

CLIMATE CHANGE, ENERGY AND ENVIRONMENT

LEGISLATIVE FRAMEWORK OF THE ELECTRICITY SECTOR IN THE REPUBLIC OF NORTH MACEDONIA AND ITS INTERNATIONAL STANDING

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The energy transition in North Macedonia must inevitably follow the path of the EU's Clean Energy for all Europeans package



On this path, it is our responsibility to respect the techno-economic specificities of existing energy systems and to achieve a transition that ultimately benefits society



Let us not disregard the prevailing energy poverty in the country and instead overcome it in a just manner



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FOREWORD

The strategic goals and commitments of a country are vital for the attainment of sustainable development. In light of this, the strong determination of the Republic of North Macedonia for membership into the European Union and the status of Party to the Energy Community Treaty are the foundations of the legal framework of the energy sector in the country and its positioning on the international setting. On the one hand, our strategic objectives need to be the roadmap for reaching further decisions in the energy sector, which is a key economic sector, whose harmonisation with the European legislation will help our integration into functional energy market and further approximation to the European Union. On the other hand, they need to create opportunities for a just transition which will also lead to decarbonisation, new jobs and environmental improvement.

As part of its activities and tasks, the Friedrich-Ebert-Stiftung, Skopje Office has been focusing in particular to the development of strategies and supporting discussion on the key issues of relevance for the economic and social challenges in the country and the region, and on topics that create possibilities for promoting democracy. The challenges facing the energy sector have a pivotal role in defining the further economic and social potential and development of the country. They are also conducive to further democratisation, not only by citizens' participation in the decision-making but also by their active participation in all markets, either by their electricity production for self-consumption, exchange or sales, or by providing

services for energy storage. This is a unique opportunity for end users to benefit from the transition towards renewable energy sources and which we will only refer to as "just" if it involves all stakeholders on equitable terms, and in particular the end users, either as prosumers or through the energy cooperatives.

This publication, in which the authors elaborately explain the legal aspects of the energy transition of the Republic of North Macedonia, will feed into the on-going and future discussions among all shareholders on this topic, including civil society organisations, trade unions and the academic community. The commitments for developing a welfare and just society where energy poverty is much more than just numbers, which are striving to tackle all challenges of climate change, are an inextricable part of the motives behind the European energy *acquis*. By harmonising our legislation with the *acquis*, a process which has been marked by notable success recognised by the Energy Community as the one of the best in the region, we will not only manage to address all challenges but will also invite possibilities to create a secure and stable power system, to open new and safe jobs and reap the benefits of improved protection of our health in a healthy environment. The gap analysis, which is an addendum to this publication, provides clear and concise indications on the future steps for further harmonisation with the legislative solutions, exploring thereby the positive aspects and opportunities we need to use as a country and as a region.

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This publication is a result of the joint will and cooperation between the University "Ss. Cyril and Methodius", the Faculty of Electrical Engineering and Information Technologies in Skopje (UKIM/FEIT) as part of a European Project under the "Horizon 2020 Program" titled "Cross border management of variable renewable energies and storage units enabling a transnational wholesale market (CROSSBOW)," the Friedrich-Ebert-Stiftung Office in Skopje, and the the FES SOE Office (Friedrich-Ebert-Stiftung Dialogue Southeast Europe) seated in Sarajevo. Through mutual understanding, it was established that this study, which includes research on the European, regional and national visions for the development of the energy sector, as a significant economic segment which has the potential of making a substantial positive contribution to helping tackle global climate change, can truly help improve the different facets of the social being of the Republic of North Macedonia.

Additional to the already mentioned application of this publication in the foreword, the authors wish to recall of its academic benefits for the teaching process at UKIM/FEIT. Part of this material will be taught in several courses in the first and second academic cycles at FEIT: Electricity markets and Regulation in electricity sector (first cycle of studies), as well as Regulation in energy sector and Applied support schemes for renewable energy sources and energy efficiency (second cycle of studies).

Due to the above, the authors wish to express their gratitude to the Friedrich-Ebert-Stiftung, Skopje Office and the Horizon 2020 program of the European Commission, through the CROSSBOW Project, which made possible the creation and publication of this work.

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1

INTRODUCTION

The Republic of North Macedonia as a country-candidate for fully-fledged **membership into the European Union (EU)** is facing the challenges of efficient implementation of serious reforms in its societal system. The EU membership aspirations inevitably entail increased awareness about the need to fulfil the standards in several areas, of which the energy area has a particular meaning for its overall development. The principles of cooperation with the EU in the energy sector are envisioned to reflect the principles of market economy and the Energy Charter Treaty and to develop with a view to gradual integration into the European energy markets, whereby that cooperation will, in particular, entail the following [1]:

- formulation and planning of energy policy, including modernisation of infrastructure, improvement and diversification of supply and improvement of access to the energy market, including facilitation of transit,
- the promotion of energy saving, energy efficiency, renewable energy and studying the environmental impact of energy production and consumption,
- formulating framework conditions for restructuring of energy utilities and cooperation between undertakings in this sector,
- management and training for the energy sector and transfer of technology and know-how.

The EU Council decision from 30 January 2006 on the principles, priorities and conditions contained in the European Partnership with the Republic of North Macedonia on the energy sector includes the following priorities:

- aligning the legislation on the internal electricity and gas markets, energy efficiency and renewable energy sources (RES) with the *acquis communautaire* in order to gradually open the energy market to competition,
- strengthen the independence of the Energy Regulatory Commission,

- start implementing the Energy Community (EnC) Treaty,
- enhance administrative capacity in all energy sectors.

The Republic of North Macedonia is a signatory to the **Energy Charter Treaty**¹. Established in the early transition years, this Treaty, among else, sought to intensify cooperation in the energy sector between Western Europe and the western ex-socialist countries. Along with the signing of the Energy Charter Treaty, the **Protocol on Energy Efficiency and Related Environmental Aspects** was signed.

The Energy Charter lays down the following main goals:

- protection and incentivising foreign investments in the electricity sector, underlining thereby that investments in the energy sector will have positive implications on employment and accelerating growth of every country, especially in the region and as a whole,
- non-discriminatory conditions for trade in energy materials, products and electricity-related equipment based on World Trade Organisation rules,
- free energy transit through pipelines for oil, petroleum products and natural gas and through energy grids,
- safeguarding solid competition on the single market and using the economies of scale,
- reducing negative impacts of the electricity sector on the environment and implementing standing European environmental standards – for the existing (older) energy facilities they can be more lenient, but no exception is applicable for the new energy facilities,
- increasing energy efficiency,
- creating mechanisms for resolving disputes among states or between states and investors.

¹ This Treaty is ratified by 51 countries and the European Community. The Republic of North Macedonia ratified it with a Law in 1998

The Protocol on Energy Efficiency and Related Environmental Aspects prescribes the obligations of the Contracting Parties for formulating clear political objectives on increasing energy efficiency and abatement of negative impact of energy processes on the environment. Under the Protocol, two types of energy efficiency reports are drafted for each Contracting Party: regular and in-depth. The Republic of North Macedonia has drafted two regular reports in the past period, whereas the Secretariat of the Energy Treaty prepared an In-Depth Review of Energy Efficiency Policies and Programmes of North Macedonia [2].

The Republic of North Macedonia is also a party to the **Energy Community Treaty**². In 2005, when the Treaty was signed, Contracting Parties committed to harmonise their legislation with the European *acquis* on energy, environment, competition and RES³, and to commit to jointly defined set of measures and activities which will lead to integration to a functional energy market, as part of the Internal Energy Market of the EU [3].

The EnC is an international organisation which brings together the EU and its neighbours to create an integrated pan-European energy market. The objective of the EnC is to create a stable regulatory and market framework by means of close cooperation and coordination of activities among the parties to the Treaty, which would be attractive for investments in transmission infrastructure for gas and electricity and in electricity production capacities, so that all market participants would have access to an open market and stable and uninterrupted supply of natural gas and electricity. By providing a single regulatory framework in the region of South East Europe (SEE) possibilities are open for its connection to Caspian, North African and Middle East gas reserves for exploitation of the indigenous energy resources. Another objective of the EnC is developing competition and liquidity of energy markets. Environmental improvements have a special place in the EnC Treaty, in relation to natural gas and electricity by improving energy efficiency and use of RES.

The Republic of North Macedonia ratified the **United Nations (UN) Framework Convention on Climate Change** (UNFCCC) in 1998 and ratified the **Quoto Protocol** in 2004. Consequently, North Macedonia took part in the negotiations and also signed and ratified the **Paris Agreement of the UNFCCC**⁴ which entered into force on 4 November 2016.

On 26 and 27 January 2009 in Bonn, Federal Republic of Germany, the founding conference of the **International Renewable Energy Agency – IRENA** was held. The Republic of North Macedonia was among the founding countries of this international organisation, by signing the IRENA Statute. The Statute has so far been signed by 161 countries, among which there are EU Member States⁵. The Agency was established with the ambition to becoming a leading force in the promotion of a rapid transition to a sustainable energy future, promoting a widespread and sustainable use. Thus forth, IRENA enables networking of experiences and knowledge to facilitate transfer of the latest technologies among its members. IRENA strives to facilitate access to all relevant information related to the use of renewable energy.⁶

The Memorandum for Understanding for integration of the Republic of North Macedonia to the **Subprogram for Intelligent Energy - Europe**⁷, within the frameworks of the EU Horizon 2020 Program, was approved by the European Commission (EC) on 3 May 2011 and it was signed on 21 June 2011. The Intelligent Energy - Europe is offering assistance to all organisations, in their insistence to attain energy sustainability.

All the cited international agreements related to the energy sector signed by the Republic of North Macedonia clearly denote to the aspiration and trajectory of development of this significant sector – full alignment of the legislative framework and economic and business conditions in the sector with those of the EU. On this path, the significance and role of the EnC is tremendous, as this organization acts as the “bridge between the two banks” for all its Contracting Parties, and it is a reliable supporter in the process of implementation of the requirements.

With a view to identifying the gap and the roadmap between the state of affairs and the legislative framework in the country’s energy sector and the targeted objective, the first chapter presents an overview of the current energy policies of the EU.

Further on, the second chapter seeks to summarize the current competencies, principles of operation, mandatory legal framework and activities of the EnC. It is important to emphasize from the very outset that the EnC legal framework is constantly updated with new documents from the EU *acquis*, as soon it is assumed that the conditions for a new step forward have been achieved.

2 In addition to North Macedonia, in 2005, the signatory countries to the Agreement for the establishment of the Energy Community were also Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, Romania, Serbia, Kosovo and the European Community. In the year 2006 North Macedonia ratified the agreement by law.

3 In the meantime, the scope of areas has significantly expanded.

4 <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

5 <https://www.irena.org/irenamembership>

6 <https://www.irena.org/en/statutevisionmission>

7 <https://ec.europa.eu/easme/en/section/energy/intelligent-energy-europe>

The Macedonian achievements in the reform process and relevant plans have been covered in Chapters 3 and 4.

The concluding remarks and comparisons between the legislative provisions of the EU, EnC and the Republic of North Macedonia are presented in the last chapter of this publication, followed by the list of references used.

1

ENERGY POLICY OF THE EUROPEAN UNION

1.1 ENERGY UNION

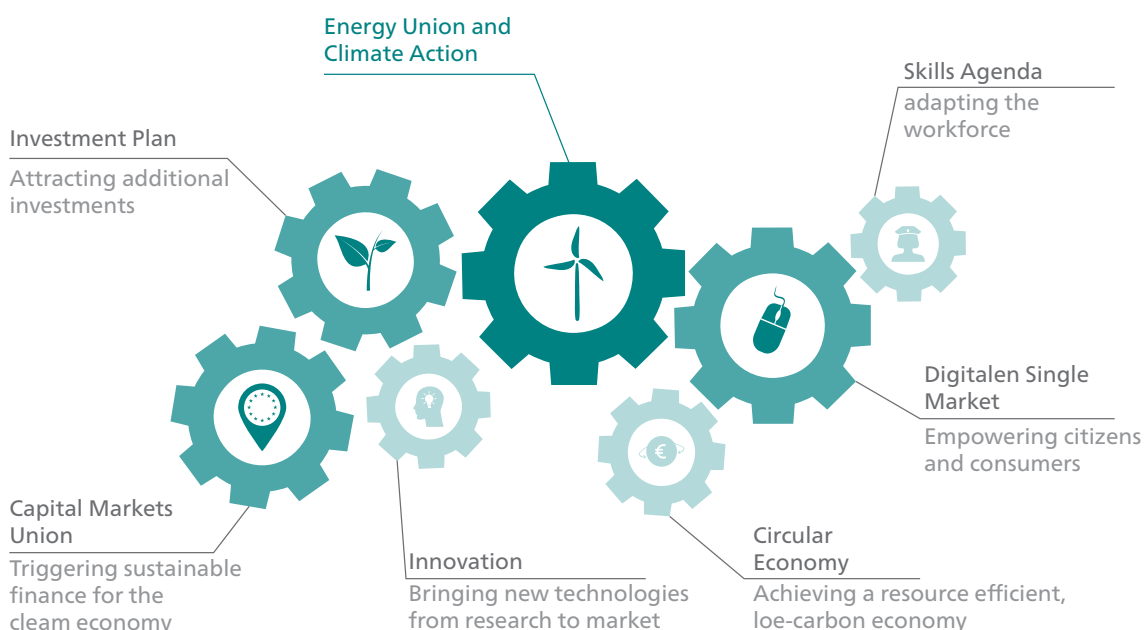
The latest adopted EU Energy Strategy, which was drafted during the Juncker Commission (in office from 2014 to 2019), as a result of the activities focused on one of the ten basic priorities during this presidency, is referred to as the Energy Union [4]. This Package is a continuation of the European Energy Security Strategy adopted in 2014 [5]. Its main objective can be formulated as follows: establishing an **Energy Union, which will provide customers in the EU (households and enterprises) with security, sustainability, and competitiveness in the energy supply, at affordable prices.**

The Energy Union has been created in order to function hand in hand with the other nine strategies, such as the Digital Single Market, the Capital Markets

Union and the Investment Plan for Europe in a single integrated system of initiatives and activities which is expected to achieve notable modernisation of the EU economy. The role of the Energy Union within the frameworks of this system is presented in Figure 1 [6].

The implementation of the Energy Union is expected to speed up clean energy transition, followed by growth of economic indicators and job creation. By mobilising up to an additional 177 billion euro of public and private investment from 2021 to 2030, this Strategy is expected to generate up to 1% increase of Gross Domestic Product (GDP) over the next decade and create 900,000 new jobs. It will also mean that on average carbon intensity of EU's economy will be 43% lower in 2030 than now, with electricity produced from RES representing about half of the EU's electricity generation mix [6].

FIGURE 1
Modernisation of the economy – central role of the Energy Union and climate action [6]



The energy sector is important for the European economy. Prices of certain types of energy affect the competitiveness of the whole economy and represent on average 6% of the annual household expenditures. It employs close to 2.2 million people in around 90,000 European enterprises. Behind it stands a prosperous manufacturing industry delivering the necessary equipment and services, not just in Europe but also worldwide. The development of RES and energy efficiency products and services leads to new economic activities and services throughout Europe, enabling thus new jobs for all Europeans [6].

The Energy Union consists of five interdependent and mutually reinforcing dimensions designed to bring greater energy security, sustainability, and competitiveness [4]:

- **Energy security, solidarity and trust** – diversification of energy sources and security of energy supply in Europe, by means of solidarity and cooperation between EU Member States;
- **A fully integrated European energy market** – enabling free flow of energy across EU through appropriate infrastructure free of any technical and regulatory barriers⁸;
- **Energy efficiency contributing to moderation of demand** – reducing dependency on imports of electricity and greenhouse gas (GHG) emissions, and stimulating growth of economic activities and employment;
- **Reducing climate change, decarbonising the economy** – the EU is committed to a rapid ratification of the Paris Agreement and preservation of the leadership position in the field of uptake of renewables; and
- **Research, Innovation and Competitiveness** – supporting the advancement of low-carbon and “clean” technologies for producing secondary energy, by focusing research and innovative solutions towards promoting energy transition and competitiveness⁹.

Since the promotion of the Energy Union in 2015, the EC published several packages containing measures for support, as well as several regular reports on the progress achieved on the route to meeting the key priorities, in order to ensure that the strategic priorities will be achieved.

The Fourth Report on the state of the Energy Union was published in April 2019 and concluded that

electricity supply of Europe was more predictable, secure and accessible to all at the time the report was published, compared to several years before. In more detail, the Report points out that [7]:

- The modern energy system has uplifted the economy of the EU at higher levels, attracted investments and created local jobs,
- The Energy Strategy enables the EU to raise its ambitions in many energy-related sectors, from increased targets for RES and energy efficiency, to correction of targets for reducing carbon emissions from cars,
- The Strategy is a solid base for activities oriented towards a modern and climate neutral economy by 2050,
- The Strategy helped the EU to unite its voice during negotiations and implementation of the Paris Agreement and to continue serving as example within the global climate action, which is expected to provide a competitive and socially equitable transition for all.

Still, one of the most important EU measures in support of the Energy Union is the adoption of the latest legislative package for energy and climate, also referred to as the Winter Package or Clean Energy for all Europeans (Clean Energy Package).

Based on extensive analysis and proposals by the EC [9], [10], within the Clean Energy Package, whose important part is the new Governance Regulation of the Energy Union and Climate Action (Governance Regulation) [8], the EU has set up ambitious mandatory climate targets by 2030: 32% of all energy produced within the EU must be produced from RES, improving energy efficiency at least by 32.5% compared to 2007 and reducing GHG emissions by 40% compared to 1990. Once these targets are fully implemented, the GHG emissions can reach 45%¹⁰.

These mandatory target percentages are shown in Figure 2, and it is clear that achieving them will seek combined and continuous efforts from all Member States. According to estimates, they can be even overcome, by selecting and applying appropriate incentives and support schemes (SS)¹¹. As presented in the long-term strategy on the Energy Union, the attainment of the targets by 2030 will represent an important step in the long-term transition towards a completely clean energy by 2050 [9], [10].

8 The EU has drafted special legislation for construction of appropriate infrastructure (TEN-E Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009), and has earmarked funding within its structural funds.

9 https://ec.europa.eu/energy/topics/energy-strategy/energy-union_en

10 https://ec.europa.eu/info/news/commission-welcomes-council-adoption-new-rules-renewable-energy-energy-efficiency-and-governance-2018-dec-04_en

11 In addition to the term “support schemes,” the English language uses also the term “promotion strategies.” It concerns mechanisms applied by the state in order to promote use of energy from renewable sources, or energy efficiency.

Namely, the Governance Regulation [8] and the remaining acts of the Clean Energy Package are creating a single regulatory system on climate and energy, which provides the foundations for the EU and its Member States to jointly plan and fulfil the stipulated percentages by 2030. This system also ensures transition towards climate neutral economy, which is cost-effective and offers equal opportunities for all EU citizens.

- Providing a fair deal for customers (on the electricity market and security).

Attention will be particularly paid for all Europeans to benefit from the transition towards a clean energy system. All customers - not forgetting the vulnerable or energy poor - should feel involved in the “fair deal” and reap the tangible benefits of access to more secure, clean, and competitive energy, at affordable prices.

1.2 CLEAN ENERGY FOR ALL EUROPEANS

The first proposal for the adoption of the Clean Energy Package, in accordance with the Regulation adoption procedure in the EU was drafted and published by the EC on 30 November 2016, under the pseudonym Winter Package, which is how it was referred to at that time. The Winter package consisted of eight draft acts whose objective was to accelerate the transition towards a clean energy economy in the EU, that is, to implement the strategic determinations of the Energy Union. They cover the areas of energy efficiency, RES, the design of the electricity market, security of energy supply and governance rules of the Energy Union.

All the individual measures contained in the legislative draft-acts from the Winter Package were concisely explained in the accompanying Communication COM (2016) 860 final, structured in the following chapters, which reflect the essence of the proposed measures [6]:

- Putting energy efficiency first,
- Achieving global leadership in renewable energies, and

The Winter Package with the draft-acts can be grouped in three categories of measures [12]: proposals amending the existing Third legislative package on the EU internal electricity and natural gas market (Third Package), proposals amending the existing Climate Change Regulation and proposals for completely new measures.

The first category of measures aims to bring about a new energy market design, referring above all to the electricity market and includes a new directive amending and repealing Directive 2009/72 (EC) on the electricity market, a new regulation on the internal electricity market, amending and repealing Regulation 714/2009 on cross-border exchanges in electricity, as well as new Regulation which introduces amendments and repeals the Regulation (EU) 713/2009 on the Establishment of the European Union Agency for the Cooperation of Energy Regulators (ACER)¹².

The second category of measures aims to better align and integrate climate change goals into this new market design. This category includes two new Directives which fully revise Directive 2009/28 (EC) on renewable energy sources and Directive 2012/27 (EC) on Energy Efficiency.

FIGURE 2
Climate and energy binding 2030 targets, [11]

	GREENHOUSE GAS EMISSION	RENEWABLE ENERGY	ENERGY EFFICIENCY	INTER- CONNECTION	CLIMATE IN EU-FUNDED PROGRAMMES	CO2 FROM:
2020	-20	20	20	10	2014-2020 20	
2030	≤ -40%	≥ -32%	≥ 32.5%	15%	2021-2027 25%	cars -37.5% vans -31% lorries-30%

Upwards revision clause by 2023

12 European Union Agency for the Cooperation of Energy Regulators (ACER),
<https://www.acer.europa.eu/en>

Lastly, the third category includes proposals for a new regulation on risk-preparedness in the electricity sector, as well as the Governance Regulation [8], which are entirely new measures in the EU policies.

The Winter Package draft legislative acts, followed by extensive discussions and coordination among EU Member States and institutions, finally passed the EU procedure for adoption of new regulations in spring of 2019. The adopted legal acts, which now already comprise the Clean Energy Package¹³, will be analysed further in this chapter. They will be considered in separate subchapters according to the indicated categorization in literature [12] and based on their dominant contribution to the priority measures from literature [6]. Although all legislative acts within the Clean Energy Package comprise a unique and complete set of measures for the achievement of targets of the Energy Union, such classification is supported also by more recent EC publications as a follow-up to the Clean Energy Package, [13] and [14].

