Council (SAC) and its secretariat have become very active, but would need additional human resources. In the reporting period, the SAC annulled its decision from 2018 where it found that the guarantee provided by Federation of Bosnia and Herzegovina for the loan of EUR 614 million from the Chinese Export-Import-Bank to Elektroprivreda BIH for the Tuzla 7 project does not entail State aid. Following the Decision by the Ministerial Council, the SAC decided that the guarantee constitutes illegal State aid which the Federation's Ministry of Finance is obliged to recover.

The SAC rendered three additional decisions regarding guarantees by the government of Republika Srpska. The first guarantee was issued to Elektroprivreda RS ad Trebinje for a loan for the acquisition of the company Ruding doo Ugljevik to ensure the supply of limestone as a sulphur dioxide absorbent for the operation of a flue gas desulphurisation plant; the SAC corrected its previous decision and found that the aid constituted compatible aid for environmental protection. The second guarantee issued to Hidroelektrana Dabar doo Trebinje for a loan for the construction of facilities of the Dabar hydro power plant was found by the SAC to constitute compatible State aid in line with the Commission's Guidelines on State Aid for Environmental Protection and Energy 2014 - 2020. Finally, the SAC found the guarantee issued to ZP Elektrokrajina a.d. Banja Luka for payments of its own debts to constitute illegal State aid and ordered payment of a market premium to the issuer of the guarantee. The SAC should follow-up the decisions finding illegal State aid by enforcing the recovery obligation.



# Bosnia and Herzegovina

#### **OIL IMPLEMENTATION**

#### **OIL STOCKHOLDING OBLIGATIONS**

0% ||

No progress was achieved during this reporting period.

Bosnia and Herzegovina does not have state-level legislation on compulsory stocks of oil and petroleum products, and there is no national policy to meet the requirements of Directive 2009/119/EC.

A working group tasked to deliver concrete proposals for an oil stocks model at the state level in compliance with Oil Stocks Directive 2009/119/EC did not produce any concrete outcomes.

#### **FUEL SPECIFICATIONS**

60% |

Bosnia and Herzegovina is yet to adopt the draft Decision on the Quality of Liquid Petroleum Fuels to align with Directive 98/70/EC on the Quality of Petrol and Diesel Fuels.

#### **RECOMMENDATIONS / PRIORITIES**

The existing proposals of the working group supported by the Ministry of Foreign Trade and Economic Relations should provide the basis for deciding on the oil stocks model for the emergency stockholding system at the state level. The decision should be taken as soon as possible to strengthen security of oil supply.

The Government should adopt the draft Decision on Quality of Liquid Petroleum Fuels once the Secretariat's comments to ensure the draft's compliance with the acquis have been incorporated.



#### RENEWABLE ENERGY IMPLEMENTATION

# NATIONAL RENEWABLE ENERGY ACTION PLAN

58% II

Bosnia and Herzegovina has registered a 39,84% share of renewables in 2020 and came very close to reaching its 40% target for 2020. Together with a slight reduction in consumption, the achievement of the target for heating and cooling is responsible for this increase. The country has not reached its sectorial targets for electricity and transport.

#### QUALITY OF SUPPORT SCHEME

65% 1

The support scheme is based on administratively set feed-in tariffs in Federation of Bosnia and Herzegovina, where renewable energy producers under feed-in tariffs remain fully released from balancing responsibility as the adoption of the methodology for allocating balancing costs is still pending. Republika Srpska adopted a new Renewables Law in February 2022, which enables market premiums and assumes full balancing responsibility for all projects above 500 kW. Preparation of secondary legislation is ongoing.

#### **GRID INTEGRATION**

60% |

Renewable energy producers have priority access to the grid. Connection to the transmission system is regulated by the state regulator stipulating that renewable electricity producers connected to the grid pay 50% of the fixed part of the connection costs. On the distribution level, producers in Republika Srpska have to fully cover connection costs, while renewable energy producers in the Federation cover 50% of the calculated average value of the connection costs.

# ADMINISTRATIVE PROCEDURES AND GUARANTEES OF ORIGIN

**59%** |

No progress was made to simplify administrative procedures and establish a one-stop shop in the reporting period. Both entities in Bosnia and Herzegovina joined the Energy Community initiative to establish a regional system for guarantees of origin. Electronic registries for guarantees of origin in Bosnia and Herzegovina were created and can be utilized as soon as the energy regulator from Republika Srpska and the operator for renewables in the Federation, as the designated issuing bodies, sign direct agreements with the service provider.

#### RENEWABLE ENERGY IN TRANSPORT

3% ||

Provisions related to the sustainability of biofuels are still not transposed and the legal framework remains completely non-compliant with Directive 2009/28/EC. The share of renewables in transport is low - below 1% in 2020, compared to the objective of 10%.

#### **RECOMMENDATIONS / PRIORITIES**

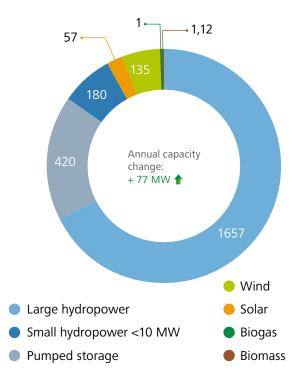
Federation of Bosnia and Herzegovina should proceed with the adoption of amendments to the renewables law to transpose and implement Directive (EU) 2018/2001. Republika Srpska should proceed with the adoption of secondary legislation and implementation of first renewables auctions. Permitting procedures need to be simplified and streamlined in both entities to enable faster deployment of renewables. The entity bodies designated to issue guarantees of origin should sign direct agreements with the service provider and start using the electronic registries developed during the regional project.

#### Shares of Energy from Renewable Sources



Source: EUROSTAT

#### Total Capacities of Renewable Energy 2021 (MW)



Source: State Electricity Regulatory Commission of Bosnia and Herzegovina (SERC)

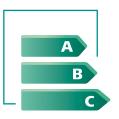
In early 2021, the third wind park in Bosnia and Herzegovina (Podveležje, 48 MW) was commissioned. In addition, 21 MW of solar PV and 8 MW of small hydropower were installed in 2021.

Cantons in the Federation and the Government of Republika Srpska announced public calls for granting land concessions for construction of renewable energy facilities. Based on the public call, in July 2022, the power utility Elektropyrivreda BiH signed a concession contract with Central Bosnia canton for the construction of two solar PV plants with total installed capacity of 50 MW. The build-operate-transfer concession is granted for a period of 30 years, after which the ownership of the facilities is to be transferred to the canton. The concession fee will be 1,5% of the total value of electricity produced.

In June 2022, Republika Srpska announced a call for granting of a concession for the construction of solar PV (80 MW) and wind plant (39,6 MW) in Bileća.

Total capacities of renewable energy (MW):

2451



# **Bosnia and Herzegovina**

### **Energy Efficiency**

#### **ENERGY EFFICIENCY IMPLEMENTATION**

#### **ENERGY EFFICIENCY TARGETS** AND POLICY MEASURES

According to data on energy statistics published by EUROSTAT for Bosnia and Herzegovina, 2020 primary energy consumption decreased and was below the 2020 threshold target. The sixth Annual Progress Report is still to be submitted to the Secretariat.

The main achievement during this reporting period was the adoption of the compliant Energy Efficiency Law in Brčko District in July 2022, and drafting of by-laws on entity level. Policy actions, including the assessment of energy efficiency targets and policy measures under the National Energy Efficiency Action Plan (NEEAP) 2019 - 2021, are ongoing.

#### **ENERGY EFFICIENCY IN BUILDINGS**

65%

Amendments to primary legislation and long-term building renovation strategies, to align with the energy efficiency provisions under the Clean Energy Package, have been drafted on state and entity levels, but their adoption is pending. Both entities are working on updating existing by-laws, including improvements in energy audits and certification of buildings procedures.

#### **ENERGY EFFICIENCY FINANCING**

Each entity has established an energy efficiency and environmental fund, covering monitoring of implementation and reporting on achieved savings. Activities aimed to establish new models of financing for public and residential buildings are ongoing. The energy efficiency laws of both entities and the Brčko District recognize ESCOs and energy performance contracting. However, the ESCO market remains underdeveloped, with the adoption of secondary legislation needed to remove implementation gaps still pending, e.g. in public procurement, multi-year budgeting and adoption of model ESCO contracts.

#### **ENERGY EFFICIENT** PRODUCTS - LABELLING

38% 4

During the reporting period, the Secretariat and the regional REEP Plus project continued to support Bosnia and Herzegovina in the drafting of rulebooks to transpose energy labelling and eco-design delegated regulations and training of implementing bodies. However, authorities in Bosnia and Herzegovina still need to adopt these rulebooks. To date, the regulations were only transposed partially in Republika Srpska.

#### **EFFICIENCY IN HEATING** AND COOLING

26% 1



Bosnia and Herzegovina has 32 district heating systems, covering around 10% of total heat demand. Consumption-based billing and metering are not implemented in the majority of the systems. Projects to integrate renewables in district heating are ongoing. The cost-benefit analyses for energy efficiency measures in heating and cooling and the assessment of high-efficiency cogeneration and efficient district heating and cooling potential are under preparation. Decarbonisation of both individual and district heating systems should be assessed in a strategic, coordinated way.

#### **RECOMMENDATIONS / PRIORITIES**

The utmost priority for Bosnia and Herzegovina remains the transposition of the amended Energy Efficiency Directive and the Energy Labelling Regulation through amendments of the existing primary legislation in the two entities, and the implementation of the Energy Efficiency Law in the Brčko District.

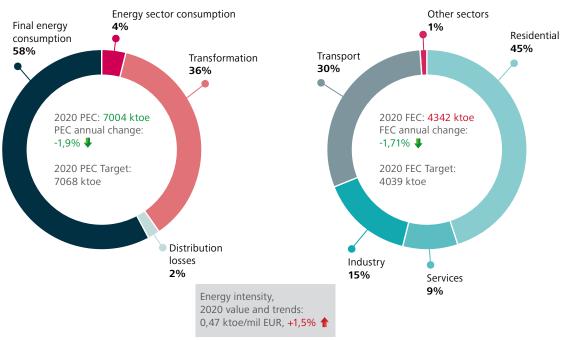
The sixth Annual Progress Report under the Energy Efficiency Directive should be submitted to the Secretariat without delay.

The draft long-term building renovation strategies and secondary legislation on energy efficiency in buildings, the energy efficiency obligation scheme and energy performance contracting, as well as assessment of the potential for the application of high-efficiency cogeneration and efficient district heating, should be adopted. Energy efficiency criteria should be introduced in public procurement procedures.

#### 2020 Energy Efficiency Indicators and Trends

# Primary Energy Consumption (PEC)

#### Final Energy Consumption (FEC)



Source: EUROSTAT 2021 data and Contracting Party's Reports

Adopted and implemented

#### Energy Efficient Products - Overview of Implementation of Labelling Regulation

			0=0==		<u>-</u> 555	0= 0==		(8)	\$\$\$ []]]]]	<b>DB</b> Ø	
FRAMEWORK REGULATION*	Household dishwashers	Fridges and freezers*	Household washing machines	Televisions	Air conditioners and fans*	Household tumble driers	Electrical lamps and luminaires	Solid fuel boilers*	Space heaters*	Water heaters & storage tanks	Domestic ovens and range hoods

<sup>\*</sup> The new labelling package adopted by the Ministerial Council in November 2018 was assessed, as the transposition deadline expired in January 2020.

Compliance or implementation issues detected

Source: multiple sources of data (EECG reports, NEEAPs etc.), compiled by the Energy Community Secretariat

No progress with adoption/implementation



# **Bosnia and Herzegovina**

#### **Environment**

#### **ENVIRONMENT IMPLEMENTATION**

#### **ENVIRONMENTAL ASSESSMENTS**

43% 4



In the reporting period, secondary legislation transposing the annexes to the Environmental Impact Assessment (EIA) Directive was adopted by Federation of Bosnia and Herzegovina. The shortcomings of the environmental impact assessment legislation with regards to the EIA consent and the validity of the development consent (the construction and environmental permits) are not resolved in both entities. Permits for energy projects, in particular for hydropower projects, are being prolonged and their validity extended for periods longer than ten years based on outdated EIA consents, which is not in line with the EIA Directive. The EIA screening process must encompass all criteria defined in Annex III of the EIA Directive - characteristics of projects, the location of the project and the type and characteristics of the potential impacts.

Proper implementation of the strategic environmental assessment (SEA) procedures remained a challenge for plans and programmes that concern both entities and are adopted on a national level. SEA procedures for the Framework Energy Strategy till 2035, which was adopted on a national level without SEA, are still not initiated on an entity level. SEAs for the draft National Energy and Climate Plan (NECP) have also not been initiated despite the draft being at an advanced stage.

#### **SULPHUR IN FUELS**

27% -



The draft legislation to address the infringement established by the Ministerial Council is still not adopted and the serious and persistent breach thus persists.

#### LARGE COMBUSTION PLANTS

**50% J** 



Bosnia and Herzegovina complied with its emission reporting obligations in March 2022. The emission limit values and relevant provisions of the Large Combustion Plants and Industrial Emissions Directives are transposed in both entities. However, non-compliance with the National Emission Reduction Plan ceilings for all three pollutants (sulphur dioxide, nitrogen oxides and dust) continued in the 2021 reporting period, albeit the absolute amounts of sulphur dioxide and nitrogen oxides emissions have decreased compared to 2020 levels. At the same time, dust emissions have increased drastically, which is largely due to TPP Gacko. Breaches of the emission ceilings resulted in the opening of infringement action in March 2021.

Two of the three opted-out plants (TPPs Tuzla 4 and Kakanj 5) have reached the end of their 20.000 operational hours limit in 2022. From that time on, these plants have to comply either with the emission limit values of the Industrial Emissions Directive or discontinue their operation. As this is not the case, the Secretariat had to initiate infringement actions.

#### NATURE PROTECTION

33% 🖡



Effective legislation addressing the conflicts between energy development projects and nature protection goals and obligations, in particular with regard to hydropower development, is not in place. The Federation has identified potential special protection areas (SPAs), however, the list is not adopted. Republika Srpska and the Brčko District are still in the process of assessment of the potential SPAs. The protection of the three Ramsar sites must be strengthened with up-to-date management plans and regular monitoring activities. Legislation that will impose effective measures against the deliberate killing or hunting of wild birds, deliberate destruction or damaging of nests and eggs and/or removal of their nests is still not in place in Federation of Bosnia and Herzegovina.

#### **ENVIRONMENTAL LIABILITY**

20%

In the Federation, the Law on Environmental Protection transposes the provisions of the Environmental Liability Directive with regard to the prevention and elimination of environmental damage. In Republika Srpska, the Directive is not transposed.

#### **RECOMMENDATIONS / PRIORITIES**

The EIA screening processes against the criteria set in Annex III of the EIA Directive must be systematically applied particularly for hydropower projects. The EIA/SEA legislation should be amended in both entities in order to streamline transboundary consultations. The capacities of the authorities should be improved in order to secure proper implementation and enforcement of the EIA legislation in both entities.

The SEA of the draft NECP should be initiated and carried out in parallel with the drafting of the plan. The SEA should in detail assess the cumulative and transboundary impact of the plan. Early and effective opportunities for the participation of the public and the authorities affected, including transboundary consultations, must be secured.

Bosnia and Herzegovina should adopt the decision on liquid fuel quality without further delay.

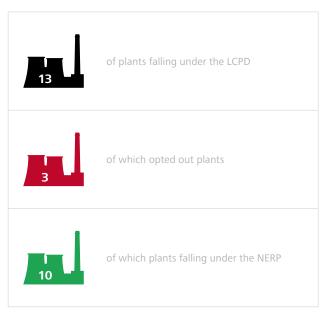
Implementation of the instruments of the Large Combustion Plants Directive is to be ensured, both in terms of NERP ceilings and respecting the provisions and time limits of the opt-out.

Nature protection legislation should be improved and the list of SPAs adopted. Republika Srpska should further streamline the

protection of the "Gornji Tok Neretva" river valley and reassess the projected development in line with the protection of the site, in particular for hydropower projects.

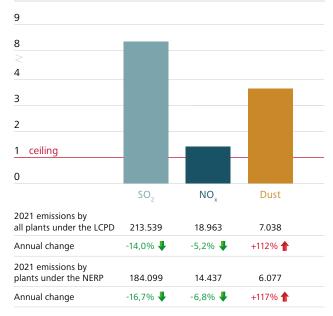
The provisions on environmental liability are to be transposed in both entities.

#### Installations under the Large Combustion Plants Directive



Source: compiled by the Energy Community Secretariat

#### 2021 emissions versus NERP ceilings



#### Amount of operational hours used from opt-out period

TPP Kakanj 5	Expected expiry of opt-out period	March 2022		
$\overline{\searrow}$	Remaining hours	836		
	Operating hours consumed in 2018 - 2021	19.164		
TPP Tuzla 4	Expected expiry of opt-out period	March 2022		
$\overline{\searrow}$	Remaining hours	1.151		
	Operating hours consumed in 2018 - 2021	18.849		
TPP Tuzla 3	Expected expiry of opt-out period:*	August 2023		
$\overline{\mathbf{y}}$	Remaining hours	5.777		
	Operating hours consumed in 2018 - 2021	14.223		

<sup>\*</sup>Calculations for the expected expiry of the opt-out period are based on 2018 - 2021 average load factor. Source: compiled by the Energy Community Secretariat



# **Bosnia and Herzegovina**

#### **Climate**

#### **CLIMATE IMPLEMENTATION**

#### NATIONAL GREENHOUSE GAS EMISSIONS MONITORING AND REPORTING SYSTEMS

45% |

The third Biennial Update Report to the UNFCCC and the fourth National Communication were planned to be adopted in the course of the reporting period. However, the adoption of both key reporting documents was pending at state level at the time of publication of this report.

With the Energy Community Secretariat's support, Bosnia and Herzegovina drafted a roadmap for introducing carbon pricing by the end of 2025. To implement the roadmap, the Government, supported by development partners, works on four related issues: monitoring, reporting and verification; economic impact analyses; emissions trading system infrastructure and platform; and legal and regulatory aspects.

# NATIONAL ENERGY AND CLIMATE PLANS (NECPS)

51% 👚

The development of the draft NECP focused on the refinement of the policy and the reference scenarios, in part to reflect the negotiations on the Energy Community 2030 targets for Bosnia and Herzegovina. The legal basis for the NECP and the adoption of the entity energy and climate plans continue to be pending.

Apart from air protection laws of the two entities, there is no climate law in Bosnia and Herzegovina. In order to transpose the Governance Regulation, Bosnia and Herzegovina needs to start working on the development of such a law and accompanying by-laws.

#### **RECOMMENDATIONS / PRIORITIES**

Bosnia and Herzegovina is encouraged to adopt a dedicated climate law in order to create the legal basis for the NECP and climate related policies and measures in order to comply with international obligations related to climate change. The adoption of entity level NECPs should be accelerated in order to prepare the draft national NECP until June 2023.



# **Bosnia and Herzegovina**

#### **Statistics**

#### STATISTICS IMPLEMENTATION

#### **ANNUAL STATISTICS**

93% 4

The full set of annual energy statistics has been compiled and transmitted to EUROSTAT, although with a delay for the renewables questionnaire due to the revision of renewables data. Hence, the five annual questionnaires as well as the SHARES questionnaire were released as a consistent set of data.

Preliminary questionnaires with 2021 data were prepared and transmitted to EUROSTAT. The breakdown of energy consumption in households is reported in accordance with the acquis. The first quality report on energy statistics was transmitted to EUROSTAT in 2019, whereas an updated quality report will be submitted in November 2022. As regards not yet mandatory questionnaires, preliminary data for 2021 were prepared and transmitted to EUROSTAT.

BHAS conducted a pilot survey "Energy consumption in households" in the Brčko District in September 2022, with the intention to prepare for conducting a nation-wide survey in 2023.

#### MONTHLY STATISTICS

**50% 1** 

The statistics agency BHAS transmits monthly reports for electricity and coal to EUROSTAT. Monthly data on natural gas and oil data are still missing. BHAS has drafted a methodology for data collection on monthly oil statistics with a focus on establishing a register of data providers/reporting units. The pilot survey was completed, and BHAS is working with respondents on improving responsiveness and quality. Reporting on monthly oil statistics from January 2023, in accordance with the statistics and oil acquis, depends on the successful validation of compiled data.

#### PRICE STATISTICS

100% ||

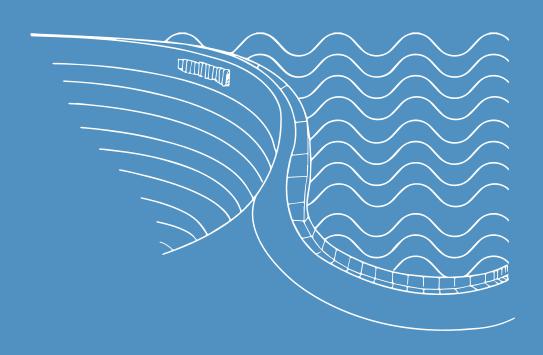
The prices of electricity and natural gas charged to industrial and household end-users, broken down per consumption band and per taxation level, as well as the breakdown of components of electricity and natural gas prices, are compiled and submitted to EUROSTAT. The respective quality reports have been prepared but remain to be published by EUROSTAT.

#### **RECOMMENDATIONS / PRIORITIES**

Completing monthly oil and natural gas statistics and timely dissemination of all monthly statistics requires urgent action.

Insufficient financial resources of statistics institutes are the main barrier to the completion of all tasks required to implement the energy statistics acquis.

# Georgia









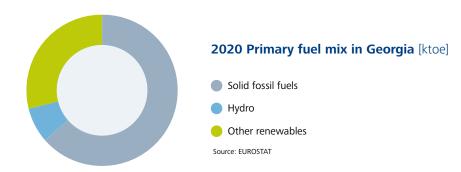
#### **SUMMARY IMPLEMENTATION**

SUMN	MARY CATORS	IMPLEMENTATION STATUS	2022 HIGHLIGHTS
<b>F</b>	Electricity	65%	The opening of the day-ahead, balancing and ancillary services markets has been postponed for the fourth time to 31 March 2023 and the opening of the intraday market to 30 June 2023. After two unsuccessful attempts, the transmission system operator is still not certified.
4	Gas	31%	Georgia made progress in developing a security of supply framework and preparing the foundation for the launch of the natural gas exchange.
•	Oil	13%	No progress occurred during the reporting period, and implementation remains at a low level. Lack of storage facilities is the main open issue.
	Renewable Energy	39%	No substantial progress has occurred in Georgia in the reporting period, however, amendments to the Renewables Law, which are being drafted, should enable first auctions for renewable energy projects to start.
A B	Energy Efficiency	53%	Georgia has achieved the national 2020 energy efficiency target, and during the reporting period submitted the Annual Progress Report and adopted several by-laws to implement the Energy Efficiency Law.
8	Environment	64%	Georgia has a good track record in the area of environment and is a frontrunner in the field of environmental liability.
**	Climate	63%	Georgia continued finalizing its draft NECP and its Long- term Strategy in the reporting period. The development of the draft climate law should continue in order to ensure the transposition of the Governance Regulation.
<u></u>	National Authorities	49%	GNERC demonstrates profound technical expertise and independent execution of responsibilities. Any action regarding the enforcement of the competition and State aid acquis in the energy sectors is missing.
<u>ılı</u>	Statistics	97%	GEOSTAT continues to prove its commitment to the completeness of energy and price statistics in Georgia, responding to the new requirements and improving the efficiency of its work.

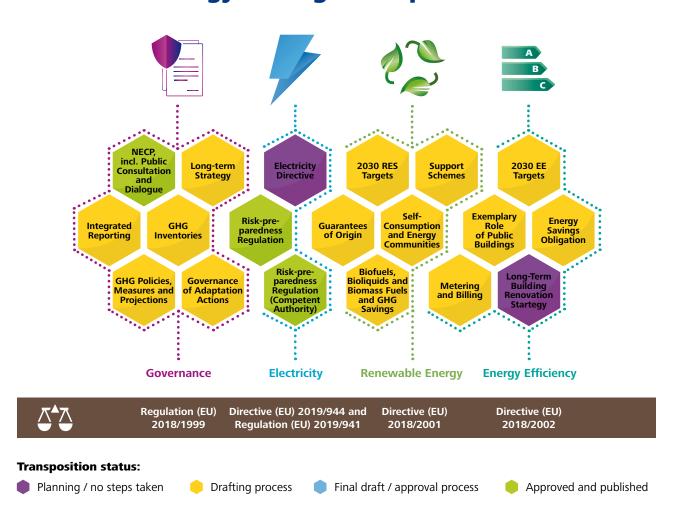
# **State of Energy Sector Reforms**

Georgia made some level of progress in the implementation of the electricity and gas acquis but experienced several setbacks, failing to unbundle its electricity and gas transmission system operators and advance the development of competitive organized electricity and gas markets. The country stagnated when it comes to renewables reforms. Save for nature protection, Georgia continued its good performance in the area of environment. Its energy efficiency track record improved.

Georgia is in the early stages of preparation for the transposition of the 2021 Clean Energy Package. It has transposed the main elements of the Risk-preparedness Regulation.



# **Decarbonisation readiness - 2021 Clean Energy Package transposition**





#### **ELECTRICITY IMPLEMENTATION**

#### UNBUNDLING

**58% ↓** 



After two unsuccessful attempts, the transmission system operator JSC Georgian State Electrosystem (GSE) is still not certified. In July 2022, the Georgian National Energy and Water Supply Regulatory Commission (GNERC) issued a final negative decision as the separation of control between state authorities over energy companies remained unresolved. This is in breach of Energy Community law.

Both distribution system operators, Energo Pro and Telasi, are unbundled. The distribution companies appointed compliance officers in the reporting period following the approval of GN-ERC.

#### ACCESS TO THE SYSTEM





The connection fees and network tariffs are transparent and published.

GSE prepared a new transmission network code, implementing also the Connection Codes. The chapters related to metering and management of cross-border capacity are still to be completed and the code is to be resubmitted to the regulator for approval by the end of December 2022.

Despite the transposition of the Transparency Regulation, only limited data is published on the ENTSO-E Transparency Platform.

#### WHOLESALE MARKET





The deregulation of HPPs below 65 MW was completed by 1 May 2022 as scheduled under the Electricity Market Concept Model. The next step is to deregulate HPPs below 75 MW from 1 May 2024 based on the latest concept amendments.

In May 2022, the Georgian Energy Exchange was granted a license from GNERC to operate the day-ahead and intraday markets and GSE was licensed to operate the balancing and ancillary services markets. A dry-run of the day-ahead and balancing markets is ongoing. GNERC approved the Rules for the Bilateral Contract Market and revised the Rules for Balancing and Ancillary Services Market in July 2022 to address shortcomings and gaps identified.

Nevertheless, the Government took a decision to postpone the opening of the day-ahead, balancing and ancillary services markets for the fourth time to 31 March 2023 and the opening of the intraday market to 30 June 2023. To prevent further delays, the ministry, in consultation with the Secretariat, drafted a roadmap reflecting the most relevant measures to be undertaken until 31 March 2023. This roadmap has not been adopted to date.

Major progress was made by the transposition and implementation of the Regulation on Integrity and Transparency of the Wholesale Energy Market (REMIT).

#### RETAIL MARKET



The retail market is to be deregulated according to the schedule annexed to the Electricity Market Concept Model. Customers connected to 35 - 110 KV and 6 - 10 KV with no less than 1 million kwh per month will be subject to regulated tariffs until 31 March 2024 and all other customers will be deregulated (except small enterprises and households) until 1 July 2026. A supplier switching platform is ready and will be launched once the market is open from 1 April 2023.

The concept of vulnerable customers is broadly defined by the primary legislation, but the relevant secondary legislation is still to be developed. The protection of certain consumer groups is addressed in several governmental resolutions and secondary legal acts. In November 2021, the Government approved measures to define vulnerable customers as foreseen by the Law of Georgia on Energy and Water Supply, however, without specifying any new or consolidating existing measures.

#### REGIONAL INTEGRATION

n.a

Georgia has not transposed the TEN-E Regulation. The national competent authority has not been established. The regulatory agency adopted the Rule for Appraisal of Investments in the Electricity and Natural Gas Sectors. It is still to publish the methodology and criteria used to evaluate investments in electricity and gas infrastructure projects, primarily related to the Projects of Mutual Interest (PMI).

The adoption of the TEN-E Regulation would potentially accelerate the realization of the Black Sea submarine cable project which aims to connect the South Caucasus region directly to South-East Europe via a sub-marine cable crossing the Black Sea. The project application was selected in the list of projects to be potentially included in the ENTSO-E TYNDP 2022.

Georgia is not interconnected with other Contracting Parties or EU Member States. Thus, no regional integration at the Energy Community level is taking place at present. Until Georgia has a physical interconnection with the EU or the Energy Community electricity markets, a derogation from cross-border cooperation rules applies. At this stage, there is no coordinated capacity allocation of cross-border capacities with neighbouring countries, except bilateral cross-border capacity allocation on the interconnectors with Türkiye. Nevertheless, rules for management of cross-border electricity flows and capacity allocation were drafted as part of the transmission grid code. Agreements with neighbouring transmission system operators and development of the framework for market-based mechanisms for cross-border exchange are still to be signed by 31 March 2023.

#### SECURITY OF SUPPLY

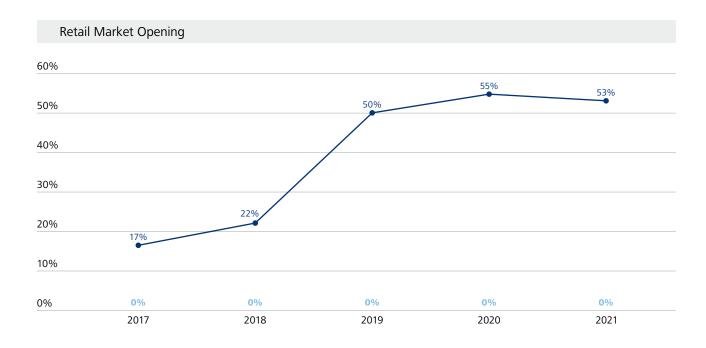
94%

Georgia transposed the majority of provisions of Regulation (EU) 2019/941 in its Electricity Security of Supply Rules. The draft Risk Preparedness Plan was prepared under the EU4Energy Governance project.

The Law on Information Security partially transposes NIS Directive (EU) 2016/1148 and the key provisions of Directive 2008/114/EC in the context of critical information and communication infrastructures. The Law defines security criteria for the public and private entities, including energy. The Digital Governance Agency (DGA) defines cybersecurity standards for critical Information systems. DGA and GNERC have started a process of critical information system identification.

#### **RECOMMENDATIONS / PRIORITIES**

Georgia continues to reform the electricity sector, however, progress is modest and more efforts are needed to complete certification of GSE, and to ensure opening of the day-ahead market on 1 April 2023.



Source: Ministry of Economy and Sustainable Development, compiled by the Energy Community Secretariat

Supply to active eligible customers in % for the Energy Community (weighted average %)

Supply to active eligible customers in % for Georgia



# Georgia

#### GAS IMPLEMENTATION

#### UNBUNDLING

20% |

The state-owned transmission system operator, Georgian Gas Transportation Company (GGTC), is not yet unbundled nor certified. The incumbent gas transmission system operator, GGTC,

re-applied for certification to the regulator GNERC in February 2022 under the independent system operator model. However, it was unsuccessful as Georgia failed to ensure separation between public bodies controlling competitive and network-related activities. This resulted in GNERC's refusal to certify GGTC in July 2022 in line with the Third Energy Package. Despite some progress achieved in complying with unbundling requirements such as the establishment of a daughter company of the incumbent supplier and importer GOGC, the Georgian Natural Gas Transmission Network Owner (GNGTNO), and the signing of a lease agreement between GNGTNO and GGTC, Georgia is still in breach of the gas acquis. Unbundling plans of distribution system operators were submitted to the energy regulator GN-

#### ACCESS TO THE SYSTEM

ERC, however, they were not approved.

30%

The Natural Gas Network Rules adopted in 2018 ensure transparent and non-discriminatory third party access. The introduction of an entry-exit tariff methodology is not in place yet. Georgia is exempt from performing capacity allocation on the interconnection points and interoperability and data exchange rules. However, third party access to the national network is not affected by that exemption.

Georgia transposed the Balancing Network Code but GNERC opted to implement the code 24 months after its transposition, as permitted by the acquis. Natural Gas Distribution Network Rules are in place.

#### WHOLESALE MARKET

36%



An organized wholesale natural gas market does not exist yet in Georgia. Transactions are carried out through bilateral contracts. The Georgian Gas Exchange, established in 2021, is planned to be merged with the Georgian Energy Exchange dealing with electricity exchange operation and development. In practice, the exchange is inactive. There is no virtual trading point in Georgia. The foreseen launch of the natural gas exchange by the end of 2022 under the Natural Gas Market Concept Design has been delayed. SOCAR affiliated companies are holding dominant positions in the wholesale market, resulting in the market being highly concentrated. The commercial sector, although under unregulated prices, suffers from non-transparent price formation which affects its competitiveness.

#### RETAIL MARKET

20% 1



Households and thermal power plants are supplied under regulated prices and heavily subsidized by the state-owned company, GOGC, leading to cross-subsidization and affecting the proper allocation of its revenues and costs. The public service obligation mechanism for retail suppliers was drafted but remains to be adopted. Prices are deregulated for the commercial sector including industry and small enterprises. GNERC approved the Natural Gas Retail Market Rules, which address the protection of certain consumer groups together with other governmental resolutions. However, a clear definition of vulnerable customers in the meaning of the law and an efficient mechanism for their protection are still missing.

#### INTERCONNECTIVITY, REGIONAL INTEGRATION

42%

As Georgia is only connected with third countries, it is exempt from the application of the Energy Community gas acquis at interconnection points.

#### **SECURITY OF SUPPLY**

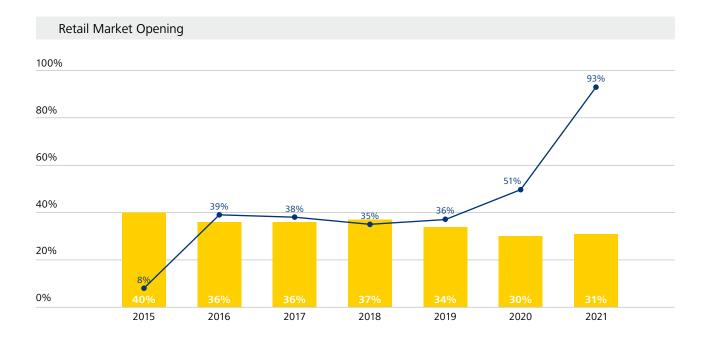
60%

Georgia transposed Directive 2004/67/EC and is expected to transpose Regulation (EU) 2017/1938 by adopting the Rules on Security of Natural Gas Supply in the course of 2022. The country does not have gas storage.

#### **RECOMMENDATIONS / PRIORITIES**

Georgia must unbundle and certify its gas transmission system operator. It needs to adopt entry-exit transmission tariffs compliant with the Tariffs Network Code.

Georgia needs to speed up the process of developing a competitive organized gas market. The proper rules and secondary legal acts for this are still pending, including in the areas of vulnerable customers and security of supply, as required by the Energy Community acquis.



Note: The weighted average level of market opening in the Energy Community was calculated assuming the full opening of gas retail market in Ukraine for the whole 2021. However the full retail market opening took place on 1st May 2021.