Governance of the Energy Union and climate action

The central place in the legislative package of the Clean Energy Package most certainly belongs to the Regulation on the Governance [8], which entered into force on 24 December 2018. The Regulation integrates all legal acts from the Clean Energy Package into a single action and underlines the importance of achievement of targets in the areas of energy and climate by 2030. The Governance Regulation also regulates the joint activities of EU Member States and the EC with a view to meeting the objectives of the Energy Union. At the same time, consideration was given to the fact that different countries can contribute differently to the Energy Union.

The objectives of the Governance Regulation are [8]:

- To implement strategies and measures designed to meet the objectives and targets of the Energy Union and the long-term Union greenhouse gas emissions commitments consistent with the Paris Agreement,
- To stimulate cooperation between Member States, including, where appropriate, at regional level, designed to achieve the objectives and targets of the Energy Union,
- To promote long-term stability and predictability of the investment conditions across the EU and to contribute to growth, new employments, and social cohesion,

- To reduce administrative burden in accordance with the principle of “better regulation”¹⁴, by way of integrating and rationalizing most of the to-date requirements from EU Member States for planning and reporting in the areas of energy and climate, and of the obligations of the EC to monitor success, and
- To ensure consistent reporting by the EU and its Member States to the UNFCCC and Paris Agreement, thus replacing the existing monitoring and reporting system which starts from 2021 onwards.

The mechanism, established with a view to achieve the targets and target percentage of the Governance Regulation [8], is founded on mandatory integrated National Energy and Climate Plans (NECPs)¹⁵, which cover ten year periods, starting from the 2021–2030 period¹⁶. They also include national long-term strategies, which are mutually harmonized with the EU framework, as well as integrated reporting, monitoring and publication of data. The transparency of this mechanism is ensured through broad public debates following every NECP.

NECPs play key role in the governance system of the Energy Union and climate action. They should provide the economic and financial sector with as much predictability and overview of the process as possible, with the objective of incentivizing the necessary private investments.

In 2019, the EC published its Communication COM (2019) 285 final [11], analysing the first draft integrated NECPs of Member States and giving recommendations for their promotion in the spirit of mutual cooperation and solidarity towards reaching the 2030 targets. Until the end of 2019, all Member States finalised their NECPs. According to plan, in 2024 the NECPs will be updated to reflect experience and to take advantage of new opportunities created from the development of technologies.

Climate targets of the Energy Union (energy efficiency and renewable energy)

Although reaching climate targets of the Energy Union equally depends on the successful implementation of the entire Clean Energy Package, this category conditionally includes the following legal acts as well:

14 The principle of Better Regulation was introduced by the EU in 2014. This principle implies improved quality of politics and legislation in a manner that will ensure that every proposal respects the principles of subsidiarity (no EU intervention when an issue can be dealt effectively by EU countries) and proportionality (activities taken by the EU must not exceed what is necessary to achieve the objectives), https://ec.europa.eu/commission/priorities/democratic-change/better-regulation_en

15 National energy and climate plans (NECPs), https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en

16 According to Article 9 of the Governance Regulation of the EU and the climate action [8]

13 https://ec.europa.eu/energy/topics/energy-strategy/clean-energy-all-europeans_en

- Directive (EU) 2018/844 on the energy performance of buildings [15],
- Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (recast) [16] and
- Directive (EU) 2018/2002 on energy efficiency [17].

The key tendency of the Clean Energy Package is to place energy efficiency at the top of its Member States' development plans, because energy savings are the easiest way for customers to save money but also to reduce GHG emissions. Both Clean Energy Package directives in the area of energy efficiency and energy performances of buildings promote policies which will help [13]:

- Achieve highly energy efficient and decarbonized building stock by 2050,
- Create stable environment for reaching investment decisions, and
- Enable customers and businesses save more energy and money by sharing more information they need when making decisions.

The Energy Efficiency Directive is to be transposed in the national legislations of EU Member States by 25 June 2020 the latest, with the exception of the provisions on metering and billing, whose deadline is 25 October 2020.

Besides determining the new target percentage by 2030, the main achievements of the Energy Efficiency Directive [17] are the following¹⁷:

- stronger rules on metering and billing of thermal energy by giving customers – especially those in multi-apartment buildings with collective heating systems – clearer rights to receive more frequent and more useful information on their energy consumption, also enabling them to better understand and control their heating bills,
- requiring Member States to have in place transparent, publicly available national rules on the allocation of the cost of heating, cooling and hot water consumption in multi-apartment and multi-purpose buildings with collective systems for such services,
- monitoring efficiency levels in new secondary energy production capacities,
- updated primary energy factor for electricity generation of 2.1, down from the current 2.5,
- obligation for a general review of the Energy Efficiency Directive by 2024.

In the EU, buildings account for nearly 40% of the total energy consumption and 36% of the CO₂ emissions,

meaning that together they represent the largest energy customer in Europe. The renovation of existing buildings in the EU alone, according to estimates, can reduce energy consumption by 5 – 6% and can reduce CO₂ emissions by around 5%. Additionally, investments in energy efficiency help boost the economy, especially the construction sector, which contributes with 9% of EU's GDP and employs around 18 million people. For these reasons, energy efficiency pays special attention to the possibilities for energy saving in buildings, which was the reason for the adoption of a special Energy Efficiency Directive [15], which introduces completely new elements and sends a message about the willingness of the EU to embark on full renovation of the existing buildings and to modernize the construction sector by applying new technologies. The Directive on the energy performance of buildings [15] covers a wide array of support policies and measures that will assist governments of EU Member States to improve significantly their countries' building stock by investing in their energy properties, such as¹⁸:

- Member States must establish strong long-term renovation strategies, aiming at decarbonising the national building stocks by 2050, with indicative milestones for 2030, 2040 and 2050,
- Member States must set cost-optimal minimum energy performance requirements for new buildings, for existing buildings undergoing major renovation, and for the replacement or retrofit of building elements like heating and cooling systems, roofs and walls,
- all the new buildings must be nearly "zero-energy" buildings the latest by 31 December 2020¹⁹,
- energy performance certificates must be issued when a building is sold or rented, and inspection schemes for heating and air conditioning systems must be established,
- electro-mobility is supported by introducing minimal requirements for car parks, depending on the size of the building,
- an optional European scheme for rating the smart readiness of buildings,
- smart technologies are promoted, including devices that regulate temperature at room level and installation of building automation and control systems for different parameters in the buildings,
- aspects concerning indoor air quality are covered, for purposes of better ventilation of buildings, for better health and wellbeing of occupants,
- EU Member States must draw up lists of national financial measures to improve the energy efficiency of buildings.

¹⁸ https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en

¹⁹ Under the old Directive, all the public buildings in the EU were supposed to be nearly "zero-energy" the latest by 31 December 2018

¹⁷ https://ec.europa.eu/energy/topics/energy-efficiency/targets-directive-and-rules/energy-efficiency-directive_en

Member States are obligated to transpose the new and revised measures for energy efficiency of buildings by 10 March 2020.

The new elements of the recast Directive on the promotion of the use of energy from renewable sources [16], ought to be transposed in Member States' national legislation the latest by 30 June 2021. This Directive, among others, for the first time introduces the concepts of²⁰:

- renewables self-consumption, laying down the legal foundations for the end users or customers to produce electricity from RES for own needs, but also to store and sell the surplus of produced electricity,
- renewable energy cooperatives,
- new or reformulated criteria on sustainability and GHG emissions savings of individual biofuels, bio-liquids or biomass fuels.

Expected benefits from the application of the Directive for RES [16] include²¹:

- it sets a new binding target for the EU of 32% RES in energy consumption by 2030, including a review clause by 2023 for an upward revision of the EU level target,
- it improves the design and stability of RES SSs,
- it delivers real streamlining and reduction of administrative procedures,
- it establishes clear and stable regulatory self-consumption framework for RES,
- it increases the level of ambitions for application of RES in transportation and heating/cooling sectors.

The RES Directive [16] also promotes cooperation among EU Member States and with countries outside the EU, for mutual assistance in the achievement of target percentage for RES. Cooperation mechanisms can be in the form of:

- statistical renewable energy transfers,
- joint projects for RES,
- joint SSs for RES.

Electricity market and security of supply

Legal regulations within the Clean Energy Package, in relation to the electricity market model in the EU and the supply security, consist of the following legislative acts:

- Directive (EU) 2019/944 on common rules for the internal market for electricity (recast) [18],
- Regulation (EU) 2019/943 on the internal electricity market (recast) [19],
- Regulation (EU) 2019/941 on risk-preparedness in the electricity sector [20] and
- Regulation (EU) 2019/942 on the establishment of ACER (recast) [21].

This part of the Clean Energy Package is targeted towards adjusting the EU internal electricity market model for coping with the challenges of transition towards clean energy and will make the market: better connected (integrated), better protected from black-outs of the power system, with improved capacity to integrate electricity from renewables, better founded on market principles and better adjusted to the needs of customers [12] and [14].

These changes will adapt current EU electricity market rules by [14]:

- allowing electricity to move freely throughout the EU energy market through cross-border trade, more competition and better regional cooperation,
- enabling more flexibility to accommodate an increasing share of renewable energy in the electricity grid;
- fostering more market-based investments in the sector, while decarbonising the EU energy system;
- introducing a new emissions limit for power plants eligible to receive subsidies,
- improving planning to anticipate and respond to electricity market crisis situations, including cyber security and cross-border cooperation.

The new rules also introduce a comprehensive framework for customer protection, information and empowerment in the EU electricity sector [14]:

- Customers will receive summary of key contracting conditions to help them better understand the sometimes complex terms and conditions,
- The technical process of switching supplier must be reduced to less than 24 hours in all EU Member States by 2026 at the latest,

20 https://ec.europa.eu/energy/topics/renewable-energy/renewable-energy-directive/overview_en

21 https://ec.europa.eu/info/news/commission-welcomes-council-adoption-new-rules-renewable-energy-energy-efficiency-and-governance-2018-dec-04_en

- Providers should give free-of-charge access to at least one energy comparison tool allowing customers to find the best deal in the market,
- In order to help customers better control their costs, information in electricity bills will be improved,
- New obligations will help better identify vulnerable and energy poor customers, making it easier to target assistance to those who need, and this way tackle the growing issue of energy poverty,
- Customers will be able to participate actively, individually or through the cooperatives, in all markets, either by generating electricity and then consuming, sharing or selling it, or by providing storage services,
- For the first time, customers will have the right to request a smart meter and a dynamic price contract that allows them to be rewarded for shifting consumption to times when energy is widely available and cheap.

In order to increase the resilience²² of the EU electricity system, each EU Member State is required to define Risk Preparedness plans, so as to be ready to respond to system contingencies, working closely with neighbouring Member States observing the principle of solidarity, in accordance with the Regulation on risk-preparedness in the electricity sector [20]. The initiative for adopting this Regulation followed the previous experience showing that Member States' response to potential crisis tends to focus only to the national context. In doing so, Member States mainly disregard cross-border effects. Sometimes the problem was further exacerbated due to the elimination of market mechanisms in crisis situations, which, in turn, drives up energy bills²³. This Regulation ([20]), due to the coupling of all power systems in Europe, considers the need for cooperation between EU Member States and the EnC Contracting Parties, in order to identify crisis in electricity supply, including those caused by cyber threats, development of crisis scenarios and Risk Preparedness Plans. Such activities ought to result into solutions that prevent threats to the security of supply for EU Member States and EnC Contracting Parties. In light of this, the EC may invite parties to the EnC to participate in the work of the institutions designated precisely for that purpose, such as the Electricity Coordination Group.

What is of particular importance in relation to cyber security is that the Regulation on the internal market for electricity [19], introduces the cyber security

care as part of the tasks of the European Network of Transmission System Operators (TSO)²⁴, (ENTSO-E)²⁵, as well as in the EU body of distribution systems operators (DSOs). Namely, ENTSO-E is tasked with promoting cyber security and the tasks of the EU DSO body include protection and management of data, and cyber security in cooperation with relevant institutions and regulated entities. Furthermore, the Regulation on the internal market for electricity [19] imposes the establishment of a Network Code on Cyber security with minimal demands for security, planning, monitoring, reporting and crisis management.

The Regulation for the establishment of ACER, [21], has recast Regulation 713/2009 for the establishment of ACER, as part of the implementation of the Third Package of the EU, tasked with coordination of the National Regulatory Bodies for Energy (NREs), advice and oversight over energy markets. The new Regulation gives ACER new competences in the areas where certain fragmented decisions of certain NRE may cause problems in the functioning of the integrated internal energy market in the EU. For instance, ACER will have insight in the work of the future Regional Coordination Centres and cooperation between the TSO, as well as competences for steering the work of the NRE.

1.3 THE GREEN DEAL

On 28 November 2019, the European Parliament declared an emergency climate state in Europe and globally. This marked the outset of activities for adoption of new regulatory and budget proposals which would be fully aligned with the objective to limit global warming to 1.5 °C the most.

The EC has put forward the European Green Deal on 11 December 2019. This was accompanied by a Draft-law on climate of the EU on 4 March 2020, with a view to ensuring a climate neutral EU by the end of 2050. The Law on Climate needs to be approved by the European Parliament and the Council of Ministers of the EU, through the standard legislative procedure. The law seeks to translate political commitments into a legally binding solution for all EU Member States, and to initiate a new investment cycle. Among others, the European Green Deal foresees a serious and ambitious revision of the climate targets of the Energy Union in 2024.

22 The term "resilience", in the context of the power systems, is recently used to denote an entire concept of the system's defence which covers several aspects: first, resilience to external influences, second, the ability of the system to absorb the effects of a disruption and third, to recover from the disruption and to resume normal operation.

23 https://ec.europa.eu/energy/topics/markets-and-consumers/market-legislation/electricity-market-design_en?redir=1

24 The term "Electricity Transmission System Operator" (TSO) is used in technical literature and is defined as a legal entity that performs electricity transmission, controls the electricity transmission system and is responsible for the secure and stable operation of the system, its maintenance, development and connection to the electrical energy systems of the neighboring countries, and for providing long-term capacity of the system to meet the reasonable needs for electricity transmission.

25 European Network of Transmission System Operators, (ENTSO-E), <https://www.entsoe.eu/>

The European Green Deal [22], is not a new strategy of the EU, but a new roadmap for achieving sustainability of the economy in the EU. The Energy Union, within the frameworks of which the European Green Deal is upgraded, is still one of the seven main strategic policies and priorities of the EU, which pursues to transform the European economy into a modern and competitive economy, which makes an efficient use of its national resources. The objectives are²⁶:

- to stop net emissions of GHG by 2050,
- to decouple economic growth from resource use,
- to leave no person or place in the EU behind.

According to expectations, this can be achieved if climate challenges observed in all of the established policies of the EU are converted into opportunities and if a just and inclusive policy is enabled for all. Figure 3 presents all the different elements of the Green Deal.

The achievement of targets of the European Green Deal shall seek efforts from all economic sectors, including:

- investing in environmentally friendly technologies,
- support to innovative industry,
- broader use of clean, cheap and healthy private and public transport,

- decarbonizing the energy sector,
- ensuring energy efficiency of buildings, and
- cooperation with international partners for the improvement of global environmental standards.

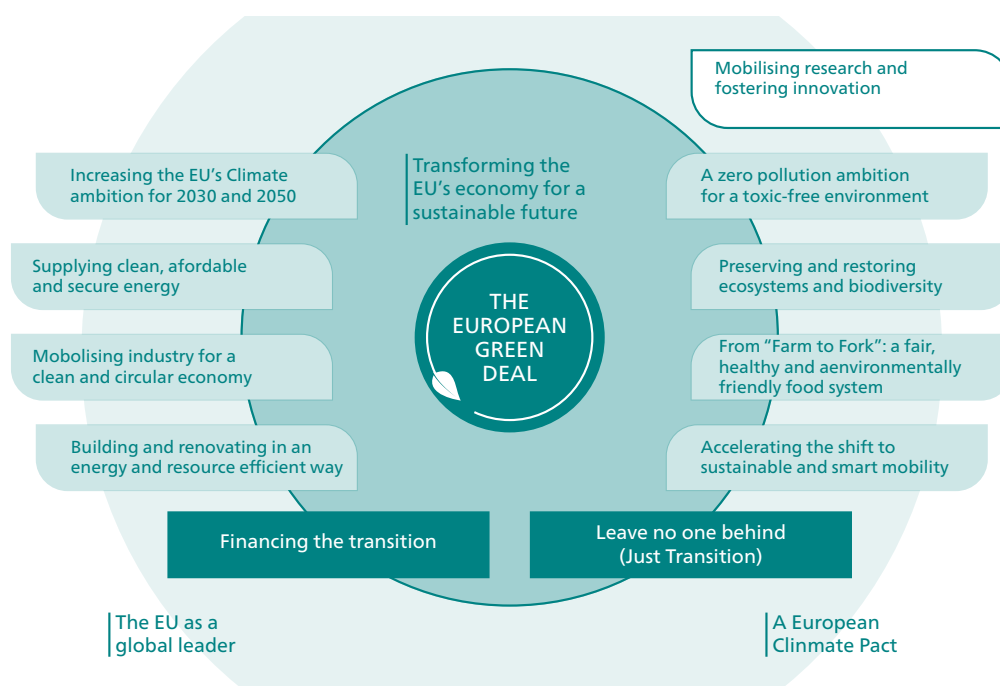
The roadmap with key actions is presented in the table as Annex to the European Green Deal [23] and its implementation is expected to achieve the following²⁷:

- to boost the efficient use of resources by moving to a clean, circular economy, and
- to cut pollution and restore biodiversity.

The roadmap has been grouped in the following chapters [23]:

- Climate ambitions,
- Clean, affordable and secure energy,
- Industrial strategy for a clean and circular economy,
- Sustainable and smart mobility,
- Greening the Common Agricultural Policy,
- Reserving and protecting biodiversity,
- Mainstreaming sustainability in all EU policies,
- The EU as a global leader, and
- Working together – a European Climate Pact.

FIGURE 3
European Green Deal, [22]



26 European Green Deal, https://ec.europa.eu/info/strategy_en

27 https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en#actions

Circular economy is a term from economics²⁸ referring to an established system aimed at eliminating waste and the continual use of resources. Circular systems employ reuse, sharing, repair, refurbishment, remanufacturing and recycling to create a closed-loop system, minimising the use of resource inputs and the creation of waste, pollution, and carbon emissions. The circular economy aims to keep products, equipment and infrastructure in use for longer, thus improving the productivity of these resources. "Waste" materials and energy should become "input" for other processes: either a component or recovered resource for another industrial process or as regenerative resources for nature (e.g., compost). This regenerative approach is in contrast to the traditional linear economy, which has a "take, make, dispose" model of production.

According to proponents of the circular economy "sustainable world" does not mean reduced quality of life for customers and can be achieved without loss of revenues for producers. The explanation is that this regenerative process of the circular economy can be as profitable as the linear models, allowing customers to continue consuming similar products and services.

All the activities from the roadmap are projected for the 2020 – 2021 period.

The EU will also provide financial support and technical assistance to the people, enterprises and regions most affected by the changes triggered by the transition to a clean economy. This is called the Fair Transition Mechanism which will help mobilize at least 100 billion EUR in the most affected regions in the 2021 - 2027 period. The investment plan of the European Green Deal [24] includes the needed investments and available financial tools and explains how the promised just and inclusive policy can be ensured.

EC's Executive Vice-President in charge of the European Green Deal, Frans Timmermans in his address from 21 April 2020 reassured the MEPs that a green recovery of the EU is possible, provided that it mobilises EU its investment capacities into the new economy. Otherwise, Europe will lose out twice if it continues to invest in non-sustainable economy. The European Green Deal is not a luxury but is a way to future-proof the economy and reduce Europe's dependence on fossil fuels and achieve net neutrality²⁹.

28 https://en.wikipedia.org/wiki/Circular_economy

29 <https://www.eureporter.co/frontpage/2020/04/21/greendeal-timmermans-argues-that-every-euro-of-investment-promotes-a-green-recovery/>

2

THE ENERGY COMMUNITY

2.1 BACKGROUND, THE ATHENS PROCESS

The establishment of the Energy Community was initiated by the European Union in 2001-2002 as a part of its Security of energy supply policy from the First and Second Energy Package of the EU. The main objective of the undertaken activities was to promote stability and sustainable development in SEE and to secure pan-European implications of the Florence Process. The initiative was named “The Athens Process,” after the name of the place where the first Memorandum of Understanding was signed in 2002. The Memorandum reflected the political will of the countries of SEE, plus Turkey and then the UNMIK administration of Kosovo, to adopt the EU common legal framework of the EU (the *acquis communautaire*) in the field of energy and to establish adequate monitoring structures.

At the beginning, the process was mainly political-ly driven by the EC and then the active Stability Pact for SEE and financially supported by many national agencies and funds. At the same time, the participation of the Western Balkans (WB) countries and jurisdictions was strongly motivated by their individual EU membership ambitions, including the desire to attract western foreign capital in their energy sectors, which was supposed to follow suit the implementation of the EU legal framework and the establishment of market environment in the electricity sector.

The process resulted with signing of the legally binding EnC Treaty in 2005 and with the establishing of common institutions, including the EnC Secretariat³⁰ in Vienna, founded in June in 2006, following the ratification and entry into force of the Treaty.

Meanwhile, in spite the achieved results in most of the Treaty’s Contracting Parties³¹, the two mentioned motivating factors are implemented with hesitant

intensity, and the process of unification within the EnC and the energy market integration has acquired a new dimension with the expansion towards eastern countries, integration of Moldova, Ukraine and Georgia as well as the inclusion of Armenia with an observer status. The geographical reference to the so-called WB has become outdated, and now the Treaty aims to implement the EU energy policy even in the farthest eastern countries of Europe and beyond³².

Although reference is always made to the relation between the degree of harmonization of national legislation in the energy field and the EU legislation on one hand, and investments in the area on the other, what is worrisome are the constant delays of investments in larger energy production facilities, which the region urgently needs.