Source: Ministry of Economy and Sustainable Development, compiled by the Energy Community Secretariat

Gas supplied to active eligible customers as % of total supply in Georgia

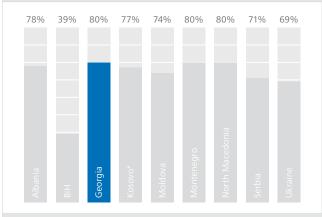
Gas supplied to active eligible customers as % of total supply in the Energy Community



# **Georgia National Authorities**

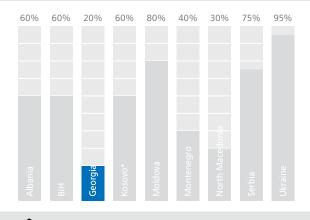


#### **Regulatory Authority**



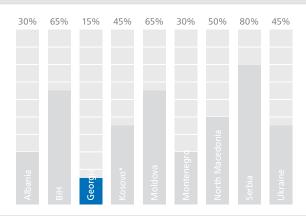
The Georgian National Energy and Water Supply Regulatory Commission (GNERC) transposed the REMIT Regulation into the national market rules and adopted criteria based on which derogations from the Electricity Network Codes can be granted. GNERC has prepared rules for future opening of the day-ahead market and balancing rules and monitors market testing by the market operator. According to the decision of GNERC, the final adoption of the rules for market opening, such as the transmission code, still require assessment by GNERC. GNERC representatives continue to actively contribute to ECRB activities and discussions/activities on potential electricity transmission capacity allocation with Türkiye.

#### Competition Authority



While the Competition Agency is responsible for the enforcement of competition law in general, the regulatory authority, GNERC, is responsible for its enforcement in the electricity and natural gas sectors. GNERC has never pursued a case based on infringements of competition law. In the absence of any action regarding the enforcement of the competition acquis in the energy sectors, Georgia fails to comply with its obligations under the Treaty.

#### State Aid Authority



The current Law on Competition is not aligned with the State aid acquis. In particular, it does not contain an obligation to notify aid before it is granted; fails to grant the power to render negative decisions and order recovery; and contains broader grounds of compatibility. The enforcement of the State aid acquis in the energy sector is lacking since neither the Competition Agency nor GNERC consider themselves to be competent; Georgia, therefore, does not live up to its obligations under the Treaty.



#### OIL IMPLEMENTATION

#### OIL STOCKHOLDING OBLIGATIONS

0% ||

No progress was achieved during this reporting period.

The draft Oil Stockholding Act was not adopted. The availability of storage capacities for emergency oil stocks remains a key

The Government has requested a five-year extension of the full implementation deadline.

#### **FUEL SPECIFICATIONS**

**50% ↓** 



The sulphur content limit on diesel remained the same during the reporting period, 50 ppm. As of January 2023, the 10 ppm limit, which was previously postponed by the Government, will finally apply. There are no specifications relating to gas oil used for non-road mobile machinery. A national fuel quality monitoring system that includes sampling and analyses of fuels is not established.

#### **RECOMMENDATIONS / PRIORITIES**

The Oil Stockholding Act should be adopted as priority.

The national fuel quality monitoring system should be established within 2023.



#### RENEWABLE ENERGY IMPLEMENTATION

# NATIONAL RENEWABLE ENERGY ACTION PLAN

25% |

Due to its late accession to the Energy Community, Georgia adopted the NREAP only at the end of 2019. The document contains measures to promote renewable energy; however, there is no 2020 target.

#### QUALITY OF SUPPORT SCHEME

50% ||

The feed-in premium scheme, which was previously limited to hydro, was amended in January 2021 to cover all renewable power plants with installed capacity higher than 5 MW. Existing hydro producers, supported through guaranteed power purchase agreements, are exempt from balancing responsibility. At the moment, the Government is developing a new support scheme for renewable energy projects based on market principles.

#### **GRID INTEGRATION**

72% |

Guaranteed priority access for renewable energy producers is envisaged by the law. Procedures and deadlines for connection to the transmission grid are defined in the grid code. Connection costs to the distribution grid depend on an offer from the distribution system operator. As this leaves room for interpretation, the regulator is working on the establishment of connection fees.

# ADMINISTRATIVE PROCEDURES AND GUARANTEES OF ORIGIN

49%

No progress was made to simplify administrative procedures and establish a one-stop shop in the reporting period. Georgia joined the Energy Community initiative to establish a regional system for guarantees of origin. The national electronic registry for guarantees of origin in Georgia was created and can be utilized as soon as Georgian State Electrosystem (GSE), as the designated issuing body, signs a direct agreement with the service provider. As preparation for the agreement, GSE is finalizing rules on use of the registry. On 23 December 2021, the Georgian National Energy and Water Supply Regulatory Commission (GNERC) adopted Rules for Issuance of a Certificate of Origin for Electricity Received from Renewable Sources.

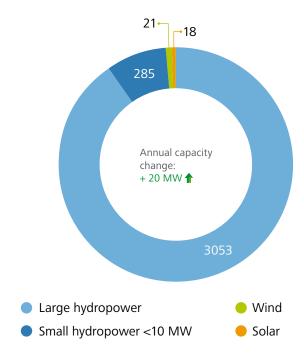
#### RENEWABLE ENERGY IN TRANSPORT 0% |

Provisions related to the sustainability of biofuels are still not transposed and the legal framework remains completely non-compliant with Directive 2009/28/EC. Acts are planned to be drafted under the Georgian Energy Sector Reforms Programme.

#### **RECOMMENDATIONS / PRIORITIES**

Georgia should adopt the amendments to the renewables law to transpose and implement Directive (EU) 2018/2001. Permitting procedures should be simplified and streamlined to enable faster deployment of renewables. GSE, as the designated issuing body for guarantees of origin, should sign a direct agreement with the service provider and start using the national electronic registry developed during the regional project.

#### Total Capacities of Renewable Energy 2021 (MW)



Source: Ministry of Economy and Sustainable Development

The Georgian renewable power portfolio is mostly based on hydropower. Georgia put efforts into diversifying its production and promoting the use of renewable energy despite not having a binding target for 2020.

Besides more than 3000 MW of large hydropower plants and almost 300 MW of small hydropower, Georgia has in operation one wind park (Gori, 20,7 MW) and 18 MW of mostly solar rooftop installations.

On 1 July 2021, the tendering procedure for the implementation of the Udabno solar power project with installed capacity of 5 MW started. In 2021, the winner was announced and the partnership agreement was signed. On 17 May 2022, the Government of Georgia and the project developer signed an agreement on the feasibility study.

Total capacities of renewable energy (MW):

3377



#### **ENERGY EFFICIENCY IMPLEMENTATION**

#### **ENERGY EFFICIENCY TARGETS** AND POLICY MEASURES

75%

Georgia has achieved the national 2020 energy efficiency target and submitted its Annual Progress Report to the Secretariat in June 2022.

The specific targets required under the Energy Efficiency Directive were introduced by the Energy Efficiency Law adopted in May 2020. This Law is currently being amended in accordance with the latest amendments of the Energy Efficiency Directive, adopted by the Ministerial Council in 2021.

In the reporting period, Georgia adopted several by-laws to implement the Energy Efficiency Law, including procedures and guidelines for the implementation of energy efficiency criteria in public procurement procedures. The online platform for monitoring and verification of savings was completed with EU4Energy support and administered by the Ministry of Economy and Sustainable Development of Georgia.

The 2030 energy efficiency targets and policy measures are already set in the National Energy Efficiency Action Plan (NEEAP). The updated targets will be incorporated in the country's National Energy and Climate Plans (NECP).

#### **ENERGY EFFICIENCY IN BUILDINGS**

72% 🛊

Georgia recently established the registry of central government buildings and drafted the by-law on the rules of the registry. The Law on Energy Performance of Buildings is in place. The minimum energy performance requirements for buildings or building units and building elements and the national calculation methodology for buildings energy performance were adopted. The remaining by-laws (certification rules, regulation on inspection of heating and air-conditioning systems, etc.) are in the drafting or adoption procedure.

#### **ENERGY EFFICIENCY FINANCING**

47% |

The Energy Efficiency Law established the legal framework for the energy services market. The relevant by-laws and model contracts for energy performance contracting are in the drafting phase, supported by an EU/ KfW technical assistance programme.

While there is no public financing framework (i.e. a national energy efficiency fund), several international technical assistance and investment programmes support energy efficiency improvements, especially in the buildings sector.

#### **ENERGY EFFICIENT** PRODUCTS - LABELLING

41% |

The Law on Energy Labelling adopted in 2019 transposed Framework Labelling Regulation (EU) 2017/1369. The drafting of the majority of implementing product regulations required by the Law is completed. Certain draft regulations need to be updated to reflect the latest version of rescaled labels.

#### **EFFICIENCY IN HEATING** AND COOLING

32% 1

Georgia has no district heating or cooling systems. An assessment of high-efficiency cogeneration and efficient district heating and cooling potential is still pending. The rules on cost-benefit analysis of heating and cooling systems were adopted. The rules on inspection of heating and air conditioning systems were prepared but their adoption is pending.

#### **RECOMMENDATIONS / PRIORITIES**

Georgia's focus should remain on the adoption of the large number of drafted by-laws needed to implement the Energy Efficiency Law, the Energy Efficiency in Buildings Law and the Labelling Regulation.

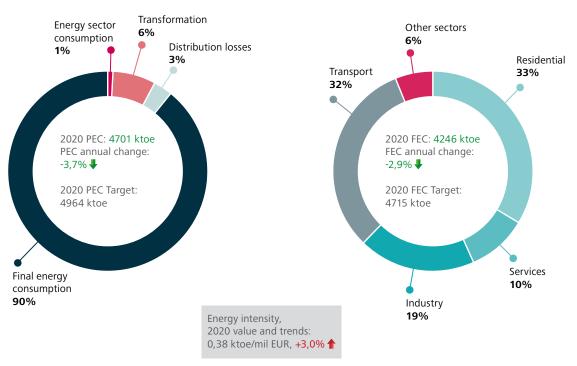
Institutional capacities and expertise for energy efficiency should continue to be strengthened, including the allocation of more staff to the energy efficiency field within the Ministry of Economy and Sustainable Development, as well as launching new training programmes for energy performance certification of buildings, energy audits and energy management.

Adequate engagement of the private sector requires the further development of the market for energy services, including the finalisation and adoption of the enabling by-laws and model contracts for energy performance contracting. Finally, to increase efficiency in heating and cooling, Georgia should establish support programmes for individual households and buildings.

#### 2020 Energy Efficiency Indicators and Trends

#### Primary Energy Consumption (PEC)

#### Final Energy Consumption (FEC)



Source: EUROSTAT 2022 data and Contracting Party's Annual Reports under Directive 2012/27/EU

#### Energy Efficient Products – Overview of Implementation of Labelling Regulation

			0= 0==		555	0= 0==		((())	\$\$\$ []]]]]	EB Ø	
FRAMEWORK REGULATION*	Household dishwashers	Fridges and freezers*	Household washing machines	Televisions	Air conditioners and fans*	Household tumble driers	Electrical lamps and luminaires	Solid fuel boilers*	Space heaters*	Water heaters & storage tanks	Domestic ovens and range hoods

<sup>\*</sup> The new labelling package adopted by the Ministerial Council in November 2018 was assessed, as the transposition deadline expired in January 2020.

Compliance or implementation issues detected

Source: multiple sources of data (EECG reports, NEEAPs etc.), compiled by the Energy Community Secretariat

Adopted and implemented

No progress with adoption/implementation



#### **ENVIRONMENT IMPLEMENTATION**

#### **ENVIRONMENTAL ASSESSMENTS**

**60% 1** 



#### Amendments to the Environmental Assessment Code introduced in March 2022 changed the competent authority for the environmental impact assessment (EIA) and the strategic environmental assessment (SEA), namely the National Environmental Agency (NEA). The transboundary assessments remained within the responsibility of the Ministry. The application of the transitional provisions of the code concerning unauthorized projects was extended with the amendments. This creates a situation where unauthorized projects do not undergo an EIA. The concerns raised by civil society relating to hydropower development projects and public participation in the decision-making process were not addressed and the e-platform aimed at improving the participation process was not established.

The SEA for the National Energy and Climate Plan (NECP) was initiated, however, the scope of the SEA report, obligatory by Article 5(4) of the SEA Directive and a critical phase in preparing the SEA report, was not determined despite that the draft was updated after the NECP's public consultation meetings in March 2022.

#### **SULPHUR IN FUELS**

**67% 1** 



The requirements and thresholds of the Sulphur in Fuels Directive, including those on marine fuels, are transposed by the Government Order on the Establishment of Sulphur Content Limit Values since 2021. Penalties for violations of the established fuel quality thresholds were increased significantly and state control of fuel quality was strengthened. An amendment to establish a sampling system and appropriate analytical methods via official laboratories was drafted but not adopted yet.

#### LARGE COMBUSTION PLANTS

73% 4



Georgia complied with its reporting obligations under the Large Combustion Plants Directive in April 2022. There are in total five gas-fired installations: two existing and two new plants falling under the scope of the Large Combustion Plants Directive, and one new plant under the Industrial Emissions Directive. The average emissions of all plants are compliant with the emission limit values of the respective Directives. The new Law on Industrial Emissions, introducing the integrated permit system and the concept for the use of the best available techniques, is prepared and to be submitted for parliamentary approval.

#### NATURE PROTECTION

**40% ↓** 



In 2022, Georgia developed the draft Law on Biological Diversity that sets rules and procedures for the identification and extension of the Emerald Network as well as provisions on project permit and monitoring procedures. The Law will also prohibit the deliberate killing or capture of strictly protected or protected wild birds and other wild animal species, as well as the destruction, damage or collection of their nests, lairs, burrows, eggs or spawns, deliberate destruction of migration and water access routes or watering places. The National Red List of Georgia was updated in 2022 in line with the International Union for Conservation of Nature (IUCN) assessment criteria. The results of the new assessment, along with international obligations, provide the basis for defining the strictly protected and protected species status under the Law on Biological Diversity (once adopted).

#### **ENVIRONMENTAL LIABILITY**

80%

The Law on Environmental Liability, which transposes the relevant provisions of the Directive, is in force since March 2021. The Law prescribes fault-based liability as the common standard of environmental liability. However, it also envisages the case of strict environmental liability for particularly hazardous activities. Financial instruments are provided in the form of insurance or bank guarantees. In the first half of 2022, four government resolutions necessary for the implementation of the Law were adopted.

#### **RECOMMENDATIONS / PRIORITIES**

The capacities of the competent authority in the EIA and SEA procedures must be improved. The decision-making process for revised projects that were already approved under previous legislation must be aligned with the EIA Directive. The establishment of the e-platform for improving the consultation process in the EIAs/SEAs should be a priority. The Government should reconsider developing a mediation mechanism that would provide an opportunity for resolving environmental disputes before energy projects are granted permits. The scoping report, part of the SEA process for the draft NECP, must be prepared and consulted with the public and authorities concerned. The SEA report and the outcome of the consultations should be taken into account in the preparation of the final NECP in line with Article 8 of the SEA Directive.

The adoption of the Law on Biological Diversity should be a priority. Technical and financial support for the development of management and monitoring plans for the special protection areas (SPAs) for birds should be secured. Management and monitoring plans for the 24 SPAs should be prepared and enforced with a special focus on the protection of breeding and migratory birds concentrated in migratory corridors and high mountain ranges.

Amendments related to the transposing legislation of the Sulphur in Fuels Directive envisaged by Georgia should be adopted to ensure full compliance with the Directive's provisions.

# Installations under the Large Combustion Plants Directive

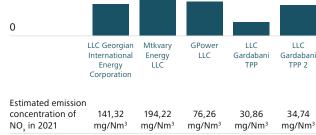


Source: compiled by the Energy Community Secretariat

# 2021 emissions of NO<sub>x</sub> versus applicable emission limit values (ELV)

432

#### 1 emission limit values



Source: calculated by the Energy Community Secretariat



#### **CLIMATE IMPLEMENTATION**

#### NATIONAL GREENHOUSE GAS EMISSIONS MONITORING AND REPORTING SYSTEMS

56% 1

The development of Georgia's Long-Term Low Emissions Development Strategy continued in 2021 and 2022, with the end of 2022 as the target date for adoption.

# NATIONAL ENERGY AND CLIMATE PLANS (NECPS)

70% 1

Georgia started working on the preparation of the Climate Change Law, which is expected to transpose the climate-related parts of the Governance Regulation.

Georgia extensively discussed its draft NECP in a series of working group meetings including with representatives of civil society in 2021 and early 2022. Both the reference and policy scenarios have been finalized, while smaller refinements are being made to reflect the discussions on the 2030 Energy Community targets. The text of draft NECP is also being updated to ensure consistency with the Energy Community 2030 targets for Georgia. It is planned to be subject to public consultation at the end of 2022 and adopted in the first half of 2023.

#### **RECOMMENDATIONS / PRIORITIES**

Georgia is encouraged to finalize its Long-Term Low Emissions Development Strategy and submit it to the Secretariat as outlined in the Governance Regulation. The development of the Climate Change Law should take into consideration the obligation to transpose the Governance Regulation.



#### STATISTICS IMPLEMENTATION

#### **ANNUAL STATISTICS**

93% 4

PRICE STATISTICS

100% ||

The energy balances produced by the national statistics institute, GEOSTAT, are in compliance with Annex B of Regulation (EC) 1099/2008 on energy statistics. The five questionnaires are being transmitted to and published by EUROSTAT. Disaggregated data on final energy consumption of households are reported to EUROSTAT in the defined questionnaire format.

The quality report with the metadata for transmitted energy statistics for the previous reporting cycle was submitted to EU-ROSTAT, as required by the Regulation, but was not published yet. It has to be updated in accordance with the new predefined format for quality reporting in the 2022 cycle, and submitted to EUROSTAT.

As regards the questionnaires that are not mandatory yet, preliminary versions with data for 2021 were prepared and transmitted on time, whereas the questionnaire on renewables shares (SHARES) was not submitted.

#### MONTHLY STATISTICS

100% 1

Georgia has been transmitting all monthly data collections from Annex C of Regulation (EC) 1099/2008 timely.

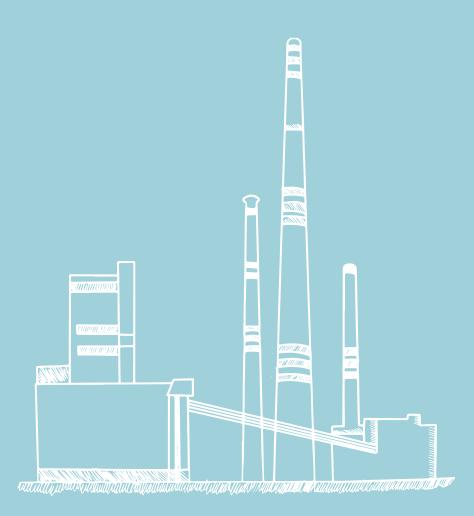
The transmission of statistics on prices of natural gas and electricity charged to end-users, broken down by consumption band, taxation level and price component, has been conducted from 2018 onwards in full compliance with the acquis.

Quality reports on electricity and natural gas price statistics are transmitted and published.

#### **RECOMMENDATIONS / PRIORITIES**

The responsibility for reporting on the shares of renewable energy in gross final consumption in the SHARES tool should be assigned without delay.

# Kosovo\*

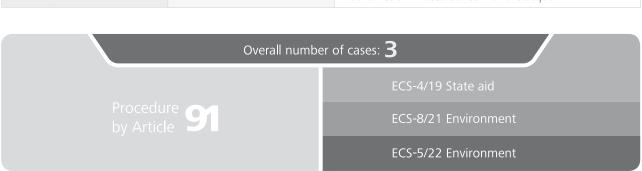






#### **SUMMARY IMPLEMENTATION**

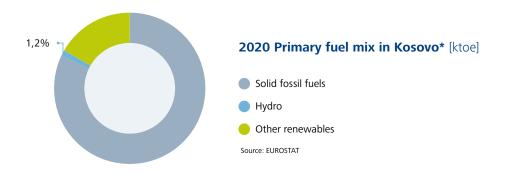
SUMMARY INDICATORS	IMPLEMENTATION STATUS	2022 HIGHLIGHTS				
Electricity	79%	With the focus on ensuring regular supply of electricity and preventing load shedding, Kosovo* made modest progress in improving market liquidity and competition.				
Gas	34%	Kosovo* is reconsidering the role of natural gas in its energy mix.				
Oil	19%	No progress occurred during the reporting period, and implementation remains at a low level. The draft Law on Compulsory Oil Stocks has been revised many times and should be adopted as soon as possible.				
Renewable Energy	51%	Kosovo* came close to reaching its 2020 target. No substantial progress was achieved, however, the country's first renewables law is in consultation and should be adopted soon.				
Energy Efficiency	64%	Kosovo* achieved its 2020 target, and increased expertise and tools for certification of buildings. A number of drafted by-laws remain to be adopted.				
Environment	44%	In the area of environment, some progress occurred during the reporting period but implementation still remains at a low level.				
Climate	52%	There was no progress related to the NECP of Kosovo*.  The draft law on climate change should be finalized by the end of 2022.				
National Authorities	65%	ERO's independent tariff setting competences were safeguarded by a final decision of the Supreme Court and its decision-making quorum was re-installed. ERO continues to lack proactiveness on retail market opening. The competition and State aid authorities have started investigating abusive behaviour and State support in order to ensure compliance with the acquis.				
Statistics	84%	This year, the Kosovo Agency for Statistics produced monthly data collections for the first time and published them on its website, working with EUROSTAT to start transmission in accordance with the acquis.				



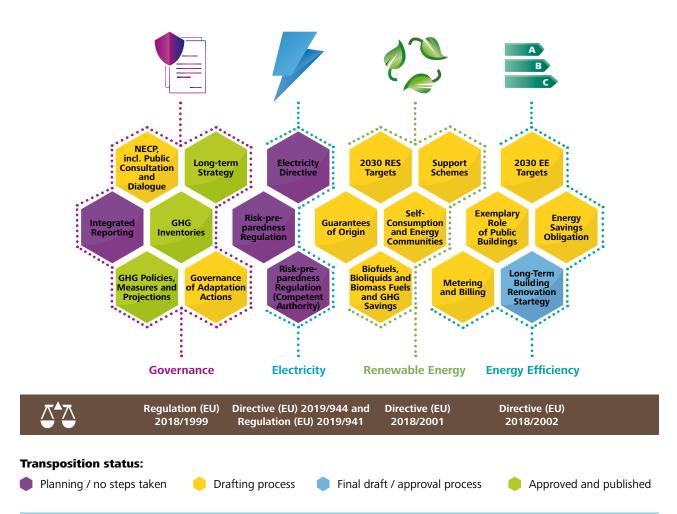
# **State of Energy Sector Reforms**

Electricity market reforms were overshadowed by concerns over security of electricity supply. Nevertheless, modest progress in improving market liquidity and competition was achieved. Kosovo\*'s track record when it comes to its environmental performance has deteriorated. Infringement cases for lack of environmental impact assessment legislation and breaching emission limits for large combustion plants initiated by the Energy Community Secretariat are ongoing.

When it comes to advancing on the green agenda, progress hinges on the adoption of the national energy strategy. Kosovo\* is in the early stages of transposing the 2021 Clean Energy Package, with the exception of electricity legislation where drafting is yet to begin.



# **Decarbonisation readiness - 2021 Clean Energy Package transposition**





#### **ELECTRICITY IMPLEMENTATION**

#### UNBUNDLING

100% |

The transmission system operator KOSTT was ownership unbundled and certified in February 2019, following the Secretariat's positive Opinion. The distribution system operator KEDS is unbundled since 1 January 2015 and a compliance programme is in place. The compliance report for 2021 prepared by the compliance officer was approved and published in line with the law.

#### ACCESS TO THE SYSTEM

90%



Access to the transmission and distribution system is based on the published grid codes and tariffs for the use of the network and connection fees, determined in accordance with respective methodologies and rules on quality standards, as well as rules on disconnection and reconnection of customers.

An extraordinary tariff review was requested by the transmission and distribution system operators to reflect the actual cost of electricity as the financial viability of the operators was at risk. New tariffs were approved in February 2022.

As the supply company KESCO was not able to procure sufficient electricity to meet demand, load shedding was performed in the winter 2021 - 2022 and in the summer 2022.

Connection Codes were transposed and implemented through the grid codes approved by the regulator.

#### WHOLESALE MARKET

79% 1

Despite being formally open, the wholesale market is effectively foreclosed by the bulk supply agreement between the incumbent producer KEK and the universal supplier KESCO.

The Albanian power exchange ALPEX obtained a license for the operation of the day-ahead market in Kosovo\*, to be operationalised two months following the launch of the Albanian day-ahead market by ALPEX. ALPEX, under a license already granted by ERO, will operate the day-ahead market in Kosovo\* based on the service agreement with KOSTT. The procedure for the designation of a nominated electricity market operator in line with the CACM Regulation was adopted by ERO.

The balancing market is functional.

The Regulation on Integrity and Transparency of the Wholesale Energy Market (REMIT) was transposed through a regulatory act and implemented.

#### RETAIL MARKET

53% ||



All customers are free to choose supplier, however, due to the price increase in the period 2021 - 2022, no customers exercised this right. In practice, all customers, except those on high voltage, continued to be supplied at regulated prices. An extraordinary tariff review was requested by the universal service supplier to reflect the increase of wholesale prices and new tariffs are applied as of 9 February 2022. To incentivise household customers to reduce demand, ERO changed the tariff structure to introduce a block tariff with a consumption threshold of 800 kWh per month.

The obligation of universal service supply imposed on KESCO was extended by one year as of 1 April 2022. Following two unsuccessful tenders for supplier of last resort, ERO appointed the Kosovo Energy Corporation (KEK), licensed for electricity supply, as a supplier of last resort for a period of three years starting from 31 July 2022.

Electricity supply company Elektrosever was issued a license to supply customers in four municipalities in the north of Kosovo\* for a period of five years starting as of 24 June 2022. The conclusion of a subcontract between KEDS and Elektrosever is still pending.

The primary legislation includes the definition of vulnerable customers, however, the relevant secondary legislation has not been developed yet. Subsidies for electricity costs for certain protected customer categories are granted based on the agreement of the Ministry of Finance, KEDS and KESCO.

#### REGIONAL INTEGRATION

63%



Kosovo\* has transposed and fully implemented the TEN-E Regulation in the reporting period.

KOSTT allocates cross-border capacities through SEE CAO. Intraday capacity is allocated bilaterally. Rules for the allocation of capacities on the interconnections with the control area of Serbia have not been agreed yet and no auctions have been organised for the time being.

Cross-border balancing cooperation with Albania follows the agreement on the establishment of the Albania - Kosovo\* (AK) control block. Market coupling between Albania and Kosovo\* is envisaged to take place in parallel with the launch of the dayahead market in Kosovo\*.

#### SECURITY OF SUPPLY

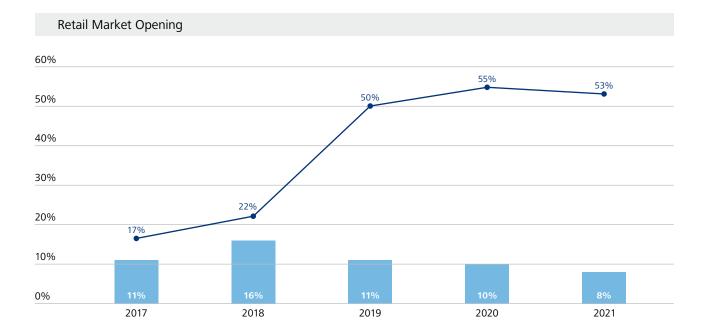
94%

Directive 2005/89/EC is transposed and implemented through primary and secondary legislation.

The draft Law on Security of Networks and Information Systems is at the final stage of being finalized and published for public consultation. This draft Law aims at transposing Directive (EU) 2016/1148 concerning measures for a high common level of network security and information systems, including certain provisions of NIS2. The Ministry of Economy is the leading institution for drafting the Law and conducting the relevant procedures for its adoption.

#### **RECOMMENDATIONS / PRIORITIES**

Opening of the wholesale and retail market for competition remains a priority. The launch of the day-ahead market in line with the envisaged deadline along with the phasing out of the bulk supply agreement between the production company KEK and the universal supplier KESCO would contribute to unlocking competition and liquidity in the market for the benefit of Kosovo\*'s energy consumers. KEDS should conclude a subcontract with Elektrosever for the north of Kosovo\*.



Supply to active eligible customers in % for Kosovo\*

Supply to active eligible customers in % for the Energy Community (weighted average %)

Source: Ministry of Economy, compiled by the Energy Community Secretariat



#### GAS IMPLEMENTATION

#### UNBUNDLING

0% ||

Any future transmission system operator must apply the ownership unbundling model. This requirement was transposed by the 2016 Law on Natural Gas. No company has been identified to promote gas infrastructure.

#### ACCESS TO THE SYSTEM

0% ||

No gas network exists in Kosovo\*. No rules providing for regulated third party access exist. The basic gas acquis requirements were transposed by the Law on Natural Gas.

#### WHOLESALE MARKET

0% |

Kosovo\* does not have a gas market.

#### **RETAIL MARKET**

**0**% ||

Kosovo\* does not have customers using gas. The Law transposed basic elements for the protection of customers.

#### INTERCONNECTIVITY, **REGIONAL INTEGRATION**

30% 1

Two projects have the PECI status; the North Macedonia – Kosovo\* Interconnector (which is in the feasibility phase) and the Albania - Kosovo\* Gas Pipeline ALKOGAP. Both would enable Kosovo\* to access different gas sources, e.g. TAP or LNG from Greece or Croatia. Its feasibility is subject to the construction of the IAP project as a backbone pipeline. In recent years, neither project has matured.

#### SECURITY OF SUPPLY

0%

Kosovo\* transposed partially the security of supply rules. Nevertheless, Kosovo\* enjoys derogation from applying Regulation (EU) 2017/1938.

#### **RECOMMENDATIONS / PRIORITIES**

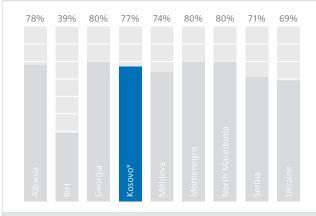
Kosovo\* is still considering the most efficient way to decarbonize its energy sector. Gas supplies via pipeline are an increasingly unlikely option. In case it is back on the table, supply routes from North Macedonia or from Albania via pipeline could be a possibility.



# **Kosovo\* National Authorities**

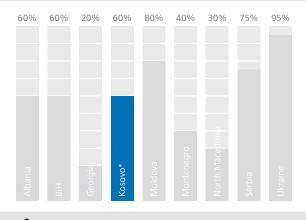


#### Regulatory Authority



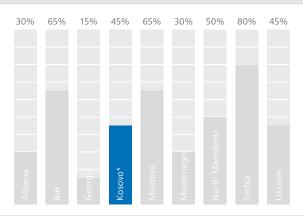
In the reporting period, the Energy Regulatory Office (ERO) was exposed to Court investigations challenging the regulator's tariff decisions. This was overcome by a final decision of the Supreme Court. The regulator's decision-making quorum was re-installed. The regulator continued to be active in promoting self-consumption of customers by issuing licenses for installation of solar panels. On the other hand, ERO has repeatedly delayed retail market opening since 2018 for customers connected to 35 and 10 kV networks.

#### **○1 ○** Competition Authority



The Kosovo Competition Authority opened an investigation into abuse of dominance by KEDS and KESCO by creating barriers to entry on the electricity supply market in December 2020, but has not rendered any decision yet in this regard. This should be a priority for the near future.

#### State Aid Authority



The authority responsible for enforcing the Law on State Aid consists of a State Aid Department (SAD), integrated into the Ministry of Finance, which receives, analyses and monitors notifications, and a State Aid Commission (SAC), the decision-making body. Despite its limited human and technical resources, the SAD has started to investigate State support in the energy sectors and has issued a number of guidance and advocacy documents during this reporting period.



#### **OIL IMPLEMENTATION**

#### OIL STOCKHOLDING OBLIGATIONS

0% |

Kosovo\* is yet to comply with its obligations under the oil stocks acquis.

The draft Law on Compulsory Oil Stocks from 2014 was subject to a public consultation which ended in August 2022. The Law was sent to the Ministry of Finance for budgetary impact assessment.

#### **FUEL SPECIFICATIONS**

75% |

Kosovo\* has transposed the main provisions of the Fuel Quality Directive save for the provisions on sulphur content in gas oil for non-road mobile machinery (NMRR).

#### **RECOMMENDATIONS / PRIORITIES**

The Law on Compulsory Oil Stocks is compliant with the oil stocks acquis. Its adoption should be prioritised.

The non-compliant sulphur content limit for gas oil for NMRR should be addressed within 2023.



#### RENEWABLE ENERGY IMPLEMENTATION

#### NATIONAL RENEWABLE **ENERGY ACTION PLAN**

50% **J** 

Kosovo\* has registered a 24,40% share of renewables in 2020 and came very close to reaching its 25% target for 2020. The sectorial target for heating and cooling was overreached, while contributions of renewable energy to electricity and transport were still very low.

#### QUALITY OF SUPPORT SCHEME

40% |

The law currently prescribes a support scheme based on administratively set feed-in tariffs. However, since December 2020, the allocation of feed-in tariffs has been suspended. Renewable energy producers under the support scheme are liable for 25% of their total imbalance costs.

#### **GRID INTEGRATION**

68% |

The system operator is obliged to give dispatching priority to generating installations using renewable energy sources grounded on transparent and non-discriminatory criteria.

#### ADMINISTRATIVE PROCEDURES AND GUARANTEES OF ORIGIN

64%

A one-stop shop supported by an inter-institutional coordination committee made up of all authorities involved in the development of renewable investments is not yet in place, despite the regulation on its establishment being adopted by the Government already in 2018. Kosovo\* joined the Energy Community initiative to establish a regional system for guarantees of origin. The national electronic registry for guarantees of origin in Kosovo\* was created and can be utilized as soon as the energy regulator, as the designated issuing body, signs a direct agreement with the service provider.

#### RENEWABLE ENERGY IN TRANSPORT

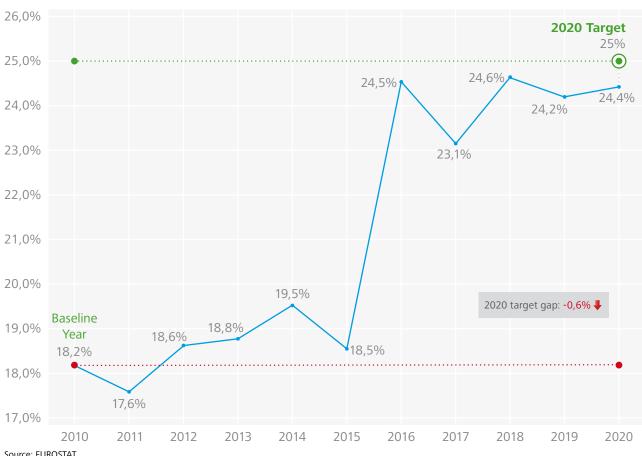
0% ||

Provisions related to the sustainability of biofuels are only partially transposed through the Law on Trade in Petroleum Products and Renewable Fuels adopted in April 2022.

#### **RECOMMENDATIONS / PRIORITIES**

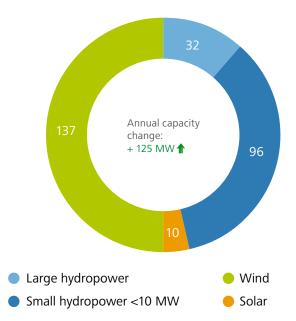
Kosovo\* should proceed with the adoption of its first renewable energy law to transpose and implement Directive (EU) 2018/2001 by the end of 2022. Permitting procedures need to be simplified and streamlined to enable faster deployment of renewables. The energy regulator, as the designated issuing body for guarantees of origin, should sign a direct agreement with the service provider and start using the national electronic registry developed during the regional project.

#### Shares of Energy from Renewable Sources



Source: EUROSTAT

#### Total Capacities of Renewable Energy 2021 (MW)



Source: Ministry of Economy and Environment

In 2021, the largest wind farm Selac in Kosovo\* was put into operation. The wind farm, encompassing 27 wind turbines, has installed capacity of 102,6 MW. The wind park was granted strategic investor status in February 2018.

Besides Selac, only 22 MW of small hydropower capacities were commissioned in 2021.

Total capacities of renewable energy (MW):

275



#### **ENERGY EFFICIENCY IMPLEMENTATION**

# ENERGY EFFICIENCY TARGETS AND POLICY MEASURES

57% 1

Kosovo\* has achieved the 2020 energy efficiency target. The draft sixth Annual Progress Report was submitted to the Secretariat in November 2022. The monitoring and reporting framework for policy measures has been improved with a new regulation and platform for reporting.

The 2018 Law on Energy Efficiency set an energy efficiency obligation with a 0,7%, target and a 1% annual central government buildings renovation target. However, the Law needs to be amended to reflect the more ambitious energy efficiency targets set by the amended Energy Efficiency Directive.

#### **ENERGY EFFICIENCY IN BUILDINGS**



Kosovo\* adopted the necessary by-laws to implement the Law on the Energy Performance of Buildings. Activities to strengthen expertise and tools for certification of buildings are ongoing, including on the new registry and certification software. Kosovo\* drafted plans to boost nearly zero-energy buildings and a building renovation strategy, but their adoption is pending.

#### **ENERGY EFFICIENCY FINANCING**

84%

The Energy Efficiency Fund continued public calls for improvement of energy efficiency during 2022 and signed 73 agreements with 22 municipalities worth EUR 9 million. There are ongoing activities to extend financing for the residential and private sector in the near future.

Rules on energy efficient public procurement, ESCOs and energy performance and supply contracts are in line with the acquis.

# ENERGY EFFICIENT PRODUCTS - LABELLING

49% ||

Kosovo\* still fails to implement the delegated regulations adopted by the Ministerial Council in October 2014 and November 2018. Only the labelling regulations adopted by the 2010 Ministerial Council have been implemented.

## EFFICIENCY IN HEATING AND COOLING

46% ||

Kosovo\* has district heating systems in four municipalities, which predominately rely on fossil fuels. A biomass-based cogeneration plant in Gjakova municipality became operational in the winter season of 2021/2022. There is also progress in implementing consumption-based metering, as the Pristina district heating company installed individual meters and thermostatic valves for 17.500 customers. The assessment of the high-efficiency cogeneration and efficient district heating and cooling potential, as required by the Energy Efficiency Directive, is still not completed.

#### **RECOMMENDATIONS / PRIORITIES**

The adoption of the remaining secondary legislation required for implementation of the Energy Efficiency Law remains of the highest priority.

This also includes the adoption of the draft plan for implementation of the energy efficiency obligations, draft long-term building renovation strategy and draft plan to boost nearly zero-energy buildings in Kosovo\*. Transposition of the labelling delegated regulations should start as soon as possible, possibly with technical assistance.

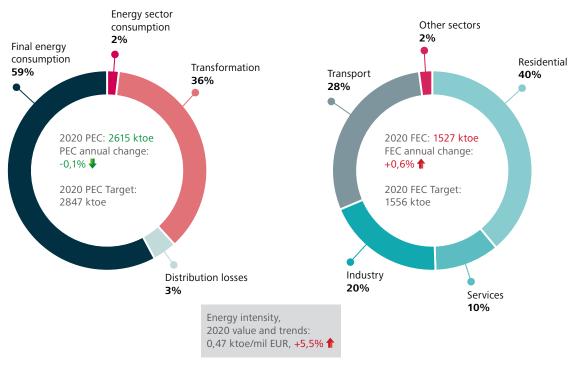
After adoption of the necessary reporting framework, a monitoring and verification platform (MVP) for energy savings should be put into operation by the Energy Efficiency Agency.

The Annual Progress Report on the in implementation of the Energy Efficiency Directive should be finalised.

#### 2020 Energy Efficiency Indicators and Trends

#### Primary Energy Consumption (PEC)

#### Final Energy Consumption (FEC)



Source: EUROSTAT 2022 data and Contracting Party's Reports

#### Energy Efficient Products - Overview of Implementation of Labelling Regulation

			0= 0==		<u>-</u> \$\$\$	0=0==		(8)	\$\$\$ 	<b>□□ ⊘</b>	
FRAMEWORK REGULATION*	Household dishwashers	Fridges and freezers*	Household washing machines	Televisions	Air conditioners and fans*	Household tumble driers	Electrical lamps and luminaires	Solid fuel boilers*	Space heaters*	Water heaters & storage tanks	Domestic ovens and range hoods

<sup>\*</sup> The new labelling package adopted by the Ministerial Council in November 2018 was assessed, as the transposition deadline expired in January 2020.

No progress with adoption/implementation

Compliance or implementation issues detected

Source: multiple sources of data (EECG reports, NEEAPs etc.), compiled by the Energy Community Secretariat

Adopted and implemented



#### **ENVIRONMENT IMPLEMENTATION**

#### **ENVIRONMENTAL ASSESSMENTS**

36% ▮

#### LARGE COMBUSTION PLANTS

**53**%



The draft Law on Environmental Impact Assessment (EIA) aimed at fully transposing the EIA Directive was finalized but not adopted. Therefore, the Secretariat initiated an infringement case against Kosovo\*. With the assistance of the Government and the civil society sector, the Secretariat conducted in July 2022 an onsite visit to the built HPPs cascade Decani subject to complaints. The public participation in the environmental decision-making process for hydropower development in Kosovo\* was assessed by the Ombudsman's Office (Report No. 365/2018) and issues with access to information, participation and access to justice are identified in the procedures for all hydropower projects. The recommendations stipulated by the Ombudsman's report have not been fully implemented yet.

The 2010 Law on Strategic Environmental Assessment (SEA) is not fully aligned with the SEA Directive. The requirement for mandatory scoping of the SEA report set by the SEA Directive is not stipulated by the Law. Concerning the impacts on biodiversity, the SEA Law does not regulate the content of the SEA report with regard to protected areas until the establishment of the NATURA 2000 network. It stipulates that the SEA report and the outcome of the consultations, including transboundary consultations, should be taken into account in the preparation of the plans and programmes before their adoption, however, it does not provide a legal procedure for it. These shortages should be addressed in the new SEA Law for full alignment with the SEA Directive. The draft Energy Strategy 2022 - 2031 prepared in the reporting period was not made subject to SEA screening despite that the content of the draft document might fall within the scope of the SEA Directive.

#### SULPHUR IN FUELS

92% 4

Kosovo\* has transposed the provisions of the Directive via the Administrative Instruction on the Technical Requirements for Import, Storage, Wholesale and Retail Sale of Petroleum Fuels. Quality control of the fuels falling under the scope of the Directive is carried out by the customs authorities at border crossing points. Provisions on marine fuels do not apply.

Kosovo\* complied with its emissions reporting obligations for the reporting year 2021 in March 2022. It addressed the breach of the incorrect transposition of the Large Combustion Plants Directive via the adoption of the new administrative instruction in 2021. Emissions of sulphur dioxide and nitrogen oxides decreased significantly compared to 2020 levels, while dust emissions increased slightly. Kosovo\* still does not comply with the NERP ceilings for all three pollutants, which is subject to infringement action since March 2021.

#### NATURE PROTECTION

26% ◀



The 2010 Law on Nature Protection is outdated and not in line with the legislation on EIA and SEA. In the reporting period, the municipality of Lipjan declared nine new protected areas as Monuments of Nature - mainly areas with hydrological, botanical and geological characteristics. Kosovo\* faces serious challenges with the management of the (over 90) Monuments of Nature due to the lack of capacity and finance. Kosovo\* still lacks the inventory of wetlands that would provide the basis for legal protection for the Ramsar sites. Management is still not set for the artificial special protection area (SPA) for birds "Henc". The management of the two national parks, "Bjeshket e Nemuna" and "Sharii (Shar) Mountain", still lacks a cross-border protection component with the bordering national park "Shar Moutain" in North Macedonia, "Prokletie" in Montenegro and "Valbona valley" in Albania. The national inspectorate still lacks the technical and human capacity to monitor the protected areas.

#### **ENVIRONMENTAL LIABILITY**

0%

The Environmental Liability Directive is not transposed into national legislation yet and no preparatory steps have been taken in that respect.

#### **RECOMMENDATIONS / PRIORITIES**

The Law on Environmental Impact Assessment and the secondary acts concerning the EIA Commission should be adopted. The drafting of secondary legislation to establish the EIA Commission envisaged by the draft EIA Law should start as early as possible. The human and technical capacities of the public authorities must be improved in order to facilitate and streamline the EIA processes. The amendments to the SEA legislation should be sped up in order to secure a proper SEA process for the NECP.

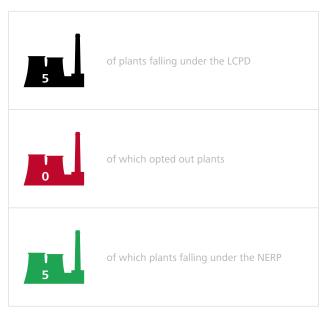
The long-lasting breach of the NERP ceilings has to be addressed by installing the needed emissions abatement techniques. The draft Law on Industrial Emissions needs to be harmonized with the administrative instruction.

Kosovo\* should ensure that the quality control of fuels falling under the scope of the Sulphur Directive is done systematically and with sufficient frequency, using the sampling methods required by the Directive.

Kosovo\* should amend its nature protection legislation and secure technical and financial assistance for preparing the inventory of wetlands.

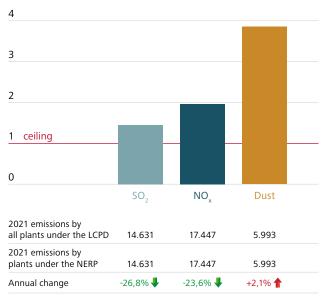
The provisions of the Environmental Liability Directive should be transposed into national legislation without delay.

# Installations under the Large Combustion Plants Directive



Source: compiled by the Energy Community Secretariat

#### 2021 emissions versus NERP ceilings





#### **CLIMATE IMPLEMENTATION**

#### NATIONAL GREENHOUSE GAS EMISSIONS MONITORING AND REPORTING SYSTEMS

**52%** 

Kosovo\* is drafting its Law on Climate Change with the Secretariat's active support. The draft Law is expected to incorporate existing secondary legal acts (Administrative Instructions) and to transpose climate-related elements of the Governance Regulation. The target date for adopting the Law is the end of 2022.

## NATIONAL ENERGY AND CLIMATE PLANS (NECPS)

51% |

Due to the development of and the discussions related to the draft Energy Strategy, there was limited progress on the NECP with only initial steps being taken to revise the modelling assumptions based on the incoming 2030 targets. The NECP is expected to be updated once the Energy Strategy is adopted in order to ensure consistency among the documents and also with the Energy Community 2030 targets for Kosovo\*.

#### **RECOMMENDATIONS / PRIORITIES**

The draft Law on Climate Change should ensure the transposition of the climate-related elements of the Governance Regulation



#### STATISTICS IMPLEMENTATION

#### **ANNUAL STATISTICS**

86% 4

Since 2015, the annual questionnaires have been submitted to and published by EUROSTAT. The breakdown of energy consumption of households is compiled by the Kosovo Agency for Statistics, KAS, and transmitted to EUROSTAT.

The quality report was transmitted to EUROSTAT in 2019, whereas the updated quality report due by July 2022 is yet to be drafted.

Preliminary questionnaires with 2020 data and the SHARES questionnaire were prepared and transmitted on time.

#### **MONTHLY STATISTICS**

**50%**



In accordance with the programme of official statistics 2018 - 2022, KAS was obliged to develop a methodology and start data collection and dissemination of monthly statistics in accordance with the Energy Statistics Regulation. The preparations are completed and the first sets of data for coal, oil and electricity from January 2022 onwards are ready to be transmitted for validation to EUROSTAT.

#### PRICE STATISTICS

**75**%



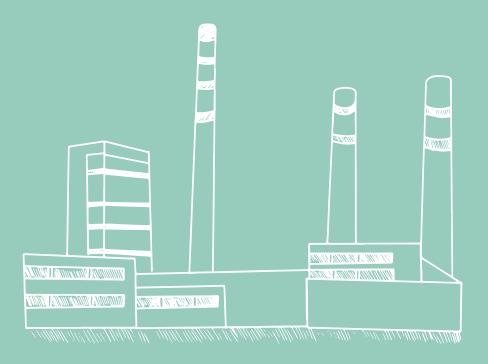
Electricity prices per consumption band broken down by taxation level are submitted to and subsequently published by EU-ROSTAT. Price components for industrial end-users are reported in accordance with the acquis. KAS is working on improving the quality of data, since existing subsidies and surcharges influence the level of end-user prices and breakdown into subcomponents.

The quality report on electricity price statistics has not been provided yet.

#### **RECOMMENDATIONS / PRIORITIES**

The submission of monthly statistics is crucial for Kosovo\* to improve its statistics acquis compliance record. It is urgent to update the quality report on energy statistics and submit the quality report on price statistics.

# Moldova







#### **SUMMARY IMPLEMENTATION**

SUMI	MARY CATORS	IMPLEMENTATION STATUS	2022 HIGHLIGHTS
<b>&gt;</b>	Electricity	53%	The emergency synchronization and the energy crisis shifted the focus to diversification and security of supply. The new Market Rules were implemented, but electricity market reforms are still to be sped up, including the long-standing issue of the transmission system operator's certification which is in the final stage.
4	Gas	52%	In the face of severe energy supply threats, Moldova made significant progress in implementing the gas acquis and started with the diversification of its gas supplies.
\$	Oil	13%	No progress occurred during the reporting period, and implementation remains at a low level.
	Renewable Energy	59%	Moldova is one of the three Contracting Parties which achieved its 2020 renewables target. No substantial progress was achieved, however, amendments to the Renewables Law, which are being drafted, should enable first auctions for renewable energy projects.
A B	Energy Efficiency	79%	Moldova is the second best performer in terms of energy efficiency. The country achieved the 2020 target and progressed with finalization of amendments to transpose the latest amendments of the Energy Efficiency Directive.
8	Environment	62%	Moldova has recorded progress in the field of environmental assessments during the last reporting period.
	Climate	56%	Moldova progressed with its draft regulation for monitoring GHG emissions from stationary installations. Unfortunately, the development of the draft NECP is still at an early stage.
<u></u>	National Authorities	73%	The energy regulator lacks sufficient penalty rights and competences on REMIT in the electricity sector. The de facto performance of ANRE proves technical expertise. While the Competition Council has investigated allegedly abusive behavior in the electricity market, it has not rendered any decision or recommendation regarding State aid in the energy sectors.
<u>ıh</u>	Statistics	100%	With an excellent compliance record, the Moldovan National Bureau of Statistics is continuously improving the quality of its statistics. It is the only Contracting Party that has conducted the second survey of energy consumption in households.

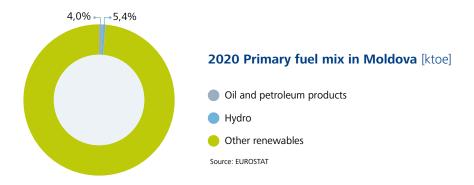
Overall number of cases: 7

ECS-14/16 Energy efficiency
ECS-9/17 Electricity
ECS-7/18 Environment
ECS-3/20 Gas
ECS-18/21 Electricity
ECS-24/21 Environment
ECS-31/21 Gas

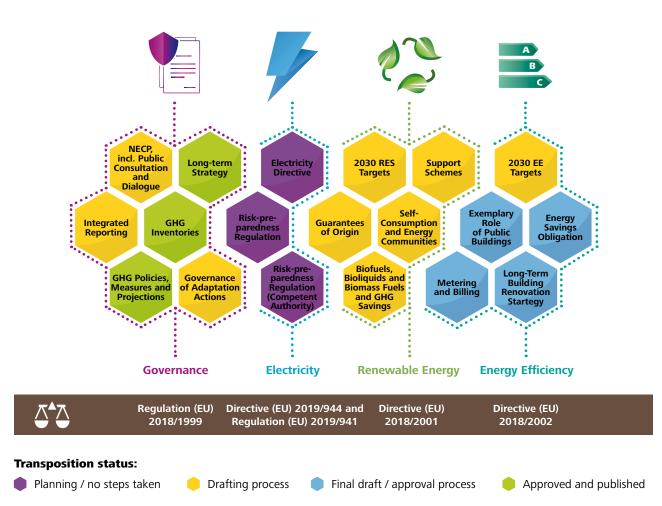
### **State of Energy Sector Reforms**

Moldova accelerated energy sector reforms under difficult circumstances. The country has embarked on a reform path to enable security of supply and energy diversification. A number of key reforms such as electricity and gas transmission system operator unbundling are to be completed. In the face of the energy crisis and energy affordability challenges, Moldova continued making progress in the field of energy efficiency. The Contracting Party achieved its 2020 renewables target.

Moldova's National Energy and Climate Plan remained in the drafting phase but the country has managed to transpose a number of key elements of the Governance Regulation. The drafting of the new Renewables and Energy Efficiency Directives is moderately advanced, while work to transpose the 2021 electricity legislation is yet to start.



# **Decarbonisation readiness - 2021 Clean Energy Package transposition**





#### **ELECTRICITY IMPLEMENTATION**

#### UNBUNDLING

65%



The February 2022 amendment to the Law on Electricity extended the unbundling model options that may be selected by the Moldovan transmission system operator Moldelectrica, thus aligning the national sectorial framework with Directive 2009/72/EC. The company has opted for the independent system operator model, given that the Moldovan legal framework requires the overhead lines of 35 kV and higher voltage to be in public ownership. A request for certification under this model was submitted on 7 September 2022 and Moldova's regulator ANRE has up to four months to issue its decision on preliminary certification. The lack of a certified transmission system operator is subject to an infringement procedure.

The country's two distribution system operators, one of which is a private entity, were unbundled back in 2015.

#### ACCESS TO THE SYSTEM

53% 🛊



Requirements of the acquis with respect to access to the transmission and distribution networks are transposed by the Law on Electricity and implemented via distribution and transmission tariff methodologies approved and published by ANRE.

The existing transmission tariff methodology is expected to be replaced as it expires in mid-January 2023 after its fifth year of application.

Connection Codes were transposed and entered into force on 1 January 2020 as part of the Moldovan network code.

The Transparency Regulation is transposed, however, only limited data is published.

#### WHOLESALE MARKET

52%



After several postponements, market rules entered into force on 1 June 2022, providing the basis for electricity market development, cross-border trade and diversification of supply.

Given the nation-wide state of emergency declared by the Parliament on 24 February 2022 as a response to the Russian invasion of Ukraine (and extended until 6 December 2022), the implementation of market rules is constrained by the decisions of the Emergency Commission. Namely, a public service obligation was imposed on the state-owned trader Energocom to directly negotiate contracts for the supply of electricity and sell it to Moldovan market participants, instead of competitive procurement. Most recently, following a termination of supply from Ukraine and from the generator MGRES located in the Transnistrian region, Energocom established a branch office in Romania and started procuring electricity on the Romanian day-head market.

The network code was amended to include provisions related to the balancing market and the ancillary services market and, implicitly, established criteria for qualification of system service providers. Given the lack of service providers in the Moldovan market, the market rules also provide a possibility for TSO-TSO balancing cooperation.

The REMIT Regulation on wholesale energy market transparency and integrity is not yet transposed.

#### RETAIL MARKET

60% 1



Moldova has been progressively opening up the retail market until the third quarter of 2021 as unregulated suppliers accessed affordable Ukrainian electricity. Due to the increase of electricity prices in 2022 in Ukraine and lack of MGRES' interest to sign bilateral contracts with unregulated suppliers, five active suppliers at unregulated prices have ceased to operate. Thus, customers (mostly industry) which had switched supplier have returned to the supplier of last resort.

The public service obligation for universal supply and supply of last resort is imposed on the two existing suppliers for a period of 10 years by the 2016 Law on Electricity.

As the end-user tariffs have tripled over the last several months, Moldova is faced with a serious electricity affordability issue, which is expected to worsen as Energocom is forced to procure more expensive electricity from the day-ahead market.

The concept of vulnerable customers is defined by primary legislation, while a social assistance programme and the assistance for the cold period of the year provide measures for their protection. In 2022, a special fund for reducing energy vulnerability was established, providing subsidies for energy consumption and for the replacement of old household appliances.

To partially transpose Regulation (EU) 347/2013, a draft law on amending the Law on Energy was prepared. There has been no progress in this respect.

The PMI project from 2016 and 2018 of installing a B2B station at the 400 kV OHL Vulcănești (MD) - Isaccea (RO) was stopped due to the newly established synchronous operation of the Moldovan transmission system with Continental Europe. The construction of the 400kV OHL Balti – Suceava, in addition to the Vulcănești - Chișinău power line (already under construction), is the interconnection project with greatest potential for cross-border trade.

Emergency synchronization of the power systems of Ukraine and Moldova with Continental Europe took place on 16 March 2022. Commercial exchange of electricity between the UA/MD control block and Continental Europe started on 30 June 2022, with a gradual increase of cross-border capacity available for trade.

Since June 2022, the settlement of unintentional deviations for the UA/MD control block is performed under the European methodology (FSkar).

Unilateral allocation of cross-border capacity on the interconnection with Ukraine was suspended following Russian attacks on Ukraine's energy infrastructure on 12 October 2022. Unilateral allocations of capacities on the Moldovan - Romanian border were enabled as of 13 October 2022.

Amendments to the existing Control Block Agreement between Moldelectrica and Ukrenergo are currently being consulted by the transmission system operators to bring it line with the Area Framework Agreement (SAFA), System Operation and Electricity Balancing Guidelines.

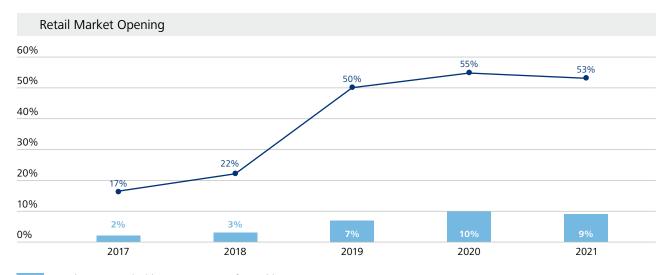
The Law on Electricity together with the Regulation on Exceptional Situations on the Electricity Market and the action plan for its implementation create the needed legal framework and tools to ensure security of electricity supply in compliance with Directive 2005/89/EC.

On 13 October 2022, after the interruption of supply from the Ukrainian system and lack of contractual arrangements to fully cover national electricity demand, the Emergency Commission declared an emergency situation in the electricity sector. Following the termination of supply from Ukraine and MGRES' reduction in supply, the deficit of electricity is mostly covered by procurement on the Romanian day-ahead market, supplemented by emergency electricity supply provided by Transelectrica on the basis of bilateral contracts with Moldelectrica.

Cybersecurity policies are adopted in security and information technology domains with no energy-specific components. Cyber defence mechanisms are implemented through the national CERT (CERT-GOV-MD).

#### **RECOMMENDATIONS / PRIORITIES**

The emergency synchronization and the energy crisis shifted the Government's focus to interconnectivity and diversification of supply. Measures to speed up electricity market reform and the country's integration with Ukraine and Romania took centre stage. At Moldova's request, the Secretariat prepared an electricity market reform action plan, which was endorsed by the Moldovan Government at the second EU - Moldova High Level Energy Dialogue on 30 June 2022. The plan outlines key activities that should be undertaken by relevant stakeholders: the transmission system operator's certification, implementation of joint capacity allocation on the interconnections with Ukraine and Romania and REMIT implementation. The adoption of the new Electricity Law, which is currently being drafted with the support of the Secretariat, should be prioritized.



Supply to active eligible customers in % for Moldova

Supply to active eligible customers in % for the Energy Community (weighted average %)

Source: Ministry of Infrastructure and Regional Development, compiled by the Energy Community Secretariat



#### GAS IMPLEMENTATION

#### UNBUNDLING

31% 1



Vestmoldtransgaz LLC, one of the two national transmission system operators, owned by the Romanian transmission system operator Transgaz and the European Bank for Reconstruction and Development (EBRD), is certified under the ownership unbundling model.

The other transmission system operator, Moldovatransgaz, which transmits virtually all Moldovan supplies, is not yet certified, for which the Secretariat has initiated infringement procedures. In case of the incumbent's inaction to unbundle, the Law on Natural Gas amended in July 2022 empowers the regulator to withdraw its license, appoint a new transmission system operator for the transmission networks operated by Moldovatransgaz and ask for its certification under the independent system operator model.

#### ACCESS TO THE SYSTEM



ANRE approved in March 2022 the entry-exit tariffs for the transmission system. However, the implementation of the Network Codes is still in the nascent phase.

Moldovatransgaz offered interconnection point capacity on the regional booking platform (RBP) on 1 November 2022. Capacities offered towards the EU are up to 36mcm/day and 12 mcm/ day in reverse flow. The Balancing Network Code has not been implemented in practice so far, despite the ANRE decision of both transmission system operators to have Moldovatransgaz as a balancing entity for the entire balancing zone.

Harmonized transmission tariff structures for gas are not in place, as required by the Tariff Network Code, although Moldova established a legal basis therein. As for the backhaul implementation, Moldova is still testing this capacity product and awaiting the regulation of the virtual reverse flow from the fiscal and customs perspective. The lack of implementation is subject to infringement procedures. A draft set of legislative amendments to national legislation is prepared and should be adopted shortly.

#### WHOLESALE MARKET

33% 4



Moldova's wholesale gas market is illiquid and foreclosed, dominated by Moldovagaz, which is controlled by Gazprom. Nearly all of Moldova's demand is supplied via an agreement signed between Moldovagaz and Gazprom in October 2021, extended until September 2026. Nevertheless, other suppliers, such as Energocom, started their operations in the market. Energocom started to penetrate the market and is buying and selling gas based on Moldovan needs, which introduced competition in the Moldovan wholesale market towards Moldovagaz. Energocom has been the main recipient of Moldova's EBRD loan for gas supply and storage operations, amounting to EUR 300 million.

A natural gas trading platform in Moldova is established by the Romanian Exchange BRM.

REMIT Regulation (EU) 1227/2011 was transposed in July 2022.

#### RETAIL MARKET

41% 1



The Moldovan retail market remains heavily regulated. As per ANRE's decision of 2019, Moldovagaz is under a public service obligation for the supply of gas to all final consumers, which is valid until the end of 2026. Moreover, in October 2021, ANRE imposed on Moldovagaz a new public service obligation of last resort supply for a period of three years. None of the PSOs provides for clear and adequate eligibility criteria. The Government is considering imposing further public service obligations to counteract the effects of the energy price surge. There is, however, a need to revise the entire design of the public service obligations in order to avoid discrimination and unnecessary market disruptions.

#### INTERCONNECTIVITY, REGIONAL INTEGRATION

**68% ↓** 



Moldova has increased its security of natural gas supply with the operationalization of the Ungheni - Chisinau pipeline, which was commissioned in October 2021, and also thanks to the upgrade of the T1 pipe of the Trans-Balkan corridor, which is of regional importance, namely for the transmission system operators of Ukraine and Romania. An interconnection agreement between Moldovatransgaz and the gas transmission system operator of Ukraine was concluded in line with the acquis.

Moldova aims at further gas market integration with Romania to allow market penetration from Romanian traders and the usage of the Ungheni - Chisinau pipeline. This is especially important in the context of the EUR 300 million loan by EBRD to Moldova, where a EUR 200 million emergency tranche is to be used in case of supply disruption and EUR 100 million to create a strategic gas reserve to be stored in Romania or Ukraine. Moldova and Ukraine are in an intensive dialogue on how to promote regional security of gas supply.

#### SECURITY OF SUPPLY

100%

Moldovan primary and secondary legislation, the Regulation on Exceptional Situations on the Natural Gas Market and the Plan of Actions for Exceptional Situations on the Natural Gas Market transposed numerous provisions of Security of Gas Supply Regulation (EU) 2017/1938, including the storage obligations. In addition to these efforts, Moldova has adopted a new set of emergency and preventive plans to reduce consumption in the following winter.

#### **RECOMMENDATIONS / PRIORITIES**

Moldova has invested significant efforts in aligning its legal and regulatory framework with the gas acquis. The adoption of the amendments to the Law on Natural Gas is an important step towards better resilience of the market ahead of what is expected to be a very challenging winter. However, the amendments by themselves, absent proper market opening, will not bring the necessary changes. Moldovan authorities need to ensure the adoption and implementation of secondary legislation, as well as the unbundling and certification of Moldovatransgaz.

The Moldovan Government has authorized Energocom, a new state-owned gas trader, to procure gas from alternative sources on the spot market which makes the establishment of a well-functioning gas market a precondition for the success of its security of supply and diversification strategy.

The most pressing issues for Moldova are unbundling and certification of Moldovagaz, ensuring long-term security of gas supply and further opening of the gas market.



Gas supplied to active eligible customers as % of total supply in Moldova

Gas supplied to active eligible customers as % of total supply in the Energy Community

Note: The weighted average level of market opening in the Energy Community was calculated assuming the full opening of gas retail market in Ukraine for the whole 2021. However the full retail market opening took place on 1st May 2021.

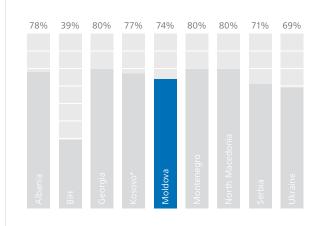
Source: National Energy Regulatory Agency (ANRE), compiled by the Energy Community Secretariat



# **Moldova National Authorities**

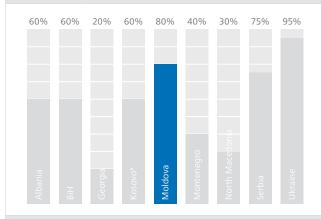


#### **Regulatory Authority**



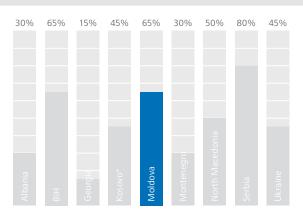
In the reporting period, the National Energy Regulatory Authority (ANRE) continued being active despite the challenges resulting from security of supply and price surges. ANRE started transposing the REMIT Regulation in secondary rules based on new legal competences for the gas sector. Interim measures for transposition of the gas balancing network code were developed in line with the acquis. On regional level, ANRE continued its close cooperation in ECRB.

#### Competition Authority



The Competition Council conducted an investigation into potential anti-competitive price setting for the sale of petroleum products and liquefied gas. The Competition Council closed an investigation regarding the application of unequal condition for the provision of electricity distribution services to electricity suppliers by Premier Energy Distribution due to the lack of reasonable grounds for finding an infringement of the prohibition of abuse of dominance.

#### State Aid Authority



In the reporting period, the Competition Council has not rendered any decisions or recommendations regarding State aid in the energy sectors.



#### OIL IMPLEMENTATION

#### **OIL STOCKHOLDING OBLIGATIONS**

0% ||

At present, Moldova has no emergency oil stocks. The country drafted a law on creating and maintaining a minimum level of oil product stocks in 2017 and adapted it in 2020 to the new requirements of Directive (EU) 2018/1581 as regards the Methods for Calculating Stockholding Obligations.

No progress was achieved during this reporting period. The draft law is not yet adopted.

#### **FUEL SPECIFICATIONS**

**50% ↓** 

Moldova's legal framework sets the requirements for the quality of petrol and diesel, which meet the Fuel Quality Directive's specifications. However, gas oil used for non-road mobile machinery is not covered. The first report on monitoring the quality of petrol and diesel is not completed, and there is no clearly defined time frame for that.

#### **RECOMMENDATIONS / PRIORITIES**

The draft law on creating and maintaining a minimum level of oil product stocks complies with the oil stocks directive (as amended). Its adoption should be prioritized.

The monitoring report on the quality of petrol and diesel should be finalised within 2023.



#### RENEWABLE ENERGY IMPLEMENTATION

## NATIONAL RENEWABLE ENERGY ACTION PLAN

**78%** ||

Moldova exceeded its overall 2020 target of 17% by reaching 25,06% of renewable energy in 2020. However, only the sectoral target for heating and cooling was overreached, while contributions of renewable energy to electricity and transport are still very low. Given the considerable contribution of solid and non-sustainable biomass to the overall figure, the Government allocated financial resources in 2022 for a second assessment of the use of biomass by households, thus aiming at the calibration of the previously collected data on the use of biomass by the Moldovan residential sector for heating purposes, hot water and preparation of food.

#### QUALITY OF SUPPORT SCHEME

48% |

The 2018 Renewables Law sets the legal basis for renewable energy support schemes. Administratively set feed-in tariffs for small producers (less than 4 MW for wind and 1 MW for all other renewables technologies) are implemented, while the implementation of the auctioning scheme is conditioned by amendments to the Law on Promotion of Use of Renewable Energy Sources. So far, two decisions were approved by the Government, in 2018 and 2021 (amended in 2022), allocating a cumulative capacity of 165 MW for auctions and 356 MW for feed-in tariffs.

As the new Electricity Market Rules entered into force on 1 June 2022, all producers are financially liable for their imbalances.

#### **GRID INTEGRATION**

66% |

Priority dispatch is granted by the Electricity Market Rules only to certain eligible renewable energy producers, along with urban CHP units. The Electricity Market Rules put an obligation on the transmission system operator to keep a registry of such producers.

# ADMINISTRATIVE PROCEDURES AND GUARANTEES OF ORIGIN

68% I

To help investors in renewable energy to get acquainted with the complex provisions of national legislation and planned procedures, the Energy Efficiency Agency, which acts under the Ministry of Infrastructure and Regional Development, was assigned with the role of an informal one-stop shop.

Moldova joined the Energy Community initiative to establish a regional system for guarantees of origin. The national electronic registry for guarantees of origin in Moldova was created and can be utilized as soon as Energocom, as the designated issuing body, signs a direct agreement with the service provider.