2.2 THE ENERGY COMMUNITY TREATY

The Treaty establishing the EnC creates the rights and obligations of the Treaty parties and introduces common institutions and a legal framework within which these institutions operate³³ [3].

Contracting Parties have agreed to establish a joint legislative and economic framework in regards to the so-called network energies³⁴, which implies the adoption and implementation of the *acquis communautaire* for the energy sector (electricity and natural gas), environment, competition and RES (2005), as well for storage of oil and petroleum derivatives, security of supply (2007), energy efficiency (2009), energy statistics (2012), infrastructure (2015) and climate change (2018) [3].

30 <http://www.energy-community.org>

31 Bulgaria and Romania became EU Member States in 2007, while Croatia in 2013

32 <https://www.energy-community.org/aboutus/whoweare.html>

33 Energy Community Secretariat, “The Energy Community Legal Framework”, Edition 4, 2018, <https://www.energy-community.org/legal/acquis/LFs.html>

34 Electricity, natural gas and to some extent oil and petroleum derivatives

In order to safeguard the efficient functioning of the grid energy markets and to contribute to the security of Europe's energy supply, when establishing the EnC, Contracting Parties agreed to establish a common legal framework in these areas and, more importantly, they committed to the principle of mutual assistance, i.e. solidarity,³⁵ in case one of the parties is facing problems in the functioning of its energy networks. Presently, the highest priority in energy policy is redirected towards decarbonisation of the sector, in attempt for a proactive fight against climate change and active participation in the creation of a global climate agenda. This implies a concrete joint action by all Contracting Parties, under the guidance of the EnC, and a deep understanding of the scope of the challenge itself.

As of 1 January 2018, EnC Treaty Contracting Parties are obligated to implement the Directive on large combustion plants (for the existing plants) and Directive on industrial emissions (for the new plants) – two fundamental legislative acts of the EU and EnC which are tasked to clean up power plants and reduce air pollution. The plants exempted from application of measures foreseen in these two legislative acts due to their limited lifespan are rapidly preparing for their decommissioning and are seeking new technical solutions for their replacement. Solutions supported by the legislative framework of the EnC, above all come in the areas of RES and application of innovative technologies for unobstructed cross-border exchange of produced electricity through mechanisms of the joint

energy market, in order to make optimal use of local resources. Equally important is the application of energy efficiency, investments in development of smart networks and metering, effective units and capacities for electricity storage, as well as appropriate care for cyber security of energy systems.

2.3 STAKEHOLDERS

Contracting Parties to the Treaty establishing the EnC are the EU³⁶ and eight other signatories: Albania, Bosnia and Herzegovina, Georgia, Kosovo, North Macedonia, Moldova, Montenegro, Serbia and Ukraine³⁷.

EU Member States have all rights and obligations incurring from the Treaty. Consequently, any MS may obtain the status of **participant** in the EnC. Participants have right to partake in any meeting or action of the EnC. Currently, the group of EnC Treaty participants amounts to 19 Member States.

Any neighbouring third country may be accepted as **observer** to the EnC. The following observers are part of the Treaty: Armenia, Norway and Turkey. Belarus submitted a request for obtaining the status of observer in June 2016. Observers are entitled to attend meetings of the EnC institutions.

Treaty parties and observers are presented in Figure 4.

FIGURE 4
Geographical scope of the EnC, <https://www.energy-community.org>



35 The principle of solidarity among Member States is one of the fundamental general principles onto which the EU has been established and is functioning.

36 At the time of signing and entry into force of the Treaty, the legal form of the EU was still the European Community)

37 <https://www.energy-community.org/aboutus/whoweare.html>, as of 2.05.2020

Substantial contribution to the success of the EnC comes from **donors**. The donor community consists of institutions, organizations, or government development agencies. Donors coordinate their state aid and regional initiatives in order to achieve the common goal of establishing an integrated energy market. Along with financial support, donors contribute with recommendations and assistance on priority energy policy issues. They also lead and fund in-depth studies to improve the process and participate in numerous trainings and workshops within the EnC.

After the signing of the Treaty, the following organisations have been particularly active as donors: the Canadian International Development Agency (CIDA), the European Agency for Reconstruction (EAR), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the EC, the German Bank for Support to the Development (KfW), the World Bank (WB) and the US Agency for International Development (USAID).

2.4 INSTITUTIONS

The institutional setup of the EnC (Figure 5)³⁸ started developing with the First Memorandum of Understanding and was defined with the EnC Treaty in 2005.

The Ministerial Council (MC) convenes once a year and rules on the key policy decisions and adopts the EnC's rules and procedures. The MC is composed of one representative from each Contracting Party (as a rule ministers in charge of energy) and of two representatives from the EC (EC officials).

The Parliamentary Plenary is composed of chosen Members of Parliaments from national parliaments of Contracting Parties. The work of the Plenary is with a view to a more efficient adoption and implementation of the legislative framework of the EnC.

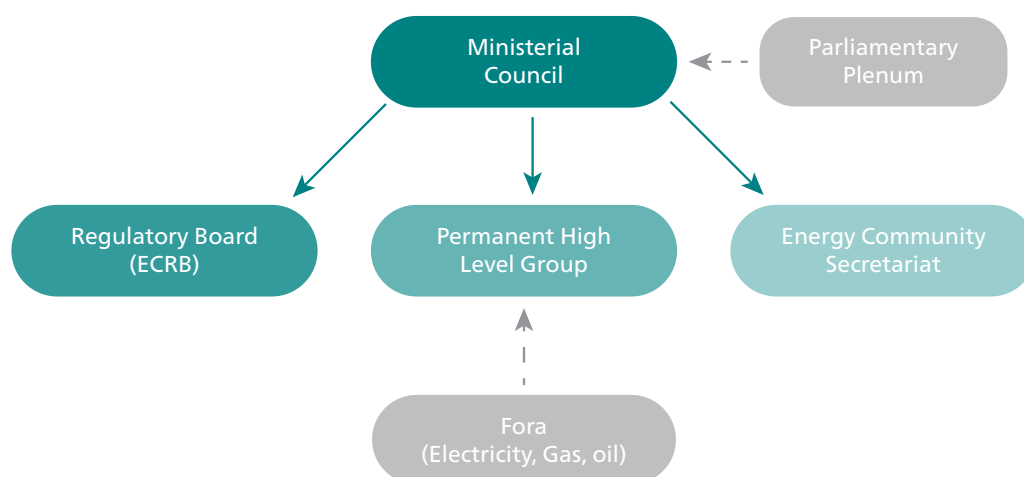
The Permanent High Level Group (PHLG) brings together senior officials from each Contracting Party and two representatives of the EC. This institution is tasked with preparing the work of the MC, ensuring continuity of and follow-up to the political meetings of ministers, and in some cases, decides on implementing measures. It convenes every three months.

The Regulatory Board (ECRB) is composed of representatives of the Energy Regulatory Authorities of all EnC Contracting Parties and one EC representative. Energy Regulatory Authorities of Participants and Observers may also take part in the work and activities of ECRB. It advises the MC and PHLG on details of statutory, technical, and regulatory rules and makes recommendations in the case of cross-border disputes between regulators.

Envisioned as a platform for discussion, exchange of opinions and ideas, the three advisory **Fora** in the areas of energy, natural gas and oil, complement the work of the EnC. They are composed of representatives of all interested stakeholders, including industry, regulators, customers and donors. They convene once a year.

The work of the EnC, is also supported by many specialized **working groups** and **thematic subgroups**. In addition, the EnC is fully committed to the joint projects and activities with certain stakeholders, including the civil society sector, investors and donors.

FIGURE 5
Institutions of the EnC, <https://www.energy-community.org>



38 http://www.energy-community.org/portal/page/portal/ENC_HOME/ENERGY_COMMUNITY/Institutions

The day-to-day activities of the EnC are administered by the Secretariat, in particular by regular review of each Contracting Party's implementation of its obligations under the Treaty and by initiating Treaty enforcement procedures. The Secretariat is the only permanently active and independent institution of the EnC seated in Vienna, Austria.

2.5 LEGISLATIVE FRAMEWORK OF THE ENERGY COMMUNITY

The EU regulatory framework³⁹, which became legally binding for all signatories with the signing of the EnC Treaty in 2005, at first included the EU acquis from the Second Energy Package – acquis on electricity⁴⁰, acquis on natural gas⁴¹, acquis on the environment⁴², acquis on competition with a view to ensuring trading in electricity networks of the Contracting Parties⁴³ and the, then established acquis on RES⁴⁴. The directives on security of supply with electricity and natural gas and infrastructural investments⁴⁵ were added in 2007,

and the Directives on energy efficiency⁴⁶ came in 2009. During that period, a Memorandum of Understanding was signed within the EnC on social issues which introduced the categories 'vulnerable customers' and 'energy poverty' [3].

The Contracting Parties undertook the obligation to transpose the European acquis on electricity and gas in their national legislations by July 2007. The EnC Treaty also laid down the obligations of the Contracting Parties to open electricity and gas markets for all customers, with the exception of the households, the latest by January 2008. The full liberalization of the electricity and gas markets, on the other hand, was supposed to be finalized by January 2015.

The Directives on security of supply with electricity and natural gas which were added in 2007 were agreed to be implemented by the end of 2009.

The challenges for the EnC Contracting Parties are renewed in parallel to the development of the EU legislation. During the MC meeting in October 2011, a decision⁴⁷ was made that the mandatory acquis on energy be replaced by regulations and directives on the electricity and natural gas markets from the Third Package of the EU⁴⁸ and that it should be

39 <http://www.energy-community.org/pls/portal/docs/808177.PDF>

40 Directive 2003/54/EC of the European Parliament and the Council of 26 June 2003 concerning common rules for the internal market in electricity; Regulation (EC) 1228/2003 of the European Parliament and the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity; Decision 2006/770/EC on Guidelines on the management and allocation of available transfer capacity of interconnections between national systems.

41 Directive 2003/55/EC of the European Parliament and the Council of 26 June 2003 concerning common rules for the internal market in natural gas; Regulation (EC) No 1775/2005 of the European Parliament and the Council of 28 September 2005 on conditions for access to the natural gas transmission networks.

42 Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment; Council Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment; Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment; Directive 1999/32/EC of the European Parliament and of the Council of 26 April 1999 relating to a reduction in the sulphur content of certain liquid fuels; Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants; Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds.

43 Annex III to the Treaty establishing the Energy Community

44 Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market; Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport.

45 Directive 2005/89/EC of the European Parliament and the Council of 18 January 2006 concerning measures to safeguard security of supply and infrastructure investment; Directive 2004/67/EC of the European Parliament and the Council of 26 April 2004 concerning measures to safeguard security of natural gas supply.

46 Directive 2006/32/EC on energy end-use efficiency and energy services; Directive 2010/31/EU of the European Parliament and of the Council on the energy performance of buildings; Directive 2010/30/EU on the indication by labeling and standard product information of the consumption of energy and other resources by energy-related products; Directive 94/2/EC implementing Directive 92/75/EEC with regard to energy labeling of household electric refrigerators, freezers and their combinations, and the amending Directive 2003/66/EC; Directive 95/12/EC implementing Directive 92/75/EEC with regard to energy labeling of household washing machines, and the amending Directive 96/89/EEC; Directive 95/13/EC implementing Directive 92/75/EEC with regard to energy labeling of household electric tumble driers; Directive 96/60/EC implementing Directive 92/75/EEC with regard to energy labeling of household combined washer-driers; Directive 97/17/EC implementing Directive 92/75/EEC with regard to energy labeling of household dishwashers, and the amending Directive 1999/9/EC; Directive 98/11/EC implementing Directive 92/75/EEC with regard to energy labeling of household lamps; Directive 2002/31/EC implementing Directive 92/75/EEC with regard to energy labeling of household air-conditioners; Directive 2002/40/EC implementing Directive 92/75/EEC with regard to energy labeling of household electric ovens.

47 <http://www.energy-community.org/pls/portal/docs/1146182.PDF>

48 Directive 2009/72/EC of the European Parliament and the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC; Regulation (EC) No 714/2009 of the European Parliament and the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation 2003/1228/EC; Directive 2009/73/EC of the European Parliament and the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC; Regulation (EC) No 715/2009 of the European Parliament and the Council of 13 July 2009 on conditions for access to the natural gas transmission networks, as amended by Commission Decision 2010/685/EU of November 2010, and repealing Regulation (EC) No 1775/2005; Regulation (EC) No 713/2009 of the European Parliament and the Council of 13 July 2009 on establishing an Agency for the Co-operation of Energy Regulators; Regulation (EU) 838/2010 of the European Parliament and the Council of 23 September 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 of the European Parliament and the Council of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) 714/2009.

implemented in EnC Contracting Parties the latest by 1 January 2015. The novelties from the EU Third Package referred mainly to the requests for unbundling of energy undertakings, certification of TSOs and promoting the independence and competencies of regulatory energy bodies. Part of the Third Package, mainly referring to regulations adopted later for the energy markets and those regulating the functioning of the network systems, the so-called EU Network Codes⁴⁹, are gradually becoming binding.

Meanwhile, with the development of the EU regulations, the mandatory *acquis* in the areas of environment⁵⁰, RES⁵¹, and energy efficiency have been

repealed and amended⁵². However, EU acts which are not repealed by new ones and were later adopted by the MC of EnC, remain to be in force.

Considering the growing complexity of the integrated cross-border energy markets, as well as the mutual inter-dependency and implications of energy with other economic and financial sectors, the scope of legislative framework of the EnC is continually expanding with the *acquis* from other related sectors: energy statistics (2012)⁵³, infrastructure (2015)⁵⁴, and climate (2018)⁵⁵ [3].

49 As of 8 June 2020, the EnC legislation has included, as mandatory, the following electricity and natural gas Network Codes: Regulation (EU) 1227/2011 of 25 October 2011 on wholesale energy market integrity and transparency; Regulation (EU) 2016/1388 of 17 August 2016 establishing a network code on demand connection; Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for connection of generators; Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules; Regulation (EU) NO 703/2015 of 30 April 2015 establishing a network code on interoperability and data exchange rules in natural gas; Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) 984/2013; Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas; Regulation (EU) No 312/2014 of 26 March 2014 establishing a network code on gas balancing of transmission networks.

50 Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control); Commission Implementing Decision (EU) 2015/253 of 16 February 2015 laying down the rules concerning the sampling and reporting under Council Directive 1999/32/EC as regards the sulphur content of marine fuels; Directive (EU) 2016/802 of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels (codification); Directive 2011/92/EU of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment with amendments introduced by Directive 2014/52/EU of 16 April 2014.

51 Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.

52 Directive 2012/27/EU of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC; Regulation (EU) 2017/1369 of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU; Delegated Regulation (EU) 2017/254 of 30 November 2016 amending Delegated Regulations (EU) 1059/2010, (EU) 1060/2010, (EU) 1061/2010, (EU) 1062/2010, (EU) 626/2011, (EU) 392/2012, (EU) 874/2012, (EU) 665/2013, (EU) 811/2013, (EU) 812/2013, (EU) 65/2014, (EU) 1254/2014, (EU) 2015/1094, (EU) 2015/1186 and (EU) 2015/1187 with regard to the use of tolerances in verification procedures; Delegated Regulation (EU) 518/2014 of 5 March 2014 amending Delegated Regulations (EU) 1059/2010, (EU) 1060/2010, (EU) 1061/2010, (EU) 1062/2010, (EU) 626/2011, (EU) 392/2012, (EU) 874/2012, (EU) 665/2013, (EU) 811/2013 and (EU) 812/2013 with regard to labelling of energy-related products on the internet; Delegated Regulation (EU) 2015/1094 of 5 May 2015 supplementing Directive 2010/30/EU with regard to the energy labelling of professional refrigerated storage cabinets; Delegated Regulation (EU) 2015/1186 of 24 April 2015 supplementing Directive 2010/30/EU with regard to the energy labelling of local space heaters; Delegated Regulation (EU) 2015/1187 of 27 April 2015 supplementing Directive 2010/30/EU with regard to energy labelling of solid fuel boilers and packages of a solid fuel boiler, supplementary heaters, temperature controls and solar devices; Delegated Regulation (EU) 65/2014 of 1 October 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of domestic ovens and range hoods; Delegated Regulation (EU) 812/2013 of 18 February 2013 supplementing Directive 2010/30/EU with regard to the energy labelling of water heaters, hot water storage tanks and packages of water heater and solar device; Delegated Regulation (EU) 811/2013 of 18 February 2013 supplementing Directive 2010/30/EU with regard to the energy labelling of space heaters, combination heaters, packages of space heater, temperature control and solar device and packages of combination heater, temperature control and solar device; Delegated Regulation (EU) 874/2012 of 12 July 2012 supplementing Directive 2010/30/EU with regard to energy labelling of electrical lamps and luminaires; Delegated Regulation (EU) 392/2012 of 1 March 2012 supplementing Directive 2010/30/EU with regard to energy labelling of household tumble driers; Delegated Regulation (EU) 626/2011 of 4 May 2011 supplementing Directive 2010/30/EU with regard to energy labelling of air conditioners; Delegated Regulation (EU) 1062/2010 of 28 September 2010 supplementing Directive 2010/30/EU with regard to energy labelling of televisions; Delegated Regulation (EU) 1061/2010 of 28 September 2010 supplementing Directive 2010/30/EU with regard to energy labelling of household washing machines; Delegated Regulation (EU) 1060/2010 of 28 September 2010 supplementing Directive 2010/30/EU with regard to energy labelling of household refrigerating appliances; Delegated Regulation (EU) 1059/2010 of 28 September 2010 supplementing Directive 2010/30/EU with regard to energy labelling of household dishwashers.

53 Regulation (EU) 2016/1952 of 26 October 2016 on European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC; Regulation (EC) 1099/2008 of 22 October 2008 on energy statistics.

54 Regulation (EU) 347/2013 on guidelines for trans-European energy infrastructure and repealing Decision 1364/2006/EC and amending Regulations (EC) 713/2009, (EC) 714/2009 and (EC) 715/2009.

55 General Policy Guidelines on the 2030 Targets for the Contracting Parties of the Energy Community; Recommendation of the Ministerial Council of the Energy Community 2018/1/MC-EnC on preparing for the development of integrated national energy and climate plans by the Contracting Parties of the Energy Community; Recommendation of the Ministerial Council of the Energy Community R/2016/02/MC-EnC on preparing for the implementation of Regulation (EU) No 525/2013 on a mechanism for monitoring and reporting greenhouse gas emissions.

All the Contracting Parties of the EnC have prepared roadmaps and appropriate action plans for implementation of the European legislation in all fields of action and they have been submitted to the EnC Secretariat. In its latest regular Annual report on implementation of the acquis [25], the Secretariat assesses that most countries have successfully transposed the agreed acquis in the national legislation but identifies series of inconsistencies in its application and the real opening of the energy markets.

2.6 ELECTRICITY AND NATURAL GAS

The problematics of transposition and implementation of the EU legislation from the Third Package is the subject of lengthy and detailed interpretation and guidance. The material presented in this work is primarily based on analysis of literature [26], for the needs of Members of Parliaments from the WB.

The integration of SEE in the internal markets of the EU on electricity and natural gas is conditioned by the implementation of the EU acquis and the application of EU market models for those energies. The EU electricity markets are not based on a unique concept, but have evolved from different regional models, and they all fulfil the requirements of the law that regulates the energy sector. Still, several aspects have been aligned and coordinated either through application of legislation or through a voluntary approach.

During the 2005 - 2009 legislative period, the EU leadership in the area of energy worked hard on drafting the Third Package and on promoting the target of reducing GHG emissions by applying series of measures, popularly called targets “20-20-20 by 2020” [27]. Besides this very important technical precondition for achieving this target, which is the construction of high voltage Trans-European Super Grid to transmit expected vast amount of intermittent production of electricity from RES and several projects in natural gas, a backbone of the new energy policy is establishing the functioning Internal Market for energy. Integration of the internal energy market is to a large extent already achieved in the EU, following the implementation of the Network Codes. What remains is the challenge for a full implementation of the Third Package, including here the Network Codes, by the parties to the EnC Treaty, with a view to fully complete the common pan-European Energy Market.

The Third Package was adopted on 13 July 2009 and its full implementation for EU Member States was due by March 2011 and for the EnC Contracting Parties by 1 January 2015. The Package aims to tackle structural problems that were detected in the past. These specifically include vertical integration of

companies and high degree of market concentration, lack of market integration at the EU level as well as non-unified powers and competences of energy regulators.

In order to remove these barriers, the legal framework from the Third Package requires effective unbundling of transmission and distribution networks, appointing of a single National Regulatory Authority for Energy (NRA) for each Member State/Contracting Party authorized with strong powers, as well as improved transparency. In addition, according to the Third Package, more efficient coordination of NRAs is to be achieved through the new EU Regulatory Agency – ACER, which receives advisory role to the EC. Moreover, the further institutional straightening is demonstrated by establishing new forms of cooperation of electricity and natural gas network operators ENTSO-E and ENTSO-G, which have a task to work on development of harmonized Network Codes⁵⁶.

The Third Package rules on unbundling aim at preventing companies which are involved both in transmission and in generation and/or supply of energy, i.e. vertically integrated undertakings (VIUs)⁵⁷, from using their privileged position as operators of a transmission network to prevent or obstruct access of network users – of other than their affiliated companies – to their network. Namely, a VIU active in generation or supply which at the same time owns transmission network assets can misuse its control⁵⁸ over the network in order to prevent or limit competition in other areas. Such actions can distort the level playing field and render market entry more difficult, which could lead to reinforcing the market power of the incumbent VIU. This way the undertaking would lose the incentive to invest in the network expansion, which would destimulate new investments in production or supply.

The unbundling requires the effective separation of activities of energy transmission from production and

56 All the Network Codes were adopted until the end of 2017, so their implementation is a matter of daily work in the EU, and the EnC is working on their full integration in the binding legislation of the CPs (note, 27 June 2020).

57 Directive 2009/72/EC, Article 2, Definitions, paragraph 21: “vertically integrated undertaking” means an electricity undertaking or a group of electricity undertakings where the same person (natural or legal) or the same persons are entitled, directly or indirectly, to exercise control, and where the undertaking or group of undertakings perform at least one of the functions of transmission or distribution, and at least one of the functions of generation or supply of electricity”; An analogue definition exists in the Directive on natural gas markets.

58 Within the meaning of the Third Package legislative acts, “control” shall refer to rights, contracts or any other means which, either separately or in combination and having regard to the considerations of fact or law involved, confer the possibility of exercising decisive influence on an undertaking, in particular by: a) ownership or the right to use all or part of the assets of an undertaking; b) rights or contracts which confer decisive influence on the composition, voting or decisions of the organs of an undertaking”

supply interests. It aims at ensuring non-discriminatory access to networks as an essential condition to allow fair competition between suppliers and stimulating investment in infrastructure, also when construction of new interconnectors may negatively impact on the market share of the vertically related supplier.

According to the Third Package the core duties of the NRA are as follows:

- to fix or approve the transmission, distribution tariffs and balancing services or their methodology;
- to enforce the customer protection provisions and
- to monitor market operation.

It is also important to note that the Third Package gives the NRA a clear regional mandate: the NRA must promote competitive, secure and environmentally sustainable markets for electricity and gas in the EnC.

NRAs were not only given extensive duties but also the necessary powers to be able to carry out their duties. The minimum but not exhaustive list of powers that have to be assigned to NRAs includes [28]:

- to issue binding decisions on electricity and gas undertakings;
- to carry out investigations into the functioning of the electricity and gas markets, and to decide upon and impose any necessary and proportionate measures to promote effective competition and ensure the proper functioning of the market,
- to require any information from electricity and natural gas undertakings relevant for the fulfilment of its tasks. It remains up to the NRA alone to judge whether the information it asks from the undertaking is relevant,
- to impose effective, proportionate and dissuasive penalties on electricity and gas undertakings not complying with their obligations. Contracting Parties have the choice to assign the power to impose penalties to the NRA or to give the NRA the power to propose to a competent court (but not to any other public or private body) to impose such penalties. It needs to be underlined that the NRAs' duties include follow up on non-compliance of electricity and gas undertakings with Network Codes, once made legally binding in the EnC.

In order to improve the operation of the retail market, the new provisions not only relate to measures for customer protection, but they also promote retail competition extending the role of the NRAs.

The third package introduced a new provision related to retail markets which requires that the

Contracting Parties must ensure that the roles and responsibilities of energy undertakings, for example distribution system operators and suppliers, are defined with respect to contracting arrangements, commitment to customers, data exchange and settlement rules, data ownership and meter responsibility. The rules must be subject to review by national regulatory authorities and other relevant national authorities [28].

Moreover, the role of the national regulators was broadened to include additional monitoring and regulation of the operation of the internal energy market. They have been given an enhanced role of ensuring that customers benefit from the efficient functioning of their national market, promoting effective competition and helping to ensure customer protection. This provision requires working closely with other national organisations responsible for the protection of customers, such as customer bodies and competition authorities, to ensure that customer protection measures are effective. This provision also imposes a duty to monitor the effectiveness of market opening and competition at the retail level through a number of listed indicators.

Moreover, the NRA shall also examine the supply prices to determine whether they are at the necessary minimum to protect customers, vulnerable or otherwise, while not inhibiting effective competition in the market and where needed information shall be provided to the national competition authorities.

Additionally, unlike the Second package, under which the Contracting Parties were under an obligation to designate TSOs, the third package adds an obligation for a certification of the TSOs by the regulatory authorities before their designation by the Contracting Parties. The aim of this procedure is ensuring that the unbundling provisions are complied with, and not just for selection of a TSO among the competing companies to take place. The designation of the TSOs shall be notified to the EnC Secretariat and published in a dedicated section of the EnC website. The same certification procedure applies to the ownership, irrespective of the unbundling model chosen [28].

2.6.1 Unbundling of Transmission System Operators

Regarding the unbundling of TSOs, the Third Package gives an opportunity for the alignment with the respective Directives by choosing one of the endorsed unbundling models, which apply equally to both electricity and gas sector: Ownership Unbundling (OU), Independent System Operator (ISO) and Independent Transmission Operator (ITO). These three options provide for different degrees of separation, but they should all be "effective in removing any conflict of

interests between producers, suppliers and TSOs, in order to create incentives for the necessary investments and guarantee the access of new market entrants under a transparent and efficient regulatory regime and should not create an overly onerous regulatory regime for national regulatory authorities". The schematic representation of the three unbundling models is given in the Figure 6.

However, even though the three models of unbundling are all acceptable under the Third Package, they are not equally favourable in terms of the further Internal Energy Market development. Actually, the OU model is the rule, while both the ISO and the ITO models are alternative options in case the country decides not to apply OU and are available only if VIU existed in the respective Contracting Party on 6 October 2011.

All the Contracting Parties to the EnC fulfil the condition to implement any of the unbundling models, which in turn gives an opportunity to the NPs to truly exercise their legislative powers and take responsibility for selection of an unbundling model at the stage of enforcing the respective primary law.

For clarification of the above statement, it is important to stress that the provisions of OU model have to be transposed into the national legislation even in case the Contracting Party designates ISO or ITO model. This is for the reason that the VIU owning a transmission system cannot be prevented from complying with the requirements of OU, if it decides to do so [29].

The decision to apply the EU favourite OU model only, even if at the first glance it might look difficult and dramatic, contains potential to save a lot of

administrative efforts and funds in the later stages of its implementation. These savings might be of a great importance for the WB countries, bearing in mind their sizes and administrative capacities. Some arguments in favour of this statement are presented in the following subtitles.

Ownership unbundling

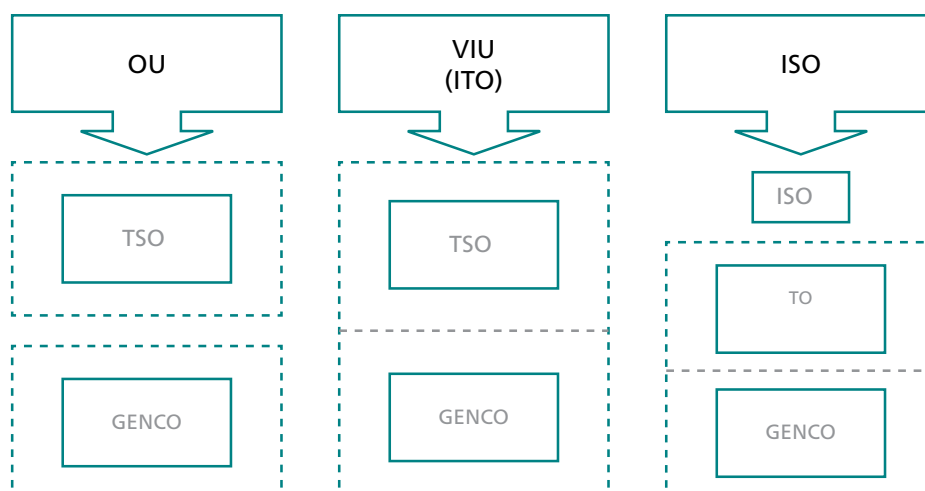
Compliance with the OU strongly means that the undertaking which is the owner of the transmission system also acts as the TSO and is as a consequence responsible among other things for granting and managing third-party access on a non-discriminatory basis to system users, collecting access charges, congestion charges, and payments under the European wide Inter-TSO Compensation (ITC) mechanism, and maintaining and developing the network system. As regards investments, the owner of the transmission system is responsible for ensuring the long-term ability of the system to meet reasonable demand through investment planning.

When OU is implemented, the owner of a transmission system shall in any case act as a TSO. However, the same natural or legal person (person) cannot exercise control over a generation or supply company and at the same time exercise control or any right over a transmission system, and vice versa. The same person cannot appoint board members of a TSO and exercise control or any right over a generation or supply company.

The OU means separation of the ownership of the assets between the network and the production and supply activities of the previously VIU. In common

FIGURE 6
Schematic view of the unbundling models, in accordance with the Third Package [26]

Who owns, operates, maintains and develops transmission system?



language, it requires creation of a separate company which owns and operates the networks. This in any sense does not mean “privatization” of any of the transmission/generation/supply company which is in state ownership, but rather their separation in terms of control mechanisms. For such separation, most of the times, it would be required that the national law on government would need to be amended to allow for independent decision making processes in transmission and generation or supply businesses.

ISO model

Specific to this model, the Contracting Parties could designate an ISO on a proposal by the transmission system owner. The designation shall be subject to the opinion of the EnC Secretariat upon certification of the ISO by the NRA. When ISO model is chosen, the ownership of the transmission grids remains with the VIU, but technical and commercial operation of transmission system is performed by the ISO, acting as a TSO. The ISO must be independent from supply or generation interests and must ensure the same effectiveness of the separation of activities, in terms of control mechanisms, as OU.

The ISO, when appointed and designated, shall be solely responsible for carrying duties and responsibilities of the TSO, irrespective of the ownership of the transmission network. The ISO shall be responsible for granting and managing third-party access, including the collection of access charges, congestion charges, and payments under the ITC mechanism. It shall moreover have a strong say in investment planning and takes investment decisions by being responsible for operating, maintaining and developing the transmission system, and for ensuring the long-term ability of the system to meet reasonable demand through investment planning (including construction and commissioning of the new infrastructure).

In other words, the ISO shall act as a TSO within the same scope of competences and powers as it would be the case for the TSO designated under the OU model. At the same time, the transmission system owner has to be legally and functionally unbundled from the VIU. It will have specific tasks, which include an obligation for financing the investments decided by the ISO.

In this regard, the TSO would only act as an owner of the network and of the company financing the network development duly following the investment plan prepared by ISO and approved by the NRA.

For the realization of the scheme between the ISO and the network owner, a significant regulatory involvement is needed through stricter regulation

and permanent monitoring. Those regulatory duties and powers are additional to the regular duties of the NRAs regarding TSOs, which means that the duties specific to ISO monitoring apply in addition to duties regarding regulatory oversight over ownership unbundled TSO. In particular, the regulatory authorities shall monitor the transmission owners and ISO compliance with their obligations.

In addition, NRA would be authorized to carry out inspections, including unannounced inspections, at the premises of the ISO and the transmission network owner, in order to investigate the compliance with obligations set for their independence and unbundling, and to verify the data, information and their justification provided in this regard.

Moreover, the national competition authorities are granted powers to effectively monitor compliance of the transmission system owner with its obligations.

ITO Model

Under the ITO model, the generation or the supply company can own and operate the network. If it is part of the VIU, the management of the network must be done by a subsidiary of the parent company, which can make all financial, technical and other decisions independently from the parent company.

Detailed rules on independence of ITO cover rules concerning assets, equipment, staff and identity; effective decision making rights; independence of management; supervisory body.

The ITO has to be organized in the legal form of a limited liability company. The ITO must not, in its corporate identity, communication, branding and premises, create confusion in respect of the separate identity of other parts of the VIU. Subsidiaries of the VIU performing functions of generation or supply cannot have any direct or indirect shareholding in the ITO and vice versa. In practice this means that the generation or the supply subsidiary and the ITO can be positioned under a common parent company, but cannot be a direct or indirect subsidiary of each other. All commercial and financial relations between the ITO and other parts of the VIU must comply with market conditions and must be revealed to the NRA upon request whereas those giving rise to a formal agreement must be submitted for approval to the NRA.

The Directives further require ITO to be autonomous or that ITO is equipped with all financial, technical, physical and human resources necessary to fulfil its obligations and to carry out the activity of electricity or gas transmission. As regards financing, the general rule is that “appropriate financial resources for future

investment projects and/or for the replacement of existing assets must be made available to the ITO by other parts of the VIU in due time.” These resources have to be approved by the Supervisory body and the ITO must inform the NRA of these financial resources.

ITO must strongly influence the planning of investments for acquiring assets on the capital market. To ensure the necessary investments in the network, the directives impose specific obligations on the ITO for network development and investment decisions. Every year, the ITO shall submit to the NRE a ten-year network development plan, which must indicate to market participants the main transmission infrastructure that needs to be built or upgraded over the next ten years, and to provide a timeline. The plan shall include indication of all investments that have already been decided and to identify the new investments that need to be realized in the next three years. The NRE shall consult all existing and potential system users regarding the ten-year development plan in an open and transparent manner and shall publish the result of the consultation process and examine whether the plan covers all investment needs identified during the process. The NRE may ask the ITO to amend its ten-year network development plan.

If the ITO does not execute an investment, the Contracting Party must ensure that the NRA is required to either oblige the ITO to execute the investments in question; to organise a tender procedure open to any investors for the investment in question; or to oblige the ITO to accept a capital increase to finance the necessary investments and allow independent investors to participate in the capital. Actually, through the implementation of these measures the Contracting Parties have an obligation to ensure that the investment in question is made.

Additionally, the specific rules concerning the connection to the transmission system of new power plants, storage facilities, LNG regasification facilities, and industrial customers, ensure that the ITO does not discriminate competitors of the generation part of its VIU. In fact, access cannot be refused due to possible future limitations to network capacity or additional costs related to capacity increase.

The Directives on the electricity market [30] and natural gas [31] from the Third Package also set out rules on the independence of the management (persons responsible for the top management) of the ITO. Depending on the form of the undertaking and its statute, the independence pertains to the members of the executive leadership of the ITO – which usually means president, manager and/or chief executive director – and/or any other member of the board who

has the decision-making right, with the exception of the members of the supervisory board of the ITO.

In addition to aligning with the independent management rules, the VIU is under obligation to establish and implement a Compliance program, which shall set out the measures to be taken to ensure that discriminatory and anti-competitive conduct is excluded. Such a program shall be notified to the NRA and ECRB.

A Supervisory body has also to be appointed, in charge of preserving the financial interest of the mother company without being involved in the day-to-day business. It shall be comprised of members of the VIU, third party stakeholders and other interested parties.

Moreover, a compliance officer shall be appointed by the Supervisory body, subject to approval by the NRA. The Compliance officer is specifically in charge of ensuring observance of the compliance programme and has a general role as regards guaranteeing that the ITO is independent in practice and does not pursue discriminatory conducts. The Compliance officer is subject to the same independence rules as the management of the ITO. Its tasks include monitoring the implementation of the compliance program, annual reporting to the NRA, and giving recommendations to the supervisory authority as regards the program implementation. It informs NRA on the commercial and financial relations between the VIU and TSOs. It can attend all meetings of the management or administrative bodies of the TSO, as well as those of the Supervisory body and the General assembly and it shall have access to all relevant data.

The ITO is the model that requires the highest level of regulatory involvement through heavy regulation and permanent monitoring, and in this regards it has been named colloquially, as the “regulatory nightmare model”. If eventually chosen for implementation, it would bring even more exhaustive duties and powers to NRA in the certification process and especially in the application of monitoring and inspection procedures. Similarly to the ISO, those regulatory duties and powers are additional to the regular duties of the regulatory authorities regarding transmission system operators. Those powers increase the power to control the behaviour of the ITO and to sanction any discriminatory behaviour. In particular, the NRA shall monitor communications between the ITO and other parts of the VIU and shall monitor commercial and financial relations between them. It shall act as dispute settlement authority between the ITO and the VIU. The NRA shall have a right to carry out inspections, but also to issue penalties for discriminatory behaviour favouring the VIU [28].

2.7 RENEWABLE ENERGY SOURCES

The Directive 2009/28/EC on renewable energy [32], has been adjusted from the Secretariat of the EnC and adopted by the MC in October 2012, with the objective to integrate it in the EnC Treaty. Thus, the Contracting Parties of the EnC were obligated to establish mandatory national targets for progress in the use of RES, coupled by an additional target to achieve 10% increased participation of energy from RES in transportation by 2020. Namely, Article 4 of the Directive entails adoption of a National Action Plan for RES⁵⁹ which shall identify the mandatory national targets on the percentage of RES in the consumption of fuels for transportation, electricity, heating and cooling by 2020, as well as appropriate measures for achieving these targets. This directive, despite the adoption of the Clean Energy Package in the EU, still regulates the part of the EnC legislative framework dealing with the promotion and use of energy from RES. Presently⁶⁰, the Contracting Parties and the EnC Secretariat are summing up results of the achievement of the mandatory national targets for 2020 and new ones are being set up for 2030.

With a view to fulfilling the mandatory national targets, Article 3 of the Directive 2009/28/EC stipulates the introduction of SS for using RES, or cooperation between Contracting Parties and Member States of the EU or the other countries. These mechanisms are envisaged to help to achieve the mandatory national targets, in conditions when the electricity market is not fully able to provide the needed investments in new technologies for RES, that is, when intervention is needed from the states. At the same time, Contracting Parties are obligated to adhere to the rules on competitiveness and state aid, described in the Second Chapter, in Articles 18, 19, as well as in Annex 3 of the EnC Treaty [3].

In April 2014, the EC published Guidelines on state aid for environmental protection and energy 2014-2020 (EEAG)⁶¹ [33]. Among others, they define the conditions which SS must fulfil in order to safeguard compliance with state aid rules, in order to strengthen the EU Single Energy Market (Internal Market), to stimulate effectiveness of public spending, to introduce better oversight when implementing these mechanisms, and to limit the support in order to

reduce any negative effects on the EU's internal energy market competition.

On 24 November 2015, the EnC Secretariat reinforced its commitment to follow the guidelines of the EEAG, by which the EEAG has become the reference document on assessing progress of Contracting Parties in terms of the compliance of the application of state aid in energy, and environmental protection [34]. The Contracting Parties shall adhere to the guidance of the EEAG, which implies taking a new approach when developing the SS on RES, and an increased oversight over their implementation. Based on EEAG, in December the same year, the EnC published the Policy Guidelines on the Reform of the Support Schemes for Promotion of Energy from Renewable Sources [35].

2.7.1 Justification of the Need to Change Approach when Establishing Support Schemes

According to Article 2(k) of the Directive 2009/28/EC [32], "support scheme" is defined as "any instrument, scheme or mechanism applied by a Member State or a group of Member States, that promotes the use of energy from renewable sources by reducing the cost of that energy, increasing the price at which it can be sold, or increasing, by means of a renewable energy obligation or otherwise, the volume of such energy purchased." The support can be operational feed-in tariff (FIT), feed-in premium (FIP), green certificate or can be in the form of investment aid (investment grants, favourable loans, tax exemptions or reductions, tax refunds). When approving the operative support or investment support, the tender procedure may be applied [36].

All Contracting Parties have so far implemented SS for the use of RES in the form of operational aid, which in several cases is accompanied by investment aid to electricity producers from RES. Initially, SS based on FITs were introduced, as being most effective for ensuring the security of investors in terms of generating income and effectuating the use of RES potential. However, these SS do not take into account the reduction of the cost of RES electricity generation technologies, as well as the large administrative barriers in the process of licensing, permit issuance, and grid connection. Therefore, the application of these SS has not resulted into significant investments in RES, and in some Contracting Parties, they even proved to have contributed to reducing investor security, and created unnecessary burden on customers, which has led or may lead to disputes and deter new participants from joining the electricity market [36].

In order to rectify these shortcomings, and to additionally reduce investment risks, at the same time ensuring public support concerning the idea

59 The expression National action plan for RES is the Macedonian translation of the English term "National Renewable Action Plan" (NREAP)

60 June 2020

61 Guidelines on State aid for environmental protection and energy 2014-2020 (EEAG) are in force as of 1 July 2014 and have repealed the Guidelines on state aid for environmental protection and energy which came into force in 2008. These guidelines are in line with those of the EC on public support to the energy sector with state intervention, which does not necessarily mean assistance from the state.

of development of technologies and electricity production from RES, in October 2013 the EC published the announcement “Delivering the internal market in electricity and making the most of public interventions”⁶². This announcement is comprised of four parts which recommend development guidelines, one of which tackles the topic of amending the SS for the optimal use of RES. The guidelines envisage flexible and market-oriented solutions in order to avoid market distortions caused by approving bigger support than needed, which occurs due to reduced expenses for production of certain technologies of RES [37].

2.7.2 Recommendations for Reforms to Support Schemes for Electricity Production from Renewable Energy Sources

With a view to achieving the overall mandatory national targets for increasing energy production from RES and establishing SS for RES in accordance with the EEAG requirements, Contracting Parties need to follow the guidelines issued by the EnC Secretariat [35]:

1. *Planning and approving a fixed Budget for promoting electricity produced from RES and ensuring that Contracting Parties are following the trajectory for achieving the mandatory national targets for using the RES.*

The total state costs for achieving the mandatory national targets can be transferred and distributed among electricity customers or all taxpayers through the public budget. The costs for ensuring enough support for electricity production from RES are usually expressed as uplift charge⁶³, which is calculated separately and is clearly indicated in the electricity bills. Another approach is for the charges to be distributed to customers through the transmission tariff, which is also part of the customers' electricity bill. In case that expenses for SS are projected in the public budget, they can be distributed to all taxpayers in the form of taxes for renewable energy.

2. *Public debate with the relevant stakeholders at the national level and sharing across information about the draft SS with the authorities awarding state aid*

When speaking of the development and implementation of SS at the national level, consultations with all stakeholders are of pivotal importance,

as well as the transparency during their development. Furthermore, before being adopted, each SS should be submitted to the state aid commission and to the EnC Secretariat for review, in order to establish whether the concrete SS meets the rules of the EnC on state aid and the EEAG.

3. *Ensuring support for RES through specified bidding procedures*

Creating a tender in order to determine the support for electricity producers from RES is extremely important and requires consideration of several aspects. The idea is to achieve the goal of gradually reducing the level of support while choosing the most competitive technology. Namely, according to the EEAG, as of 2017 any type of support for RES, whether operational or investment-based, should be provided through competitive bidding procedure in a transparent and non-discriminatory manner, unless it is concluded that the competitive bidding procedure leads to an increase of support costs. In order to neutralize the occurrence of strategic bidding, the highest and lowest allowed price can be determined in the tender.

The bidding, which is independent of the location and technology of the RES, will help select the most competitive bid in the tender and reduce the support to a minimum level, which will ensure the cost-effectiveness of the SS. However, in order to achieve other goals, such as diversity of technologies, resolving the problem of possible network limitations, system stability and reducing integration costs, tenders for a specific technology may be announced. In addition, a simple and comprehensive tender procedure is needed to support the production of electricity by small electricity producers from RES in order to minimize administrative barriers and to determine whether the goal has been achieved in relation to the envisaged total installed capacity. If the producers do not meet the prescribed requirements of the tender, they are obliged to pay penalties. The outcome of the tender should be available to the public.