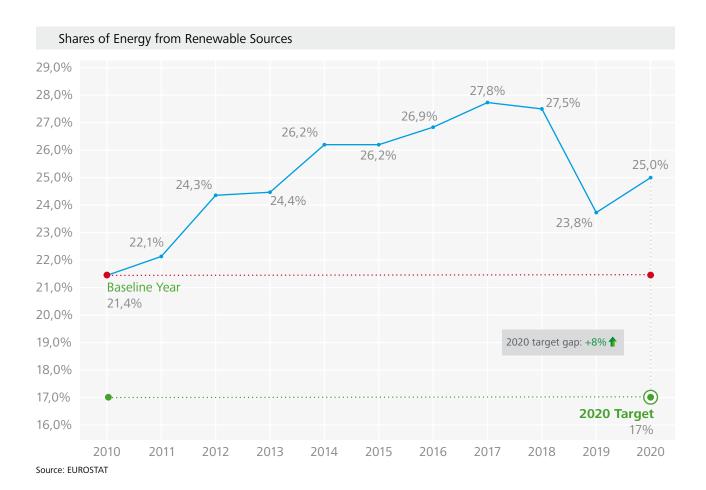
#### RENEWABLE ENERGY IN TRANSPORT

3% ||

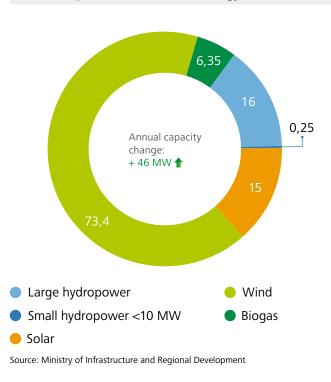
Despite transposing enabling provisions into its primary legislation, Moldova failed to define the biofuels sustainability criteria and the overall implementation framework for these policies is missing. Therefore, the only technology that counts towards the sectorial target is the use of renewable electricity by local electric public transport. For 2020, the line Ministry reported a value of 0,18% as opposed to the objective of 10%.

#### **RECOMMENDATIONS / PRIORITIES**

Moldova should proceed with the adoption of amendments to the Renewables Law to transpose and implement Directive (EU) 2018/2001 by the end of 2022. Permitting procedures need to be simplified and streamlined to enable faster deployment of renewables. Energocom, as the designated issuing body for guarantees of origin, should sign a direct agreement with the service provider and start using the national electronic registry developed during the regional project.



#### Total Capacities of Renewable Energy 2021 (MW)



In 2021, around 10 MW of, mostly rooftop, solar PV were added as well as 36 MW of onshore wind.

Total capacities of renewable energy (MW):

111



#### **ENERGY EFFICIENCY IMPLEMENTATION**

#### **ENERGY EFFICIENCY TARGETS** AND POLICY MEASURES

80% |

Moldova has achieved the national 2020 energy efficiency target, as reported in the sixth Annual Progress Report submitted to the Secretariat in July 2022. The specific targets required under Articles 5 and 7 of the Energy Efficiency Directive are transposed by the 2018 Law on Energy Efficiency and implementing by-laws or renovation programme.

Amendments to the Law on Energy Efficiency to transpose the latest amendments of the Energy Efficiency Directive, adopted by the Ministerial Council in 2021, were finalised. The adoption of this act and updates of implementing acts to include the 2030 framework, including the 2030 energy efficiency target, are pending.

#### **ENERGY EFFICIENCY IN BUILDINGS**

70% |

The implementation of the Buildings Directive is still incomplete. The 2014 Law on the Energy Performance of Buildings partly transposes the Directive. Moldova recently drafted a law to transpose amending Directive 2018/844. The draft law is currently in public consultation. A long-term building renovation strategy is developed, but still not adopted. There are ongoing activities to establish a new fund for energy efficiency in residential buildings, while various programmes already finance public buildings renovations.

#### **ENERGY EFFICIENCY FINANCING**

88%

Moldova is in the process of establishing the Moldovan Residential Energy Efficiency Fund and reorganizing the existing Energy Efficiency Agency to extend its scope and expertise. Moldova also recently finalised an assessment of the ESCO market and developed a roadmap with options for its further development.

The Moldova Energy Efficiency Project focused on showcasing the exemplary role of the public sector by renovation of public buildings.

#### **ENERGY EFFICIENT** PRODUCTS - LABELLING

83%

Moldova finalised a draft law to transpose Framework Labelling Regulation (EU) 2017/1369. The EU4Energy Governance project is supporting Moldova in drafting a regulation to introduce updated requirements and rescaled energy labels for five product groups.

#### EFFICIENCY IN HEATING AND COOLING

72% 1



With donors' support, Moldova's district heating systems in Chisinau and Balti are implementing energy efficiency measures in combined heat and power units, heat substations and installing heat meters at the apartment level. The Energy Efficiency Agency is performing a feasibility study for installation of individual meters in multi-apartment buildings.

#### **RECOMMENDATIONS / PRIORITIES**

Given the country's immense untapped energy saving potential in the residential sector as well as its vulnerability and exposure to the energy crisis, Moldova should proceed with the adoption and implementation of the draft amendments to the Energy Efficiency Law and create the Moldova Residential Energy Efficiency Fund at full speed.

The second priority is to fully align the Law on Energy Performance of Buildings with Directive 2010/31/EU by adopting the needed legislative amendments and implementing the building certification system, including the calculation tool for building performance certificates.

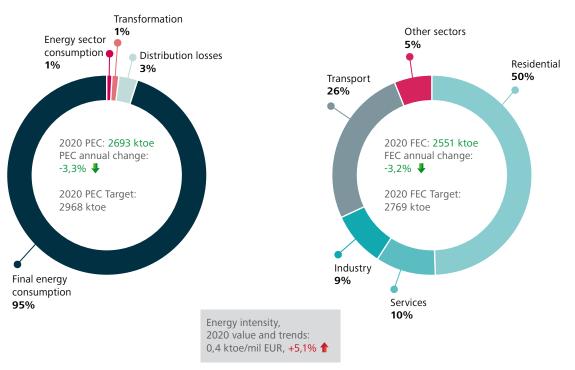
With respect to the country's plans to update the national assessment of its high-efficiency cogeneration and efficient district heating potential, Moldova should take into account the requirements of Article 15(7) of the Renewable Energy Directive (EU) 2018/2001. Moreover, the establishment of support for energy efficiency measures for heating and cooling systems in individual households is recommended.

The capacities of the Energy Efficiency Agency should be increased to support energy efficiency reforms, together with the continued training of experts for energy audits, management and certification of buildings.

#### 2020 Energy Efficiency Indicators and Trends

#### Primary Energy Consumption (PEC)

#### Final Energy Consumption (FEC)



Source: EUROSTAT 2022 data and Contracting Party's Annual Report under Directive 2012/27/EU

#### Energy Efficient Products - Overview of Implementation of Labelling Regulation

			0=0==		<u>-</u> 555	0= 0==		((())	\$\$\$ 	<b>BB ()</b>	
FRAMEWORK REGULATION*	Household dishwashers	Fridges and freezers*	Household washing machines	Televisions	Air conditioners and fans*	Household tumble driers	Electrical lamps and luminaires	Solid fuel boilers*	Space heaters*	Water heaters & storage tanks	Domestic ovens and range hoods

<sup>\*</sup> The new labelling package adopted by the Ministerial Council in November 2018 was assessed, as the transposition deadline expired in January 2020.

Compliance or implementation issues detected

Source: multiple sources of data (EECG reports, NEEAPs etc.), compiled by the Energy Community Secretariat

Adopted and implemented

No progress with adoption/implementation



#### **ENVIRONMENT IMPLEMENTATION**

#### **ENVIRONMENTAL ASSESSMENTS**

56% ▮

#### Moldova amended the Environmental Impact Assessment (EIA) Law to transpose amendments introduced by Directive 2014/52/EU. However, by postponing the implementation of the new provisions by a one-year entry into force period, the country remains in breach of its obligations as established by the Ministerial Council. This situation risks jeopardising strategic energy projects, in particular for renewable energy, which will still be carried out on the basis of the current, non-compliant legislation. Small wind power projects subject to Annex II are not screened against all relevant selection criteria with regard to the characteristics of the project, the location of the project, and the type and characteristics of the potential impacts, as determined in Annex III of the EIA Directive.

The Strategic Environmental Assessment (SEA) Law was amended to address the shortcomings related to the consultation with the public and authorities concerned, the quality assurance of the SEA report and the lack of provisions related to the monitoring mechanism of the SEA. However, the implementation of the new provisions will only commence in one year's time, which might impact the quality of the SEA process and SEA report for the upcoming National Energy and Climate Plan (NECP).

#### SULPHUR IN FUELS

**75%** 



The Directive is transposed into national law by Government Decision on the Reduction of the Sulphur Content of Certain Liquid Fuels. The sulphur limits for heavy fuel oil and gas oil are compliant with those required by the Directive. The State Environmental Inspectorate performs checks to verify compliance of the fuels covered by its scope in cooperation with the Government and the border police. No information was provided on the frequency, methodology and the systematic nature of quality control of heavy fuel oil and gas oil. The provisions on marine fuels do not apply.

#### LARGE COMBUSTION PLANTS

86% II

Moldova complied with its reporting obligations for 2021 by the timely submission of the plants' emissions data. With the adoption of the Law on Industrial Emissions in July 2022, Moldova has finally transposed the requirements of the two Directives regulating the emissions of large combustion plants into national law. The Law will enter into force 24 months following its publication. The average emissions of Moldova's two gas-

fired plants under the scope of the Large Combustion Plants

Directive were compliant with the emission limit values on an

#### NATURE PROTECTION

individual basis.

53% 1



Moldova amended the Law on Ecological Networks and included specific provisions with regard to the protection of the Emerald Network. The new provisions foresee the development of management plans for the Emerald Network. An obligatory biodiversity assessment procedure applied for the Emerald Network sites, which will be carried out during the environmental impact assessment, is also established with the amendments. The protection status of the "Lower Dniester" Ramsar site was upgraded to a national park. The lack of a management body for the designated Ramsar sites puts at risk the implementation and enforcement of the management plan.

#### **ENVIRONMENTAL LIABILITY**

0%

The Environmental Liability Directive is not transposed. The Ministry of Environment is in the process of drafting amendments to national legislation with the aim to transpose the Directive. Methodologies on the calculation of environmental damage are also under revision in order to align with the Directive.

#### **RECOMMENDATIONS / PRIORITIES**

Moldova should reconsider and shorten the transitional period for the implementation of the new provisions on EIA (including biodiversity assessment) and SEA, in particular with regard to the permitting process for renewables projects and the upcoming NECP.

Moldova should establish a systematic quality control system for the testing and sampling of heavy fuel oil and gas oil.

Identified Ramsar sites should have a management body to monitor and secure the implementation of the management plans. Measures against prohibited means and methods of killing, capture and other forms of exploitation of protected species should be enforced. The provisions of the Environmental Liability Directive have to be transposed into national legislation without delay.

# Installations under the Large Combustion Plants Directive

of plants falling under the LCPD

of which opted out plants

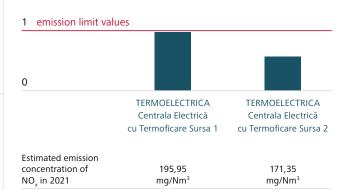
of which plants falling under the NERP

Source: compiled by the Energy Community Secretariat

# 2021 emissions of NO<sub>x</sub> versus applicable emission limit values (ELV)

3

2



Source: calculated by the Energy Community Secretariat



#### **CLIMATE IMPLEMENTATION**

#### NATIONAL GREENHOUSE GAS EMISSIONS MONITORING AND REPORTING SYSTEMS

83%

Moldova finalized its third Biennial Update Report and communicated it to the UNFCCC on 21 December 2021. Along with that submission, the National Inventory Report covering the national greenhouse gas emissions for the period of 1990 - 2019 and a National Inventory System Report was also included.

Moldova has also finalized its fifth National Communication and intends to communicate it to the UNFCCC by the end of December 2022.

Work on the draft regulation on the monitoring of GHG emissions from stationary installations continued with the aim of introducing elements of the EU ETS monitoring, reporting and verification methodology.

# NATIONAL ENERGY AND CLIMATE PLANS (NECPS)

28% |

A draft climate law is being developed in an activity supported by donors, however, the manner of transposing the Governance Regulation is still under discussion.

Activities on the draft NECP included the consolidation of earlier national targets with the Energy Community 2030 targets for Moldova and the calibration of the modelling with the potential policies and measures.

#### **RECOMMENDATIONS / PRIORITIES**

Moldova is encouraged to continue its efforts in developing its regulatory framework for the monitoring, reporting and verification of greenhouse gas emissions from installations. Moldova is invited to accelerate the process of transposing the Governance Regulation.



#### STATISTICS IMPLEMENTATION

#### **ANNUAL STATISTICS**

100% ||

In accordance with the Law on Official Statistics, the National Bureau of Statistics of the Republic of Moldova (NBS) transmits annual questionnaires to EUROSTAT on time and publishes them on its web page. Annual questionnaires for 2020 were compiled and transmitted in full compliance with the acquis. Disaggregated data on energy consumption in households are compiled and transmitted to EUROSTAT within the set deadlines.

The established quality system has allowed NBS to timely prepare and transmit the first quality report on its annual statistics in 2018. An updated quality report was submitted in accordance with the Regulation in July 2022 and subsequently published.

Non-mandatory datasets, namely preliminary data for 2021 and disaggregated data on final energy consumption in industry, were also compiled and transmitted to EUROSTAT. NBS also prepares information for calculating the renewables shares. The SHARES questionnaire for 2020 was transmitted to EUROSTAT and published.

#### **MONTHLY STATISTICS**

100%

NBS publishes monthly datasets for coal, oil and petroleum products, natural gas and electricity and transmits them to EUROSTAT timely in accordance with the acquis. Short-term monthly oil data, including oil stocks, are transmitted to EUROSTAT. NBS also submits the COIR questionnaire on crude oil import and production, although not mandatory for the Energy Community Contracting Parties.

#### PRICE STATISTICS

100% |

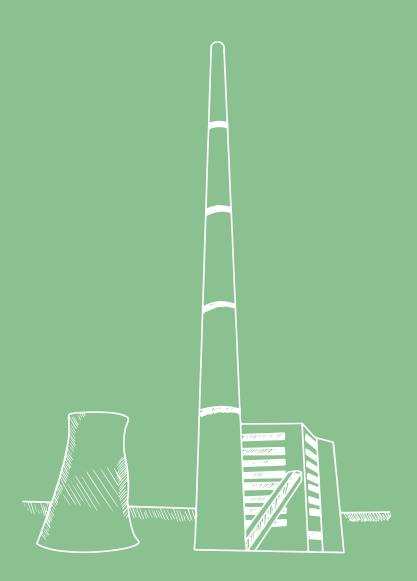
NBS has established a methodology and a reporting system to collect electricity and natural gas prices, per consumption band and broken down per price component. The price data are complete and transmitted to EUROSTAT timely.

NBS prepared and submitted the quality report on electricity and natural gas price statistics to EUROSTAT in accordance with the Regulation.

#### **RECOMMENDATIONS / PRIORITIES**

NBS has only to continue with the steady improvement of the timeliness of its energy statistics.

# Montenegro









#### **SUMMARY IMPLEMENTATION**

SUMMARY INDICATORS		IMPLEMENTATION STATUS	2022 HIGHLIGHTS
<b>/</b>	Electricity	82%	The REMIT Regulation was implemented. The day-ahead market MEPX is yet to be launched.
4	Gas	34%	Montenegro has ambitious policies to kick off gas penetration in its territory.
<b>S</b>	Oil	33%	No significant progress occurred during the reporting period apart from drafting of the Law on the supply of petroleum products in the event of a supply disruption.
	Renewable Energy	69%	Montenegro is one of the three Contracting Parties which achieved its 2020 renewables target. Besides the country's first Renewables Law being drafted, no substantial progress took place.
A B	Energy Efficiency	82%	As a top performer, Montenegro achieved the national 2020 energy efficiency target, and progressed with adoption of new labelling regulations, finalization of amendments to the Law and tools for certification of buildings.
8	Environment	70%	Montenegro is the top performer in the area of environment, yet implementation of the Large Combustion Plants Directive was interrupted by the delayed refurbishment of TPP Pljevlja.
**	Climate	74%	Montenegro's finalization of the third Biennial Update Report and its National Inventory Report represents progress in the climate field. Unfortunately, there was no progress achieved in the development of the draft NECP.
<u></u>	National Authorities	57%	REGAGEN continued to pro-actively and independently design the electricity market. Network tariff reforms in the context of the energy price surge put its independent tariff setting competences under political pressure. The Agency for Competition Protection has started an investigation into anti-competitive behavior in the liquefied petroleum gas market, but has so far not rendered any decisions or recommendations regarding State aid in the energy sectors.
<u>ılı</u>	Statistics	84%	As Monstat finally solved the pressing issue of being understaffed by assigning an expert to energy statistics in 2022, the collection and dissemination of monthly data for 2022 has started.



Procedure **91** by Article

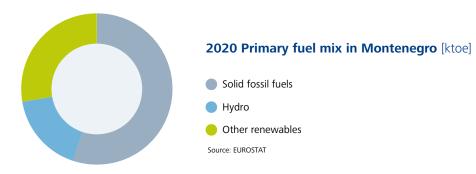
ECS-15/21 Environment

### **State of Energy Sector Reforms**

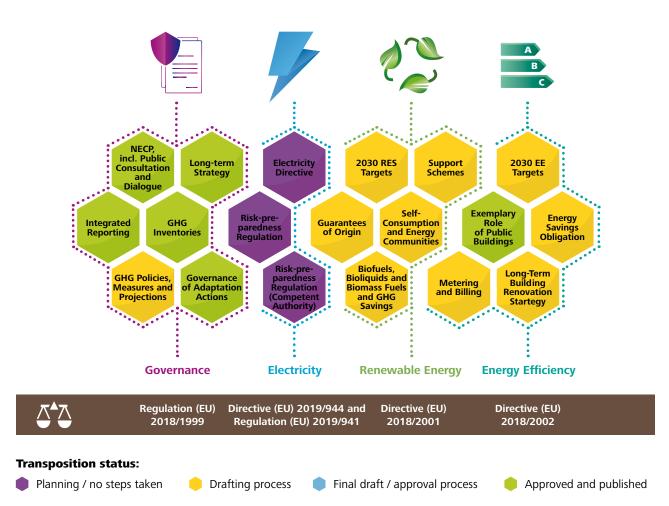
Montenegro continued improving its good track record in electricity, energy efficiency and climate acquis implementation. Last report's recommendations on advancing the establishment of the day-ahead market and launching a competitive process for renewable project support were not taken up.

No progress was made with respect to the environmental acquis. The infringement case for the non-compliance of its only coal-fired power plant Pljevlja with the Large Combustion Plants Directive is ongoing.

Transposition of the Governance Regulation is well advanced but the lack of a policy decision on the future operation of Pljevlja effectively blocked the finalization of the country's National Energy and Climate Plan. Transposition of the new Renewables and Energy Efficiency Directives is at an early stage, while work to transpose the 2021 electricity legislation is yet to begin.



# **Decarbonisation readiness - 2021 Clean Energy Package transposition**





#### **ELECTRICITY IMPLEMENTATION**

#### UNBUNDLING

100%

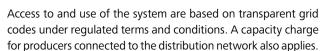
With the state as the major shareholder and Italian Terna, Serbian transmission system operator EMS and several minor shareholders, the transmission system operator CGES is unbundled from other energy activities and certified in accordance with the acquis.

The distribution system operator, CEDIS, owned by the dominant supplier Elektroprivreda Crne Gore (EPCG), is legally and functionally unbundled from supply and generation activities. A new compliance programme was approved in 2021. The compliance officer's report for 2021 is not published yet.

Regulatory supervision revealed that the mother company EPCG interfered in the operation of CEDIS, instructing CEDIS to bear the costs of a discount granted to end-customers by the supplier. Both companies complied with the regulator's instruction to amend the respective statutes and EPCG annulled its decision from 2021, by which the independence of CEDIS, as distribution system operator, was preserved.

#### ACCESS TO THE SYSTEM

89% 4



Electricity prices on the wholesale market increased the operating costs of CGES and CEDIS in 2021 due to their obligation to procure electricity for losses in a competitive market. CEDIS incurred an operating loss in 2021. Transmission and distribution tariffs increased from January 2022. New tariff methodologies for the market operator, distribution system operator and transmission system operator applicable from 2023 were adopted in June 2022.

Network operators submitted applications for the regular tariff review for the three-year period 2023 - 2025. The decision is expected in December 2022.

The Connection Codes were transposed in 2020 by corresponding Government decrees. To reflect the requirements of the Connection Codes, amendments to the transmission grid code of CGES were drafted in 2021. CEDIS adopted a new distribution grid code in June 2022 but the requirements of the Connection Codes were not integrated therein.

The Transparency Regulation is transposed and largely implemented

#### WHOLESALE MARKET

87% 1



Montenegro's wholesale bilateral market is small and highly concentrated with one dominant producer and trader, whereas the day-ahead market is not yet operational. It is pending the operationalisation of a day-ahead trading, clearing and settlement platform, which is currently being established by the power exchange company MEPX, and the adoption of day-ahead market rules. The designation of a nominated electricity market operator is still to be completed in line with the Energy Law. Currently, MEPX serves only as an auction platform for procurement of electricity for covering losses by the two network operators.

The balancing market functions, whereas the price of the balancing reserve is regulated pursuant to the methodology adopted by the regulator.

The adoption of amendments to the VAT Law, necessary to harmonize taxation regimes on cross-border transactions, is still pending.

The REMIT Regulation was transposed by the Law on Monitoring the Wholesale Market in Electricity and Natural Gas, adopted in December 2021, and implemented.

#### RETAIL MARKET

98% ||



Although there are five licensed suppliers in Montenegro, the retail market is entirely served by EPCG. In a transparent procedure, EPCG was selected to perform the public service obligation of supplier of last resort and supplier of vulnerable customers.

Households supplied by EPCG are since 2019 offered the possibility to select among four models and switch between them in order to optimize costs. For households and small customers, EPCG is obliged to respect restrictions imposed by the Energy Law and the 2019 regulator's decision that capped annual price increases at 6% until the end of 2022.

The Energy Law defines the concept of vulnerable customer. The relevant subsidies are provided through the Ordinance on Supplying Electricity to Vulnerable Consumers and the Electricity Bill Subsidization Programme.

The adoption of the new Law on Cross-Border Energy Infrastructure Projects, which seeks to transpose TEN-E Regulation (EU) 347/2013, initially scheduled for 2019, has not happened to date. The 400 kV overhead line Lastva - Čevo - Pljevlja, previously holding the PECI status, has not been completed yet. A new 400 kV line Pljevlja (ME) - Bajina Basta (RS), the actual PECI project related to section 4 of the Trans-Balkan corridor, awaits the necessary preconditions to be realised, namely the construction of the 2x400 kV line Obrenovac - Bajina Basta in Serbia.

Cross-border capacities are allocated in a coordinated manner through SEE CAO for all interconnections except with Serbia where bilateral auctions still apply.

The cross-border exchange of balancing energy is applied bilaterally with neighbouring transmission system operators and the imbalance netting with Serbia within the control block with North Macedonia and Serbia.

Market coupling projects are pending the establishment of the day-ahead market in Montenegro.

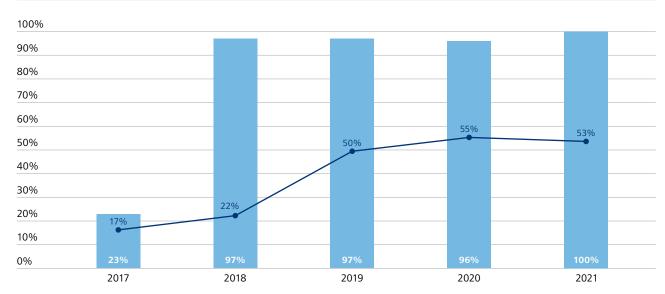
The Energy Law together with the transmission and distribution grid codes provides a framework governing security of supply in line with Directive 2005/89/EC.

The Law on Information Security partially transposes the NIS Directive, and cybersecurity is supported by CIRT-ME.

#### **RECOMMENDATIONS / PRIORITIES**

Montenegro should prioritise activities to launch the day-ahead market as a precondition for its coupling with neighbouring markets. In addition, the TEN-E Regulation should be transposed and implemented.

#### Retail Market Opening



Supply to active eligible customers in % for Montenegro

Supply to active eligible customers in % for the Energy Community (weighted average %)

Source: Energy and Water Regulatory Agency of Montenegro, compiled by the Energy Community Secretariat



#### GAS IMPLEMENTATION

#### UNBUNDLING

0% ||

The future transmission system operator, Montenegro Bonus, designated by the Government, is not yet unbundled under the ownership unbundling model, as defined by the Energy Law.

#### ACCESS TO THE SYSTEM

0% ||

No gas network exists in Montenegro. The regulator REGA-GEN continues to proceed with the drafting and adoption of secondary acts. The Energy Law and the Law on Cross Border Exchange of Electricity and Natural Gas transposed the relevant articles to ensure third party access, but the Network Codes transposition is still pending.

The energy regulator REGAGEN adopted methodologies for maximum revenues for a storage operator. The transmission methodology is not aligned with the Tariffs Network Code.

#### WHOLESALE MARKET

0% ||

Montenegro does not have a gas market. REMIT Regulation (EU) 1227/2011 is in place. REGAGEN adopted methodologies for maximum revenues for a market operator.

#### **RETAIL MARKET**

0% |

Supply rules for natural gas are in place. The Energy Law set the legal basis for protection of customers.

# INTERCONNECTIVITY, REGIONAL INTEGRATION

5% 🛊

The Ionian Adriatic Pipeline (IAP) is a PMI, crossing Montenegro. The project, which is in the planning and design phase, could introduce natural gas into the energy mix of Montenegro from

the south, e.g. via the TAP pipeline, or from the north by accessing LNG sources from Croatia.

#### SECURITY OF SUPPLY

60%

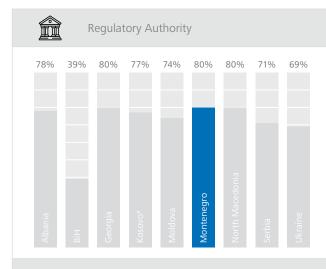
The Law on Cross Border Exchange transposed elements of the security of supply acquis; nevertheless, Montenegro is exempt from the implementation of Regulation (EU) 2017/1938 until gas is supplied to the country.

#### **RECOMMENDATIONS / PRIORITIES**

Montenegro has had ambitious plans to start gas exploration and connect to the gas markets of neighbouring countries. As of late, these plans are on hold. A clear policy vision is needed if gas would be a part of the Montenegrin energy mix.

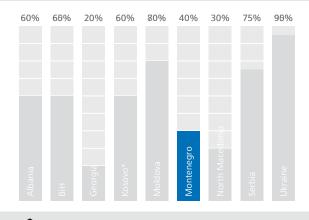


# **Montenegro National Authorities**



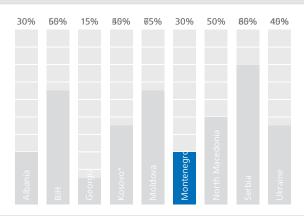
The Energy and Water Regulatory Authority of Montenegro (REGA-GEN) started transposing the REMIT Regulation based on the necessary legislative changes. On cross-border level, REGAGEN continued to engage actively in ECRB and with Italian authorities in cross-border electricity transmission capacity allocation. Independence of the regulator was challenged by political interventions with respect to upcoming network tariff reforms in the context of the energy price surge.

#### Competition Authority



Since its establishment in 2013, the Agency for Competition Protection (ACP) has not applied competition law to the energy sectors, except for the review of mergers. In the reporting period, the ACP has started an investigation into anti-competitive conduct in the liquefied petroleum gas market.

#### State Aid Authority



After taking over the competence for State aid control in 2018, the ACP has so far not rendered any decisions or recommendations regarding State aid in the energy sectors. To comply with its obligations under the Treaty, effective enforcement of the State aid acquis would be required.



#### OIL IMPLEMENTATION

#### OIL STOCKHOLDING OBLIGATIONS

10% 1

Montenegro did not make any progress during the reporting period.

A new draft Law on the Supply of Petroleum Products in the Event of Supply Disruption underwent public consultation.

According to the draft Law, the administrative body responsible for hydrocarbon affairs in the Ministry in charge of energy will be responsible to establish one-third of the emergency oil stocks in the territory of Montenegro in physical form only. The remaining two-thirds will be established by the oil-importing companies that operate in Montenegro. The market operators will have the right to establish their obligations either physically or through tickets, or a combination of both.

#### **FUEL SPECIFICATIONS**

100% ||

The standards contained in the 2017 Regulation on Limited Values of Contents of Pollutant Materials in Liquid Oil Fuels are fully compliant with the specifications set out in the Fuel Quality Directive. Montenegro publishes an annual programme for fuel quality monitoring.

#### **RECOMMENDATIONS / PRIORITIES**

The draft Law on the Supply of Petroleum Products in the Event of Supply Disruption complies with the Oil Stocks Directive (as amended). After its adoption, all necessary secondary legislation should be prepared and approved.



#### RENEWABLE ENERGY IMPLEMENTATION

# NATIONAL RENEWABLE ENERGY ACTION PLAN

88% |

In 2020, Montenegro registered a 43,77% share of renewable energy, exceeding its overall 2020 target. The significant increase in the share compared to the previous year can be attributed to a decrease in consumption. Sectorial targets for electricity and heating and cooling were also overreached, however, the share of renewables in transport remained very low.

#### QUALITY OF SUPPORT SCHEME

60% |

Based on the Energy Law, administratively set feed-in tariffs are applicable for projects up to 1 MW, while support has to be awarded in a competitive process for larger projects. However, the first competitive processes is yet to be organized. Currently, renewable energy producers receiving support are exempt from payment of imbalance costs.

#### **GRID INTEGRATION**

68% II

Precedence is provided in the takeover of electricity generated from renewable energy sources including privileged producers. System operators are obliged to provide a detailed estimate of connection costs of renewable energy projects based on the methodology issued by the regulator.

# ADMINISTRATIVE PROCEDURES AND GUARANTEES OF ORIGIN

69% II

No progress has been made to simplify administrative procedures and establish a one-stop shop in the reporting period. Montenegro joined the Energy Community initiative to establish a regional system for guarantees of origin. The national electronic registry for guarantees of origin in Montenegro was created and can be utilized as soon as the market operator, as the designated issuing body, signs a direct agreement with the service provider.

#### RENEWABLE ENERGY IN TRANSPORT

28% ||

The sustainability criteria for biofuels and bioliquids are transposed. However, the verification body prescribed by the Energy Law and the Decree is yet to be established. The share of renewables in the transport sector remained below 1% in 2020.

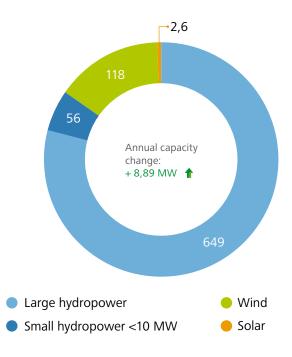
#### **RECOMMENDATIONS / PRIORITIES**

Montenegro should proceed with the adoption of its first renewable energy law to transpose and implement Directive (EU) 2018/2001 and implement first auctions in line with market principles. Permitting procedures need to be simplified and streamlined to enable faster deployment of renewables. The market operator, as the designated issuing body for guarantees of origin, should sign a direct agreement with the service provider and start using the national electronic registry developed during the regional project.

#### Shares of Energy from Renewable Sources



#### Total Capacities of Renewable Energy 2021 (MW)



Source: Energy and Water Regulatory Agency of Montenegro

Despite great potential for the use of renewable sources in Montenegro, only 8,86 MW of small hydropower capacities were added in 2021.

Total capacities of renewable energy (MW):

825



#### **ENERGY EFFICIENCY IMPLEMENTATION**

## ENERGY EFFICIENCY TARGETS AND POLICY MEASURES

82% ||

Montenegro has met the national 2020 energy efficiency target, as reported in the sixth Annual Progress Report submitted to the Secretariat in June 2022. Amendments to the Law on Efficient Use of Energy to transpose the latest amendments of the Energy Efficiency Directive were finalised in 2022 and are currently in parliamentary procedure.

The NECP is under preparation to incorporate the 2030 energy efficiency policy framework and extend the targets for renovation of central government buildings and alternative measures for achievement of the energy efficiency obligation target, set previously by the NEEAP.

#### **ENERGY EFFICIENCY IN BUILDINGS**

82% 🛊

The Buildings Directive and implementing rulebooks were transposed already in 2015.

Montenegro finalised updates on the cost-optimality calculations and a new software for energy performance calculations and certification of buildings, in line with the latest requirements under the Energy Performance of Buildings Directive. Several building renovation programmes are ongoing, albeit a long-term building renovation strategy is still missing.

#### **ENERGY EFFICIENCY FINANCING**

87%

The national Eco Fund finances energy efficiency and environmental projects. Several projects related to the public and residential sector are ongoing, supported either by state subsidies or international loans. A new project for installation of solar PV panels on rooftops is being implemented by state power utility EPCG with the support of the Eco Fund. The ESCO contracts and the enabling framework is incorporated in the Law on Efficient Use of Energy.

# ENERGY EFFICIENT PRODUCTS - LABELLING

87% 🛊

In 2022, Montenegro adopted a package of nine energy labelling and eco-design rulebooks. An additional four rulebooks were drafted with a view to be adopted by the end of 2022. Montenegro has adopted the remaining three regulations incorporated into the Energy Community legal framework by the Ministerial Council in November 2018.

# EFFICIENCY IN HEATING AND COOLING

72% ||

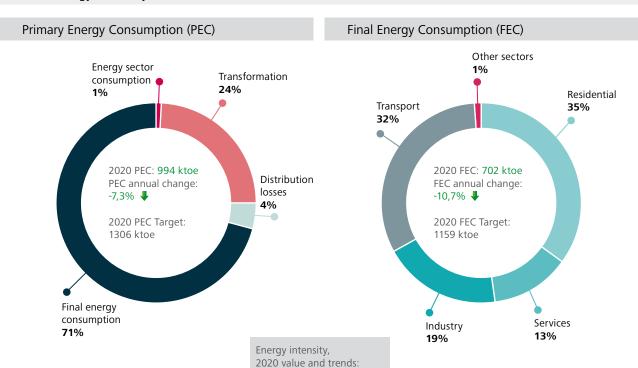
The majority of buildings in Montenegro use individual heating systems supplied by either electricity or biomass. In 2022, the project Energy Efficient Home continued to support households with interest-free loans for the installation of modern heating and cooling systems, heat pumps and thermal insulation. The Žabljak municipality is assessing the development of a pilot biomass district heating system. The update of assessment of high-efficiency cogeneration and efficient district heating and cooling potential drafted in 2018 is under preparation with the support of EBRD.

#### **RECOMMENDATIONS / PRIORITIES**

Montenegro should continue with the adoption of the remaining secondary legislation on energy labelling of energy-related products and adopt an updated buildings regulation and tools enabling effective certification of the energy performance of buildings.

The system for monitoring and reporting on implementation of Article 7 (energy efficiency obligation scheme), assessment of high-efficiency cogeneration and efficient district heating and cooling should be finalised.