4. *Introducing feed-in premiums as SS for RES*

As of 2016, SS based on FITs are no longer in compliance with the rules of state aid if they are open to all market participants and if the support was not provided through tender procedure. Namely, FIPs are most appropriate SS to inherit the existing FITs which are presently awarded under the principle “first-come-first-serve”. In fact, it is the FIPs, awarded through tender procedure, as opposed to the “first-come-first-serve” principle that are compatible with the internal electricity market principles and shall contribute to abandoning subsidies as a means of supporting RES and equality of technologies on the electricity market from RES.

62 Delivering the internal market in electricity and making the most of public interventions, <https://ec.europa.eu/energy/en/topics/renewable-energy/support-schemes>

63 The term “uplift charge” refers in this case to the clear allocations in the electricity bills and the related services, of the amount which is individually paid for supporting the RES.

The introduction of FIP with a view to replacing the existing FIT is a process which takes place in parallel with the introduction of competitive electricity markets with the introduction of a day ahead market in the six Contracting Parties of the WB. Electricity producers are entitled to sell electricity by concluding bilateral agreements or on the Power Exchange and in addition to the generated income from sales of electricity, to receive additional premium (fixed or variable) for the sold electricity.

By coupling of electricity markets of Contracting Parties and their connecting with European electricity markets, the introduction of a joint regional system for implementing SSs based on FIP can be considered as the most appropriate and efficient SS for developing RES production and technologies.

5. Establishing a RES operator to manage the SS for RES

The appointment of a single institution that will implement the SS for RES, that is, an operator for RES, is an effective approach to supporting preferential electricity producers (PEP). In many countries, this role is conferred to the Electricity Market Operator (EMO), TSO or to a separate institution which is legally separated from the TSO. Considering that the EMO plays a significant role in the electricity market and in market coupling, and that the TSO is managing the access to the grid, it is important to point out that the institution tasked with managing the SS for RES, or the TSO, needs to be legally separated from any other activity on the electricity market⁶⁴.

6. Consider “shallow” approach for the charging regime related to connection to the grids

Considering that network connection costs are an important part of the investors’ decision to invest in electricity generation from RES, the Directive [32] calls upon Contracting Parties to develop transmission and distribution infrastructure, in the sense of developing smart networks, systems for storing electricity and of the power system as a whole, to ensure security of work and further increase of electricity production from RES. Additionally, transparency towards interested investors must be ensured, and the network connection rules must be based on objective and non-discriminatory criteria.

7. Introduce balance responsibility for large electricity producers from RES

The exemption from balance responsibility on the electricity market for the PEPs was introduced as part of the FIT support. However, the requirements of EEAG from 2016 are aiming towards gradual introduction of balance responsibility for medium and large PEPs. The latter, in turn, may be the main reason for the formation of competitive balancing energy markets in the Contracting Parties, which will allow signals from power and balancing markets to reach producers. Taking of balance responsibility, in a non-discriminatory manner, for all participants in the electricity market is key to achieving transition towards flexibility and resource efficiency.

The low (unsubstantial) level of competition on state markets of balancing energy among Contracting Parties, where one provider of ancillary services for balancing energy dominates, combined with discriminatory balancing regimes and regulation of balancing reserves, as well as the electricity price, will be overcome with the application of cross-border balancing in the Contracting Parties.

Closing time of cross-border auctions needs to be aligned and be brought close to the real time. This is indispensable, in order to enable production integration from PEPs with an intermittent nature (solar and wind power), and to minimize costs caused by errors in prognosis.

8. Avoiding any retroactive changes to the SS that will influence the return of the already made investments and ruining the legitimate expectations of investors

The security and investors’ trust can be jeopardized by different disruptions of the SS or introducing of retroactive changes that affect their expectations. This approach needs to be avoided as it leads to court disputes, increases producers’ risks and deters investors. Additionally, increased costs for development of new projects reduce the level of acceptance of electricity produced from RES on the part of the public.

2.8 ENERGY EFFICIENCY

2.8.1 Legislative Framework on Energy Efficiency in the Energy Community

The legislative framework on energy efficiency of the EnC almost entirely overlaps with that of the EU and it is elaborated in detail in section 2.5 of this text. This subsection focuses on the fundamental directives in this area. Above all, that is the Directive on energy

⁶⁴ In the Republic of North Macedonia, the enterprise AD MEPSO – Skopje is licensed to perform the functions of TSO and EMO. EMO of the Republic of North Macedonia (MEMO) is legally separated from the enterprise AD MEPSO – Skopje.

efficiency 2012/27/EU, [17], which was integrated in the EnC framework in October 2015. The Contracting Parties were expected to implement this Directive within two years⁶⁵.

Directive 2012/27/EU, [17], requires from countries a more efficient energy use in all stages of the energy chain, from generation to the final consumption. Article 7 thereof determines the national mandatory energy efficiency targets, which need to be implemented by means of energy efficiency obligation schemes. The target percentage is lower for Contracting Parties compared to that for EU Member States and seeks that energy companies achieve annual energy savings of 0.7% from the annual sales of producers. This obligation is complementary to that of Article 5, pertaining to the targets for renovation of buildings and both comprise the mandatory level of savings which every country must attain [38].

Within the obligation schemes, obligated parties (energy enterprises) established by the state authority must implement measures that help customers improve their energy efficiency. Such measures may include improving the heating systems in their homes, installing windows and doors with reinforced insulation, insulating walls and roofs, etc. In addition to implementing these schemes, Article 7 of the Directive allows Contracting Parties to choose alternative measures in their energy policies to be implemented by the government or other public institutions, as long as they result in reduced energy consumption. Such energy policy measures may include fossil fuel taxes, stricter building codes, voluntary contracts, training, educating or informing the public and similar measures. Obligation schemes and alternative energy policy measures can be used in case the individual measures do not give satisfactory results. Contracting Parties to the EnC are required to submit periodic plans related to the implementation of measures from the Directive 2012/27/EU, called National Energy Efficiency Action Plans (NEEAPs), to the EnC Secretariat. The first submitted plans are due to expire in October 2020 [38].

The latest report on the targets in the area of energy efficiency of the EnC Secretariat [38], indicates that the process is delayed in all Contracting Parties, firstly due to the delayed transposition of Directive 2012/27/EU and hence, Contracting Parties were not prepared to design and implement proper energy efficiency obligation schemes. Such outcome is related to the fact that many Contracting Parties are quite small, and there are only a few energy distributors or suppliers that can be nominated as obligated parties to implement proper energy efficiency obligation schemes. In addition, in the absence of market competition, many governments feared that an energy efficiency obligation scheme

may trigger significant retail price increase for some energies. Therefore, the large majority of Contracting Parties opted for implementation through alternative policy measures incorporated in governments' energy policies and funded by budget funds.

Furthermore, EU Directive 2012/27/EU has been upgraded with amendments to Directive 2018/2002/EU, in which obligations arising from Article 7 have been continued until 2030. Most probably, the new directive will be adopted soon by the EnC which means that very likely the target percentage of 0.8% annual savings of the final energy consumption will be adopted, as it is the case in the EU. This target will surely be out or reach to the Contracting Parties, unless application of combined measures is strengthened.

Equally important in this area is the Directive 2010/31/EU, which sets out the minimal legal requirements for energy performances of the new and existing buildings in terms of the energy efficiency. Unfortunately, the implementation of this Directive within the Contracting Parties of EnC, according to the estimate of the Secretariat⁶⁶, is characterized as having an incomplete or insufficient legal or institutional scope. The certification of buildings is one of the most advanced areas of transposition. Most frequent problems include the development of a proper scheme on cost-optimal calculation of energy performances of buildings, certification software for energy performances, preparing national inventories on buildings as well as educational and informative campaigns focused on the public.

Another Regulation worth mentioning in this area is Regulation (EU) 2017/1369, which sets out the legal scope of regulating the so called "energy-related products", placed on the market or put into use as available services. The Regulation imposes an obligation for labelling of these products and providing standardized information on the energy efficiency of the products, on their energy consumption and on additional product characteristics which enable customers to select more efficient products with a view to reducing electricity consumption. This new Regulation is repealing Directive 2010/30/EU and enters into force as of 1 January 2020⁶⁷.

2.8.2 Instruments for Overcoming Financial Barriers in Energy Efficiency

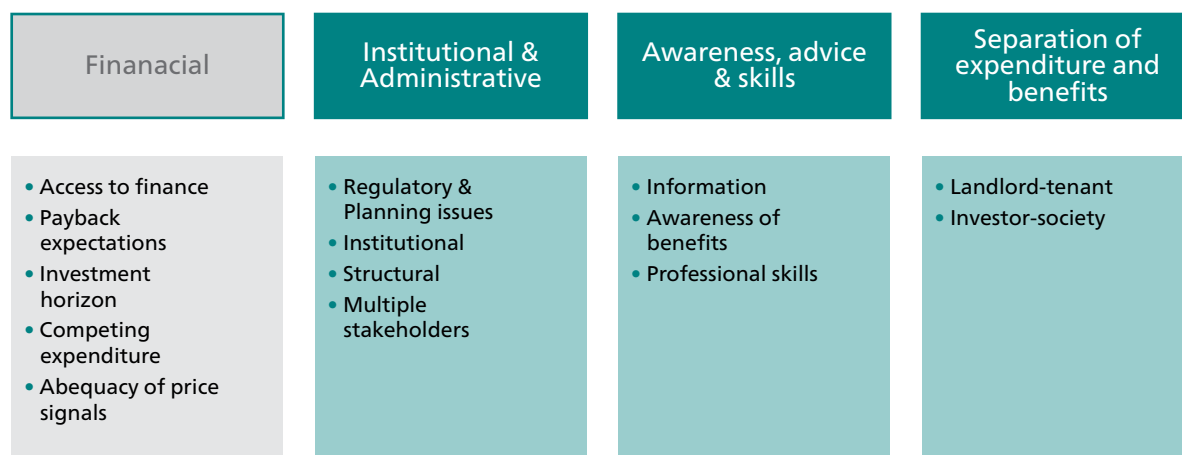
The main types of barriers occurring during the implementation of energy efficiency measures are structurally identified in Figure 7 [39].

65 <https://www.energy-community.org/legal/acquis.html>

66 <https://www.energy-community.org/legal/acquis.html>

67 <https://www.energy-community.org/legal/acquis.html>

FIGURE 7
Main types of barriers in energy efficiency measures, [39]



The instruments available to the Contracting Parties for overcoming financial barriers when implementing energy efficiency measures, according to the EnC Secretariat, include the following [39]:

1. Grants,
2. Guarantees,
3. Preferential loans,
4. Energy performance contracting with Energy Service Company (ESCO) finance, and
5. Energy performance contracting with owner finance.

Grants are non-reimbursable financial contributions for the implementation of specific measures selected by the final recipient from a pre-defined list. Grants are one of the most common forms of financing for energy efficiency projects, particularly where technologies are pre-commercial or in the early stages of commercial deployment or are otherwise prohibitively expensive.

The advantages of use of grants are contained in the following arguments. They:

- Are versatile and can be used to achieve a variety of energy policy objectives (e.g. to support innovation and technology development, target specific end-users (consumers) to meet social policy objectives such as energy poverty),
- Can be used for proof of concept and demonstration activities and to encourage uptake of innovative or beyond cost-optimal measures,
- Enable the implementation of energy efficiency measures identified as priorities by policy makers,

- Conditions can be attached to grants to stimulate further private investment (e.g. require the simultaneous installation of other energy efficiency measures),
- Represent a flexible mechanism that can be used in combination with other financial mechanisms or technical assistance packages, and
- Are particularly suitable for economically depressed areas, immature or financially constrained market.

The following are weaknesses of the grants:

- Risk that desired outcomes are not achieved,
- Risk of budgetary overspending if grant distribution process is not carefully communicated and managed,
- Can only be used once, therefore limiting the utility and sustainability of public funding,
- Limited leverage and impact, tendency towards over-priced solutions.

Guarantees refer to a risk sharing mechanism where “the guarantor” entity assumes a debt obligation in case a borrower defaults.

Guarantees can be partial, where the guarantor is only liable for part of the outstanding balance at the time of default, usually defined as a fixed percentage. A loan guarantee allows beneficiaries/final recipients to receive a loan at a preferential rate since the guarantee covers the risk run by the bank in providing the loan.

Strengths of the guarantee as a mechanism for supporting energy efficiency are the following:

- It helps bridge the gap between the credit risk perceived by the lender and the actual credit risk,

- They can provide additional comfort to financial institutions, in relation to technologies or project approaches where they have less experience,
- Help project developers (or loan applicants) to access finance and reduce the cost of capital investments,
- Increase debt-to-equity ratios, enhancing returns to project developers,
- Guarantees backed by public bodies help to direct the flow of private funds towards energy efficiency projects through risk mitigation, and therefore lever higher levels of private financing.

The weaknesses of guarantees, as a measure of energy efficiency, are that:

- Guarantees are not appropriate in conditions of strict market competition; where liquidity in financial institutions is considered the main barrier to financing, they are of limited use, still they can be a part of a broader strategy to increase lending among banks with good liquidity but a low risk appetite.

Preferential loans refer to the acquisition of funds through borrowing, whereby the lender provides a loan to a borrower for a defined purpose over a fixed period of time. The loan is provided at lower interest rates. Typically the interest rates are fixed over a certain period of time, usually 10-20 years and allow for long-term maturity. The loan configuration varies depending on the borrower, lender and the type of measures taken; however it is usually configured in such way as to take into account real payback time.

The strengths of the preferential loans are as follows:

- Final recipients are incentivized to select the most appropriate and cost effective measures,
- Well understood mechanism among all parties,
- Since loans are repaid, the money can be reinvested into more projects, and
- Provided that the right conditions are present, preferential loan mechanisms are not particularly difficult to administer.

The weaknesses of the preferential loans are that:

- Energy efficiency savings may not always be considered as a cash flow by some financial intermediaries, often extending the payback period for the measure,
- Final recipients do not always see the advantage of a loan with low interest rates and are less incentivized to take part, and
- Not very suitable for poorer households who have no income to repay the loan.

The energy performance contracting funded by ESCO is an arrangement in which a contracting partner (ESCO) enters into an integrated contract with the end-user and the financing institution to design and implement energy conservation measures with a guaranteed level of energy performance for the duration of the contract. The stream of income from energy savings yielded from the measures is used to repay the upfront investment costs, and payment is based on the achievement of energy efficiency improvements and on meeting other agreed performance criteria.

The energy performance contracting in order to finance the investment can be made with ESCO by means of loans from banks or from another investor.

The strengths of this mechanism for supporting energy efficiency are as follows:

- Guarantees a certain level of energy savings and shields the client from any performance risk,
- End-user experiences guaranteed project cost, energy and financial savings, and equipment performance,
- The ESCO has expert knowledge of technical requirements, permit legislation and SSs,
- Enables facility upgrades to be paid for immediately, bringing forward future energy, carbon and operational savings,
- Low interest financing options are often available, including tax-free municipal leases,
- The ESCO represents a single point of accountability, simplifying the upgrade process significantly,
- Annual energy savings can be measured and verified according to the International Performance Measurement & Verification Protocol,
- Applied measures improve working and living conditions and increase value of the building,
- Allows organizations to disconnect project debt from the building owner,
- With this mechanism, ESCO finance, the loan can remain off balance sheet for the building owner and be on balance sheet for the ESCO.

Weaknesses of the energy performance contracting funded by ESCO are:

- Complex arrangement - establishing an EPC is time-consuming and requires external expertise since each project needs to be assessed individually to estimate potential savings,
- After the contract is signed the facility owner is tied to one vendor for the term of the contract,
- ESCOs tend to focus on “low-hanging fruit” options that have shorter paybacks and a lower risk exposure,

which can only be avoided through properly modelled FIs which motivate ESCOs to go deeper renovation,

- The measurement and verification obligation entails continuous monitoring of results (energy saved) while the contract is running,
- Any failure or shortfall from the expected result requires reconciliation to recover the shortfall,
- EPCs only concern an agreement on savings, not on the measures to be implemented during renovations.

In the case of EPC with owner finance, the contractual arrangement between the ESCO and the building owner regarding energy efficiency measure implementation and guaranteed energy performance levels can be the same as for EPC with ESCO finance. The difference is that the building owner provides the money required for the investment (from their own funds or a loan provided by a bank).

This financial instrument generates most of the advantages of an EPC with ESCO financing, including:

- Guarantees a certain level of energy savings and shields the client from any performance risk,
- End-user experiences guaranteed project cost, energy and financial savings, and equipment performance,
- The ESCO has expert knowledge of technical requirements, permit legislation and SSs.

The key difference is that the building owner retains a larger share of the savings realized; the building owner can also take over some of the functions that the ESCO might have performed including ordinary operation management or fault clearance. The EPC package can be tailored to the needs and experience of the building owner, but also when the building owner has a high credit-rating and the possibility to take on more debt, they may be in a position to get lower interest rates than an ESCO.

However, the following weaknesses remain:

- Building technology measures can be mostly refinanced from future energy cost savings within a project period of 10 years, but this is not possible for building construction measures, such as building envelope insulation, so consequently the building owner will be required to make any significant upfront investments,
- When the building owner finances a energy efficiency project with a loan, the loan is capitalized on the owner's balance sheet which then reduces its ability to obtain credit for other projects.

Most of the EnC Contracting Parties are still implementing one of the existing ways of subsidizing

market energy prices, in order to maintain low electricity bills for citizens. The main idea behind subsidies is reducing energy poverty among the population. However, maintaining low energy prices, which can be subsidised directly from the state budget or from state-owned energy undertakings, reduces motivation of households to improve energy efficiency in buildings. In cases when electricity for households is subsidised, this leads to additional deviation in the economical behaviour – electricity is largely used for heating the homes, even in areas where central heating is available.

Nevertheless, such proper allocation of funds for subsidies, could be used as a partial or full refund of an investment (loan) on energy efficiency measures, which could turn subsidies into a useful SS.

The Strengths of such allocated funds for subsidies would be gradually demonstrated through:

- Decrease in the amount of subsidy for energy consumption along with increased motivation for energy efficiency renovation of buildings,
- Resolving the dilemma of the “minimum owner's co-financing rate” in case of loan or other energy efficiency programme - future funds could be treated as owner's contribution and not as subsidies from the state,
- Termination of subsidizing by a state without threats of social upheaval.

The weaknesses of such an approach to supporting energy efficiency are:

- In most cases, households truly in need of subsidies do not have sufficient funds to invest in energy efficiency measures or have a low credit rating,
- The amount of funds transferred from subsidy to refund investment or loan can be too small to cover this investment or loan on appropriate level for the exact household, and
- A real reduction in budget expenditures will occur in a distant future.

2.9 ENVIRONMENT

Within the legislative framework of EnC, the following directives related to the environment are important to be highlighted due to their relevance for the energy sector: Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants, which pertains to the existing thermal power plants (TPPs) and the Directive 2010/75/EU on industrial emissions, which regulates the construction of new fossil fuel plants or plants

which have been fully renovated⁶⁸. Although these directives have long been transposed into Contracting Parties' national legislation, their implementation was continually postponed until the beginning of 2018, when the Decision of the MC⁶⁹ came into effect rendering definitive application on all plants, without exceptions. Consequently, power plants approaching the end of their life cycle are getting ready for decommissioning, and the others are taking initiatives for investing in filters for purifying the emissions of pollutants in the air.

In the area of environment, it is also worth mentioning Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. This directive aims at identifying and assessing the effects and consequences of certain projects on the environment before the permit for their construction or commissioning is issued. Annexes I and II to the Directive also pertain to production and transmission/distribution of network energies, as well as on projects for storing natural gas and petrochemical products. The key document which this Directive prescribes as part of the assessment is the environmental impact assessment. This document shall be prepared by the investor and submitted for assessment to the competent state institution.

The latest EU directive in the environmental area is Directive (EU) 2016/802 relating to a reduction of sulphur in the content of certain liquid fuels (codified version)⁷⁰. The main objective of this Directive is to ensure effective protection from risks caused by sulphur dioxide emissions, by way of imposing limitations on the contents of sulphur in fuels. The Directive covers two types of liquid fuels, namely refined fuels which are combusted for production of electricity and for heating.

2.10 CLIMATE

The climate was introduced in the EnC law as a specific area in 2018, when the new EU energy package, the Clean Energy Package⁷¹ was adopted. This fact, as well as the content of the legislative framework on climate, brings to the conclusion that the main idea behind the introduction of this new area is to prepare Contracting Parties to adopt and further transpose these acts into the national law, as well as to prepare

for implementation of the Clean Energy Package, that is, preparation for the so-called energy transition towards decarbonisation, promoted by the EU Energy Union.

The mandatory acquis of the EnC in the area of climate consists of the following documents:

- General recommendations on the energy policy of the Contracting Parties of the EnC on determining the mandatory national targets by 2030⁷²,
- Recommendation of the MC of EnC on preparing for the development of integrated national energy and climate plans by the Contracting Parties of the Energy Community⁷³,
- Recommendation of the MC of EnC on preparing for the implementation of Regulation (EU) 525/2013 on a mechanism for monitoring and reporting greenhouse gas emissions⁷⁴.

The general recommendations concerning the mandatory national targets 2030 represent a political consensus reached on the 16th MC of the EnC in November 2018. Upon completion of the targets cycle by 2020, three different energy and climate targets ought to be set – target for achieving energy efficiency, target for share of RES in gross-final electricity consumption and target for reduction of greenhouse emissions by 2030. These mandatory national targets shall be aligned with the EU 2030 targets, equally ambitious, but also considerate of the relevant socio-economic differences, the technological advancement level, and provisions of the Paris Agreement regarding climate change. They shall be expressed as general targets for all Contracting Parties, but also as mandatory national targets which need to be defined by the respective Contracting Parties.

The EnC Secretariat and the Permanent High Level Group, on one hand, and the EC, on the other hand, are working intensively on adapting the acts from the Clean Energy Package, the Energy Efficiency Directive, the Directive on RES and the Governance Regulation on the Energy Union and climate action, for adoption within the frameworks of the EnC law, most probably in the course of 2021.

The recommendation for drafting integrated NECP of EnC Contracting Parties contains analytical,

68 <https://www.energy-community.org/legal/acquis.html>

69 Decision 2016/19/MC-EnC, October 2016

70 *Codification* is a term in legislation whereby the content of a certain legal act (or several related legal acts) is brought together with all its/their amendments, in one single act which is obtained as a result of the process.

71 <https://www.energy-community.org/legal/acquis.html>

72 General Policy Guidelines on the 2030 targets for the Contracting Parties of the Energy Community

73 Recommendation 2018/01/MC-EnC on preparing for the development of integrated national energy and climate plans by the Contracting Parties of the Energy Community

74 Recommendation 2016/02/MC-EnC on preparing for the implementation of Regulation (EU) 525/2013 on a mechanism for monitoring and reporting greenhouse gas emissions

institutional, and regulatory pre-requisites for this purpose. With a view to promoting stability of investing conditions, the NECP should help steer the many obligations for monitoring and reporting on energy and climate situation, reduction of administrative burden and promoting transparency of all stakeholders in the energy processes. The development of integrated NECP supports long-term decarbonisation targets and stimulates regional cooperation and consultations among Contracting Parties.

The recommendations are still not legally binding and do not stipulate any contractual obligations, nor have they determined the final deadlines for submission of NECP. Their drafting, however, should represent an integrative process, initiated in 2018.

Regulation (EU) 525/2013 on a mechanism for monitoring and reporting greenhouse gas emissions has been repealed in the EU by the Regulation on governance of the Energy Union and climate action, and the same is expected to happen soon in the EnC.

2.11 ENERGY TRANSITION OF THE ENERGY COMMUNITY

As mentioned in the previous subsection, introducing the area of climate in the legislative framework of the EnC in 2018 sent across a serious intention and laid the foundations for energy transition of the EnC Contracting Parties, upon example of the EU Member States. Based on the content of the adopted recommendations by MC, but also the multitude of activities of the EnC Secretariat – studies, workshops, webinars, and conclusions from meetings of EnC institutions⁷⁵, it can be generally established that the “battle” for energy transition by 2030, that is, the decarbonisation of the energy sector, besides the complexity and inter-relatedness of the various actions and their effects, will be initially focused on the following three targets:

- Developing a plan for gradual replacement of coal power plants with RES plants,
- Preparation and committed implementation of integrated NECPs for the period until 2030, instead of the to-date National action plans for RES and NEEAP,
- Coupling of SEE electricity markets.

The Contracting Parties, especially the WB countries, are expected to show particular leadership in the achievement of the targets [40], [41], [42]. There is general consent in literature that the essential elements supporting the transition include appropriate pricing of carbon emissions, increased deployment of renew-

ables as the cheapest form of power generation, introduction of new services and technologies such as hydrogen, storages, electrification of the transport sector and increased energy efficiency, as well as planning and monitoring progress on national and regional level.

Concerning the pricing of carbon emissions, there is a proposal to develop carbon price adjustment mechanism at cross-border level, based on market signals regarding carbon emissions costs in different Contracting Parties. According to projections, appropriate carbon pricing mechanism for Contracting Parties of the EnC is a key instrument for ensuring big enough electricity market and enabling competition among market participants in EnC and EU, which are necessary for preventing carbon leakages in the atmosphere and for sending the right investment signals for future energy projects.

Concerning the existing coal fired TPPs, a plan must be urgently developed for their gradual decommissioning, in accordance with the EnC Treaty and the Paris Agreement.

With a view to decarbonising the energy sector, various administrative, regulatory, and financial frameworks are expected to be created that will enable massive and rapid influx of installations for RES-generated electricity, especially windmills and photovoltaic panels, as well as a widespread application of energy efficiency measures and other advanced technologies. Efforts on “greening” the energy sector need to be coordinated and taken at regional level. In light of this, the political and declarative determinations of all Contracting Parties need to be translated into clear mandatory national targets for RES, energy efficiency and carbon emissions, and fixed in their NECPs). The mandatory national targets need to be defined upon previously agreed joint target projects for the entire EnC. The EnC Secretariat invited⁷⁶ the EC to put forward proposals for the common targets for EnC by 2030, together with a draft Clean Energy legislative package adjusted for the EnC, in the first half of 2021. The EnC is expecting to be tabling and negotiating draft-texts of the Clean Energy Package, as preparations for their adoption within the EnC legislative framework, which will be done by the MC of EnC, in the second half of 2021⁷⁷.

Coupling of electricity markets, like in the EU, besides the primary objective of increasing competition and consequent reduction of the market prices, will enable additional decarbonisation benefits by optimally using interconnected transmission infra-

⁷⁶ 25th Energy Community Electricity Forum - Conclusions, Virtual Forum – WebEx connection, 16 – 17 June 2020

⁷⁷ 56th Permanent High-Level Group - Conclusions, Cyberspace, 16 July 2020

⁷⁵ <https://energy-community.org/news/Energy-Community-News/>

structure, which is characteristic for power systems of the WB and EU, but also for cross-border exchange of variable energy generated from RES facilities which enables its full market integration.

In order to finally establish a functional electricity market in SEE, the indispensable prerequisite is that all countries in the region have adopted and implemented fully identical electricity Network Codes. Therefore, WB Contracting Parties, which are part of SEE, need to adopt the ENTSO-E Network Codes on the electricity market⁷⁸, in their entirety and only with translation of the text in the local languages, as is the case with all EU regulations. These Network Codes are still not part of the EnC law, and their adoption necessitates prior changes to the EnC Treaty for purposes of adopting the reciprocity mechanism among Contracting Parties and between Contracting Parties and EU Member States. The changes are expected to be approved at the MC in November 2020, and the Network Codes are expected to be implemented by the end of 2021⁷⁹.

Meanwhile, the EnC Secretariat and EC encourage Contracting Parties who have already initiated pilot projects between Contracting Parties and EU Member States, to continue working on market coupling preparations.

The EnC Secretariat has launched a new initiative, called "Energy Transition Tracker"⁸⁰, intended to track energy transition in the countries of the WB. On the way to decarbonisation, the Tracker shall follow the efforts of all relevant stakeholders in the energy transition process, including governments, investors, energy markets participants and citizens. The reports will be published biannually. The first edition of the Tracker [43] from July 2020, sheds light on the emissions footprint, energy market development, penetration of RES, energy efficiency measures and progress in the development of integrated NECPs.

From the very outright, the Tracker underlines that transition to decarbonized future of the WB countries will be extremely hard (Figure 8). Investments into the energy transition are of critical importance, because WB markets are still dominated by incumbent companies, limited regional integration and low electricity prices. In addition, when generating certain amount of GDP, the WB region emits eight times more carbon emissions than the EU-27 average. The position is that introducing a carbon price might help the region wean off its dependence on coal-dominated power mix.

Specifically, further investments in new coal fired TPPs are beyond any comprehension. Under the Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants, around 1,000 MW from coal fired TPPs in the WB need to be decommissioned by 2023. This vacuum is expected to be filled by capacities tapping on RES, because presently only 3% of electricity production comes from wind and solar capacities. The situation began to change gradually with the introduction of market mechanisms for supporting production from RES in some of the WB countries⁸¹. The guarantees of origin of RES production offer additional potentials for attracting investments. Moreover, attention should be paid to introducing a larger scope of usage of RES in transportation, central heating and cooling.

Further on, efforts for improving energy efficiency also need to be reinforced. Out of the needs to invest in buildings in the region, assessed at 3.5 billion EUR, only 30% were reached in the 2011 – 2020 period.

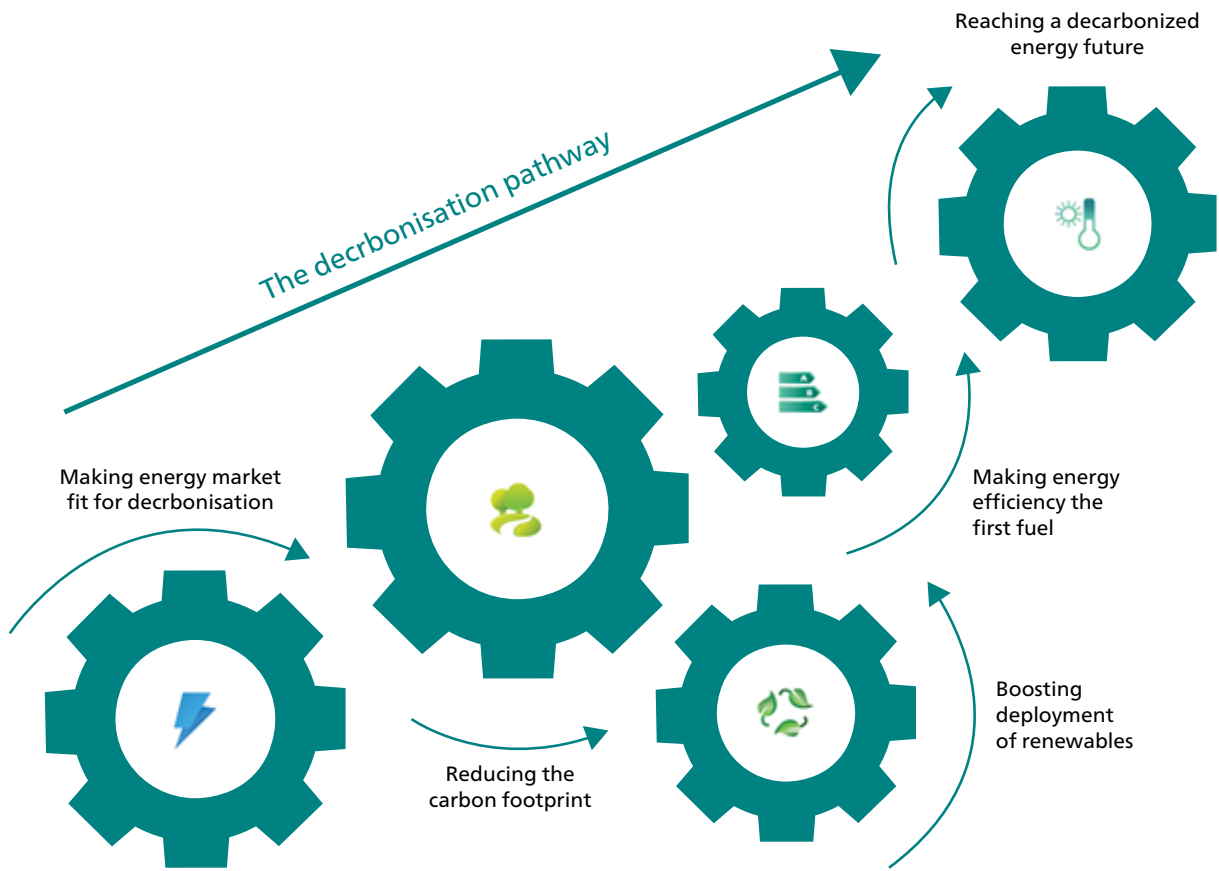
78 https://www.entsoe.eu/network_codes/: Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation, FCA, Commission Regulation (EU) 1222/2015 of 24 July 2015 establishing a guideline on capacity allocation and congestion management, CACM, Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing, EBGL.

79 56th Permanent High-Level Group - Conclusions, Cyberspace, 16 July 2020

80 "Energy Transition Tracker," <https://energy-community.org/news/Energy-Community-News/2020/07/16.html>

81 Until July 2020, in the WB region, only Albania and North Macedonia have introduced such support schemes. The remaining countries are undertaking activities for their introduction.

FIGURE 8
The process of reaching decarbonised future and its elements [43]



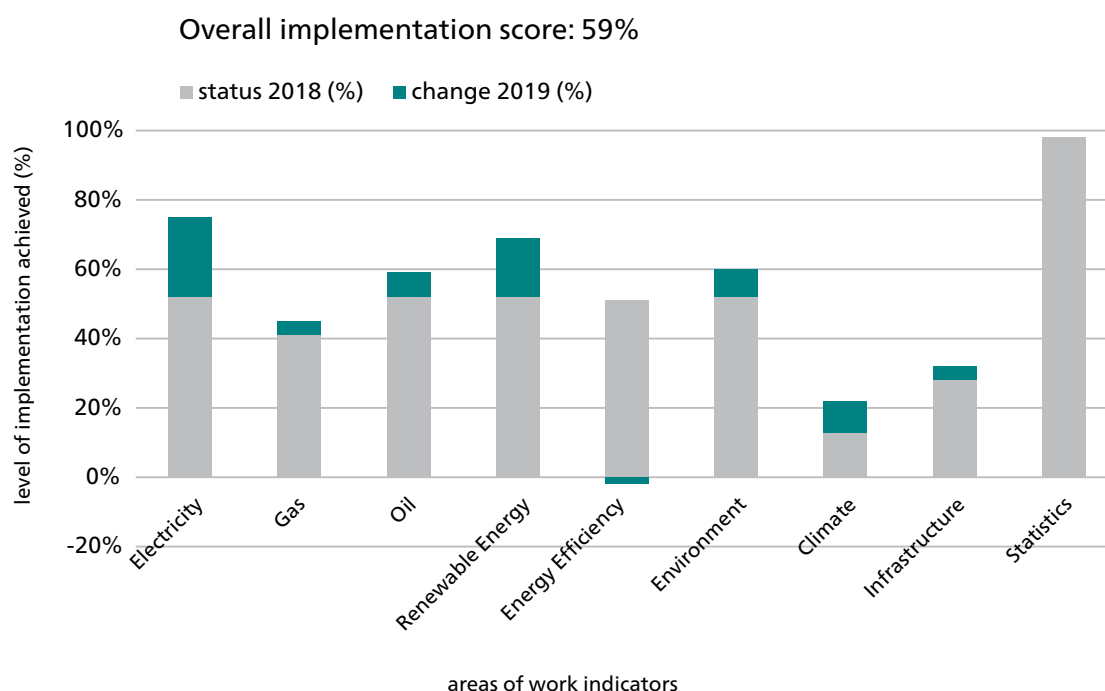
3

THE LEGAL AND INSTITUTIONAL FRAMEWORK OF NORTH MACEDONIA

Compliant with the EnC Treaty, North Macedonia harmonizes its national legislation with the existing legislation of the EU (*Acquis Communautaire*) in all the agreed areas of harmonization (energy, competition, RES, energy efficiency, oil reserves, energy statistics, infrastructure, environment and climate). The overall implementation performances for 2018/2019 for each area separately are presented in Figure 9.

In addition, the country actively participates in all regional initiatives led by the EU and EnC Secretariat, among which is the Western Balkan 6 Initiative (WB6) on establishing a Regional Electricity Market and the Sustainability Charter⁸³, as well as the EU4Energy Governance Initiative⁸⁴ and the Energy infrastructure and donor initiatives⁸⁵.

FIGURE 9
Level of implementation of EnC Treaty legislation in 2018/2019 (status: 1 November 2019)



Source: Calculated and compiled by the Energy Community Secretariat⁸²

⁸² https://www.energy-community.org/implementation/North_Macedonia.html

⁸³ Western Balkan 6 Initiative (WB6) on establishing a Regional Electricity Market and Sustainability Charter, <https://www.energy-community.org/regionalinitiatives/WB6.html>

⁸⁴ EU4EnergyGovernance, <https://www.energy-community.org/regional-initiatives/EU4Energy.html>

⁸⁵ Energy infrastructure and donor initiatives, <https://www.energy-community.org/regionalinitiatives/infrastructure.html>

The strategic commitments of North Macedonia in the energy sector, including among others, those for aligning with the *acquis communautaire* of the EnC, have been mainly incorporated in the **Energy Law** [44], and adopted by the Parliament of the Republic of North Macedonia in May 2018. The Law stipulates the legal framework for the domestic energy sector, including electricity, gas and heating energy markets, as well as the crude oil and petroleum derivatives and transport fuels market. The Law also regulates the provision of public services on electricity, gas and heating energy markets, as well as the rights and obligations of customers of energy and energy systems. In addition, the Law also regulates the areas for use of RES, security of energy supply, status and competences of the Regulatory Commission for Energy and Water Services of the Republic of North Macedonia, construction of energy facilities and other issues in the field of energy. The Law on Energy for the first time precisely defines the category 'vulnerable customer'⁸⁶, and stipulates the specific measures for fighting 'energy poverty'⁸⁷. For all these areas, relevant bylaws have also been developed which further regulate and prescribe the subject matter.

The pertinent legislative framework of the EnC in the field of energy efficiency, including the Energy Efficiency Directive, Energy Performance of Buildings Directive, Regulation on Labelling of energy related products, and Directive on Eco-design of energy related products has been transposed in the **Law on Energy Efficiency** [45], adopted in February 2020.

With regard to the two mentioned laws, the assessment of the EC⁸⁸, the EnC Secretariat⁸⁹, and of the national expert public is unequivocal and highlights the high quality of legislation and commendable degree of harmonization with the requirements of the mandatory *acquis*, which was covered by the EnC Treaty at the time when the laws were adopted.

Almost all of the foreseen secondary legislation needed to operationalize the provisions of the Energy Law and the laws which indirectly tackle issues in the field of energy has been adopted⁹⁰. In addition, in the fields of electricity and natural gas, the transposition

and adoption of the *acquis* from the EU Network Codes including the Network Code on wholesale energy market integrity and transparency is progressing in accordance with the schedule established by the EnC Treaty.

The Government has adopted several strategic documents over the past years that define the country's national energy policy. Among those are the Strategy for Energy Development in the Republic of North Macedonia until 2040 [46], the Strategy on Use of Renewable Energy Sources in the Republic of Macedonia until 2020⁹¹, the Strategy for Improvement of the Energy Efficiency in the Republic of Macedonia until 2020⁹², the Action Plan on use of Renewable Sources of the Republic of Macedonia until 2025 with a vision until 2030 [47], the Third National Energy Efficiency Action Plan until 2020 [48], the Programme for Promotion of Renewable Sources and Energy Efficiency in Households for 2018⁹³ and the Programme for Promotion of Renewable Sources and Energy Efficiency in Households for 2019⁹⁴.

In order to protect the vulnerable customers and to prevent their disconnection from the energy supply system, programs and measures have been adopted which help these customers to financially cover their basic energy needs. In light to this, the Government of the Republic of North Macedonia in January 2020 adopted a Program for Protection of Vulnerable Customers of Energy⁹⁵, which describes in detail the activities in this area.

3.1 ORGANISATIONAL SETUP OF THE ENERGY SECTOR

In accordance with the Energy Law [44], the main stakeholder in the creation of energy policy is the **Government of the Republic of North Macedonia**, which adopts the Strategy for Energy Development, the five-year Program for Implementation of the Strategy,

86 Energy Law, Article 3 – Definitions, paragraph (1), line 58) "vulnerable customer" shall mean a household where a person resides to whom, due to his/her social condition and/or health condition, the right to use the network and/or the supply of electricity, natural gas or heat energy is given under special conditions

87 Energy Law, Article 15 – Protection of vulnerable customers.

88 Annual progress report of the Republic of North Macedonia in 2019, 29 May 2019, CMO (2019) 260 final version, <http://www.sep.gov.mk/data/file/Dokumenti/Izvestaj%202019-F.pdf>

89 Annual report on the implementation of the mandatory *acquis* with the EnC Treaty, 1 November 2019, <https://www.energy-community.org/implementation/IR2019.html>

90 <https://www.erc.org.mk/#>

91 Strategy on the Use of Renewable Energy Sources in the Republic of Macedonia by 2020, "Official Gazette of the Republic of North Macedonia", no. 125 from 21.09.2010, [http://www.economy.gov.mk/Upload/Documents/Strategija%20za%20OIE\(1\).pdf](http://www.economy.gov.mk/Upload/Documents/Strategija%20za%20OIE(1).pdf)

92 Strategy for the Promotion of Energy Efficiency of the Republic of Macedonia until 2020, "Official Gazette of the Republic of North Macedonia", no. 143 from 29.10.2010, http://www.economy.gov.mk/Upload/Documents/STRATEGIJA_ZA_UNAPREDUVAWE_NA_ENERGETSKATA_EFIKASNOST_VO_REPUBLIKA_MAKEDONIJA_DO_2020_GODINA.pdf

93 Program for Promotion of RES and Energy Efficiency in Households for 2018, "Official Gazette of the Republic of Macedonia", no. 17/18, <http://www.economy.gov.mk/doc/2370>

94 Programme for Promotion of Renewable Sources and Energy Efficiency in Households for 2019, "Official Gazette of the Republic of Macedonia", no. 15/19, <http://www.economy.gov.mk/doc/2589>

95 Program for protection of Vulnerable Customers of Energy for 2020, "Official Gazette of the Republic of North Macedonia", no. 13/20, <https://dejure.mk/zakon/programa-za-zashtita-na-ranlivi-potrosuvachi-na-energija-za-2020-godina>

as well as the five-year Energy Balance. Equally important for the energy policy is the government role in establishing the criteria and conditions for declaring crisis situation, the manner of supplying electricity in crisis conditions, measures to be implemented in such a situation, as well as the rights and obligations of the license holders for energy-related activities, in accordance with the Law on Crisis Management. The nomination of legislative measures and the implementation of the Energy Law, and of the laws on planning, investments and other regulations are also under jurisdiction of the **Government** of the Republic of North Macedonia. In addition, the Government creates policies for streamlining investments, stimulating competition, and coupling the energy system of the Republic of North Macedonia with the systems of other countries, also ensuring security of energy supply. The government is stimulating the development of private investments in the energy sector and adopts annual programs on reducing energy poverty.

The Government plays a vital role in incentivising scientific and technological development of the energy sector, tapping into RES, production of equipment and development of science. This is within the remit of Government's obligations, with direct investments from the Budget or by applying tax or other measures to incentivise scientific and technological progress.

The **Ministry of Economy** is in charge of the country's energy sector on behalf of the Government of the Republic of North Macedonia. One of the bodies within the Ministry is the **Department on Energy** tasked with strategic planning, development of relevant legislation in the energy sector, implementation of energy policy including energy efficiency and RES, as well as the use of new technologies. This department is also responsible for relevant data related to energy production, supply and demand. Part of the competencies related to energy belongs to the Ministry of Environment and Physical Planning and to the Ministry of Transport and Communications.