#### 2020 Energy Efficiency Indicators and Trends



0,3 ktoe/mil EUR, +8,6% 1

Source: EUROSTAT 2022 data and Contracting Party's Annual Report under Directive 2012/27/EU

#### Energy Efficient Products – Overview of Implementation of Labelling Regulation

			0= 0==	<b>*</b>	555	0= 0==		((())	\$\$\$ []]]]]	<b>□□</b> ⊘	
FRAMEWORK REGULATION*	Household dishwashers	Fridges and freezers*	Household washing machines	Televisions	Air conditioners and fans*	Household tumble driers	Electrical lamps and luminaires	Solid fuel boilers*	Space heaters*	Water heaters & storage tanks	Domestic ovens and range hoods

Adopted and implemented Compliance or implementation issues detected No progress with adoption/implementation

<sup>\*</sup> The new labelling package adopted by the Ministerial Council in November 2018 was assessed, as the transposition deadline expired in January 2020. Source: multiple sources of data (EECG reports, NEEAPs etc.), compiled by the Energy Community Secretariat



#### **ENVIRONMENT IMPLEMENTATION**

#### **ENVIRONMENTAL ASSESSMENTS**

83% ||

Montenegro's transposing legislation on the Environmental Impact Assessment (EIA) Directive streamlines the EIA procedure with other assessments foreseen on a national level, in particular assessment for projects that could have impacts on protected areas as provided under Article 2(3) of the EIA Directive, however, this is not applied systematically. This was evident from the EIA process for the hydropower project "Komarnica" where the location of the project overlaps with the "Komarnica" candidate Emerald site and the Dragišnica and Komarnica Nature Parks. Access to information and possibilities for public participation in EIA/strategic environmental assessment (SEA) procedures continue to be limited after a cyberattack.

The SEA Law and the secondary legislation is aligned with the SEA Directive, however, the SEA procedure for the draft National Energy and Climate Plan (NECP) was not initiated despite that the draft is in an advanced stage of preparation and the scenarios are already developed. This might negatively impact the quality of the SEA process for the draft NECP as the SEA should be carried out during the preparation of the draft plan.

#### **SULPHUR IN FUELS**

87%

The Directive is implemented for all fuels falling under its scope in accordance with the annual fuel quality monitoring programme. The provisions on marine fuels are also transposed into national legislation. Marine fuels used by vessels in Montenegrin waters and ports are sampled regularly, albeit the need to transport fuel samples to accredited laboratories causes delays in the process.

#### LARGE COMBUSTION PLANTS

53% ▮

Montenegro complied with its reporting obligations under the Large Combustion Plants Directive for the reporting year 2021. The ecological reconstruction of TPP Pljevlja started in April 2022, after long delays. The reconstruction is expected to bring the plant into compliance with the Industrial Emissions Directive's emission limit values for new plants. Since the plant is subject to the opt-out mechanism but did not cease its operation once the 20.000 hour limit was reached in early 2021, the Secretariat launched an infringement procedure in April 2021, which is still ongoing.

In 2021, emissions of sulphur dioxide and nitrogen oxides show a significant decrease compared to 2020 data, while dust emissions increased significantly. The reason for this is the malfunctioning of the electrostatic precipitator, which is also subject to the reconstruction of the plant.

#### NATURE PROTECTION

53% 4



According to the first inventory of potential special protection areas (SPA) prepared jointly by experts and the Government, around 55% of Montenegro's territory qualifies as a SPA under the Birds Directive. The inventory identifies and describes 33 identified potential SPAs, providing a general overview, map of the site, qualifying (criteria) species, main threats and general conservation guidelines. In the reporting period, the management plans for five national parks were developed and published for discussion. The national action plan for the protection of birds is not yet developed. The Ministry and the Municipality of Ulcinj agreed to jointly establish an entity that will manage the sensitive ecosystem of the Ramsar site "Ulcinj" Nature Park, however, the entity was not set up.

#### **ENVIRONMENTAL LIABILITY**

80%

Montenegro has transposed the provisions of the Directive via the Law on Environmental Liability. The implementation of its provisions is ongoing.

#### **RECOMMENDATIONS / PRIORITIES**

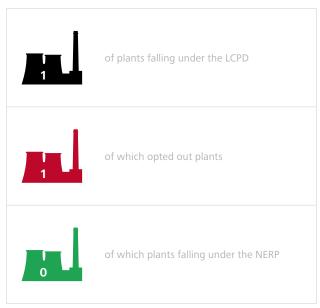
Montenegro should streamline the EIA and the appropriate assessment for the HPP Komarnica permitting process with regard to the "Komarnica" candidate Emerald site. The Secretariat encourages the Government to take additional measures in order to secure early and effective public participation in the decision-making process. This also concerns transboundary consultations. The SEA process for the draft NECP should be initiated and the SEA scoping report should be subject to consultations with the public and authorities concerned.

Montenegro has to speed up the reconstruction of TPP Pljevlja in order to ensure compliance with the Industrial Emissions Directive as soon as possible.

The adoption process of the management plans for the national parks should be finalized dully taking into account the outcome of the consultation processes. A management body for "Ulcinj" should be set up considering the different stakeholders, including civil society, that are working on the protection and preservation of "Ulcinj".

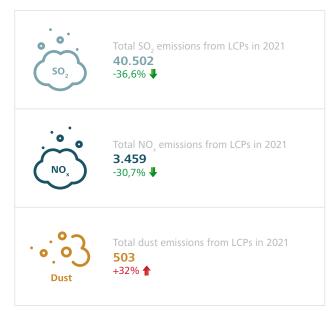
In order to increase the efficiency of fuel control mechanisms, on-the-spot sampling and analysis of marine fuels in ports should be ensured.

# Installations under the Large Combustion Plants Directive



Source: compiled by the Energy Community Secretariat

#### Total emissions from Large Combustion Plants in 2021



#### Amount of operational hours used from opt-out period

TPP Plevlja	Expected expiry of opt-out period:	EXPIRED
$\Box$	Remaining hours	0
	Operating hours consumed in 2018 - 2021	27.463

Source: compiled by the Energy Community Secretariat



#### **CLIMATE IMPLEMENTATION**

#### NATIONAL GREENHOUSE GAS EMISSIONS MONITORING AND REPORTING SYSTEMS

85% 🛊

At the end of 2021, Montenegro finalized and submitted its third Biennial Update Report on Climate Change and its third National Inventory Report to the UNFCCC.

# NATIONAL ENERGY AND CLIMATE PLANS (NECPS)

62% |

The draft amendments to the Law on Protection against Negative Impacts of Climate Change aim to transpose elements of the Governance Regulation, however, the administrative procedure has been hindered by a cyberattack on Montenegrin state institutions. Despite the cyber threats, a draft law has been prepared and is expected to be adopted in the first quarter of 2023.

Activities on the draft NECP in the reporting period included the inclusion of additional policies and measures. However, the lack of a policy decision on the future operation of the Pljevlja power plant – being the cornerstone for energy and climate planning and actions – effectively blocked the finalization of the plan.

#### **RECOMMENDATIONS / PRIORITIES**

Montenegro is encouraged to step up efforts in finalizing its draft NECP, including a decision on the Plevlja power plant and the relevant adjustment of other policies and measures if needed.



# Montenegro

### **Statistics**

#### STATISTICS IMPLEMENTATION

#### **ANNUAL STATISTICS**

86% 1



The Statistical Office of Montenegro (MONSTAT) collects and publishes annual energy balances. Annual questionnaires are communicated to EUROSTAT largely in compliance with the acquis.

Disaggregated data on energy consumption of households are not compiled and disseminated.

MONSTAT submitted the report on the quality of transmitted data in the format defined by EUROSTAT in 2019, whereas the quality report for 2022 was not submitted yet.

Datasets which are still not mandatory under the statistics acquis, namely the SHARES questionnaire for 2020, were transmitted to EUROSTAT and published, whereas the preliminary data for 2021 were not transmitted.

The key problem of lack of human resources was partially resolved in September 2022 when MONSTAT employed one person dedicated to energy statistics.

#### **MONTHLY STATISTICS**

**50% 1** 



In October 2022, MONSTAT started to transmit monthly electricity and coal data, after ceasing to do so in 2019 due to lack of human resources.

Monthly oil statistics are missing. The Government of Montenegro is working on transferring the emergency oil stocks obligations to importers of petroleum products. The Ministry of Capital Investments should be an administrative data source for MONSTAT, where monthly oil questionnaires are transmitted by MONSTAT to EUROSTAT.

#### PRICE STATISTICS

100% |

Electricity prices charged to industrial end-users and households broken down per consumption band and taxation level, as well as the breakdown of price components, are collected in line with the acquis and communicated to and subsequently published by EUROSTAT.

The quality report on price statistics is prepared in accordance with Regulation (EU) 2019/803 and published by EUROSTAT.

#### **RECOMMENDATIONS / PRIORITIES**

By assigning the needed human resources for energy statistics in the course of 2022, it is expected that Montenegro will improve the completeness and timeliness of its energy statistics. Priority should be given to complete annual datasets, disaggregated data on energy consumption in households and preliminary data and all monthly data. The Secretariat will follow-up on non-compliance.









# **North Macedonia**

#### SUMMARY IMPLEMENTATION

SUMMARY INDICATORS	IMPLEMENTATION STATUS	2022 HIGHLIGHTS
Electricity	85%	Amendments to the Energy Law were adopted, transposing REMIT and TEN-E Regulation. Day-ahead market establishment has advanced.
Gas	41%	North Macedonia made progress by enabling proper interconnection arrangements and is laying down the foundation for long delayed unbundling of its gas transmission system operator.
Oil	71%	Draft by-laws, including on Annexes I - IV of Directive 2009/119/EC, were finalised and adopted. The current average daily net imports are 55 but not enough for the 90 days obligation by 1 January 2023.
Renewable Energy	56%	North Macedonia is far from achieving its 2020 renewables target, but it keeps being a frontrunner in implementation of auctions for renewables projects.
Energy Efficiency	67%	North Macedonia's progress was limited to drafting of rulebooks for energy efficiency in buildings and assessment of building renovation and heating and cooling potential.
Environment	48%	North Macedonia managed to reduce its emissions from large combustion plants in the last reporting year, a trend that shall be maintained.
Climate	86%	North Macedonia improved both in the climate area by having adopted its Long-term Strategy and in the governance dimension by adopting its NECP and actively developing its draft Law on Climate Action.
National Authorities	63%	ERC continued to demonstrate its high technical expertise and regulatory independence. Interference to regulatory tariff decision-making by the national ombudsman is of concern. The Commission for Protection of Competition has investigated an alleged abuse of dominance in the electricity market, but has so far not rendered any decisions or recommendations regarding State aid in the energy sectors.
Statistics	100%	After a break in 2021 when all resources focused on the population and housing census, the State Statistics Service returned to its previous high level of compliance by providing timely and quality energy and price statistics.



## **State of Energy Sector Reforms**

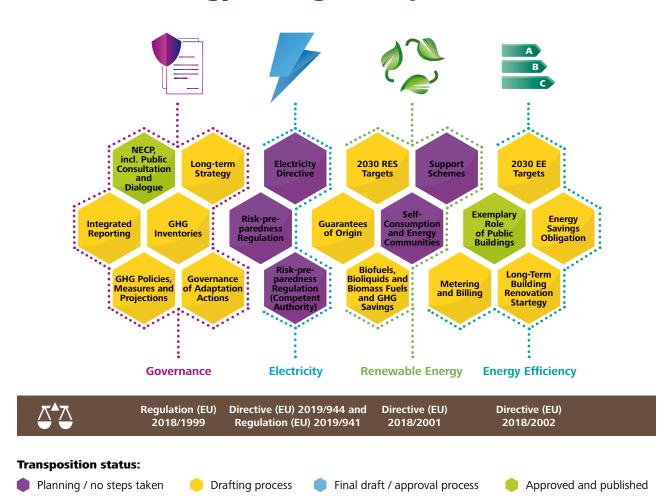
North Macedonia made some level of progress in the implementation of the electricity, gas, oil, energy efficiency and climate acquis. It made progress in the better usage of its gas interconnector with Bulgaria. The country is one of the best performers when it comes to the implementation of the Oil Stocks Directive.

North Macedonia failed to improve the legal and regulatory framework for the uptake of renewables and continued to punch below its weight when it comes to reaching its renewables potential. Its environmental track record remains low, with lack of environmental impact assessment legislation and non-compliance with emission ceilings under the National Emission Reduction Plan.

The country adopted its National Energy and Climate Plan and continued to make progress in the drafting of the Law of Climate Action. North Macedonia is in the early stages of transposing the 2021 Clean Energy Package, with the exception of the electricity legislation where work is yet to begin.



# **Decarbonisation readiness - 2021 Clean Energy Package transposition**





#### **ELECTRICITY IMPLEMENTATION**

#### UNBUNDLING

100% |

The state-owned transmission system operator, MEPSO, is unbundled from other energy activities. It is certified in accordance with the acquis. Compliance is monitored by the compliance officer and the regulatory authority.

The distribution system operator, Elektrdistribucija dooel, is legally and functionally unbundled from supply and generation activities in the vertically integrated EVN. The compliance programme is adopted and monitored by the compliance officer. The compliance report for 2021 was submitted in due time and approved by the regulator pursuant to the law.

#### ACCESS TO THE SYSTEM

94% 1

Access to the system is governed by transparent rules for connection and use of the system based on regulated network tariffs.

The increase of market prices and corresponding costs of network losses seriously endangered the operation and financial viability of both network operators, as the actual costs of losses in 2021 were several times higher than those approved. In June 2022, the regulator approved a tariff increase for network operators to at least partly recover the costs.

The Energy Law prescribes direct applicability of the Network Codes, however, none have been translated and published as a legislative act in the official gazette thus far. The transmission grid code was amended accordingly in December 2021 to implement the Network Codes. The distribution grid code of 2019 was amended in 2022, however, it did not implement all required provisions of the Network Codes and is yet to be upgraded to reflect all required parameters of the Connection Codes.

The Transparency Regulation is transposed and largely implemented.

#### WHOLESALE MARKET

The wholesale market is fully open to competition since July 2019 when the regulator terminated the regulation of the generation price for ESM, the dominant producer in North Macedonia.

The national electricity market operator of North Macedonia, MEMO, was established as a legal entity spun off from MEPSO. In line with the Government's Decree on Designation of a Nominated Electricity Market Operator, MEMO was appointed to establish the day-ahead electricity market in the bidding zone of North Macedonia and to conduct market coupling. It obtained the license for the operation of the day-ahead market from the regulator in October 2022. MEMO is currently in the process of establishing a day-ahead trading, clearing and settlement platform. Day-ahead market rules are still to be adopted following the amendments to the Energy Law which transposed provisions of CACM Regulation enabling market coupling.

The balancing market is functional. The balancing reserve and balancing energy are procured on a competitive platform managed by MEPSO.

With rising regional and European wholesale prices and reduced production from indigenous sources, the average wholesale price in 2021 increased by 73% from 2020. The Government provided financial aid to ESM so that it could honor its contractual obligations towards the universal supplier and the supplier of last resort. In October 2022 the Government limited the trading margin to 10% for all retail market participants.

Amendments to the Energy Law aimed at the general transposition of the REMIT Regulation are adopted. Regulatory rules to complete full transposition still have to be adopted.

#### **RETAIL MARKET**

100% |

The open retail market in North Macedonia, with more than 50% of final consumption in 2021 purchased in the competitive market, faced a downturn with the rise in wholesale prices in 2022. Those retail suppliers that were left exposed to the market without proper hedging were forced to cancel existing contracts with end-customers. Consequently, customers turned to regulated supply, pushing the incumbent generator to provide sufficient energy to meet the increasing demand for universal service by the regulated supplier EVN Home and emergency supply of customers without a contract.

In order to incentivize energy savings, the regulator redesigned the tariff system for customers entitled to universal service by introducing four-block tariffs for households based on the coefficient of the average price of electricity from 1 July 2022, starting with the lowest thresholds of 210 kWh/month and the highest threshold for monthly consumption exceeding 1050 kWh. Vulnerable customers in North Macedonia are protected through annual programmes adopted by the Government. The system for protection of vulnerable customers is further improved with the amendments of the Energy Law in 2022.

In October 2022 the Government adopted a set of decision aimed at ensuring affordable electricity prices for activities of public interest, obliging ESM Trade to supply them at the price determined by the Government. This measure is financed from the State budget.

SECURITY OF SUPPLY

system operators.

95%

The Energy Law transposes Directive 2005/89/EC. A framework for security of supply is further detailed by the Governmental Regulation on the Criteria and Conditions for Announcement of Crisis in the Electricity Supply, Transmission and the Distribution Grid Codes.

ators in the control block, MEPSO is not yet participating in the

imbalance netting with Montenegrin and Serbian transmission

The Law on Security of Network and Information Systems, transposing the NIS Directive, is scheduled to be adopted by the Parliament in 2022.

#### REGIONAL INTEGRATION

49% 4

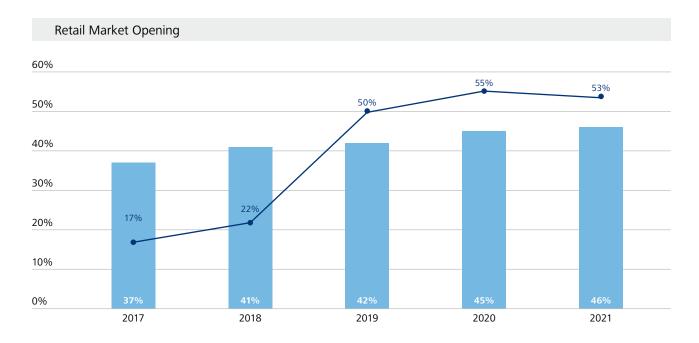
Amendments to the Energy Law which transpose the TEN-E Regulation were adopted and recently published in the Official Journal.

Interconnection capacities with Greece and Kosovo\* are allocated by the common coordination platform SEE CAO. The yearly and monthly allocation of cross zonal capacities with Serbian EMS is performed by MEPSO, daily and intraday auctions by EMS. On the Bulgarian border, annual allocation is performed by MEPSO and daily by the Bulgarian transmission system operator, ESO.

Cross-border exchange of balancing energy is applied within the control block with Montenegro and Serbia. Despite that the transmission system operator MEPSO signed an agreement on grid control cooperation with other transmission system oper-

#### **RECOMMENDATIONS / PRIORITIES**

In addition to completing the implementation of the Connection Codes, North Macedonia should give the highest priority to launching the day-ahead market platform, planned for the second quarter of 2023. Regulatory rules to complete full transposition of the REMIT Regulation shall be adopted.



Supply to active eligible customers in % for North Macedonia

- Supply to active eligible customers in % for the Energy Community (weighted average %)

Source: Energy and Water Services Regulatory Commission of the Republic of North Macedonia, compiled by the Energy Community Secretariat



#### GAS IMPLEMENTATION

#### UNBUNDLING

8% 1



The gas transmission system operator in North Macedonia is neither unbundled nor certified in line with the Third Energy Package. The state took over the full ownership of GA-MA, a licensed gas transmission system operator, and decided to merge it with another state company, NER, responsible for gas transmission system development. The merging process is still ongoing. Concrete actions to establish one national transmission system operator and certify it are still ongoing. All existing distribution companies have less than 100.000 customers and are exempt from the unbundling provisions.

#### ACCESS TO THE SYSTEM

**45% ↓** 



The tariff methodology is in place, allowing for transparent, non-discriminatory access to the gas network. The Energy Law stipulates the direct applicability of mandatory Network Codes. However, the national transmission code has not been revised to that effect, and practices on balancing and capacity allocation are at a very basic level. Further, transparency is well below the level required by Annex I of Regulation (EC) 715/2009.

#### WHOLESALE MARKET

**20**% |

There are only two active traders in the wholesale market, selling at market prices. All contracts are concluded bilaterally, on a monthly and yearly basis. However, the market remains illiquid, without a virtual trading point. Amendments to the Energy Law aimed at general transposition of the REMIT Regulation are adopted. Regulatory rules to complete full transposition still have to be adopted.

#### RETAIL MARKET

85% ||

End-user gas prices are deregulated and all customers are formally eligible. Customer protection measures are defined in line with Annex I of Directive 73/2009/EC.

#### INTERCONNECTIVITY. **REGIONAL INTEGRATION**

**73% 1** 

The gas network of North Macedonia is connected only to the Bulgarian gas system.

The exit from the Bulgarian system has been fully booked by Gazprom, and the lack of implementation of contractual congestion management procedures obstructs entrance for any new supplier to the North Macedonian gas market. However, by the interconnection agreement in line with the Network Code on Interoperability and Data Exchange signed by the two adjacent operators, GA-MA and Bulgartransgaz, which will be fully implemented as of 1 January 2023, the unused capacity will be released and allocated in line with the Network Code on Capacity Allocation.

The North Macedonia - Kosovo\* Interconnector and the Serbia - North Macedonia Interconnector are PECI projects. Yet only the North Macedonia - Greece interconnector is progressing and a final investment decision is expected by the end of 2022.

#### SECURITY OF SUPPLY

48%

Security of supply provisions are in line with Directive 2004/67/ EC, but do not transpose Regulation (EU) 2017/1938 and Regulation (EU) 2022/1032.

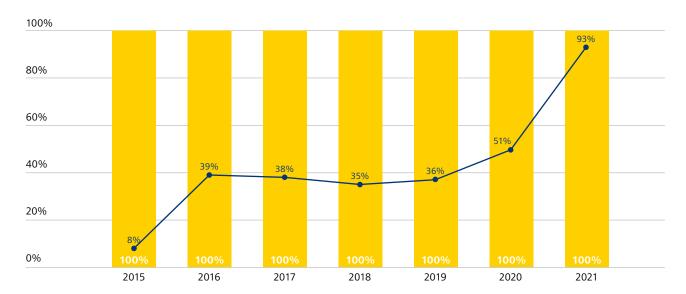
#### **RECOMMENDATIONS / PRIORITIES**

The certification of the transmission system operator should be done in the shortest possible timeframe, and the relevant secondary acts be finalized and approved without further delay. The new transmission system operator has to proceed with full implementation of all rules relevant to system operation, overcoming gaps in place for the last decade. This will also speed up regional integration, including unblocking capacities at the existing infrastructure and constructing the new interconnectors.

Regulatory rules to complete full transposition of REMIT Regulation shall be adopted.

The security of supply framework should be transposed as soon as possible to reduce the country's supply risks. There are very few households connected to the gas distribution network, but ensuring gas supplies for the next winter is crucial for heat (60 -80%) and electricity production (20%) to supply the population. The contraction of required gas volumes also depends on the release of capacity at the interconnection point with Bulgaria.

#### Retail Market Opening



Gas supplied to active eligible customers as % of total supply in North Macedonia

Gas supplied to active eligible customers as % of total supply in the Energy Community

Note: The weighted average level of market opening in the Energy Community was calculated assuming the full opening of gas retail market in Ukraine for the whole 2021. However the full retail market opening took place on 1st May 2021.

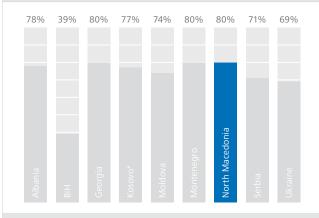
Source: Energy Regulatory Commission (ERC), compiled by the Energy Community Secretariat



# **North Macedonia National Authorities**

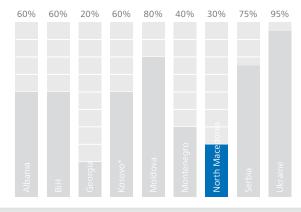


#### **Regulatory Authority**



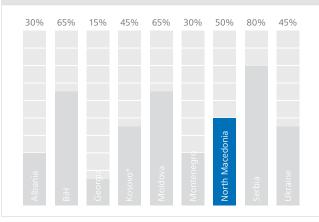
The need for approval of the Energy Regulatory Commission's (ERC) annual employment plan and the requirement to follow cumbersome selection procedures remain a barrier to attracting human resources. Incorporation of the Electricity and Gas Network Codes into the national grid code by the system operators as well as full compliance with the Electricity Transparency Regulation should be more effectively enforced by ERC. Based on newly gained legal powers ERC is expected to launch secondary rules for transposition of the REMIT Regulation. The regulator's exposure to interventions on independent tariff setting by the national ombudsman is of concern. ERC's chairman currently assumes the position of ECRB President.

#### **○1 ○** Competition Authority



Following information submitted by the Secretariat, the Commission for Protection of Competition (CPC) has started to investigate an alleged abuse of dominance by regarding the sale of electricity by the incumbent state-owned generation company ESM to the Universal Service Supplier at prices below market level. The CPC has found that ESM did not abuse its dominance since it covered its variable costs and there was no exclusionary intention.

#### State Aid Authority



In the reporting period, the CPC did not render any decision nor open any investigation into State aid in the energy sectors. Effective monitoring of potential State aid and rigorous enforcement of the State aid acquis is needed in order for North Macedonia to comply with its obligations under the Treaty.



#### **OIL IMPLEMENTATION**

#### OIL STOCKHOLDING OBLIGATIONS

70% 1

North Macedonia's legal framework complies with the oil stocks acquis.

In November 2022, the average occupancy level of the compulsory oil reserves, calculated following the new methodology prescribed in the Commission Implementing Directive (EU) 2018/1581, corresponded to 55 days of average daily net imports. This is an increase of three days during the reporting period.

#### **FUEL SPECIFICATIONS**

75% |

North Macedonia transposed the main provisions for petrol and diesel but not for gas oil for non-road mobile machinery (NMRR).

The quality of the oil fuels placed on the market is monitored by the supplier pursuant to the annual plan for monitoring of the quality of liquid fuels, prepared and implemented by the Ministry in charge of energy.

#### **RECOMMENDATIONS / PRIORITIES**

While North Macedonia made progress in increasing its emergency oil stocks during this reporting period, it is not likely that it will meet its final obligation of 90 days of average daily net imports by 1 January 2023.

The non-compliant limit for sulphur content in gas oil for NMRR should be addressed within 2023.



#### RENEWABLE ENERGY IMPLEMENTATION

# NATIONAL RENEWABLE ENERGY ACTION PLAN

53% ||

In 2020, renewables accounted for 19,22% of North Macedonia's energy consumption, which is far less than the target of 23%. The country has reached its sectorial target for heating and cooling, but not targets for electricity and transport.

#### QUALITY OF SUPPORT SCHEME

68%

Administratively set feed-in tariffs (FiT) are still granted for wind projects with an installed capacity of up to 50 MW and hydropower plants with installed capacity of up to 10 MW based on available quotas. The other support mechanism is a fixed feed-in premium (FiP) granted on a competitive basis. Producers under the FiT scheme are exempt from balancing responsibility, whereas producers with support granted via tenders bear balance responsibility.

#### **GRID INTEGRATION**

68% II

Transmission and distribution system operators are obliged to ensure priority connection to the system and priority in the dispatching of electricity produced from renewable energy sources.

# ADMINISTRATIVE PROCEDURES AND GUARANTEES OF ORIGIN

68% I

No progress was made to simplify administrative procedures and establish a one-stop shop in the reporting period. North Macedonia joined the Energy Community initiative to establish a regional system for guarantees of origin. The national electronic registry for guarantees of origin in North Macedonia was created and can be utilized as soon as the designated issuing body signs a direct agreement with the service provider. The amendments to the Energy Law, adopted in November 2022, envisage that the national electricity market operator (NEMO) takes over the role of the issuing body.

#### RENEWABLE ENERGY IN TRANSPORT

**6**% ||

The draft law on biofuels, prepared by the Ministry of Economy, is pending the Government's approval. The share of renewables in transport remained negligible in 2020, reaching only 0,15%.

#### **RECOMMENDATIONS / PRIORITIES**

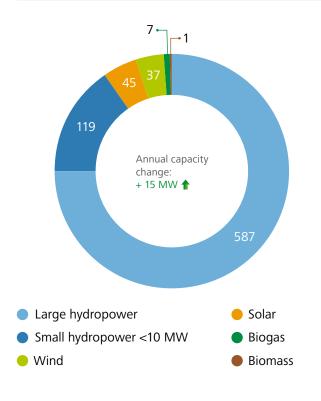
North Macedonia should either adopt further amendments to the Energy Law or adopt a self-standing renewables law to transpose and implement Directive (EU) 2018/2001. Permitting procedures need to be simplified and streamlined to enable faster deployment of renewables. The designated issuing body for guarantees of origin should sign a direct agreement with the service provider and start using the national electronic registry developed during the regional project.

#### Shares of Energy from Renewable Sources



Source: EUROSTAT

#### Total Capacities of Renewable Energy 2021 (MW)



Source: Energy Regulatory Commission of the Republic of North Macedonia

The renewable energy portfolio of North Macedonia is mainly based on hydropower. In 2021, only 15 MW of solar PV were added. The only wind farm remains Bogdanici (37 MW), which is in operation since 2014.

Tendering procedures for the fixed feed-in premium for solar PV plants held in 2021 and 2022 resulted in signed agreements for a total installed capacity of 75 MW. The lowest FiP was 0,01 EUR/ MWh on top of the price realized by the sale of each kWh on the wholesale electricity market for 15 years. As of 2019, eight power plants that were awarded the premium were put into operation so far.

The first 10 MW of the solar PV plant on the top of the coal mine Oslomej was put in a trial phase.

Total capacities of renewable energy (MW):

796



#### **ENERGY EFFICIENCY IMPLEMENTATION**

# ENERGY EFFICIENCY TARGETS AND POLICY MEASURES

**70%** |

North Macedonia has achieved the 2020 energy efficiency target and in November 2022 submitted to the Secretariat the draft sixth Annual Progress Report.

The 2020 Law on Energy Efficiency transposed the Energy Efficiency Directive and set the specific targets required under Articles 5 and 7, but the adoption of the by-law on the operationalisation of the energy efficiency obligation scheme is pending.

The 2030 energy efficiency targets and policy measures were introduced in the Energy Strategy and the country's NECP adopted in May 2022.

#### **ENERGY EFFICIENCY IN BUILDINGS**

52% 🛊

The Law on Energy Efficiency transposed the Energy Performance of Buildings Directive. During the reporting period, North Macedonia drafted rulebooks on energy performance of buildings and energy audits of buildings. It also updated its energy performance certification software but adoption is pending. The long-term buildings renovation strategy is still not finalised, while the guidelines for its development were adopted as part of the programme for realisation of the energy strategy.

#### **ENERGY EFFICIENCY FINANCING**

85% ||

With the support of the World Bank, North Macedonia analysed options for the establishment of the National Energy Efficiency Fund, but the legal and regulatory framework for its establishment and operationalization still remains to be adopted.

The Government provides financial initiatives through the State programme for renewables and energy efficiency, while several international financial institutions are implementing renovation programmes in buildings.

# ENERGY EFFICIENT PRODUCTS – LABELLING

**70%** |

Rulebooks implementing Directive 2010/30/EU were adopted. Rulebooks implementing the new Framework Labelling Regulation 2017/1369/EU and implementing acts on labelling are under preparation.

## EFFICIENCY IN HEATING AND COOLING

54% 1

Despite North Macedonia having reached its 2020 renewables target of 30,5% in heating and cooling, efficiency remains low as the majority of biomass-based boilers and stoves use old technologies. Skopje is the only city with a developed district heating system, entirely based on natural gas. In 2020, 56,1% of district heat was produced in cogeneration units. The first assessment of national high-efficiency cogeneration and efficient district heating potential showed potential for the development of cogeneration and central heating systems in several cities.

The Government and the City of Skopje implemented programmes to support households in procuring efficient heating and cooling systems.

#### **RECOMMENDATIONS / PRIORITIES**

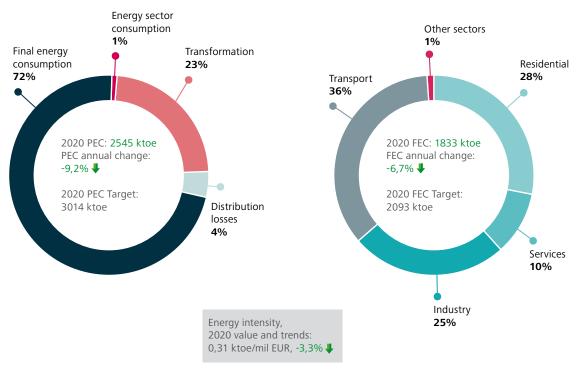
The adoption of the drafted secondary legislation required for implementation of the Energy Efficiency Law remains the highest priority for North Macedonia, including the legal and regulatory framework for the establishment of the Energy Efficiency Fund.

The human capacities for energy efficiency in the Ministry of Economy and the Energy Agency should be further increased.

#### 2020 Energy Efficiency Indicators and Trends

#### Primary Energy Consumption (PEC)

#### Final Energy Consumption (FEC)



Source: EUROSTAT 2022 data and Contracting Party's Reports

#### Energy Efficient Products – Overview of Implementation of Labelling Regulation

	Ö		0= 0==		555	0= 0==		((())	\$55		
FRAMEWORK REGULATION*	Household dishwashers	Fridges and freezers*	Household washing machines	Televisions	Air conditioners and fans*	Household tumble driers	Electrical lamps and luminaires	Solid fuel boilers*	Space heaters*	Water heaters & storage tanks	Domestic ovens and range hoods
•						•					•

Adopted and implemented Compliance or implementation issues detected No progress with adoption/implementation

Source: multiple sources of data (EECG reports, NEEAPs etc.), compiled by the Energy Community Secretariat

<sup>\*</sup> The new labelling package adopted by the Ministerial Council in November 2018 was assessed, as the transposition deadline expired in January 2020.



#### **ENVIRONMENT IMPLEMENTATION**

#### **ENVIRONMENTAL ASSESSMENTS**

43% 4



On 30 November 2021, the Ministerial Council established the failure of North Macedonia to transpose Environmental Impact Assessment (EIA) Directive 2014/52/EU. Until the Government adopts the necessary amendments and improves the EIA procedure, the breach will continue. The national guidelines on screening of projects subject to Annex II of the EIA Directive are also not aligned with Directive 2014/52/EU. The State Audit Report on small hydropower plant (HPP) projects published in December 2021 noted that none of the small HPPs was made subject to an EIA. The location and the impacts criteria from Annex II of the EIA Directive are not duly taken into account in the screening of HPPs with an installed capacity of less than 2 MW. They are routinely not made subject to EIA only because of the size of the project. This is not in line with the Directive.

The Strategic Environmental Assessment (SEA) is fully transposed in the 2005 Law on Environmental Protection and relevant secondary legislation. The challenges to properly implement the obligation for parallel development of the SEA report and the draft document, before its adoption, remained. The SEA for the National Energy and Climate Plan (NECP) was not finalized at the time of the adoption of the NECP by the Government which is not in line with Article 4(1) of the SEA Directive. The SEA report and the NECP should be streamlined to integrate the environmental considerations outlined within the SEA report.

#### SULPHUR IN FUELS

92% 4



The Sulphur in Fuels Directive is transposed and implemented via the annual fuel quality monitoring programme. The provisions on marine fuels do not apply.

#### LARGE COMBUSTION PLANTS

43%

North Macedonia complied with its emissions reporting obligations for the reporting year 2021. A slight decrease of sulphur dioxide and nitrogen oxides emissions could be observed, while a significant decrease in the case of dust emissions was achieved. Yet, the significant non-compliance with the NERP ceilings for sulphur dioxide and dust is still present and infringement action to address this breach is ongoing. During this reporting period, a draft law on industrial emissions was prepared, which is an important step to transpose the applicable provisions for large combustion plants following the expiry of the NERP.

#### NATURE PROTECTION

53% 4



A draft Law on Nature Protection to transpose the EU NATURA 2000 acquis, including the Birds Directive, was developed. However, the adoption process has not yet been initiated. Out of the 12 future NATURA 2000 sites identified on a national level, five are proposed as special protected areas (SPA) under the Birds Directive. A management plan was drafted for the Ramsar site "Prespa Lake" and the National park "Pelister". A management plan for the Ramsar site "Ohrid lake" was not finalized and is yet to be prepared for the National Park "Mavrovo". In December 2021, the Standing Committee of the Bern Convention of European Wildlife and Natural Habitats adopted a recommendation calling on the Government to suspend and cancel approved and planned concessions and implement a ban on HPPs (large, medium and small) in national parks, protected areas, world heritage sites and other candidates for Emerald sites (potential future NATURA 2000 sites).