For purposes of providing support to the Government in the implementation of the energy policy, the **Energy Agency of North Macedonia** has been formed⁹⁶. It is tasked with drafting mid-term and long-term strategies and development plans, preparing long-term and short-term programs, energy efficiency and use of RES, preparatory and coordinative activities for implementation of investment projects, regional cooperation and coordination of regional projects, drafting legislative proposals for primary and secondary legislation and technical regulations in the field of energy, and also discharges other activities in the area of energy supply, stipulated by law.

Matters relating to regulated energy activities provided for by the Energy Law [44] are conducted by the **Regulatory Commission for Energy and Water Services** (ERC) of the Republic of North Macedonia. The ERC is comprised of seven members, one of which is its President. The members and the president of ERC are nominated and dismissed by the Parliament of the Republic of North Macedonia, with due consideration to the equitable and just representation of all ethnic communities. The ERC has the capacity of a legal entity.

The ERC became operational in 2003, but in accordance with the requirements of the European *acquis*, the new Energy Law [44] significantly reinforced the competences of this NRA. Specifically, some of the most important competences of the ERC include: monitoring the functioning of energy markets, adopting regulations and tariff systems and adopting or approving methodologies for establishing tariffs for regulated energy activities, adopting methodologies and tariff systems for the supply of specific types of energy and/or energy sources for tariff customers, adopting decisions on prices and tariffs, approving grid codes adopted by respective energy transmission and distribution system operators, adopting rules for electricity, heating energy and natural gas supply, adopting rules on the electricity market and rules on the natural gas market, deciding on requests for exemption from the obligation for third party access to energy systems or new interconnection gas lines, keeping a register of PEPs and adopting a decision on granting status of PEP, safeguarding and promoting rights of customers and users of energy systems, proposing measures for stimulating competition on energy markets, stipulating conditions, manner and procedure and adopting decisions for issuing, changing, transferring, suspending, seizure and termination of licenses for performing certain activities in the field of energy and monitoring their execution, approving development plans and plans for construction of transmission and distribution systems and monitoring their implementation, deciding on disputes between entities performing regulated activities and their users, including cross-border disputes.

ERC is a member of the Energy Community Regulatory Board⁹⁷, Energy Regulators Regional Association⁹⁸ and European Water Regulators⁹⁹, and observer in the Council of European Energy Regulators. In July 2019, after the implementation of the Third Package, the ERC applied for participation in the working groups of the Energy Regulatory Cooperation Agency (ACER).

97 Energy Community Regulatory Board (ECRB), <https://www.energy-community.org/aboutus/institutions/ECRB.html>

98 Energy Regulators Regional Association (ERRA), <https://erranet.org/>

99 European Water Regulators (WAREG), <https://www.wareg.org/>

96 <http://www.ea.gov.mk/>

The councils of *municipalities* and the Council of the *City of Skopje* upon proposal of the mayor, and upon received opinion from the Ministry of Economy, are adopting an energy development program for the municipalities and the City of Skopje, respectively. These programs are adopted for five-year periods and shall be harmonized with the Strategy on Energy Development of the Republic of North Macedonia. They in particular stipulate the manner and conditions for conducting energy activities of public interest of local importance, the need and sources of funding for construction of new and reconstruction and promotion of existing buildings, facilities and installations for energy activities of public of local significance, the quantities of natural gas and heating needed for satisfying the needs of citizens and other customers on the territory of the municipalities and the City of Skopje and the measures and activities for increasing energy efficiency and production of energy from renewable sources.

For purposes of efficient implementation of the new legislative framework of the energy sector, which results into numerous obligations of the institutions listed above, it is of utmost significance that their *capacities* be further *strengthened*.

It is important to strengthen the capacities of institutions and companies engaged in *scientific and research, applicative and educational activities* in the field of energy, too. In North Macedonia these activities are in the focus of the Research Centre on Energy, Information Sciences and Materials within the Macedonian Academy of Sciences and Arts (MANU), the Faculty of Electrical Engineering and Information Technologies, the Faculty of Mechanical Engineering and Faculty of Information Sciences and Computer Engineering within the University "Ss. Cyril and Methodius" in Skopje, the Faculty of Technical Sciences within the University "St. Clement of Ohrid" in Bitola, the Faculty of Natural and Technical Sciences within the University "Goce Delchev" in Shtip, and the Mining Institute of Skopje. Also, the largest energy companies have research and development departments that deal with research and applicative activities, and so do some smaller private companies.

Some of the scientific associations and non-governmental organisations in the energy area which are important to mention are the Macedonian National Committee within the World Energy Council (WEC), the Macedonian Energy Association (ZEMAK) with its series of activities and the journal "Energetika", the Macedonian Committee on Large Electric Systems (MAKO CIGRE), the Energy Efficiency Centre of North Macedonia (MACEF) with its regular monthly electronic bulletin and other activities and the Macedonian Geothermal Association (MAGA).

3.2 IMPLEMENTATION OF THE ENERGY LAW

The most important document which lays down the activities and provides guidance to the developments in the energy sector in the Republic of North Macedonia in the coming mid-term period is the Energy Law [44] adopted in May 2018. For purposes of effectuation of provisions of this Law, in accordance with the dynamics foreseen in its chapter with transitional and final provisions, almost all bylaws provided for by the Law were adopted till the end of 2019. Further in this section is an overview of the most relevant bylaws and other documents which further define the legislative will in the areas of direct interest to this text – electricity market and tapping RES. It also makes reference to the main structural and institutional reforms and other activities, implemented with a view to harmonising the provisions of the latest Energy Law [44].

3.2.1 Electricity Market

The Government of the Republic of North Macedonia has adopted the only regulation within its jurisdiction concerning the electricity market, which is the Decree on the activities of the organized electricity market operator, including the necessary technical, personnel, and financial conditions¹⁰⁰. This Decree, inter alia, prescribes the necessary technical, personnel, and financial conditions which this organised market operator shall fulfil¹⁰¹.

Based on this Decree and on other Government decisions as well as regulations within the competence of the ERC and other national institutions, the National operator of the organised electricity market in North Macedonia – MEMO was established on 8 October 2018. MEMO, as an independent legal entity was legally separated from MEPSO, meaning that MEMO is a separate legal entity established by MEPSO. The next important step was taken in September 2020, when, by Government decision, MEMO was designated as the Nominated Electricity Market Operator (NEMO), in line with the market Network Codes of the EU. In fact, our country is the first of the EnC Contracting Parties to have implemented such a decision¹⁰².

¹⁰⁰ Decree on the activities of the organized market operator, including the necessary technical, personnel and financial conditions, "Official Gazette of the Republic of North Macedonia," no. 227/19,

¹⁰¹ Under the Energy Law [44], the wholesale electricity market also includes bilateral contracts market, the day-ahead market and the intra-day market, as well as the balancing energy market.

¹⁰² "North Macedonia becomes first Contracting Party to designate market operator in line with EU CACM", <https://www.energy-community.org/news/Energy-Community-News/2020/09/14.html>

During 2019 and 2020, MEMO was intensively implementing preparatory activities for the establishment of the first organized electricity market (the day-ahead and intraday market) in North Macedonia, and for its coupling with neighbouring markets into a single electricity market of the EU¹⁰³ [49].

All the above activities, coupled by many of the activities described further in this section, comprise the material basis, in addition to the legal basis established with the Energy Law [44], for due implementation of the EU market Grid Codes¹⁰⁴, which puts North Macedonia in one of the leading positions among EnC Contracting Parties in terms of the pace of implemented reforms.

In light of its competences and mandate under the Energy Law [44], the ERC has adopted the following legal acts, which among others, regulate the electricity market:

- Rulebook on licences¹⁰⁵,
- Rulebook on the manner and procedure for monitoring the functioning of energy markets¹⁰⁶.

Specifically, in the period from the adoption of the Energy Law [44] until the end of 2019, the ERC has adopted the following regulations pertaining to the electricity market:

- Rulebook on certification of electricity transmission system operator and natural gas transmission system operator¹⁰⁷,
- Tariff system for sale of electricity to customers by the universal supplier and the supplier of last resort¹⁰⁸,
- Rules for purchase of electricity for the universal supplier¹⁰⁹,

- Rules for the electricity supply¹¹⁰,
- Rules for the electricity market¹¹¹,
- Rules for determining the compensation for the damage caused to the producers and customers of electricity¹¹²,
- Rulebook for conditions and criteria for granting a status of closed system for distribution of electricity¹¹³,
- Rulebook on the manner and conditions for determining the regulated maximum income and regulated average tariffs on transmission of electricity, organizing and managing electricity market and electricity distribution¹¹⁴,
- Tariff system for distribution of electricity for customers connected to the electricity distribution system of Elektro distribucija DOOEL Skopje¹¹⁵,
- Tariff system for transmission of electricity and electricity market¹¹⁶.
- In addition, the ERC has approved the following documents adopted by the power companies:
- Rules for purchasing of electricity for covering the losses in the power system of Elektro distribucija DOOEL Skopje¹¹⁷,
- Compliance program with activities of Elektro distribucija DOOEL Skopje for ensuring objectivity and transparency and preventing discriminatory conduct when performing the activity of electricity distribution¹¹⁸,

103 MEPSO, that is MEMO, has signed a Memorandum of Understanding on market coupling with Bulgaria, and Albania, and in 2020 it was also negotiating with Greece.

104 https://www.entsoe.eu/network_codes/ REGULATION (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (FCA), REGULATION (EU) 2015/1222 of 4 July 2015 establishing a guideline on capacity allocation and congestion management (CACM), REGULATION (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EB).

105 Rulebook on licences “Official Gazette of the Republic of North Macedonia”, no. 51/19, 54/19 and 214/19, March 2019, <https://www.erc.org.mk/pages.aspx?id=12>

106 Rulebook on the manner and procedure for monitoring the functioning of energy markets, „Official Gazette of the Republic of North Macedonia”, no. 138/19, July 2019, <https://www.erc.org.mk/pages.aspx?id=176>

107 Rulebook on certification of energy transmission system operator and natural gas transmission system operator, “Official Gazette of the Republic of Macedonia”, no. 146/18, August 2018, <https://www.erc.org.mk/pages.aspx?id=200>

108 Tariff system for sale of electricity to customers by the universal supplier and the supplier of last resort, “Official Gazette of the Republic of Macedonia”, no. 164/18, September 2018, <https://www.erc.org.mk/pages.aspx?id=27>

109 Rules for purchase of electricity for the universal supplier, “Official Gazette of the Republic of Macedonia”, no. 172/18, September 2018, <https://www.erc.org.mk/pages.aspx?id=29>

110 Rules for the electricity supply, “Official Gazette of the Republic of Macedonia”, no. 172/18 September 2018 and no. 138/19 July 2019, <https://www.erc.org.mk/pages.aspx?id=29>

111 Rules for the electricity market, “Official Gazette of the Republic of Macedonia”, no. 173/18 and 222/18, September 2018, <https://www.erc.org.mk/pages.aspx?id=31>

112 Rules for determining the compensation for the damage caused to the producers and customers of electricity, “Official Gazette of the Republic of Macedonia”, no. 231/18, December 2018, <https://www.erc.org.mk/pages.aspx?id=205>

113 Rulebook for conditions and criteria for granting a status of closed system for distribution of electricity, “Official Gazette of the Republic of North Macedonia”, no. 84/19, April 2019, <https://www.erc.org.mk/pages.aspx?id=32>

114 Rulebook on the manner and conditions for determining the regulated maximum income and regulated average tariffs on transmission of electricity, organizing and managing electricity market and electricity distribution, “Official Gazette of the Republic of North Macedonia”, no. 95/19 and 103/19, May 2019, <https://www.erc.org.mk/pages.aspx?id=26>

115 Tariff system for distribution of electricity for customers connected to the electricity distribution system of Elektro distribucija DOOEL Skopje, “Official Gazette of the Republic of North Macedonia”, no. 95/19, May 2019, <https://www.erc.org.mk/pages.aspx?id=27>

116 Tariff system for transmission of electricity and electricity market, “Official Gazette of the Republic of North Macedonia”, no. 95/19, May 2019, <https://www.erc.org.mk/pages.aspx?id=27>

117 Rules for purchasing of electricity for covering the losses in the power system of Elektro distribucija DOOEL Skopje, October 2018, <https://www.erc.org.mk/pages.aspx?id=32>

118 Compliance program with activities of Elektro distribucija DOOEL Skopje for ensuring objectivity and transparency and preventing discriminatory conduct when performing the activity of electricity distribution, November 2018, <https://www.erc.org.mk/pages.aspx?id=32>

- Rules for allocation of cross-border transmission capacities for electricity at the Macedonian – Serbian border for 2019¹¹⁹,
- Rules for allocation of cross-border transmission capacities for electricity at the Macedonian – Bulgarian border for 2019¹²⁰,
- Rules on balancing of the power system¹²¹,
- Network rules for electricity distribution of Elektro-distribucija DOOEL Skopje¹²²,
- Framework agreement for day-ahead purchase of electricity for needs of households and small customers supplied by the universal supplier on organized market day-ahead and individual agreement for day-ahead purchase of electricity of EVN HOME DOO Skopje¹²³,
- Price list of services of Elektrodistribucija DOOEL Skopje¹²⁴,
- Rules for granting cross-border electricity transmission capacities approved on 31 October 2019¹²⁵,
- Rules for allocation of cross-border transmission capacities for electricity at the border Republic of North Macedonia – Republic of Bulgaria for 2020¹²⁶,
- Rules for allocation of cross-border transmission capacities for electricity at the border Republic of North Macedonia – Republic of Serbia for 2020¹²⁷,
- Rules on the form, content and dynamics of submission and publication of data of AD MEPSO¹²⁸,
- Rules of procurement of electricity for covering the grid losses in electricity distribution network of AD ESM Skopje¹²⁹,
- Rules of procurement of electricity for covering the grid losses in electricity transmission network¹³⁰,
- Network rules for electricity distribution of AD “ELEKTRANI NA SEVERNA MAKEDONIJA”¹³¹.

The ERC also approved the Study for development of the energy transmission system of the Republic of North Macedonia in the 2020 – 2029 period¹³², which, in accordance with the Law on Energy [44], was drafted by MEPSO in January 2020.

The adoption of all these documents is a result of the robust reform of the electricity sector in North Macedonia and aligning the functioning of the electricity market with the requirements of the Third Package and European Network Codes.

One of the major achieved improvements with the reform, additional to the establishment of MEMO, is the successful finalization of the unbundling and certification of MEPSO as a TSO, based on the OU model determined by the Energy Law [44].

Namely, the ERC has adopted the Rulebook on certification of energy transmission system operator and natural gas transmission system operator on 1 August 2018. The Rulebook on certification regulates the documents, information and data pertaining to the procedure, manner and form of their submission and the procedure on determining the compliance of the work of TSO with requirements stipulated in the Energy Law [44]. Furthermore, in order to meet the requirements of the Energy Law [44], concerning the model of OU of energy activities operators, a procedure was conducted for transfer of ownership of shares of MEPSO from the Government, as the to-that-date single owner of shares of MEPSO and of the ESM, to the Ministry of Transport and Communications. This transfer of shares of MEPSO was conducted following a Government decision¹³³, whereby the OU of MEPSO

119 Rules for allocation of cross-border transmission capacities for electricity at the Macedonian –Serbian border for 2019, November 2018, <https://www.erc.org.mk/pages.aspx?id=32>

120 Rules for allocation of cross-border transmission capacities for electricity at the Macedonian – Bulgarian border for 2019, November 2018, <https://www.erc.org.mk/pages.aspx?id=32>

121 Rules on balancing of the power system, approved on 28 June 2019, “Official Gazette of the Republic of North Macedonia”, no. 179/19, <https://www.erc.org.mk/pages.aspx?id=31>

122 Network rules for electricity distribution of Elektrodistribucija DOOEL Skopje approved on 30 August 2019, “Official Gazette of the Republic of North Macedonia”, no. 191/19, <https://www.erc.org.mk/pages.aspx?id=32>

123 Framework agreement for day-ahead purchase of electricity for needs of households and small customers supplied by the universal supplier on organized market day-ahead and individual agreement for day-ahead purchase of electricity of EVN HOME DOO Skopje, approved on 10 October 2019, <https://www.erc.org.mk/pages.aspx?id=29>

124 Price list of services of Elektrodistribucija DOOEL Skopje, approved on 24 October 2019, <https://www.erc.org.mk/pages.aspx?id=32>

125 Rules for granting cross-border electricity transmission capacities approved on 31 October 2019, “Official Gazette of the Republic of North Macedonia”, no. 228/19, <https://www.erc.org.mk/pages.aspx?id=32>

126 Rules for allocation of cross-border transmission capacities for electricity at the border Republic of North Macedonia – Republic of Bulgaria for 2020, approved on 5 November 2019, <https://www.erc.org.mk/pages.aspx?id=32>

127 Rules for allocation of cross-border transmission capacities for electricity at the border Republic of North Macedonia – Republic of Serbia for 2020, approved on 5 November 2019, <https://www.erc.org.mk/pages.aspx?id=32>

128 Rules on the form, content and dynamics of submission and publication of data of AD MEPSO, approved on 12 November 2019, <https://www.erc.org.mk/pages.aspx?id=29#>

129 Rules of procurement of electricity for covering the grid losses in electricity distribution network of AD ESM Skopje, approved on 18 November 2019, <https://www.erc.org.mk/pages.aspx?id=32>

130 Rules of procurement of electricity for covering the grid losses in electricity transmission network, approved on 18 November 2019, <https://www.erc.org.mk/pages.aspx?id=32>

131 Network rules for electricity distribution of AD “ELEKTRANI NA SEVERNA MAKEDONIJA”, approved on 6 February 2020, <https://www.erc.org.mk/pages.aspx?id=32>

132 Development Plan for the energy transmission system of the Republic of North Macedonia for the 2020-2029 period, approved on 30 January 2020, <https://www.erc.org.mk/pages.aspx?id=32>

133 Decision no. 44-6841/1 for transfer of shares of AD MEPSO from Government ownership to ownership of the Ministry of Transport and Communications

was conducted, meaning that the Government is no longer the single owner of an undertaking dealing with production, supply and trading in electricity and of the undertaking dealing in electricity transmission. Thus, as of 1 August 2018, the owner of MEPSO is the Ministry of Transport and Communications. [49]

Prior to the certification of MEPSO as TSO, under the Energy Law, [44], appointing or hiring a compliance officer was required, a person independent from both undertakings: MEPSO and ESM, with the full authorization to follow decision-making procedure in MEPSO. The compliance officer of MEPSO was appointed with the approval of ERC, based on a Decision on endorsing conditions that regulate the mandate and employment conditions for hiring a compliance officer, previously also adopted by ERC. In November 2018, in accordance with the Energy Law [44] and Rulebook on certification, MEPSO, as the licensed operator for the activity of transmission of electricity, submitted to the ERC a Request for certification of the electricity transmission system operator [49].

According to the certification procedure, in March 2019, the ERC prepared a draft-decision on certification of TSO and submitted it to the EnC Secretariat, along with all the required information and data. Within the statutory 60-day deadline, the EnC Secretariat issued a positive opinion upon the draft-decision, after which the ERC adopted a decision for certification of MEPSO as a TSO [50].

The next big step was the full liberalisation of the wholesale electricity market, conducted on 1 July 2019, after which ERC stopped determining the price of generated electricity from the largest producer in the state – ESM. In addition, another significant benefit from the Energy Law [44] to the opening of wholesale market and commercialisation of ESM, is that ESM was released from the obligation to deliver its total production for the supply of the so-called tariff (captive) customers, meaning the household and other small customers of electricity.

Namely, according to Article 237, paragraph (4), of the Energy Law, [44], “the electricity producer with the largest installed capacity in the Republic of Macedonia shall be obliged to offer to the universal supplier, as part of the procurement procedures for electricity in accordance with the rules for electricity supply for the universal supplier, electricity for sale as follows:

1. in 2019 at least 80% of the total annual needs of the supplier,
2. in 2020 at least 75% of the total annual needs of the supplier,
3. in 2021 at least 70% of the total annual needs of the supplier,

4. in 2022 at least 60% of the total annual needs of the supplier,
5. in 2023 at least 50% of the total annual needs of the supplier,
6. in 2024 at least 40% of the total annual needs of the supplier,
7. in 2025 at least 30% of the total annual needs of the supplier.”

The above stated means that the ESM is no longer a regulated electricity producer nor does such an entity exist in the country, and that by 2025 ESM will be gradually released from this obligation.

The Law [44] as well as some of the above-mentioned regulations, terminate the obligation of ESM towards MEPSO, for the provision of electricity and capacity for balancing the power system. The market of reserves and balancing energy, as one of the basic components of the wholesale market, became operational on 1 January 2020. This also implied the imposition of balancing responsibility for ESM, just like for all other participants in the electricity market, which it was exempted from as the operator of a regulated energy activity [50].

Activities for the functioning of balancing energy market during 2019 were focused above all on the adoption of Rules on balancing of the power system, which for the first time introduced a transparent and market-oriented way of purchasing ancillary services from the TSO, as well as of a Methodology, which in a transparent and non-discriminatory way determines the price of balancing the disbalances between the nominated and realised electricity quantities by electricity market participants. In addition, these acts regulate the financial settlement with balancing service providers and the balancing responsible parties, the rights and responsibilities of balancing service providers and the balance responsible parties, etc. Under these Rules, all the market participants, including regulated enterprises, have a balance responsibility. [50]

In December 2019, MEPSO conducted the first auction for annual procurement of reserve for secondary regulation for 2020, and an auction for monthly procurement of reserve for tertiary regulation for January 2020. Due to the size and absence of true competition in the market, the only bidder on these products was ESM. However, possibilities lie in the establishment of a regional market of balancing energy.

In addition to the wholesale market, also the retail market in the Republic of North Macedonia underwent a complete transformation in 2019, that is, became a fully liberalised market.