#### **ENVIRONMENTAL LIABILITY**

0%

North Macedonia has not transposed the provisions of the Environmental Liability Directive.

#### **RECOMMENDATIONS / PRIORITIES**

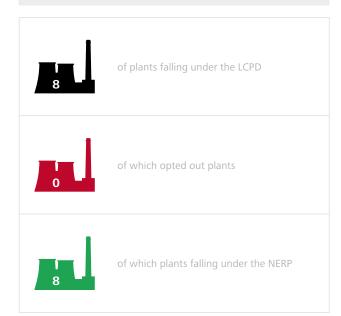
North Macedonia should transpose Directive 2014/52/EU and update the national procedural EIA quidelines. The SEA procedure for the NECP should be finalized. Any follow-up revision of the NECP should be used to reflect and integrate the measures anticipated by the SEA report.

North Macedonia has to ensure compliance with the NERP ceilings.

The completion of the procedure for the draft management plan for the Ramsar site "Ohrid lake" should be a priority. The Bern Convention Recommendation concerning the conflicts of hydropower development in protected areas should be fully taken into account.

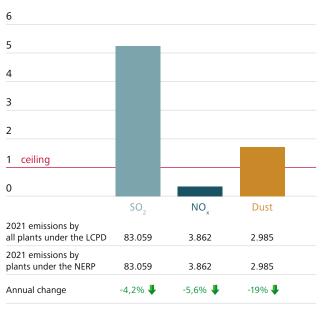
The transposition of the provisions of the Environmental Liability Directive should be carried out without delay.

# Installations under the Large Combustion Plants Directive



Source: compiled by the Energy Community Secretariat

#### 2021 emissions versus NERP ceilings





#### **CLIMATE IMPLEMENTATION**

#### NATIONAL GREENHOUSE GAS EMISSIONS MONITORING AND REPORTING SYSTEMS

82% 🛊

North Macedonia's Long-term Strategy was finalized, adopted and communicated to the UNFCCC in September 2021. The finalization of the fourth National Communication, expected in the first half of 2022, is pending.

# NATIONAL ENERGY AND CLIMATE PLANS (NECPS)

91% 🛊

Drafting the Law on Climate Action was ongoing in 2022 with active support from the Secretariat. The aim was to align the national legal system with the Governance Regulation and with other international requirements.

North Macedonia was the second Contracting Party to adopt its NECP in May 2022, unfortunately without conducting regional consultations with neighbouring Contracting Parties or EU Member States. The amendments to the Law on Energy, which created the legal basis for the NECP, were adopted in November 2022. The adopted amendments do not transpose all the elements of the Governance Regulation related to NECPs and contain an incorrect reporting deadline.

#### **RECOMMENDATIONS / PRIORITIES**

North Macedonia is encouraged to finalize and adopt the draft Law on Climate Action without delay in order to comply with the transposition deadline of the Governance Regulation. The Law on Energy must be updated to include all the relevant provisions of the Governance Regulation and to ensure the correctness of the already transposed provisions. Additional secondary legislation should follow, transposing the technical elements of the Governance Regulation.



#### **North Macedonia**

#### **Statistics**

#### STATISTICS IMPLEMENTATION

#### **ANNUAL STATISTICS**

100% 1

PRICE STATISTICS

100% 1

•

Annual data for 2020 were compiled and disseminated by the State Statistical Office (SSO). The annual questionnaires are communicated to EUROSTAT timely and in compliance with the acquis. Disaggregated data on residential consumption of energy for 2020 are also transmitted and published in accordance with the acquis.

SSO has established a quality system for producing quality reporting as required under the Treaty. A corresponding quality report was submitted to EUROSTAT in 2017. An updated report was submitted in July 2022 and is expected to be published.

Preliminary questionnaires for 2021 were prepared and transmitted on time. SSO also prepares and transmits to EUROSTAT the questionnaire on renewables shares.

#### MONTHLY STATISTICS

100% 🛊

SSO releases monthly energy statistics on electricity, natural gas, oil and petroleum products and solid fuels, which are subsequently published by EUROSTAT, in compliance with Annex C of Regulation (EC) 1099/2008. SSO is preparing to complete the parts of the monthly oil statistics questionnaire related to emergency stocks in the course of 2022 in order to be comply with the acquis from January 2023.

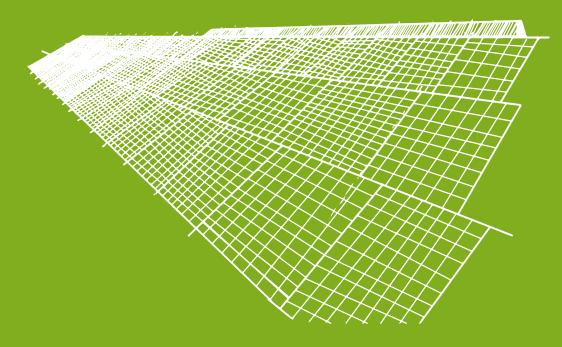
Prices of electricity charged to industrial end-users and house-holds are compiled and submitted to EUROSTAT, as well as the breakdown of prices per component, in line with the acquis. Prices of natural gas charged to households and industrial end-users are also compiled and transmitted on time, by which the insufficient compliance of gas price statistics from the previous year was rectified.

SSO prepared and submitted the quality report for statistics on electricity and natural gas prices to EUROSTAT.

#### **RECOMMENDATIONS / PRIORITIES**

After delays observed in the course of 2020, North Macedonia has come back to its standard high level of performance when it comes to compliance with the statistics acquis. Now, the country only has to steadily improve the timeliness and punctuality of its energy statistics.

# Serbia









#### **SUMMARY IMPLEMENTATION**

SUMMAI INDICAT		IMPLEMENTATION STATUS	2022 HIGHLIGHTS
E	lectricity	79%	Serbia implemented the REMIT Regulation and transposed Connection Codes. The transmission system operator became an operational member of the European platform for imbalance netting (IGCC). Yet, the allocation of capacity on the interconnector with Kosovo* is not performed.
<b>△</b> G	ias	40%	Serbia has adopted the gas network codes and implemented the energy units, but the needed reform of the gas market is still pending.
• 0	il	74%	The current number of days calculated on the basis of inland consumption increased to 36 but falls short of meeting the mandatory 61 days target. The Ministry of Mining and Energy continued to make efforts to ensure Serbia meets its emergency oil stocks obligation.
<b>"</b>	enewable nergy	70%	Serbia came close to reaching its 2020 target. While implementation of self-consumption schemes is booming, long-awaited auctions for renewable energy projects have not been implemented yet.
B	nergy fficiency	76%	Serbia achieved its 2020 energy efficiency target and made progress with adoption of the Long-term Building Renovation Strategy, implementation of the Energy Efficiency Law and creation of a sustainable financing framework.
<b>%</b> En	nvironment	55%	Serbia managed to reduce its emissions from large combustion plants in the last reporting year, a trend that shall be maintained.
₩ <b>J</b> C	limate	76%	Serbia progressed with transposing parts of the Governance Regulation related to NECPs, and with the development of the draft NECP.
	lational uthorities	74%	Failing to enforce unbundling and upholding regulated household prices below the market price question the de facto independence of AERS and contrast with its high level of expert knowledge. The competition authority has closed an investigation in the district heating market which was addressed by voluntary commitments of the elevant company. The State aid authority reviewed two support schemes and provided substantive comments regarding their compliance.
St	tatistics	100%	By adding monthly oil statistics in 2022, Serbia achieved full compliance with the acquis.

Overall number of cases: <b>7</b>								
ECS-9/18 Environment			ECS-9/13S Gas					
ECS-2/21 Electricity	Procedure	Procedure 🚗						
ECS-10/21 Environment	Procedure <b>91</b> by Article	Procedure <b>92</b> by Article	ECS-10/17S Gas					
ECS-23/21 Environment			ECS-13/17 Gas					

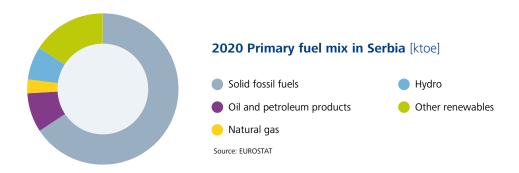
## **State of Energy Sector Reforms**

Serbia's otherwise good track record when it comes to acquis implementation was once again overshadowed by lack of progress on several crucial issues such as the lack of unbundling of the gas transmission system operator and refusal to grant third party access to the Horgos gas interconnection pipeline. Serbia implemented the REMIT Regulation and transposed electricity Connection Codes. The country is the best performer when it comes to the implementation of the oil stocks acquis.

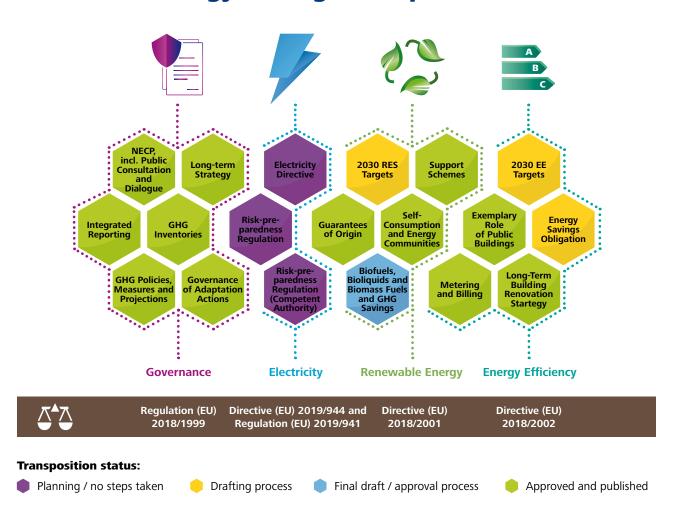
Serbia made progress in most areas of the energy efficiency acquis. Minor progress was achieved in completing the regulatory

and legal framework for renewables and the country is yet to tap into its renewables potential.

With respect to the transposition of the 2021 Clean Energy Package, Serbia is by far the most advanced of all Contracting Parties with many elements of the Governance Regulation, Renewables Directive and Energy Efficiency already transposed. The only exception is electricity where work is yet to begin.



# **Decarbonisation readiness - 2021 Clean Energy Package transposition**





#### **ELECTRICITY IMPLEMENTATION**

#### UNBUNDLING

75% 1



The transmission system operator EMS is legally and functionally unbundled from other electricity activities and certified by the regulator. As the decision-making rights for all energy activities lie with the Government, the Secretariat does not concur with the regulator's view that EMS complies with ownership unbundling requirements of the acquis.

The distribution system operator, Elektrodistribucija Srbije, is fully unbundled from other activities. The Government is the sole shareholder of the company. After the transfer of the ownership rights from the vertically integrated undertaking EPS, the independence of the distribution system operator from other activities was strengthened. A new compliance programme was adopted in January 2022 and approved by the regulator, and the conditions for the appointment of the compliance officer were adopted in June 2022.

The compliance report for 2021 is not published yet despite that the deadline for submission to the regulator expired on 1 July 2022.

#### ACCESS TO THE SYSTEM

80% 4



tion and use of the system. Transmission and distribution tariffs are regulated in accordance with the published methodology, amended in 2021.

Access to the system is based on transparent rules for connec-

Following an infringement procedure opened by the Secretariat, the Ministry adopted three decrees transposing the Network Codes, on connection to the network of production units, connection to the network of the customer's facilities and the connection to the network of DC high voltage systems in September 2022. Within one year of the decrees' entry into force, system operators are obliged to align their rules governing connection and obtain approval of the regulator.

Rules for the allocation of capacities on the interconnections with Kosovo\* have not yet been published and no auctions have been organised for the time being. This is subject to an open infringement case.

#### WHOLESALE MARKET

98%



The wholesale market operates through bilateral transactions and transactions on the organized day-ahead market operated by the power exchange SEEPEX. Incumbent producer and supplier PE EPS is still a dominant player in the market, withholding approximately half of total consumption and acting as provider of universal service supply. Traded volumes in the day-ahead market reached 10,8% of final electricity consumption in 2021. By adoption of the Decree on Day-ahead and Intraday Market Coupling in January 2022 and appointment of SEEPEX as NEMO in June 2022, Serbia advanced in transposing and implementing CACM, paving the way towards market coupling. An intraday market is not yet in place.

The balancing market is functioning in accordance with the market rules amended in December 2021. Prices for ancillary services and balancing reserves are regulated and adjusted annually.

The REMIT Regulation is transposed and implemented by the regulator.

#### RETAIL MARKET

83% ||



All customers are free to choose their supplier, but only 3,8% of final customers were supplied from the competitive market in 2021. These were primarily big industrial customers which do not have access to guaranteed supply. The volume of electricity sold on the competitive retail market amounted to 51% of total final consumption, including supply of last resort to the customers which used the right to guaranteed supply.

Retail market concentration in 2021 was high with EPS holding 97% of total final consumption. As in other Contracting Parties, the increase of spot market prices in the EU spilled over to Serbia causing retail prices in the competitive market to rise. As a response, the Government issued a recommendation to EPS' supply branch on maximum retail prices. This brought the final customers back to EPS supply which is now practically supplying 100% of the market.

The regulator's report for 2021 repeatedly concluded that deregulation of prices for universal service would be premature. Consequently, the appointment of a universal supplier in a market-based procedure is further postponed. End-user prices for guaranteed supply were adjusted in September 2022, to reflect partially the costs of electricity.

The Decree on Energy Vulnerable Customer, adopted in 2015 and amended in 2018, provides safeguards to protect vulnerable customers in Serbia. The definition of vulnerable customers is provided in the Energy Law.

Amendments to the Law on Energy from April 2021 stipulate

Cross-border exchange of balancing energy is performed bilaterally with neighbouring transmission system operators and imbalance netting with Montenegrin transmission system operator within the control block with operators of Montenegro and North Macedonia. As of October 2022, the transmission system operator of Serbia became an operational member of the European platform for imbalance netting (IGCC).

#### REGIONAL INTEGRATION

53%

#### SECURITY OF SUPPLY

98%

Directive 2005/89/EC is transposed and implemented and the security of supply statement is regularly submitted.

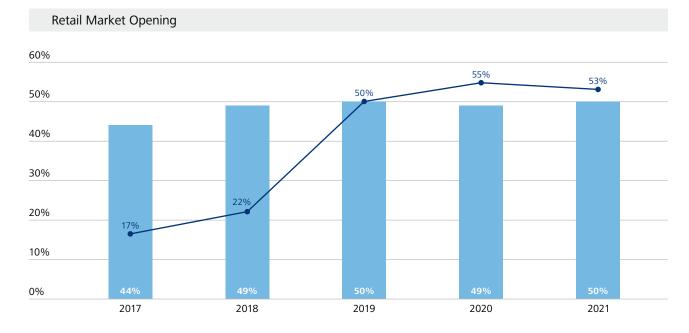
A cybersecurity strategy for 2021 - 2026 was adopted and the cybersecurity acquis is transposed in national law. The energy sector critical information infrastructure is defined and designated at national level. Energy-specific cybersecurity criteria could be further developed. SRB - CERT covers the energy sector.

#### **RECOMMENDATIONS / PRIORITIES**

Serbia should invest all efforts in intraday market opening and resolving the remaining issues of non-compliance with the Treaty, including full unbundling of the transmission system operator and allocation of interconnection capacities with the transmission system operator of Kosovo\*.

that the Government prescribes the conditions and manner of promoting strategic energy projects. Certain provisions of the TEN-E Regulation were to be defined within six months from the entry into force of the Law. However, that has not happened yet. There are currently three electricity PECI projects in Serbia, all grouped into the Trans-Balkan corridor project. Section 2 of this project, OHL 400 kV Kragujevac 2 - Kraljevo 3, has been recently finished, while section 3, OHL 2x400 kV Obrenovac - Bajina Basta, is in a final preparatory phase. Section 4, OHL 2x400 kV Bajina Basta - Visegrad/Pljevlja, is pending further developments on the extension of the HVDC link between Montenegro and Italy, on which it relies.

No progress has been made towards extension of cross-border capacity allocation through the Joint Auction Office, which is for now allocating capacities on the interconnections with Croatia and Bulgaria only. On other interconnectors, joint auctions still apply.



Supply to active eligible customers in % for Serbia

- Supply to active eligible customers in % for the Energy Community (weighted average %)

Source: Ministry of Mining and Energy, compiled by the Energy Community Secretariat



#### GAS IMPLEMENTATION

#### UNBUNDLING

20% ||

Neither gas transmission system operator in Serbia was certified in line with the gas acquis. The unbundling plans for Srbijagas and Yugorosgaz, adopted by the Government in 2021, are not progressing. Srbijagas' spin-off company, Transportgas Srbija, is not unbundled and certified, nor is Yugorosgaz Transport. Transportgas Srbija is owned by the Republic of Serbia, but the separation of the public bodies who control the state-owned supplier and trader, Srbijagas and Transportgas Srbija, was not accomplished. Transportgas Srbija aims to be unbundled under the independent system operator model. For Yugorosgaz Transport, no progress with respect to unbundling was made. Gastrans, exempted and certified by the regulator disregarding the Secretariat's Opinions, was licensed under the independent transmission operator model. Banatski Dvor storage needs to undergo certification according to the new Gas Storage Regulation.

#### ACCESS TO THE SYSTEM

29% 4

The Network Codes were transposed by the Government in October 2022. However, in practice, there is no capacity allocation at the interconnection points and the capacity at the interconnection point Horgos, with Hungary, is still hoarded by the incumbent shippers. Srbijagas thus effectively prevents new entrants to the Serbian market from more liquid central European hubs. This is a breach of Energy Community law and increases the security of supply risks for the entire region. The entry-exit transmission tariff methodology is in place, but harmonised tariffs are yet to be transposed. Gastrans was exempt from third party access contrary to the Secretariat's Opinion. Third party access to Banatski Dvor storage is not ensured.

#### WHOLESALE MARKET

**17%** |

The wholesale market in Serbia is monopolised by Gazprom and Srbijagas. It is illiquid with no exchanges nor the possibility to purchase gas elsewhere. Serbia signed a three-year intergovernmental agreement on gas supply with Russia in 2022, aimed at satisfying at least 75% of its current demand. REMIT Regulation (EU) 1227/2011 is transposed by the regulator.

#### **RETAIL MARKET**

**51%** ||

In retail gas supply, Srbijagas is the dominant market player. Protection of customers is well established. Supplier switching occurs but to a very limited extent. Updated supply rules, adopted by the Government, enabled that measurement of natural gas was switched to energy units.

#### INTERCONNECTIVITY, REGIONAL INTEGRATION

**73% 4** 



The interconnector Bulgaria - Serbia is also a PCI priority project. It is currently under construction in the Serbian territory and is scheduled to be commissioned in 2023. The project will diversify the available gas sources. In order to exploit its full potential for regional integration, third party access on the Horgos interconnector must be in place so that the pipeline can link Southeast and Central markets. Transportgas Srbija has interconnection agreements with the adjacent transmission system operators.

The interconnectors Bulgaria - Serbia and Serbia - North Macedonia are PECI projects.

#### SECURITY OF SUPPLY

100%

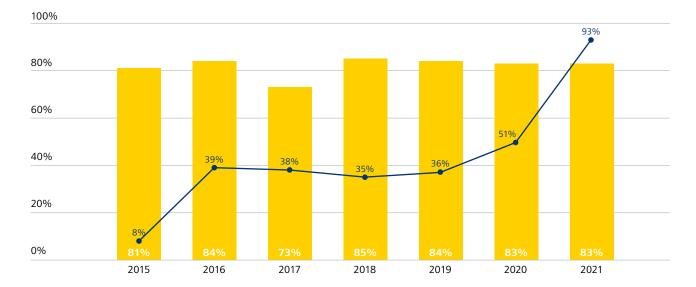
The national security of supply rules such as Preventive and Emergency Plans are in place but the framework needs to be aligned with Regulation (EU) 2017/1938 and the storage amendments.

#### **RECOMMENDATIONS / PRIORITIES**

Serbia needs to address the long-standing breaches of the gas acquis related to the lack of proper unbundling and certification of its gas transmission operators. It must operationalise the recently transposed Network Codes and grant third party access at the Horgos interconnection point without delay, and remove any other obstacles to new market entrants.

To boost regional gas market integration, it is of essence to commission timely the interconnector Bulgaria - Serbia. Serbia's underground storage operator will have to undergo the certification procedure in line with Storage Regulation (EU) 2022/1032.

#### Retail Market Opening



Gas supplied to active eligible customers as % of total supply in Serbia

--- Gas supplied to active eligible customers as % of total supply in the Energy Community

Note: The weighted average level of market opening in the Energy Community was calculated assuming the full opening of gas retail market in Ukraine for the whole 2021. However the full retail market opening took place on 1st May 2021.

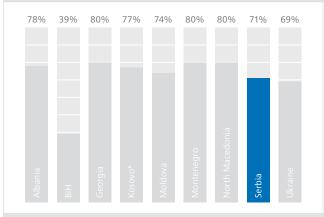
Source: Energy Agency of the Republic of Serbia (AERS), compiled by the Energy Community Secretariat



# **Serbia National Authorities**

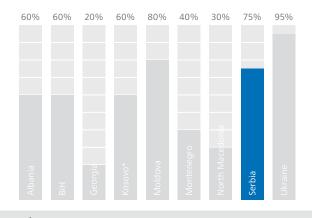


#### **Regulatory Authority**



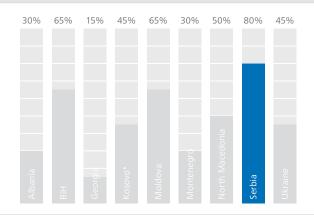
The Energy Agency of the Republic of Serbia (AERS) made use of its newly gained responsibilities by transposing the REMIT Regulation. At the same time, no progress was made as regards enforcement of unbundling and certification of network operators or third party gas access. AERS also upholds regulated prices for households below market prices. This inertia is of constant concern, and contrasts with the high level of expert knowledge present in AERS.

#### Competition Authority



In the reporting period, the Commission for Protection of Competition (CPC) limited its enforcement activity in the energy sector to the clearing of one merger. It closed an investigation initiated in 2018 against Gradska Toplana Niš, in which the CPC had found that the company had charged a higher price for heat supply and connection to the district heating network than would have resulted from the compliant application of the relevant legal framework. Gradska Toplana Niš proposed voluntary commitments to eliminate the CPC's competitive concerns and implemented them within the deadline imposed.

#### State Aid Authority



In October 2021, Serbia adopted the Regulation on Conditions and Criteria for the Compliance of State Aid for the Protection of the Environment and in the Energy Sector, which transposes the European Commission's Guidelines on State aid for environmental protection and energy 2014 - 2020.

In the reporting period, the Commission for State Aid Control reviewed the support scheme for the production of electricity from renewables established by the new Law on the Use of Renewable Energy Sources and found it to be compliant. Furthermore, in the context of the compilation of a comprehensive list of State aid schemes, the Commission for State Aid Control found the incentives for the recycling and reuse of waste to constitute incompliant State aid and proposed amendments to ensure compliance of the support scheme. The Commission for State Aid Control should follow-up by ensuring implementation of amendments to the scheme.



#### OIL IMPLEMENTATION

#### OIL STOCKHOLDING OBLIGATIONS

65% 1

The emergency oil stocks obligation, calculated based on inland consumption, stood at 36 days at the time of publication of this report. This is an increase of 11 days in the reporting period.

The public-private partnership project aimed at involving industry to help Serbia meet its emergency oil stocks obligation, initiated by the Ministry of Mining and Energy, has been delayed due to the war in Ukraine.

The Ministry is reconsidering the chosen model and conducting additional market research to provide a realistic model for PPP under the new circumstances.

#### **FUEL SPECIFICATIONS**

100% ||

Environmental specifications for petrol, diesel and gas oil used for non-road mobile machinery are in conformity with the Recommendation.

The quality monitoring programme for petroleum products is in place.

#### **RECOMMENDATIONS / PRIORITIES**

Despite Serbia's efforts to boost emergency oil stocks (an increase of 11 days compared to the last reporting period), the country is not likely to fulfil the final 61 days of inland consumption obligation by 1 January 2023.



#### RENEWABLE ENERGY IMPLEMENTATION

#### NATIONAL RENEWABLE **ENERGY ACTION PLAN**

58% 4

Serbia came very close to reaching its 27% target for 2020 on the basis of a recalculation of biomass consumption for heating following the completion of a household consumption survey in 2021. The country registered a 26,30% share of renewables in 2020. Sectorial targets for electricity and transport were not

#### QUALITY OF SUPPORT SCHEME

80%

The Law on the Use of Renewable Energy Sources adopted in 2021 provides a legal basis for the creation of a market-based support scheme. Renewable energy projects with capacity of less than 500 kW and 3MW for wind are entitled to a feed-in tariff, while auctions based on the feed-in premium will be held for other projects. In addition to long-term contracts providing for an incentivized price for the off-take of electricity, renewable producers are exempt from balancing responsibility by law until an intraday market is liquid. Although a quota of 400 MW and a ceiling price of 5,57 cEUR/kWh for the first wind auction were already defined, the launch of the auction is blocked by the absence of a by-law on balance responsibility of renewables.

#### **GRID INTEGRATION**

80% II

Guaranteed and priority access to the network for electricity produced from renewable energy sources is provided. The Government adopted the Decree on Network Rules relating to connection to the network of production units in August 2022.

#### ADMINISTRATIVE PROCEDURES AND GUARANTEES OF ORIGIN

84%

No progress was made to simplify administrative procedures and establish a one-stop shop in the reporting period. Elektromreza Srbije (EMS), as the designated issuing body, implemented requirements related to guarantees of origin and established the electronic registry. EMS also became full member of the European Association of Issuing Bodies.

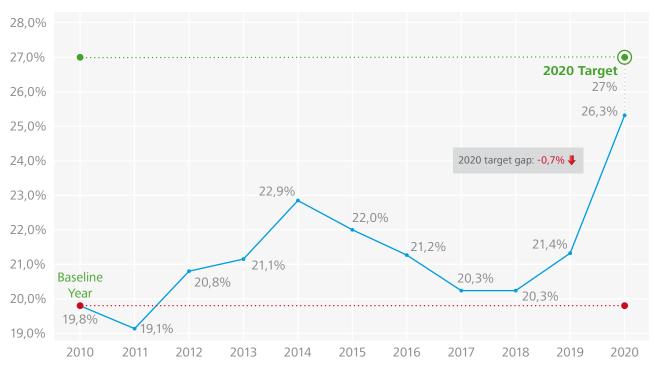
#### RENEWABLE ENERGY IN TRANSPORT 53% |

Provisions of Directive 2009/28/EC, including sustainability criteria, have been transposed by primary and secondary legislation. The share of renewable energy sources in transport remained very low in 2020. The Ministry is preparing a decree on the mandatory share of renewable energy in transport sector fuels in line with RED II requirements.

#### **RECOMMENDATIONS / PRIORITIES**

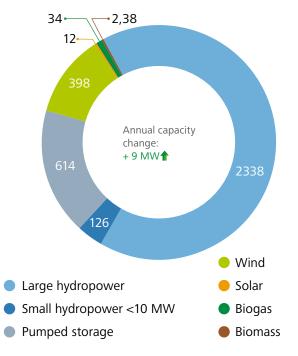
Serbia should adopt the missing by-laws, in particular the one on balancing responsibility, as soon as possible and proceed with implementation of renewables auctions.

#### Shares of Energy from Renewable Sources



Source: EUROSTAT

#### Total Capacities of Renewable Energy 2021 (MW)



In 2021, only a few MW of renewables capacity were added, mostly in hydro and 1 MW of rooftop solar PV and 6 MW of biogas.

Total capacities of renewable energy (MW):

3524

Source: Ministry of Mining and Energy



#### **ENERGY EFFICIENCY IMPLEMENTATION**

# ENERGY EFFICIENCY TARGETS AND POLICY MEASURES

88% |

While its primary energy consumption increased in 2020, Serbia was still able to meet its national 2020 energy efficiency target, as reported in the sixth Annual Progress Report submitted to the Secretariat in July 2022.

After the adoption of the new Law on Energy Efficiency and Rational Use of Energy in April 2021, several implementing acts were adopted to improve compliance with the amended Energy Efficiency Directive 2018/2002 (on energy management and energy audits, calculation of cumulative energy savings, public procurement and energy services, reporting etc.). The Secretariat was notified of the model of implementation of the Article 7 target for obligation schemes, which was achieved through alternative measures, and ongoing work to improve the monitoring and reporting system.

The 2030 energy efficiency targets and policy measures are being integrated into the draft NECP.

#### **ENERGY EFFICIENCY IN BUILDINGS**

64% 1

The long-term building renovation strategy until 2030 was adopted in February 2022, with the vision to renovate and decarbonise the existing public building stock by 2050. On the other hand, little progress was achieved on the finalisation and adoption of the regulation on minimum energy performance requirements and certification, to achieve full compliance with Directive 2010/31/EU.

#### **ENERGY EFFICIENCY FINANCING**

90% 1

During the reporting period, the framework for sustainable energy efficiency financing was improved with the establishment of the Administration for Financing and Promotion of Energy Efficiency as a legal authority within the Ministry of Mining and Energy, allocation of more state funding and adoption of the annual programme for financing activities and measures for energy efficiency improvements as well as new procedures enabling subsidies to the household sector.

Since 2021, public calls are being regularly launched to support financing of energy efficiency projects in public and residential

buildings. Support schemes in 2022 covered energy efficiency measures for improvement of the building envelope and heating and cooling systems, as well as installation of PVs.

An enabling legal framework for energy service contracting was updated in 2022, with several ESCO projects already being implemented in buildings, public lighting and district heating.

# ENERGY EFFICIENT PRODUCTS – LABELLING

84% 🛊

The revised Law on Energy Efficiency and Rational Use of Energy partially transposed Framework Labelling Regulation (EU) 2017/1369. Complete transposition is expected to be obtained through adoption of a new decree on energy labelling that is in the final drafting phase. During 2021 and 2022, the Ministry updated existing rulebooks to introduce new requirements and rescaled labels for fridges and freezers, washing machines and dishwashers, electronic displays and light sources. The adoption of remaining four labelling delegated regulations is pending.

After the adoption of the Decree on Eco-design of Energy-related Products in December 2021, Serbia started introducing eco-design requirements for certain product groups.

# EFFICIENCY IN HEATING AND COOLING

54% 1

With 58 operational systems, Serbia has the largest district heating system in the Western Balkans, but renewables make up less than 1% of the input fuel. The Ministry established a programme to support 11 projects with modern technologies for integrating renewables and waste heat in district heating. 95% of substations have heat meters, however, only 7% of the total heated area has measured heat consumption.

The Rulebook on the Methodological Framework for Determining the Technical Feasibility and Cost-effectiveness of Installing Heat Meters was adopted in October 2022.

The assessment of the potential for high-efficiency cogeneration and efficient district heating and cooling is under preparation. The Secretariat strongly recommends the implementation of consumption-based metering and billing in all district heating systems, as required by the Energy Efficiency Directive.

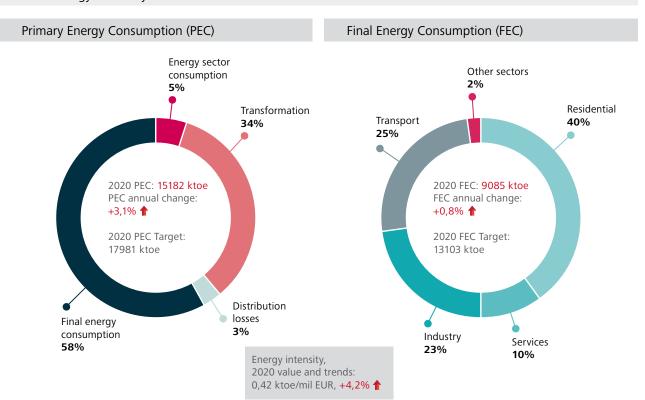
#### **RECOMMENDATIONS / PRIORITIES**

In the forthcoming period, Serbia should adopt the remaining by-laws to implement the Law on Energy Efficiency and Rational Use of Energy, including the remaining delegated regulations for energy labelling and application of consumption-based metering and billing.

The adoption of the updated regulation for full alignment with the Energy Performance of Buildings Directive remains a key priority.

The Directorate for Financing and Promotion of Energy Efficiency should be further strengthened in order to be better equipped with policy and financial support for energy efficiency.

#### 2020 Energy Efficiency Indicators and Trends



Source: EUROSTAT 2022 data and Contracting Party's Annual Report under Directive 2012/27/EU

#### Energy Efficient Products - Overview of Implementation of Labelling Regulation

			0= 0==		555	0= 0==		((())	\$\$\$ 	<b>□□</b> ⊘	
FRAMEWORK REGULATION*	Household dishwashers	Fridges and freezers*	Household washing machines	Televisions	Air conditioners and fans*	Household tumble driers	Electrical lamps and luminaires	Solid fuel boilers*	Space heaters*	Water heaters & storage tanks	Domestic ovens and range hoods

\* The new labelling package adopted by the Ministerial Council in November 2018 was assessed, as the transposition deadline expired in January 2020.

Compliance or implementation issues detected

Source: multiple sources of data (EECG reports, NEEAPs etc.), compiled by the Energy Community Secretariat

Adopted and implemented

No progress with adoption/implementation



#### **ENVIRONMENT IMPLEMENTATION**

#### **ENVIRONMENTAL ASSESSMENTS**

43% 4



The breach established by the Ministerial Council for failing to transpose Environmental Impact Assessment (EIA) Directive 2014/52/EU is ongoing. The consultation process was initiated and draft amendments were developed, however, the process was not finalized. The amendments are also expected to address another non-compliant element of the existing law, the possibility of issuing construction permits (development consent before the EIA consent). Draft amendments to secondary legislation concerning the lack of EIA screening of small hydropower projects (less than 2 MW) located outside protected areas were prepared but not adopted.

In the reporting period, Serbia initiated amendments to the Strategic Environmental Assessment (SEA) Law in order to fully align it with the SEA Directive. The need for compliance with certain provisions of the SEA Directive is primarily in the part related to the hierarchical framework and compliance with other plans and programs, avoiding double assessments and the level and scope of the SEA report. The new law should also improve the quality of the evaluation of SEA reports by strengthening the role of the expert commission and introducing mandatory training for the members of the expert committee. The draft SEA Law also foresees establishing a database and a central web portal through which the authorities responsible for the preparation of plans and programmes will inform interested parties and provides a clear legal framework for the public consultation process. The SEA process for the National Energy and Climate Plan (NECP) was initiated in 2021, however, the SEA report was not prepared and the deadline for providing it under the 2021 decision expired.

#### SULPHUR IN FUELS

92% 1



The legislation transposing the Directive is in force since December 2020. Sampling and analysis of the fuels concerned takes place according to the annual fuel quality monitoring programme.

#### LARGE COMBUSTION PLANTS

60%



Serbia complied with its reporting obligations under the Large Combustion Plants Directive for the reporting year 2021, and also provided emission scenarios taking into account ongoing investments. An infringement procedure for non-compliance with the NERP ceilings for sulphur dioxide and dust is open since March 2021. In the 2021 reporting year, emissions of all pollutants decreased and dust emissions complied with the ceilings. Non-compliance still persists for the ceiling for sulphur dioxide. Out of the four large combustion plants operating under the opt-out regime, two (boilers 3, 4, 5 of Termoelektrana Kolubara A3 and Termoelektrana Morava) are expected to reach the end of their lifetime by the end of 2022 based on their current load factor.

#### NATURE PROTECTION

67% II

In the reporting period, the protection procedure was initiated for 14 protected areas of national, regional and local importance, among which the protection procedure was initiated for two national parks - Stara planina which is already protected as a nature park and Kučaj-Beljanica as a newly protected area. A national action plan on the prevention of illegal killing of birds is not yet developed. Serbia revised the Rulebook on Declaring the Hunting of Protected Wildlife Species and included three new endangered wild bird species subject to hunting prohibitions. The amendments also introduced a temporary ban on turtle dove and partridge hunting.

#### **ENVIRONMENTAL LIABILITY**

0%

Although the drafting of the Law on Liability for Environmental Damage began in 2015, the draft Law remains to be finalized and submitted to the legislative process.

#### **RECOMMENDATIONS / PRIORITIES**

Serbia should transpose Directive 2014/52/EU and update the relevant secondary legislation in order to align it with the EIA Directive. New legislative amendments should be supplemented with a capacity building training programme. Until the legal gaps are addressed, the competent authorities should take into account the Secretariat's Policy Guidelines on the development

of small hydropower projects. The amendment of the SEA Law should be finalized. The SEA for the NECP should be reinitiated and accompanied by a detailed scoping report.

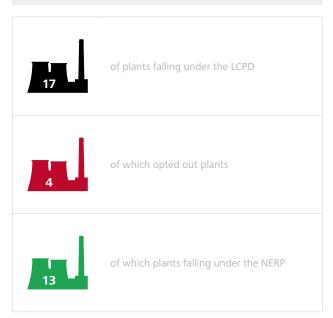
Serbia should intensify its efforts to continue the trend of emission reductions from large combustion plants and ensure compliance with the ceiling for sulphur dioxide.

The protection procedure for the identified sites based on Law

on Nature Protection should be finalized and a national action plan on the prevention of illegal killing of birds developed. The future protection and management plan for "Stara Planina" should assess the challenges with hydropower development in detail and provide clear rules and conditions for project development.

The draft Law on Liability for Environmental Damage should be finalized and adopted.

#### Installations under the Large Combustion Plants Directive



Source: compiled by the Energy Community Secretariat

#### 2021 emissions versus NERP ceilings 5 3 ceiling SO, NO Dust 2021 emissions by all plants under the LCPD 280.652 36.003 7.474 Annual change -21,1% 👃 -10,4%--21,5% 🖶 2021 emissions by plants under the NERP 250.067 33.020 4.805

-25,1% 👃

-10,4%

-20,1% 👢

#### Amount of operational hours used from opt-out period

Termoelektrana Kolubara A3 (boilers 3, 4, 5)	Expected expiry of opt-out period	August 2022
(bollers 3, 4, 3)	Remaining hours	2.815
	Operating hours consumed in 2018 - 2021	17.185
Termoelektrana Morava	Expected expiry of opt-out period:*	September 2022
$\overline{\mathbf{y}}$	Remaining hours	3.034
	Operating hours consumed in 2018 - 2021	16.966
Termoelektrana Kolubara A3	Expected expiry of opt-out period	March 2023
(boiler 1)	Remaining hours	4.523
	Operating hours consumed in 2018 - 2021	15.477
Termoelektrana Kolubara A5	Expected expiry of opt-out period	October 2023
lacksquare	Remaining hours	6.107
	Operating hours consumed in 2018 - 2021	13.893

Annual change

<sup>\*</sup>Calculations for the expected expiry of the opt-out period are based on 2018 - 2021 average load factor. Source: compiled by the Energy Community Secretariat



#### **CLIMATE IMPLEMENTATION**

#### NATIONAL GREENHOUSE GAS EMISSIONS MONITORING AND REPORTING SYSTEMS

82% ||

Serbia's revised Nationally Determined Contribution (NDC2) under the Paris Agreement was finalized and submitted to UNFCCC in August 2022.

The Law on Climate Change, adopted in March 2021, sets the framework for mitigation actions. Secondary legislation should ensure the transposition of the climate related parts of the Governance Regulation. In addition, two by-laws were adopted to ensure the operationalization of the Law on Climate Change for the planned extension of the Energy Community acquis: rulebook on the verification and accreditation of verifiers of reports on greenhouse gas emissions and regulation on types of activities and greenhouse gases.

# NATIONAL ENERGY AND CLIMATE PLANS (NECPS)

71% 👚

Amendments to the Energy Law, adopted in April 2021, set the legal framework for the preparation, monitoring and updating of the NECP.

A rulebook related to the content and development of the NECP was adopted on 15 April 2022.

Work on the NECP continued with the finalization of the scenarios in August 2022, which were subject to consultation between August and September 2022. The draft NECP was developed and shared with the technical working group in October 2022 for comments. Public and cross-border consultations are to take place following the discussions in the technical working group.

#### **RECOMMENDATIONS / PRIORITIES**

Serbia should continue the NECP development process via public and regional consultations and to submit its draft NECP to the Secretariat for its assessment.



#### STATISTICS IMPLEMENTATION

#### **ANNUAL STATISTICS**

100% ||

Annual energy statistics for 2020 were compiled by the Statistical Office of the Republic of Serbia (SORS), transmitted on time and published by EUROSTAT. Disaggregated data on energy consumption of households were compiled and transmitted to EUROSTAT on time.

SORS has established a quality management system based on written procedures and policies and submitted the first quality report in 2019. The updated quality report was submitted to EUROSTAT in July 2022, in accordance with the acquis.

Non-mandatory datasets, namely preliminary data for 2021 and disaggregated data on final energy consumption in industry with data from 2017 to 2020, were also compiled and transmitted to EUROSTAT, as well as the questionnaire on the renewables share for 2020.

#### MONTHLY STATISTICS

100%

SORS is responsible for disseminating monthly data. In cooperation with the Ministry of Mining and Energy, which collects data in its database, monthly electricity, coal, oil and natural gas data are collected and transmitted to EUROSTAT.

In cooperation with the Ministry, SORS is preparing to report on all data related to oil stocks in accordance with the acquis on oil stocks and the Crude Oil Import Register.

#### PRICE STATISTICS

100% ||

Bi-annual prices of electricity and gas for industry and house-holds per consumption band, as well as the price breakdown per component, are submitted to EUROSTAT in accordance with Regulation (EU) 2016/1952.

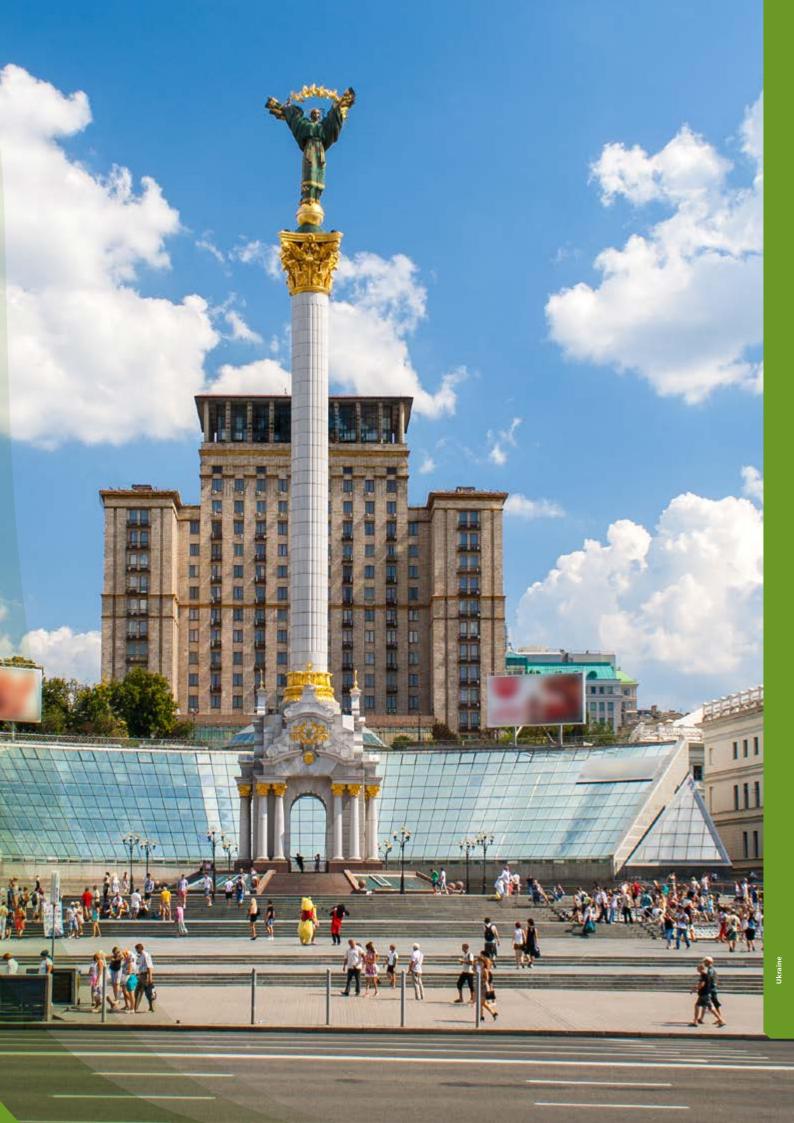
The quality report on electricity and natural gas price statistics is submitted in time to EUROSTAT and published in accordance with Regulation (EU) 2019/803.

#### **RECOMMENDATIONS / PRIORITIES**

In the course of 2022, Serbia began collecting and transmitting monthly oil statistics, hence removing the only remaining non-compliance. Serbia should only continue to steadily improve the timeliness and punctuality of its energy statistics.

# Ukraine







#### **SUMMARY IMPLEMENTATION**

SUMMARY INDICATORS	IMPLEMENTATION STATUS	2022 HIGHLIGHTS
Electricity	68%	Transmission system operator Ukrenergo was certified and obtained the status of Observer at ENTSO-E. Following emergency synchronization, Ukraine/Moldova control block was included into the FSkar mechanism. The REMIT Regulation and compliant cross-border capacity allocation procedure are yet to be implemented.
Gas	70%	In spite of the war, Ukraine remained a reliable transit country, whereas the gas market achievements from the previous years have come to a stop.
Oil	19%	No progress occurred during the reporting period. The draft Law on Minimum Stocks of Crude Oil and Petroleum Products remains to be adopted.
Renewable Energy	58%	Ukraine kept the implementation of the renewable energy acquis as a priority, an effort that should be highly commended.
Energy Efficiency	78%	Ukraine made progress by adopting or drafting energy efficiency legislation and policy documents. The adoption of the Energy Efficiency Law removed a long-standing issue of non-compliance with the Energy Efficiency Directive.
Environme	ent 46%	Ukraine still keeps the implementation of the environmental acquis as a priority, an effort that should be highly commended.
Climate	66%	Work on the draft climate law progressed in 2022. The Ukrainian NECP should be significantly overhauled and serve as the central document for planning the sustainable rebuilding of the country.
National Authorities	69%	The energy regulator is set up as a 'central executive body' established by the Cabinet of Ministers which is a breach of the requirement of the acquis for independent operation of the regulator from other public bodies. The independence of NEURC, including financial, has to be reinstated. The Antimonopoly Committee of Ukraine started investigating alleged abuse of dominance by Naftogaz Trading. Currently, State aid is permitted and the obligation to notify suspended.
Statistics	91%	As of February 2022, the State Statistics Service of Ukraine is prevented from performing its otherwise excellent work in collecting and compiling energy statistics. Instead, the experts are engaged in analysing and improving the methodologies and procedures for statistics in order to be ready to pick up work when conditions allow.

Overall number of cases: 3

Procedure by Article 91

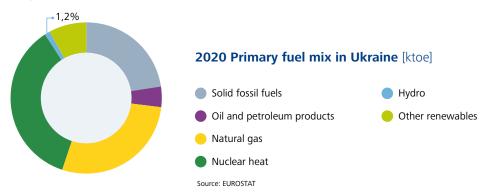
ECS-1/18 Energy efficiency
ECS-4/18 Infrastructure
ECS-4/21 Electricity

### State of Energy Sector Reforms

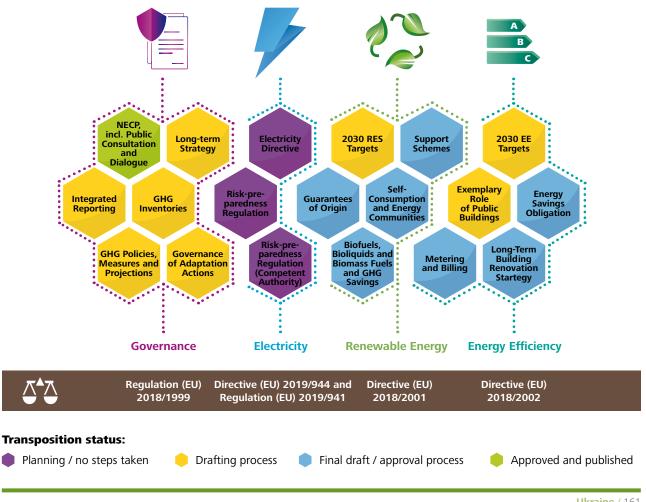
Even during the Russian war, Ukraine managed to advance acquis implementation is several areas including electricity, energy efficiency, environment and renewables. The biggest breakthrough was the synchronization of the electricity network of Ukraine with the Continental European power system, partially made possible by the country's progress in electricity acquis implementation before the start of the war. In the gas sector, Ukraine fulfilled its transit obligations in spite of severe limitations placed on its transmission system operator, which cannot control all of its interconnection points with Russia.

The country's reconstruction will have to go hand-in-hand with the green agenda, including the implementation of renewable energy and energy efficiency measures on a massive scale.

Ukraine is moderately advanced when it comes to the drafting of the Clean Energy Package with the exception of electricity where drafting is yet to begin.



## **Decarbonisation readiness -**2021 Clean Energy Package transposition





#### **ELECTRICITY IMPLEMENTATION**

#### UNBUNDLING

95%



The transmission system operator, Ukrenergo, was unbundled and conditionally certified by the regulator NEURC (under the ISO model) in December 2021. Some conditions for certification are still to be fulfilled, and the supervisory board is not yet filled entirely. NEURC approved the compliance programme of Ukrenergo and the compliance officer.

In April 2022, Ukrenergo obtained observer status in ENTSO-E.

The distribution system operators are legally and functionally unbundled in compliance with the acquis. The publication of the compliance officer's reports together with the regulator's opinion on the website of NEURC was suspended for the period of martial law in Ukraine.

#### ACCESS TO THE SYSTEM

73%



Access to transmission and distribution systems is ensured through publicly available tariffs, which also apply to generators. The transmission tariff applies to exporters, while the dispatch tariff applies to exporters and importers. This is not compliant with Energy Community law.

NEURC amended Ukrenergo's tariff methodologies and the transmission grid code to reflect the planned inclusion of Ukrenergo into the inter-transmission system operator compensation mechanism.

The Connection Network Codes are not yet transposed by a formal governmental or regulatory act, but the necessary requirements are implemented through grid codes. For the period of martial law, NEURC adopted a separate procedure for temporary connection to the distribution network.

The Transparency Regulation has been transposed, but publication on the transparency platform was suspended due to martial law.

#### WHOLESALE MARKET



All market segments - bilateral, day-ahead, intraday, balancing and ancillary services markets – remain operational, despite the invasion of the Russian Federation.

NEURC approved the methodology for determining significant price fluctuations and setting price caps on the day-ahead market, intraday market and balancing market, the new price cap levels were not yet defined by NEURC.

Losses are procured by the transmission system operator on the market, but the distribution system operators are still obliged to buy a significant amount of their losses from state-owned Energoatom at a fixed price in contravention of the acquis. According to latest changes to the legislation, this obligation will be removed by 1 December 2022.

The non-compliant Public Service Obligation (PSO) Act was prolonged until the end of March 2023. Other PSOs were introduced during summer 2022. An "export PSO" obliging exporters to transfer 80% of their profit to the guaranteed buyer for covering the deficit of universal service suppliers under the PSO Act and a "coal PSO", according to which Ukrenergo must provide a loan to SE Ukrvugillya in the amount of UAH 2,5 billion to ensure electricity generation from coal for the heating season 2022 - 2023.

The draft law on REMIT has been voted at first reading. The non-transposition of REMIT is subject to an infringement case.

#### RETAIL MARKET

73%



All customers in the retail market are free to choose their supplier. Universal service suppliers are obliged to supply electricity to households and other categories of customers entitled to universal service at regulated prices applied to households, which are not cost-reflective. During the reporting period, prices for households remained the same. A block tariff, i.e. a different price for consumption up to/above 250 kWh per month, was applied.

The supplier of last resort was reappointed by the Cabinet of Ministers of Ukraine for the whole 2022, and Ukrenergo is covering costs of its functioning as part of the PSO for HHs. However, universal service suppliers are obliged to supply electricity to those consumers whose supplier is in default status or lost the license in accordance with a separate Ministry Order.

#### REGIONAL INTEGRATION

28%



On 5 August 2022, the Ministry of Energy published the updated version of the draft law on Projects of National Interest in Energy, which transposes Regulation (EU) 347/2013, for public consultation. Currently, there are two electricity PMI projects in Ukraine on the rehabilitation and modernisation of the 750 kV overhead line to Romania (Pivdennoukrainska - Issacea) and 400 kV line to Slovakia (Mukacheve - V.Kapusany).

Following the Russian invasion of Ukraine, emergency synchronization of the power systems of Ukraine and Moldova with Continental Europe took place on 16 March 2022.

The commercial exchange of electricity between the UA/MD control block and Continental Europe started on 30 June 2022, with a gradual increase of cross-border capacity available for trade. The capacity is allocated via unilateral auctions for borders with Poland, Slovak Republic, Romania and Moldova. Joint auctions with neighbouring EU Member States and Moldova are under preparation.

Since June 2022, the settlement of unintentional deviations for the UA/MD control block is performed under the European methodology FSkar, whereas Ukrenergo passes on the costs/ revenues to Moldelectrica for its own deviations. Ukrenergo established cooperation with ENTSO-E on joining the ITC mechanism.

Amendments to the existing control block agreement between Moldelectrica and Ukrenergo are currently being consulted by the transmission system operators in order to bring it in line with the requirements of the synchronous area framework agreement (SAFA), system operation and electricity balancing guidelines.

#### SECURITY OF SUPPLY

**78**%

Ukraine transposed requirements of Directive 2005/89/EC into national legislation, but has still not implemented them in practice. The monitoring of security of supply is not implemented and is not followed during the period of martial law.

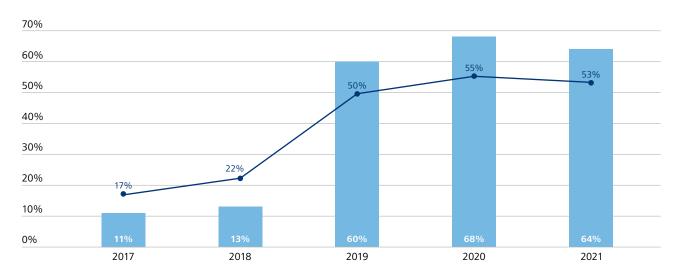
Due to significant damage and occupation of electricity infrastructure and generating capacities by the Russian Federation, strategic documents – such as the adequacy forecast report and network development plans – are not entirely relevant anymore.

The comprehensive legislative framework in the area of cybersecurity and the cybersecurity development strategy provided a good basis for cybersecurity protection during the Russian military aggression. Ukrainian energy facilities suffer continuous cyberattacks with over 300.000 incident-related events recorded by Ukrenergo in the first two months of the war.

#### **RECOMMENDATIONS / PRIORITIES**

Despite the difficult situation in the integrated power system of Ukraine due to the invasion of the Russian Federation, Ukraine should keep its efforts to stay on the path of electricity market reform and prevent back-sliding from what was achieved before the invasion. This concerns in particular ensuring a compliant certification of the transmission system operator and its financial viability, the transposition of REMIT and overregulation by PSOs and price caps. Furthermore, activities towards market integration with neighbouring EU Member States and Moldova should be stepped-up in line with the agreed roadmap for further market integration following the synchronisation of Ukraine's (and Moldova's) electricity network with the Continental European network, starting with the establishment of a compliant cross-border capacity allocation procedure.

#### Retail Market Opening



Supply to active eligible customers in % for Ukraine

Supply to active eligible customers in % for the Energy Community (weighted average %)

Source: Ministry of Energy, 2021 data estimated based on the Market Monitoring Report NEURC, compiled by the Energy Community Secretariat



#### GAS IMPLEMENTATION

#### UNBUNDLING

**76% ↓** 

The transmission system operator is unbundled and certified. At the time of publication of this report, changes to its structure and corporate governance were being discussed. This includes dissolving the current intermediary MGU in a two-layer governance structure which did not prove effective. This potentially affects the certification status, together with the transmission system operator's unstable financial situation. The storage system operator and the distribution system operators are unbundled in legal, information and accounting terms.

#### ACCESS TO THE SYSTEM

89% 4



Third party access to transmission, storage and distribution systems is in place, based on regulated tariffs determined by the regulatory authority. The Gas Network Codes have been transposed, with some elements still pending, such as full implementation of the Balancing Code. Some pending transparency requirements have been further delayed due to the application of martial law.

#### WHOLESALE MARKET

27%



The remarkable progress in wholesale gas market reform achieved in the last few years has been reversed since the start of the Russian aggression. Naftogaz remains the only company importing gas to Ukraine. Still, a few traders are active in the market, and even very minor quantities continue to be sold at the exchange. REMIT Regulation (EU) 1227/2011 is still not implemented, however, the draft law has passed the first reading in the Parliament. Ukraine imposed a ban on gas exports.

#### **RETAIL MARKET**

54%



Ukraine fully deregulated prices for all customers in 2021 but a Public Service Obligation Decree was adopted after the start of the war obligating Naftogaz to ensure the supply of gas to the population and district heating companies and regulating the prices all along the supply chain. The Government transferred rights to operate a significant number of distribution networks to Naftogaz. Naftogaz is now the only player across all supply chain functions, from production and storage to distribution and retail as a supplier of last resort, supplying almost all household customers in the territory of Ukraine and district heating companies.

Consumption decreased by 40%, and despite the continuous damage and war operations, only a small portion of customers (5 - 9%) have been disconnected from the network due to continuous repairs.

#### INTERCONNECTIVITY, REGIONAL INTEGRATION

66% 4



The transmission system is well interconnected with vast capacity on all country borders, and the majority of interconnection points are covered by interconnection agreements aligned with the Network Code on Interoperability and Data Exchange. The transmission system operator works to increase firm capacity at relevant interconnection points.

#### SECURITY OF SUPPLY

100%

Ukraine has a well-established regulatory framework for the security of gas supply, based on elements of Regulation (EU) 2017/1938, such as risk assessment and preventive and emergency action plans, which still need to be aligned to a full extent with the gas acquis. Ukraine started with the transposition of the Storage Regulation (EU) 2022/1032 and the level of gas in the storages overpassed the target. However, the security of supply situation is endangered due to the loss of some domestic production sites and the destruction of the network.

#### **RECOMMENDATIONS / PRIORITIES**

Ukraine's gas market is now subject to martial law and functions in a heavily regulated environment. The main goal is to preserve the infrastructure assets, maintain control of domestic production and supply gas to households. Approximately 1,3 million households were left without gas at the time of publication of this report.

Ukraine fulfils its transit obligations in spite of severe limitations placed on its transmission system operator, which cannot control all of its interconnection points with Russia.

The previous years' efforts to diversify routes and suppliers have started to bear fruit. Ukraine manages to purchase, via Naftogaz, small but critical quantities for the winter. Nonetheless, additional actions need to be taken to e.g. facilitate LNG routes and ensure stable import in the future.

Implementation of the Storage Regulation will require amendments to the Gas Law and a certification procedure for the storage system operator.

Ukraine will have to re-establish the gas market reforms in place before the war, with derogations limited to the most vulnerable customers, and embark on a long-term sustainable gas policy. With the future bringing a different role for Ukraine as it ceases to be a transit country for fossil gas, the country should continue exploring options for low carbon gas production and its transport during the reconstruction period.

#### Retail Market Opening 100% 80% 60% 40% 39% 38% 36% 35% 20% 0% 2015 2016 2017 2018 2019 2020 2021

Gas supplied to active eligible customers as % of total supply in Ukraine

Gas supplied to active eligible customers as % of total supply in the Energy Community

Note: The weighted average level of market opening in the Energy Community was calculated assuming the full opening of gas retail market in Ukraine for the whole 2021. However the full retail market opening took place on 1st May 2021.

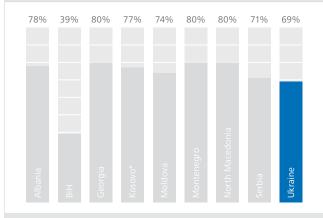
Source: National Electricity Regulatory Commission (NEURC), compiled by the Energy Community Secretariat



# **Ukraine National Authorities**

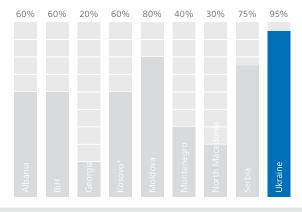


#### **Regulatory Authority**



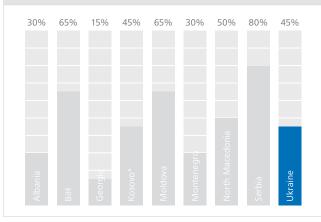
The National Energy and Utilities Regulatory Commission of Ukraine (NEURC) is set up as a 'central executive body' established by the Cabinet of Ministers following legal changes in 2019. This is a breach of the acquis for independent operation of the regulator from other public bodies. This model was introduced as a temporary solution after the constitutional court's ruling that the regulator's independent status is unconstitutional but has developed into a permanent state of play that can only be restored by amending the constitution. The Secretariat will follow-up on the breach. The independence of NEURC, including financial, has to be reinstated. NEURC's preparatory work for NEMO designation is ongoing. Joint capacity allocation is not yet launched. The regulatory basis for ITC implementation was approved. REMIT still requires legislative changes and is not implemented.

#### 



In the reporting period, the Antimonopoly Committee of Ukraine (AMCU) started investigating the alleged abuse of dominance of Naftogaz Trading on the market of wholesale supply of gas. The AMCU should ensure that its investigation adequately addresses any potential abusive behaviour in order to guarantee a level playing field.

#### State Aid Authority



In the reporting period, Ukraine adopted the Criteria for Assessing the Compatibility of State aid to Undertakings for Environmental Protection, which also includes aid for high-efficient cogeneration, efficient district heating systems, energy efficiency and energy infrastructure.

Following the Russian invasion of Ukraine, the Law on State Aid for Business Entities was amended providing that during the application of martial law, State aid is permitted and the obligation to notify State aid is suspended.



#### **OIL IMPLEMENTATION**

#### OIL STOCKHOLDING OBLIGATIONS

0% ||

Ukraine currently has no legal framework on emergency oil stocks, and there was no progress in the reporting period. The draft Law on Minimum Stocks of Crude Oil and Petroleum Products remains to be adopted.

The draft Law sets out the basic legal, institutional, financial and economic principles for the establishment and functioning of the system of minimum stocks of crude oil and petroleum products in Ukraine and regulates the relations with respect to the management of the minimum stocks.

#### **FUEL SPECIFICATIONS**

75% ||

The environmental specifications for petrol and diesel are in conformity with European standards. Gas oil used in non-road mobile machinery (NRMM) is not regulated by the Regulation. The draft programme on annual monitoring of petroleum products is prepared but not yet approved.

#### **RECOMMENDATIONS / PRIORITIES**

The adoption of the draft Law on Minimum Stocks of Crude Oil and Petroleum Products would be a very significant step forward, making it possible for Ukraine to progress toward the transposition of secondary legislation (including the action plan) and start the implementation of the Oil Stocks Directive.

The 2013 Technical Regulation, which establishes requirements for fuels sold on the territory of Ukraine, should be amended to stipulate the environmental specifications of gas oil used in NRMM. The sulphur content of gas oil used in NRMM should be up to 10 mg/kg.



#### RENEWABLE ENERGY IMPLEMENTATION

# NATIONAL RENEWABLE ENERGY ACTION PLAN

58% **|**|

In 2020, Ukraine's share of energy from renewable sources reached only 9,19%, well below the target of 11%. The indicative trajectory for the electricity sector was overreached, while contributions of renewable energy in heating and cooling and transport remained lower than planned.

#### QUALITY OF SUPPORT SCHEME

64%

From 2020, only wind projects with installed capacity of up to 5 MW and other technologies of up to 1 MW are granted administratively set feed-in tariffs (FiTs). The Law on Amendments to Certain Laws of Ukraine on Stimulating the Production of Electricity from Alternative Energy Sources on a Market Basis, which introduces a contract for difference mechanism for auctions, was published for consultation in August 2021, but is not yet adopted. However, in July 2022, the Parliament adopted amendments where renewable producers were allowed to sell electricity directly at the day-ahead, intraday, bilateral and balancing markets.

#### **GRID INTEGRATION**

74% |

Guaranteed access to the transmission and distribution networks for electricity produced from renewable energy sources is provided. The procedure for setting the fees for connection to the transmission and distribution system is approved by the regulatory commission NEURC.

# ADMINISTRATIVE PROCEDURES AND GUARANTEES OF ORIGIN

65% II

Administrative procedure guidelines as well as a portal that provides online administrative services exist; nevertheless, the entire procedure remains lengthy. There is no single administrative body.

Ukraine joined the Energy Community initiative to establish a regional system for guarantees of origin. The national electronic registry for guarantees of origin in Ukraine was created and can be utilized as soon as the designated issuing body signs a direct agreement with the service provider. The draft law addressing the introduction of the registry for issuing, using and terminating guarantees of origin for electricity produced from renewable energy sources proposes changes in the designation of the issuing body.

#### RENEWABLE ENERGY IN TRANSPORT 11

The draft law on amendments to the Law on the Mandatory Use of Liquid Biofuels (Biocomponents) in transport passed first reading in the Parliament in September 2021. The share of renewables in the transport sector was at the level of 2,47% in 2020.

#### **RECOMMENDATIONS / PRIORITIES**

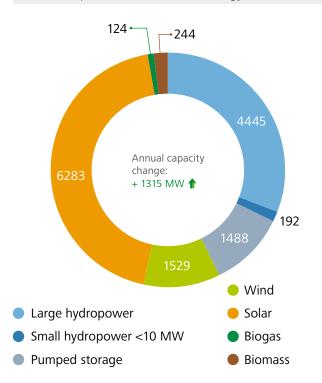
The utmost priority for Ukraine remains the implementation of a functional market-based support scheme and financial stabilization of the guaranteed buyer. Following the settlement of the dispute in 2021, any further retroactive changes in existing support schemes should be avoided. The Government should provide support to help producers restoring damaged electricity equipment. Ukraine should as soon as possible designate an issuing body for guarantees of origin, sign a direct agreement with the service provider and start using the national electronic registry developed during the regional project.

#### Shares of Energy from Renewable Sources



Source: EUROSTAT

#### Total Capacities of Renewable Energy 2021 (MW)



Source: Ministry of Energy and Coal Mining

In 2021, the wind sector added 418 MW of installed capacity and solar PV added 920 MW.

As a consequence of the Russian invasion, around 15% of solar and around 90% of installed wind capacities have been either completely destroyed or damaged and/or are located in regions occupied by the Russian Federation. As a result, the available and operable renewable capacity in Ukraine decreased by over 2,5 GW.

Total capacities (MW):

14305



#### **ENERGY EFFICIENCY IMPLEMENTATION**

# ENERGY EFFICIENCY TARGETS AND POLICY MEASURES

73% 🛊

Ukraine has achieved the national 2020 energy efficiency target, as reported in the sixth Annual Progress Report submitted to the Secretariat in July 2022.

The new Energy Efficiency Law, which includes the specific targets and policy measures in line with the Energy Efficiency Directive, was adopted in October 2021.

The 2030 energy efficiency targets and policy measures were integrated in the NEEAP for the period up to 2030, adopted in December 2021.

#### **ENERGY EFFICIENCY IN BUILDINGS**

90% |

Ukraine adopted the majority of by-laws to implement the Energy Performance of Buildings Law. In September 2021, the updated Procedure for Independent Monitoring of Energy Performance Certificates was adopted, while a new order on approval of requirements for nearly-zero energy buildings is under preparation. The long-term strategy for thermal modernization of buildings was finalised and put in public consultation in September 2022.

#### **ENERGY EFFICIENCY FINANCING**

90% ||

The Energy Efficiency Fund provides grants for renovation of multi-apartment buildings, and the need for buildings' renovation projects will increase as consequence of the war. In parallel, the Agency for Energy Efficiency is promoting the introduction of the ESCO mechanism to attract private investment in energy efficiency measures in the public and residential sector.

# ENERGY EFFICIENT PRODUCTS – LABELLING

97%

All energy labelling regulations related to the Labelling Directive were adopted. Five new regulations completing the implementation of Framework Labelling Regulation (EU) 2017/1369 were also adopted. The country has transposed Eco-design Directive 2009/125/EC and 28 product regulations on a voluntary basis.

# EFFICIENCY IN HEATING AND COOLING

40% ||

Ukraine's well-developed district heating infrastructure, with over 1.600 district heating companies, has suffered serious damage during the war. Around 80% of buildings were equipped with heat meters, and 60% of the heat was generated in heat-only boilers and 40% in CHP plants.

Ukraine has not yet prepared the assessment of its high-efficiency cogeneration and efficient district heating potential. Projects for the improvement of energy efficiency measures in district heating systems are ongoing to the extent possible during the war.

#### **RECOMMENDATIONS / PRIORITIES**

Even in the time of war, Ukraine kept progressing with adopting or drafting of energy efficiency legislation and policy documents. The adoption of the Energy Efficiency Law removed the long-standing issue of non-compliance with the Energy Efficiency Directive.

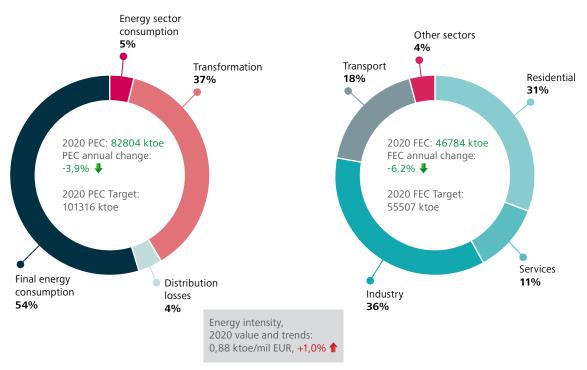
Implementation of the Law and adoption of the Long-term Building Renovation Strategy should be prioritized.

Ukraine should also focus on completing the assessment of its high-efficiency cogeneration and efficient district heating potential as it can provide a good basis for future investments in this sector, also in the context of the country's reconstruction after the war.

#### 2020 Energy Efficiency Indicators and Trends

#### Primary Energy Consumption (PEC)

#### Final Energy Consumption (FEC)



Source: EUROSTAT 2022 data and Contracting Party's Annual Report under Directive 2012/27/EU

#### Energy Efficient Products – Overview of Implementation of Labelling Regulation

			0= 0==		<u>-</u> 555	0= 0==		((())	\$\$\$ 	<b>□□</b> ⊘	<u>₩</u>
FRAMEWORK REGULATION*	Household dishwashers	Fridges and freezers*	Household washing machines	Televisions	Air conditioners and fans*	Household tumble driers	Electrical lamps and luminaires	Solid fuel boilers*	Space heaters*	Water heaters & storage tanks	Domestic ovens and range hoods
					•				•		

\* The new labelling package adopted by the Ministerial Council in November 2018 was assessed, as the transposition deadline expired in January 2020.

Compliance or implementation issues detected

Source: multiple sources of data (EECG reports, NEEAPs etc.), compiled by the Energy Community Secretariat

Adopted and implemented

No progress with adoption/implementation



#### **ENVIRONMENT IMPLEMENTATION**

#### **ENVIRONMENTAL ASSESSMENTS**

33% ▮



#### LARGE COMBUSTION PLANTS

50% II

The Russian invasion of Ukraine severely affects Ukraine's environment with transboundary impact. Faced with this imminent threat and the need for restoration and recovery, the Government of Ukraine adopted a resolution which excludes restoration projects of power plants from the environmental impact assessment (EIA) obligations. The EIA Directive provides an opportunity for such exemptions on a case-by-case basis only if certain conditions are fulfilled. The restoration of damaged or destroyed installations for which defence or response to civil emergencies is not the sole purpose must comply with Article 2(4) of the EIA Directive.

A similar exemption was introduced with regard to the obligations for strategic environmental assessment (SEA) for recovery programmes for regions that suffered destruction by the Russian military. Article 3(8) of the SEA Directive provides such an exemption only for plans and programmes the sole purpose of which is to serve national defence or civil emergency. Ukraine should fully implement the SEA provisions for recovery programmes not covered by this provision. The SEA for the draft National Energy and Climate Plan is not initiated despite that the draft document is in an advanced stage. Considering that the access to environmental information is very limited, identifying the relevant authorities and the public concerned, as stipulated in Article 6 of the SEA Directive, is a precondition for successful and effective consultations.

#### SULPHUR IN FUELS

87% 1



Ukraine transposed the 1,00% sulphur threshold for heavy fuel oil and the 0,10% threshold for gas oil as well as the provisions on marine fuels. The current situation does not make systematic compliance monitoring of the products concerned possible.

The military aggression and the targeted destruction of the Ukrainian energy infrastructure puts environmental compliance of the implementation of the National Emission Reduction Plan (NERP) into jeopardy. Despite the extremely challenging circumstances, Ukraine complied with its reporting obligations under the Large Combustion Plants Directive in March 2022 by submitting its emissions data to the European Environment Agency for the reporting year 2021. Furthermore, the Ukrainian Government keeps the implementation of the NERP as a priority, which is to be highly commended. In the 2021 reporting year, the emission ceilings for all three pollutants were met and a decrease of sulphur dioxide and nitrogen oxides emissions was recorded, while dust emissions have increased slightly.

Under the current circumstances and with large parts of the thermal power plant infrastructure destroyed or damaged, the implementation of the opt-out rules for the plants concerned cannot be expected. The operating hours of the plants concerned are, however, reported together with emissions data and the Secretariat will support Ukraine in finding feasible solutions.

#### NATURE PROTECTION

**40% \** 



The Law on the Territories of the Emerald Network, which will define the legal and organizational framework for the sites and areas protected under the Convention on the Conservation of European Wildlife and Natural Habitats and other international instruments, was not adopted as Ukraine declared martial law due to the Russian military aggression. Ukraine ordered the State Environmental Inspectorate to identify and assess the physical damage to sensitive landscapes and the loss of forest and nature protection sites by the Russian military aggression. In its preliminary assessments, the Inspectorate noted that serious damage is identified in the Black Sea Biosphere Reserve and that almost 400.000 hectares and 14 Ramsar sites along the coastline and lower reaches of the Dnipro river are impacted by the Russian military actions.

#### **ENVIRONMENTAL LIABILITY**

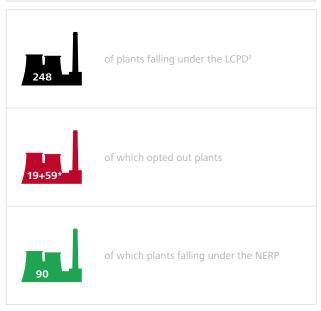
20%

Ukraine has partially transposed the Environmental Liability Directive by the relevant provisions of the Law on Environment (civil liability), the Code of Ukraine on Administrative Offenses (administrative liability) and the Criminal Code of Ukraine (criminal liability).

#### **RECOMMENDATIONS / PRIORITIES**

The exemptions for reconstruction projects, plans and programmes introduced by several acts should be fully aligned with the EIA and SEA Directives. Options for disclosing environmental information to the public concerned should be considered under martial law. Due to the currently ongoing military aggression against the Contracting Party and with particular regard to the attacks on the energy infrastructure, no recommendations are given with regard to the large combustion plants.

#### Installations under the Large Combustion Plants Directive



\*Under Decision 2015/07/MC-EnC, certain plants in Ukraine are entitled to use 40.000 hours for opted out plants. 59 plants fall into that category.

Source: compiled by the Energy Community Secretariat

#### 2021 emissions versus NERP ceilings



#### Amount of operational hours used from opt-out period<sup>4</sup>

Average of plants under Decision 2013/05/MC-EnC <sup>5</sup>	Expected expiry of opt-out period:*	December 2023
Decision 2015/05/IVIC Enc	Remaining hours	11.262
	Operating hours consumed in 2018 - 2021	8.738
Average of plants under Decision 2015/07/MC-EnC <sup>6</sup>	Expected expiry of opt-out period	December 2033
Decision 2015/07/Mic-Enc	Remaining hours	30.968
	Operating hours consumed in 2018 - 2021	9.032

\*Calculations for the expected expiry of the opt-out period are based on 2018 - 2021 average load factor. Source: compiled by the Energy Community Secretariat

- Wkraine revised its NERP and plant inventory in 2019, updated the number of plants based on the common stack approach and included all district heating installations, which modified the total number of plants. The NERP ceilings were not changed. For 80 plants, no derogations apply.
- 4 Due to the large number of plants under the opt-out regime in Ukraine, an average for both opt-out regimes is being provided. The expected expiry of the opt-out is also provided based on this average. It varies on a plant-by-plant basis.
- 5 Under the regime of Decision 2013/05/MC-EnC, opted-out plants can remain in operation for a total of 20.000 operational hours until 31 December 2023.
- 6 Under the regime of Decision 2015/07/MC-EnC, which amended Decision 2013/05/MC-EnC to reflect the special situation of Ukraine, certain opted-out plants can remain in operation for a total of 40.000 operational hours until 31 December 2033. The list of plants was adopted by Decision 2016/19/MC-EnC.



#### **CLIMATE IMPLEMENTATION**

#### NATIONAL GREENHOUSE GAS EMISSIONS MONITORING AND REPORTING SYSTEMS

86% |

Ukraine submitted its National Inventory Report in May 2022.

A series of workshops supported by international donors was launched in 2021 and continued in 2022 to discuss the design elements and options for an emission trading scheme. The system for monitoring, reporting and verification and installation-level GHG emissions has been in place since 2021.

# NATIONAL ENERGY AND CLIMATE PLANS (NECPS)

46% II

The draft climate law is being developed with external support. It is expected to transpose the climate related elements of the Governance Regulation.

The draft NECP should be revised in light of the mounting rebuilding efforts to put Ukraine on a path of low-carbon development.

#### **RECOMMENDATIONS / PRIORITIES**

Ukraine is encouraged to continue establishing its planned cap and trade system for carbon pricing. The current draft of the NECP should be overhauled and updated.



#### STATISTICS IMPLEMENTATION

#### **ANNUAL STATISTICS**

n.a

#### PRICE STATISTICS

n.a

Under martial law, SSSU was not in a position to produce relevant official statistics. Annual questionnaires for 2020 were not transmitted and published in the respective databases.

#### **MONTHLY STATISTICS**

n.a

Submission of monthly questionnaires was suspended as of February 2022.

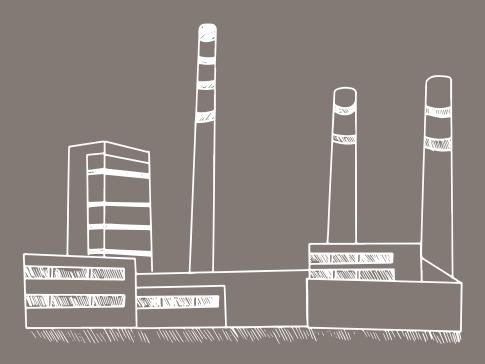
semester 2021 was March 2022, SSSU's latest release on electricity and natural gas prices reflects the first semester 2021.

Since the deadline for the submission of price data for second

#### **RECOMMENDATIONS / PRIORITIES**

Proving that SSSU has undertaken work on improving the methodologies and questionnaires and overall efficiency of the reporting systems, it is expected that methodological documents will be improved and corresponding quality reports drafted and transmitted to EUROSTAT and reporting resumed at the latest three months after the termination of martial law.

# 12-14 Annexes





# 12 Annual Report

# Annual Report on the Activities of the Energy Community 2021-2022

The Annual Report on the activities of the Energy Community outlines key actions and achievements in the period from 1 November 2021 to 1 November 2022 following the requirements of Article 52 of the Energy Community Treaty.

This reporting period was probably the most challenging year for the Energy Community yet. The Russian war of aggression against Ukraine (the Contracting Party holding the 2022 Energy Community Presidency) tested the resilience of the organization's institutions and their ability to adapt to rapidly changing circumstances. With a new Director at its helm, Mr Artur Lorkowski, the Energy Community Secretariat expanded and amplified its efforts to support the Contracting Parties in modernizing and greening their energy sectors as well as making them more resilient. Since the beginning of the war, the Secretariat provides logistical support and acts as fiduciary for international donations to the energy sector in Ukraine to counteract the impact of the Russian invasion.

#### **Clean energy for all Europeans**

Despite the extremely difficult circumstances, the Energy Community Contracting Parties and institutions continued to progress with implementation of the Clean Energy for all European Package and contributing to the achievement of the goals of the European Green Deal.

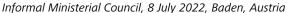
At its meeting in Belgrade on 30 November 2021, the Energy Community Ministerial Council adopted the Clean Energy for all Europeans package under the presidency-in-office of the Republic of Serbia. The package covers legislation in the areas of energy efficiency, renewables, governance, electricity market design and electricity security of supply rules.

The Council also adopted the Decarbonisation Roadmap for the Contracting Parties of the Energy Community, a political document outlining the sequence of adoption, transposition and implementation of decarbonisation-focused rules in order to put the Contracting Parties on a path towards achieving 2030 and mid-century decarbonisation targets.

In 2022, the focus turned to transposition and implementation of the Clean Energy Package supported by the Energy Community Secretariat.

At the Informal Energy Community Ministerial Council on 8 July 2022 in Baden, Austria, Ministers concluded negotiations on the level of 2030 targets for energy efficiency, renewables and greenhouse gas emission under the presidency-in-office of Ukraine. The Contracting Parties reached a high level of ambition on targets for energy efficiency, putting a cap on the amount of final and primary energy consumption, boosting renewables and reducing greenhouse gas emissions by 2030, in line with the commitment to achieve climate neutrality of their economies by 2050. The targets are expected to be formally adopted at the Energy Community Ministerial Council in December 2022.







The Secretariat continued to support the Contracting Parties in the development of National Energy and Climate Plans. Albania and North Macedonia were the first Contracting Parties to adopt this critical guiding instrument for their energy transition paths.

#### Winter preparedness in times of war

Russia's invasion of Ukraine on 24 February significantly reshuffled existing energy supply chains and marked a point of no return for the energy transition. While Ukraine is most deeply affected, the conflict has strong implications on all other Energy Community Contracting Parties and EU Member States. The Energy Community and its Secretariat immediately set to work to provide practical solutions to help Ukraine and to mitigate the impacts of a potential gas supply disruption by the Russian Federation.

The Secretariat initiated emergency security of supply coordination group meetings for electricity and gas to prepare for a possible gas supply disruption by the Russian Federation and outlined technical and regulatory measures to support the diversification of gas supplies to the Contracting Parties. The Secretariat outlined concrete measures to use existing gas infrastructure more efficiently and take advantage of new supply routes in a report published under the "SEEGAS Initiative".

Less than four months after its adoption in the European Union, the Ministerial Council of the Energy Community adopted by written procedure the Gas Storage Regulation to strengthen security of gas supply. The Contracting Parties are also taking part in the EU's joint gas purchasing initiative.

#### **Tackling rising energy prices**

The picking up of global energy demand due to increased economic activity necessary for economic recovery from the COVID-19 pandemic, combined with the direct and indirect consequences of Russia's war against Ukraine, resulted in a surge in energy commodity prices. Rapidly rising energy prices are a growing concern in the Contracting Parties where citizens already suffer from high levels of energy poverty. Addressing the impact of the high energy prices was a key focus of the Energy Community during this reporting period.

The Energy and Climate Committee on 12 April 2022 in Vienna kicked off the discussion on measures to address high energy prices, which continued at the Informal Energy Community Ministerial Council on 8 July 2022 in Baden, where ministers reflected on ways to act in a coordinated way.

Energy Community Contracting Party Ministers and Director Lorkowski discussed the response to high energy prices with EU Energy Ministers at the informal ministerial council meeting on 12 October 2022 in Prague. The importance of the Energy Community as a framework for tackling joint energy challenges and coordinating actions to ensure the stability of the European energy system was underlined.

Against this backdrop, the European Union announced the Energy Rescue Scheme for the Western Balkans, which will

encompass immediate measures in the form of budget support to cushion energy price increases as well as support to boost investment in energy connections, energy efficiency and renewable energy and other measures. The EU support reflects priorities under the Energy Community framework.

The Secretariat and the Energy Community Regulatory Board are monitoring the impact of the price surge and compliance of the measures taken in response in line with their respective competences.

#### **Fast forwarding market integration**

All institutions of the Energy Community worked towards advancing the establishment of a truly integrated energy market between the Energy Community Contracting Parties and neighbouring EU Member States as a way to contribute to strengthening energy security.

The synchronization of the electricity networks of Ukraine and Moldova with the Continental European power system was the biggest breakthrough. The gradual opening of electricity trade between European Union and Ukraine and Moldova following the emergency synchronization was a critical milestone for improving energy security.

Preparations to adopt the new electricity market and systems integration package at the December 2022 Ministerial Council continued. The package consists of the new Electricity Regulation, the ACER Regulation, the Network Code on Emergency and Restoration (ER) and four market and system operation Guidelines, accompanied by a Procedural Act on fostering regional energy market integration in the Energy Community.

#### Advancing the just energy transition

The Energy Community Secretariat continued supporting the Contracting Parties in their decarbonisation pathways, focusing on just transition aspects and assistance to regions dependant on coal mining and coal-fired power generation. The Secretariat assisted 12 municipalities in the Western Balkans that are part of the Energy Community Clean Air Regions Initiative (CARI) in drafting and implementation of local air quality action plans.

Against the backdrop of rapidly rising energy prices and inflation and heightened need to effectively tackle energy poverty, Director of the Energy Community Secretariat, Mr Artur Lorkowski, established a new Centre for Alleviating Energy Poverty in the Energy Community Contracting Parties. The Centre collects data and information on the causes and impact of energy poverty in the Energy Community Contracting Parties and promotes the development of appropriate policies and measures for reducing energy poverty following the acquis communautaire.

The Secretariat expanded the scope of the Energy Transition Tracker to cover not just the Western Balkans but also Georgia, Moldova and Ukraine. The tracker takes stock of their progress in reducing emission footprints, improving functioning of the energy markets, scaling up renewables, improving energy efficiency and planning for the decarbonised energy future.

Under the Gender Equality Initiative, the Secretariat continued to develop evidence-based responses, policies and legislation and raise awareness of the importance of collecting gender-disaggregated data in the energy sector to inform energy analysis. To facilitate gender-disaggregated data collection, the Secretariat published policy guidelines explaining why data are essential to evaluate and track the pivotal role of women, also as prosumers, in the energy sector.

Director Lorkowski joined the International Gender Champions (IGC) leadership network in March 2022.

Apart from hands-on practical support, the Secretariat organized the Energy Community Just Transition Forum in cooperation with the Balkan Green Foundation, CEE Bankwatch Network and Climate Action Network (CAN) Europe. Opened by H.E. Zorana Mihajlović, Deputy Prime Minister and Minister of Mining and Energy of Serbia, the Forum was hosted by the Bosnian public electric utility company Elektroprivreda BiH at its headquarters in Sarajevo. The Forum gathered representatives of national, regional and local governments of the Energy Community Contracting Parties, high-level officials as well as representatives of civil society, academia, international organisations, trade unions and youth.





Energy Community Just Transition Forum, 12 July 2022, Sarajevo, Bosnia and Herzegovina

# **Energy Community Secretariat Ukraine support activities**



In the immediate aftermath of Russia's invasion of Ukraine, the Energy Community Secretariat came to Ukraine's aid by establishing the Ukraine Support Task Force and the Ukraine Energy Support Fund.

The Task Force supports Ukraine by coordinating the donation process and the door-to-door delivery of specialized energy equipment, fuel and materials needed to repair the infrastructure damaged during the war. The Task Force cooperates closely

with the European Commission and particularly the Emergency Response Coordination Centre (ERCC) of the European Commission's Directorate-General for European Civil Protection and Humanitarian Aid Operations.

As of 15 October, the Secretariat engaged in delivering 26 shipments, in total 500 tons of equipment, tools and materials, with an estimated value EUR 2,7 million. 21 more shipments of ca. 2.600 tons were in preparation, with an estimated value of EUR 8,5 million. North Macedonia was the first Energy Community Contracting Party to donate emergency energy equipment to Ukraine.

Upon request of the European Commission and in agreement with the Ministry of Energy of Ukraine, the Energy Community Secretariat set up the legal framework for the Ukraine Energy Support Fund to counteract the impact of the Russian invasion. The Fund enables governments and international financial institutions to provide emergency financial support to the Ukrainian energy sector. The Secretariat acts as fiduciary of the Fund as well as an intermediary between the donors and the Ukrainian authorities. The fund has received first donations from the Government of Denmark and the Energy Regulators Regional Association (ERRA).

# Nine electronic registries for guarantees of origin are ready to drive renewables uptake in the Energy Community

Under the regional project launched by the Energy Community Secretariat in January 2022, electronic registries for guarantees of origin were created for Albania, two entities in Bosnia and Herzegovina, Georgia, Kosovo\*, North Macedonia, Moldova, Montenegro and Ukraine. All nine registries are ready to go-live following the signing of direct agreements between the Contracting Parties' issuing bodies and the service provider Grexel. Once in place, the system of guarantees of origin will serve as an important instrument to boost renewables investment and drive the energy transition.

# **EU4Energy Governance (Phase II) "Promoting the clean energy transition"**



The Energy Community Secretariat is one of the implementing partners of the EU4Energy (Phase II) "Promoting the clean energy transition" technical assistance project, co-funded by the EU4Energy Programme of the European Union. The objective of the EU4Energy Governance Project Phase II is to achieve the clean energy transition, increase energy security in three Eastern partner countries (Georgia, Moldova and Ukraine) and facilitate access to energy to the distressed population in Ukraine to mitigate the impact of the war.

Throughout the action (between 2020 and 2024), the Secretariat will work with stakeholders in Georgia, Moldova and Ukraine in order to assist them with the drafting, transposition and implementation of energy reforms, including the Clean Energy for all Europeans Package. The targeted sectors are electricity, gas (including hydrogen), energy efficiency and renewable energy. The Project will also facilitate knowledge transfer to the relevant public authorities via various capacity building activities.

EU4Energy has identified the specific activities that will be implemented until the end of 2022 in Georgia, Moldova and Ukraine.

In April 2022, the Energy Community reinforced its engagement in Moldova by opening an office in Chisinau, financed under the EU4Energy project. It is an additional instrument to help Moldova in modernizing its energy sector and making it more secure and resilient to current and future challenges in line with Energy Community rules and principles. The project now has regional offices in all three Eastern partner countries.

#### **Communications and outreach**

Communications and outreach is crucial to the work of the Energy Community. The Secretariat continued to strengthen the visibility of the Energy Community to raise awareness and share success stories. The Secretariat used various channels to connect with the Energy Community's target audience.

The Energy Community public website continued to serve as the main stakeholder communication tool. Compared to the 2021 reporting period, both the number of users and page views increased by more than 20%. In 2022, the site underwent a migration, which equipped the site with a faster, more secure server infrastructure. In addition, back-end improvements in the area of event and user management were carried out, resulting in increased automatisation and improved mailing tracking.

The Secretariat increased its presence on social media, with LinkedIn followers nearly doubling during the reporting period. Moreover, the Secretariat continued to serve as the focal point for journalists seeking pertinent information on energy and climate sector developments in the Contracting Parties. Statements by Energy Community representatives featured in major media outlets, including the Financial Times, Politico, Reuters and ICIS.

Following the end of the Covid-19 restrictions, the Secretariat transitioned to hosting onsite and hybrid events as well as continued with virtual formats based on the needs of the stakeholders. Apart from organizing its traditional stakeholder fora in the areas of just transition, electricity, gas, oil, law, competition and dispute resolution, the Energy Community organized the High Level Event on the Security and Stability of the Ukrainian Energy Sector during the War and its Post-War Revitalisation to mobilize support for the Ukrainian energy sector shortly after the beginning of the war.





High Level Event on the Security and Stability of the Ukrainian Energy Sector during the War and its Post-War Revitalisation, 10 April 2022, Vienna, Austria

At the 2022 Energy Community Summer School in Sarajevo, nearly 50 students engaged in hands-on learning about the energy transition. The goal of the annual summer school organized by the Secretariat and its partners is to empower a new generation of energy and climate professionals to engage and drive forward the energy transition.

In the course of this reporting period, the Secretariat issued numerous publications and studies to further assist the Contracting Parties in the implementation of the Energy Community acquis. As in previous years, the Secretariat's Annual Implementation Report was the most downloaded document from the Energy Community website.

#### Communications and outreach in numbers

200,197 Unique website visitors	134 News items	559,869 Page views
10 Publications	3 Studies	9.484 LinkedIn followers

#### **Staff**

During the reporting period, the Energy Community Secretariat engaged 35 permanently employed professionals, bringing diverse expertise from all programmatic and support areas covered by the Energy Community. Apart from its permanent staff members, 31 temporary personnel, engaged for a period of 1 to 12 months each, including interns, secondees, research fellows and locally recruited staff, made valuable contributions to the Secretariat's work.

#### **Budget 2021**

The Energy Community is funded by contributions from the Parties to the Energy Community Treaty. The ordinary budget amounted to EUR 4.813.608 plus an extraordinary budget amounted to EUR 693.963 (provided by 7 different donors) totalling the annual 2021 budget to EUR 5,507,571.



# 13 Report of the Energy Community Secretariat on Enforcement and Dispute Resolution Activities

#### Reporting period 2021 - 2022

Based on Article 67(b) of the Treaty establishing the Energy Community, the Secretariat reviews the proper implementation by the Parties of their obligations under the Treaty and initiates dispute settlement procedures when needed (Article 90 of the Treaty). The Secretariat reports annually on implementation and, in accordance with Article 2(5) of the Energy Community Dispute Settlement Rules as amended in 2015 (the "DSR"), submits to the Ministerial Council an annual report on the application and interpretation of Energy Community law by national authorities of the Contracting Parties within the framework of cooperation between the Secretariat and the national authorities of the Contracting Parties. Finally, the Secretariat's Procedural Act on the Establishment of a Dispute Resolution and Negotiation Centre (the "Centre"), together with Article 19(2) of the Dispute Settlement Rules require the Centre to draft a report on the results of the negotiations and the closure of the cases for submission to the Ministerial Council.

The present report covers these three sets of dispute resolution activities with the involvement of the Secretariat and is divided in three parts: activities based on Articles 90 et seq. of the Treaty related to dispute settlement cases (Part I), activities based on Article 2 of the DSR related to cooperation with national authorities (Part II) and activities of the Dispute Resolution and Negotiation Centre (Part III).

#### **Part I: Dispute settlement cases**

By the time of drafting the present report, twenty (20) cases were open in preliminary procedure under Article 91 of the Treaty, of which three (3) have been referred to the Ministerial Council by way of Reasoned Requests under Article 91 of the Treaty. Five (5) cases have been referred to the Ministerial Council under Article 92 of the Treaty.

Reasoned Requests submitted to the Ministerial Council for a Decision under Article 91 of the Treaty

On 14 July 2022, the Secretariat submitted two Reasoned Requests to the Ministerial Council under Article 91 of the Treaty based on Article 11(3) of the Dispute Settlement Rules for non-transposition of acquis communautaire. Those cases address the lack of transposition of Regulation (EU) 1227/2011 (REMIT Regulation) in Case ECS-4/22 against North Macedonia and the non-transposition of Directive 2014/52/EU amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment in Case ECS-5/22 against Kosovo\*. In addition, a Reasoned Request in Case ECS-5/17 against Bosnia and Herzegovina related

to lack of distribution system operator unbundling had already been submitted to the attention of the Ministerial Council of 2021 but not yet decided, and hence will feature on the agenda of the Ministerial Council meeting in December 2022 again.

Requests submitted to the Ministerial Council for a Decision under Article 92 of the Treaty

On 24 September 2021, the Secretariat submitted two Requests inviting the Ministerial Council to establish serious and persistent breaches by individual Parties to the Treaty. The first of those addresses breaches by **Serbia**, namely the lack of unbundling of the gas transmission system operator Yugorosgaz-Transport in Case **ECS-10/17 S**, and the failure to ensure third party access to the Horgos interconnection point between Serbia and Hungary in Case **ECS-13/17 S**. The second Request addresses breaches by **Bosnia and Herzegovina**, namely the lack of implementing the Second Energy Package in gas in Case **ECS-8/11S**, the lack of transposition of the Third Energy Package in Case **ECS-6/16 S** and the lack of implementation of Directive 1999/32/EC on Sulphur in Fuels in Case **ECS-2/13 S**.

Cases where breaches have been established by the Ministerial Council Decision (Article 91 of the Treaty) which have been subsequently rectified by the Party in question

Two cases in which the Ministerial Council adopted a decision establishing a breach under Article 91 of the Treaty have been complied with by the Contracting Parties concerned during the reporting period. With the entry into force of the Law on Surveillance of Electricity and Natural Gas Wholesale Market on 10 January 2022, the REMIT Regulation has been transposed and **Montenegro** ensured compliance with the Ministerial Council Decision in Case **ECS-3/21**. On 29 June 2022, the State Aid Council of **Bosnia and Herzegovina** annulled its previous decision accepting that the guarantee by the Federation of Bosnia and Herzegovina for a loan to finance the Tuzla 7 coal-fired power plant project constitutes illegal State aid which the Federation's Ministry of Finance is obliged to recover. This decision remedies the breach identified by Ministerial Council in Case **ECS-10/18**.

Cases where breaches have been established by the Ministerial Council Decision (Article 91 of the Treaty) which have not been subsequently rectified by the Party in question

Five cases in which the Ministerial Council adopted decisions establishing breaches under Article 91 of the Treaty in 2021 have not been complied with by the Contracting Parties concerned. These are Cases **ECS-4/21** against **Ukraine** concerning the lack of transposition of the REMIT Regulation, **ECS-7/18** 

against **Moldova** for non-transposition of Directive 2001/80/ EC on the limitation of emissions of certain pollutants into the air from large combustion plants and Chapter III and Annex V of Directive 2010/75/EU on industrial emissions, as well as **ECS-22/21** against **North Macedonia**, **ECS-23/21** against **Serbia**, and **ECS-24/21** against **Moldova** for the non-transposition of Directive 2014/52/EU amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

In addition to those cases, the Contracting Parties concerned have not complied with several Decisions by the Ministerial Council establishing breaches under Article 91 of the Treaty adopted at earlier meetings. This concerns Cases ECS-3/18 against Bosnia and Herzegovina and ECS-4/18 against Ukraine for the non-transposition of Regulation (EU) 347/2013 on guidelines for trans-European energy infrastructure, and Case ECS-1/14 against Bosnia and Herzegovina for lack of transposition and implementation of Directive 2006/32/EC on energy end-use efficiency and energy services, as well as Cases ECS-9/13 and ECS-9/13 against Serbia for unbundling of natural gas transmission systems operators.

Finally, **Bosnia and Herzegovina** and **Serbia** have also not complied with a number of Ministerial Council Decisions adopted already in the past and subject to Requests under Article 92 of the Treaty.

Open preliminary procedures in 2022

Currently, there are seventeen (17) more cases subject to a preliminary procedure that have not been referred to the Ministerial Council by way of Reasoned Requests under Article 91 of the Treaty. Out of those, four (4) cases have been opened after last year's Implementation Report: Cases ECS-3/20 against Moldova concerning failure to adopt the necessary legislative framework in order to enable the operation of virtual reverse flows in breach of Article 32(2) of the CAM Network Code, ECS-33/21 and ECS-1/22 against Bosnia and Herzegovina concerning State aid in the form of an exemption from the payment of a toll for diesel fuel used by mines and thermal power plants, and the Large Combustion Plants Directive in the case of thermal power plants Tuzla 4 and Kakani 5, which continue to operate despite the expiry of their limited lifetime derogation period and ECS-2/21 against Serbia for failing to make commercial electricity capacity available at two interconnection lines.

# Part II: Report on cooperation with national authorities under Article 2 DSR

Article 2 DSR provides for a cooperation mechanism between national authorities and the Secretariat by which national authorities can ask the Secretariat for assistance regarding questions of interpretation or application of Energy Community law. In the past reporting period, this mechanism has been used once

In **Kosovo\***, the Secretariat was consulted by the State aid authority regarding the obligation of notification of State support to address the emergency situation on the electricity market.

#### Part III: Activities of the Energy Community Secretariat's Dispute Resolution and Negotiation Centre

The Energy Community Secretariat's Dispute Resolution and Negotiation Centre has continued to be involved in the settlement of disputes in the Contracting Parties, thus increasing regulatory stability for the benefit of consumers, governments and investors alike. Taking into account the general instability on the energy markets throughout the region, most of the instances in which the Dispute Resolution and Negotiation Centre provided support remained at an informal level.

In Moldova, the biggest private investor in the gas market, Rotalin Gas Trading SRL (*Rotalin*), turned to the Dispute Resolution and Negotiation Centre for mediation of its dispute with the Government of Moldova and the energy regulator ANRE in relation to alleged unrecovered investments and distribution tariffs. A Memorandum of Understanding was signed on 21 December 2021. The initial three-month period agreed between the parties for the mediation expired without an agreement being reached. On 30 June 2022, Rotalin formally initiated arbitration proceedings against Moldova before the International Centre for Settlement of Investment Disputes (ICSID). At the end of September 2022, the parties agreed to a proposal by the mediator to resume mediation proceedings. The proceedings are ongoing.

The Secretariat's Dispute Resolution and Negotiation Centre has also offered its services to the Ukrainian Government and Ukrainian energy companies for the preparation of legal claims against the Russian Federation for its intentional destruction of Ukraine's energy infrastructure and generation facilities. The Centre will coordinate legal and strategic support for Ukraine and Ukrainian energy companies in order to identify the most suitable fora where such claims will be filed.



# 14 Methodology Used For Calculating Implementation Indicators

#### **Background**

For its assessment underpinning the findings of this report, the Secretariat used specific indicators for the assessment of implementation, and a methodology to calculate the summary indicators and the overall implementation score.

The implementation indicator tables are based on a methodology quantifying the Contracting Parties' success in transposing and implementing the acquis and having in place effective institutions. It is based on standardised assumptions and evaluations, cases under the Energy Community's dispute settlement mechanism, country missions, review of legislation, market analysis, expert interviews and desk research. The quantification of all figures used to measure implementation was performed by experts of the Energy Community Secretariat.

The final dataset entailed more than 2.000 individual values that were used to produce 37 key implementation indicators across the areas of work assessed by this Implementation Report.

#### Implementation assessment

The implementation assessment is based on a system of performance indicators aggregated at several levels.

- **1.** A total of 37 **implementation indicators** agregated per each Contracting Party across the areas of work: electricity, gas, oil, renewable energy, energy efficiency, environment, climate, national authorities and statistics. Aggregation is based on the weighting explained in the table below, and results presented for each Contracting Party (chapters 3-11);
- **2. Key sectoral implementation indicators** aggregating the values at sectoral level: electricity, gas, oil, sustainability (including renewable energy, energy efficiency, environment, climate), used in summary visualization (Overview of Implementation Performance by Contracting Parties, see page 7);
- **3. Summary indicators** the overall implementation score for each Contracting Party and overall (average) implementation score for the Energy Community calculated based on the weighting explained in the table below, and presented on page 7.

All of the values are normalised to percentages between 0% and 100%, where 100% implies full implementation.

For the Contracting Parties where certain indicators are not applicable (for example due to the lack of a gas market in Kosovo\* and Montenegro), these indicators were not taken into account in the overall score, but the remaining indicators were increased in weight, where justifiable.

#### Implementation indicator structure and weighting

Indicator name	Indicator weight
Overall Implementation Indicator	1,00
1. Electricity	0,29
Unbundling	0,15
Access to the system	0,20
Wholesale market	0,20
Retail market	0,15
Regional integration	0,20
Security of supply	0,10

2. Gas	0,28
Unbundling	0,25
Access to the system	0,25
Wholesale market	0,15
Retail market	0,15
Interconnectivity	0,10
Security of supply	0,10
3. Oil	0,06
Stockholding obligation	0,75
Fuel specifications of petrol, diesel and gas oil for non-road mobile machinery	0,25
4. Sustainability	0,30
4.1. Renewable Energy	0,30
National Renewable Energy Action Plan	0,35
Quality of support schemes	0,28
Grid integration	0,12
Administrative procedures and guarantees of origin	0,15
Renewable energy in transport	0,10
4.2. Energy Efficiency	0,30
Energy efficiency targets and policy measures	0,20
Energy efficiency in buildings	0,20
Energy efficiency financing	0,20
Energy efficient products - labelling	0,20
Efficiency in heating and cooling	0,20
4.3. Environment	0,30
Environmental impact assessment (EIA) and strategic environmental assessment (SEA)	0,30
Sulphur in fuels	0,15
Large combustions plants and industrial emissions*	0,30
Nature protection	0,15
Environmental liability	0,10
4.4. Governance and climate	0,10
National greenhouse gas emissions monitoring and reporting systems	0,50
National Energy and Climate Plans (NECPs)	0,50
5. Institutions	0,045
Regulatory authority	0,50
Competition authority	0,25
State aid authority	0,25
6. Statistics	0,025
Annual statistics	0,40
Monthly statistics	0,20
Price statistics	0,40

<sup>\*</sup> in the case of Albania, the "Large combustions plants and industrial emissions" indicator is omitted from the final result as the Contracting Party does not have any plants in operation

Energy Community Secretariat (ECS)
Am Hof 4, 1010 Vienna, Austria
Phone: 0043 (0)1 535 2222
Fax: 0043 (0)1 535 2222 11
Email: info@energy-community.org

Web: http://www.energy-community.org