The full liberalization of the retail market began on 1 January 2019, making each customer eligible to choose its own electricity supplier, and to arrange mutual terms on supply and price of electricity. During 2019, all customers did not choose their electricity supplier, and some of them, until 30 June 2019, were supplied through the electricity supplier of tariff customers, EVN Makedonija AD Skopje, while since 1 July 2019 the supply was enabled, under identical terms, through the universal electricity supplier - EVN HOME DOO Skopje [50].

The regulated energy activity, the universal supplier as well as the electricity supplier of last resort, were introduced with the Energy Law, [44], in accordance with the Third Package, in order to ensure protection of small customers and households when they fail to choose a supplier on the free market or when, due to some circumstances, they remain without electricity supplier, so they would continue to be supplied under prices and tariffs approved by ERC. EVN HOME DOO Skopje, as Electricity Universal Supplier, and Electricity Supplier of Last Resort, commenced its operation on 1 July 2019, as a result of a successfully conducted competitive bidding procedure [50].

The remaining customers, which are deprived of the right to use the universal service, in cases when, due to specific reasons, they fail to ensure supply on the liberalized market, shall be entitled to the right to use the electricity supply of last resort by EVN HOME DOO Skopje, for the duration of 90 days the most, or until they conclude a new contract with a supplier on the liberalized market. In such a case, the electricity selling prices are not determined by the ERC, but these prices are set each month based on the reached monthly prices on the day-ahead market of the Hungarian Power Exchange (HUPX) increased by 50% [50].

The scope and success of reforms in the electricity sector is most vocally presented in the Assessment of the Application of Community Law in North Macedonia [51], conducted by the EnC Secretariat. It lays down the following conclusion regarding the electricity chapter: "the ERC has proven highest standard expertise and commitment to develop in time the regulatory rules as required by the Energy Law and has set in place an advanced market model with a high degree of market opening. To this extent, the preparation of regulatory acts in the electricity sector can be considered completed.

As unicum among the Contracting Parties, the Network Codes adopted for the EnC in the electricity sector¹³⁴ are directly applicable in North Macedonia

according to the Energy Law, without the need for their formal transposition into a separate legal act. Still, with a view to allow for meaningful and user-friendly applicability they will be included into secondary legal acts. Related amendments to the transmission code of MEP-SO are currently subject to public consultation targeting the incorporation of Regulation 2016/1388 establishing a network code on demand connection and Regulation 2016/631 establishing a network code on requirements for grid connection of generators is in advanced stage. Those amendments are to be approved by ERC" [51].

3.2.2 Renewable Energy Sources

The Energy Law [44] has introduced significant changes in the RES area, with an view to increasing electricity generation from renewables and introducing SSs for RES in accordance with the requirements of the EEAG [33], of the EC and the guidelines issued by the EnC Secretariat [35]. In addition to the existing FITs, they include the FIPs as SS to RES based on market conditions and competitive procedures for awarding the support.

The FIT is the regulated price for purchase of electricity produced from PEP by the EMO – MEMO.

PEPs operating under the FIT are guaranteed with the tariff of each kWh produced electricity under which the MEMO is obligated to purchase the total of electricity produced by the PEPs in a period of 15 to 20 years, depending on the type of the power plant. The further benefit for the PEPs using the FIT is that MEMO takes over balancing responsibility for these producers [50].

The premium, as part of the FIP SS, is an additional amount on top of the market price at which the PEP will sell the generated electricity at the electricity market. The PEP using a FIP is selected through a tender procedure by an auction carried out by the Ministry of Economy [49].

In addition to the introduction of the FIP, the Law [44] aligns national legislation with the Directive 2009/28/EC on the promotion of the use of energy from renewable sources pertaining to statistical transfers, joint projects and coordination of SSs with EU Members States and EnC Contracting Parties and/or third countries.

In accordance with the Law [44], concerning the implementation of the new SS, the FIP, but also the innovations to the existing FIT, competent institutions have adopted relevant secondary legislation in the past period.

The Government of the Republic of North Macedonia has adopted the following acts:

134 These network codes are included in detail in section 3.5 of this text. However, the EU Regulation 2016/1447 establishing a network code on requirements for grid connection of high voltage direct current systems is not taken into consideration, as such power systems are not implemented in the Republic of North Macedonia

- Decree on support of the electricity producers from renewable sources¹³⁵,
- Program for financial support to electricity production from preferential producers that are awarded premiums for 2019¹³⁶,
- Decision on mandatory national targets for energy produces from renewable sources in the gross-final energy consumption and for share of energy produced from renewable energy sources in the final consumption of energy in transport¹³⁷,
- Decision for the total installed capacity of the preferential electricity producers¹³⁸,
- Program for the promotion of renewable energy sources and incentivising energy efficiency in households for 2019¹³⁹.

Under the Energy Law [44], the Government no longer adopts a separate strategy on RES. The Strategy for Energy Development [46] encompasses all the strategic issues in the field of RES.

The Minister of Economy, in accordance with his jurisdictions defined by the Law [44], has adopted the following Rulebook:

- Rulebook on renewable energy sources¹⁴⁰.

In accordance with its mandate, the ERC adopted the following Rulebook and approved the templates for MEMO:

- Rulebook on preferential producers operating under feed-in tariff¹⁴¹,

- Template of Agreement for purchase of electricity produced by preferential electricity producer from renewable energy sources operating under feed-in tariff¹⁴²,
- Template of Annex to Agreement for Purchase of electricity produced by preferential electricity producer from renewable energy sources¹⁴³.

The Decree on measures for supporting electricity generated from renewable energy sources determines the types of technologies for which the FIP or FIT is awarded, the special conditions to be met by the power plant for the producer to be granted the status of PEP, the upper limit of the installed power of the power plant, the amount and period of use of the FIT, the manner how the FIP is determined, the manner of payment and the period of use, the tendering procedure and auction for granting the FIPs. The mentioned Decree, although the Law [44] does not provide for any guidance or limitations on the types of technologies for which the FIP or FIT are awarded, does stipulate the possibility for granting FIP for photovoltaic (PV) plants, and FIT for small hydro power plants, wind power plants, biogas TPPs, and biomass TPPs.

The Decision for the total installed capacity of the PEPs prescribes the total installed power of PEPs from each RES individually.

The Rulebook on RES stipulates the types of power plants for electricity generation from RES, the manners and conditions under which the surplus of electricity from RES intended for own consumption is fed into the grid, the manner of issuance of approval for measuring the wind potential for production of electricity, the manner of measuring the wind potential for production of electricity, the manner of issuance, transfer and revoking of the guarantees of origin and their content, as well as the manner, procedure and conditions for validation of the guarantees of origin issued in other countries.

The Rulebook on preferential producers using the FIT regulates the manner and procedure for obtaining a temporary status of PEP, a decision for granting the status of PEP and a decision on the use of FIT [49].

The Energy Law, [44], for the first time has introduced the possibility for producers (above all micro and small enterprises and households) to install photovoltaics and other building roof systems for electricity production for own consumption, and for the surplus

135 Decree on support of the electricity producers from renewable sources by the Government of the Republic of North Macedonia, "Official Gazette of the Republic of Macedonia," no. 29, 5 February 2019, <http://economy.gov.mk/doc/2583>

136 Program for financial support to electricity production from preferential producers that are awarded premiums for 2019, "Official Gazette of the Republic of Macedonia," no. 29, 5 February 2019, <http://economy.gov.mk/doc/2583>

137 Decision on mandatory national targets for energy produces from renewable sources in the gross-final energy consumption and for share of energy produced from renewable energy sources in the final consumption of energy in transport, "Official Gazette of the Republic of Macedonia," no. 29 5 February 2019, <http://economy.gov.mk/doc/2583>

138 Decision for the total installed capacity of the preferential electricity producers, "Official Gazette of the Republic of Macedonia," no. 29, 5 February 2019, <http://economy.gov.mk/doc/2583>

139 Program for the promotion of renewable energy sources and incentivising energy efficiency in households for 2019, "Official Gazette of the Republic of Macedonia," no. 15 from 23 January 2019, <http://economy.gov.mk/doc/2589>

140 Rulebook on renewable energy sources, Ministry of Economy of the Republic of North Macedonia, <http://economy.gov.mk/doc/2620>

141 Rulebook on preferential producers operating under feed-in tariff, "Official Gazette of the Republic of North Macedonia," no. 116/19, from June 2019, <https://www.erc.org.mk/pages.aspx?id=53>

142 Template of Agreement for Purchase of Electricity produced by preferential electricity producer from renewable energy sources operating under feed-in tariff, <https://www.erc.org.mk/pages.aspx?id=53>

143 Template of Annex to Agreement for Purchase of Electricity produced by preferential electricity producer from renewable energy sources, <https://www.erc.org.mk/pages.aspx?id=53>

of generated electricity to be fed into the grid. Such prosumers do not require license for electricity production and the conditions under which the surplus of produced electricity would be fed into the grid need to be additionally stipulated in the Rulebook on RES.

3.3 IMPLEMENTATION OF THE LAW ON ENERGY EFFICIENCY

The pertinent EnC legislative framework in the energy efficiency area, including the Energy Efficiency Directive, Directive on Energy Performance of Buildings, Regulation on labelling of energy-related products, and the Eco-design Directive, has been transposed into the Law on Energy Efficiency [45] adopted in February 2020, or in the secondary legislation already adopted before the Law came into force, and they have transposed most of the EnC legislation in the energy efficiency area. The more recent EU regulations are expected to be transposed in new legislative acts.

The Law [45] stipulates the following main obligations for institutions in North Macedonia:

- The Government needs to prepare and adopt a long-term strategy for reconstruction of public, commercial and housing buildings, with a vision for achieving an efficient and economically justified reduction of energy consumption, by implementing energy efficiency measures while reducing environmental pollution,
- The Government needs to adopt a decree on energy efficiency national targets and to develop appropriate triennial action plan for implementation of energy efficiency measures,
- For ensuring effective monitoring and verification of implementation of energy efficiency measures, the Energy Agency shall manage, maintain, and upgrade web-based monitoring tool – a monitoring and verification platform,
- A rulebook should be adopted on the monitoring and verification platform which will stipulate procedures and technical parameters of the tool, as well as the terms of use and upgrade of the platform,
- Regular drafting and adoption of triennial NEEAP and reporting on its execution to relevant national and international institutions.

Below are some rulebooks adopted by different authorities before the Law was adopted [45], which are still in force.

The Government of the Republic of North Macedonia has adopted the Decree on eco-design of products¹⁴⁴.

The Ministry of Economy, within its own competencies provided for by the Law, has adopted the following rulebooks and other secondary legislation:

- Rulebook on labelling of energy consumption and other resources for energy related products¹⁴⁵,
- Rulebook amending the rulebook on energy performances of buildings¹⁴⁶,
- Rulebook on the amount of fee for the certificate stating that minimal energy efficiency requirements indicated in the preliminary design comply with the minimal energy efficiency requirements, and on the maximum amount of fee for issuing a certificate on energy performances of buildings¹⁴⁷,
- Rulebook on energy performances of buildings¹⁴⁸,
- Rulebook on energy control¹⁴⁹,
- Rulebook on labelling energy efficiency of household appliances¹⁵⁰,
- Rulebook on energy efficiency of facilities to be constructed¹⁵¹,
- Rulebook on highly efficient combined facilities¹⁵².

Moreover, the Energy Agency has adopted:

- Tariff codes on maximum amount of fee for energy control¹⁵³.

145 Rulebook on labelling of energy consumption and other resources for energy related products, „Official Gazette of the Republic of Macedonia“, no. 165, 1 September 2016, <http://economy.gov.mk/doc/2770>

146 Rulebook amending the rulebook on energy performances of buildings, „Official Gazette of the Republic of Macedonia“, no. 7, 16 January 2015, <http://economy.gov.mk/doc/2770>

147 Rulebook on the fee amount for the certificate stating that minimal energy efficiency requirements indicated in the preliminary design comply with the minimal energy efficiency requirements, and on the maximum amount of fee for issuing a certificate on energy performances of buildings, „Official Gazette of the Republic of Macedonia“, no. 12 from 27 January 2015, <http://economy.gov.mk/doc/2770>

148 Rulebook on energy performances of buildings, „Official Gazette of the Republic of Macedonia“, no. 94, 4 July 2013, <http://economy.gov.mk/doc/2770>

149 Rulebook on energy control, „Official Gazette of the Republic of Macedonia“, no. 94 from 4 July 2013, <http://economy.gov.mk/doc/2770>

150 Rulebook on labelling energy efficiency of household appliances, „Official Gazette of the Republic of Macedonia“, no. 85/07

151 Rulebook on energy efficiency of facilities to be constructed, „Official Gazette of the Republic of Macedonia“, no. 143/08

152 Rulebook on highly efficient combined facilities, „Official Gazette of the Republic of Macedonia“, no. 128/11

153 Tariff codes on maximum amount of fee for energy control, „Official Gazette of the Republic of Macedonia“, no. 153 from 6.11.2013, <http://economy.gov.mk/doc/2770>

144 Decree on eco-design of products, „Official Gazette of the Republic of Macedonia“, no. 100, 25 July 2011, <http://economy.gov.mk/doc/2770>

3.4 ENVIRONMENT

This part elaborates on the state of affairs with the implementation of the EnC law in the area of environment, according to the Assessment of the Application of Community Law in a Third Country – North Macedonia [51]. However, it is important to mention that the transposition and implementation of this EU law in North Macedonia is under jurisdiction of the Ministry of Environment and Physical Planning¹⁵⁴.

In the national legal framework, Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment is effectively transposed into the national Law on the Environment¹⁵⁵ and its secondary legislation¹⁵⁶. The structure and content of the Directive have been transposed in detail. The amendments introduced by Directive 2014/52/EU have not been transposed yet [51].

Moreover, Directive 2001/42/EC on the assessment of the effects of certain plans and programs on the environment has been extensively transposed in the Law on Environment and its secondary regulations [51].

In September 2018, a decision approving the environmental permit for construction of the Dren wind farm was issued. Furthermore, twelve photovoltaic projects and three gas pipelines¹⁵⁷ received the approval of their environmental impact assessment. In June 2019, the notification for the environmental impact assessment of the gas interconnection between North Macedonia and Greece was submitted and the procedure is expected to be finalised in the course of 2020 [51].

The Law on Ambient Air Quality¹⁵⁸ and the related secondary legislation¹⁵⁹ form the legal framework that transposes the provisions of the Directive (EU) 2016/802 on the reducing content of a sulphur dioxide in certain liquid fuels. The maximum thresholds for the sulphur content in heavy liquid fuels and gas fuels are fully transposed, as well as the sampling and analysis provisions, thus achieving full compliance with the *acquis*. Due to the lack of domestic production, fuels covered by the scope of the Directive are

imported from Greece, with regular sampling and analysis taking place at the border [51].

The emission limit values are set in full compliance with Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants pertaining to the existing TPPs and the Directive 2010/75/EU on industrial emissions, which regulates the matter of construction of new plants on fossil fuels, or fully renovated plants. These directives are fully transposed through the Rulebook on the limit values for the permissible levels of emissions and types of pollutants in the exhaust gases and vaporous emitted into the air from stationary sources¹⁶⁰. The adoption of the new Law on Industrial Emissions was delayed for the new 2020 – 2024 legislative period [51].

North Macedonia adopted a National Emission Reduction Plan for large combustion plants in April 2017 and has started with its implementation on 1 January 2018. There are no large combustion plants under the opt-out regime in North Macedonia as provided for by the Directive 2001/80/EC on limitation of emissions of certain pollutants into the air from large combustion plants and Directive 2010/75/EU on industrial emissions due to the limitation of their lifespan. [51]

The Rulebook on the methodology, approaches, procedures, methods and means for measuring the emissions from stationary sources sets up the necessary monitoring requirements. The reporting data is being gathered by the Ministry of Environment and Spatial Planning according to the Rulebook on the form and the content of data submission¹⁶¹. North Macedonia complied with its reporting obligations on pollutants under the scope of the Directive by submitting the relevant information to the European Environment Agency¹⁶² [51].

3.5 CLIMATE

According to data on degree of implementation of mandatory EnC *acquis* in the climate area, published on the webpage of the EnC¹⁶³, the Republic of North Macedonia is on a good track. For the time being, only the Law on Environment contains provisions

154 <https://www.moepp.gov.mk/>

155 Law on Environment, "Official Gazette of the Republic of Macedonia," no. 53/2005, 81/2005, 24/2007, 159/2008, 83/2009, 48/10, 124/10, 51/11, 123/12, 93/13, 42/14 and 44/15, http://www.moepp.gov.mk/?page_id=16546

156 http://www.moepp.gov.mk/?page_id=16546

157 TIDZ Bunardzik, Shuto Orizari and Butel

158 Law on Ambient Air Quality, "Official Gazette of the Republic of Macedonia," no. 67/04, 92/07, 35/10, 47/11, 59/12 and 100/12, http://www.moepp.gov.mk/?page_id=16548

159 http://www.moepp.gov.mk/?page_id=16548

160 Rulebook on the limit values for the permissible levels of emissions and types of pollutants in the exhaust gases and vaporous emitted into the air from stationary sources, no. 169/13, <http://www.moepp.gov.mk/wp-content/uploads/2018/12/Pravilnik-za-kriteriumite-metodite-i-postapkite-za-ocenuvanje-na-kvalitetot-na-ambientniot-vozduh.pdf>

161 Rulebook on the form and the content of data submission, "Official Gazette of the Republic of Macedonia," no. 79/11 from 13.06.2011, http://www.moepp.gov.mk/?page_id=16548

162 <https://www.eea.europa.eu/>

163 https://www.energy-community.org/implementation/North_Macedonia/CLIM.html

concerning climate. The preparation of a separate Law on climate action including the transposition of the Regulation (EU) 525/2013 on the mechanisms for monitoring and reporting greenhouse gas emissions is in a final stage and is expected to be adopted by the end of 2020. A similar assumption relates to the preparation of a long-term climate action strategy is expected to be brought in line with the envisaged framework for 2030.

3.5.1 Implementation of Regulation (EU) 525/2013 on a Mechanism for Monitoring and Reporting Greenhouse Gas Emissions

With a view to implementing the essential elements of the Regulation (EU) 525/2013, our country already prepared an assessment, considering also the requirements for establishing legal and institutional pre-requisites. According to the assessment, the country needs to take further activities in relation to the Inventory of GHGs, the policies and projections for mitigating climate change, and the adaptation policies and measures provided for by the Regulation¹⁶⁴.

Although North Macedonia is not a party to Annex I, the existing GHG Inventory largely satisfied the necessary reporting principles for the countries from Annex I. The tasks and activities have been standardised and the roles and responsibilities of all stakeholders have been clearly defined. It is publicly available on the webpage of the UNFCCC.

North Macedonia began preparing its GHG Inventory starting in 2000, by using the methodology of the inter-governmental Panel on Climate Change (IPCC) from 1996 and 2006. The latest National inventory summary report was submitted to the UNFCCC in 2014, accompanied by the Third national climate change communication. Data on GHG emissions have been verified by the MANU.

Still, in order to achieve harmonisation with the Regulation on monitoring mechanisms, the GHG Inventory requires institutionalisation. Although the National inventory of anthropogenic GHG emissions by sources and sinks is mentioned in the 2005 Law on Environment, provisions that will clearly define competences and reporting obligations are missing¹⁶⁵.

Similarly, with regards to the obligation to adopt low-carbon development strategies, the Law on Environment provides the legal basis for the preparation of

the National plan on climate change to be adopted by the Government, which should contain projections on GHG emissions and analysis for their reduction. Work on a long-term Strategy on climate action started in March 2019 and is envisaged to end in 2020. In addition, the Communication strategy and action plan on climate change¹⁶⁶, adopted in 2014, envisage integration of climate priorities in the country's development plans and in work plans of relevant departments, by strengthening databases and of the analytical and institutional capacities of the states' key institutions.

Assessment of potentials and projections for mitigating emissions are part of every report sent to the UNFCCC ever since 2000, as well as the nationally determined contributions (NDCs). Due to the excessive reliance on fossil fuels and especially the lignite for electricity production, there is significant potential for policies and measures that might lead to reducing GHG emissions. The vulnerable sectors and climate adaptation measures ought to be taken into account in the new revised NDCs.

3.5.3 Adoption of Integrated Energy and Climate National Plan

Upon the adoption of the recommendation of the EnC MC in 2018 for preparation of integrated NECPs of EnC Contracting Parties, and of the relevant guidelines on drafting NECP by the EnC Secretariat [52], a regional Energy and Climate Technical Working Group was established, comprised of experts nominated by EnC Contracting Parties. The respective national working group in our country started work in March 2019.

The technical regional working group of EnC, at its meeting in October 2020, among other things, announced with pleasure that the Republic of North Macedonia, was the first Contracting Party to the EnC, to have already submitted its draft-version of the NECP¹⁶⁷.

While drafting the integrated NECP, with consideration of the EnC Secretariat Guidance on consolidation of climate and energy planning, [52], the national working group undertook series of activities, some of which were¹⁶⁸:

- Development of integrated methodological tools on drafting reference scenario,

164 http://www.moepp.gov.mk/?page_id=4749

165 https://www.energy-community.org/implementation/North_Macedonia/CLIM.html

166 http://www.moepp.gov.mk/?page_id=368

167 <https://energy-community.org/news/Energy-Community-News/2020/10/09.html>

168 https://www.energy-community.org/implementation/North_Macedonia/CLIM.html

Developing integrated methodological tools on preparing a future strategic scenario (the analytical and technical aspects of the climate plans are also partially covered in the adopted Strategy for Energy Development of the Republic of North Macedonia until 2040, [46]),

- Developing models on national plans, following the structure and parameters referred to in Annex I of the Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action, and organizing of preliminary regional consultations within the EnC Energy and Climate Committee.

Until the end of 2020 consultations are under way with the other EnC Contracting Parties and neighbouring EU Member States, following which the EnC Secretariat is expected to publish its opinion on the NECP of North Macedonia and to proceed with finalisation of the Plan.

The timely regional cooperation and coordination is considered to be of utmost relevance for certain areas elaborated in the NECP, such as integration of energy markets, cross-border mechanisms for renewable energy deployment and trade, risks and security threats in energy networks and critical energy infrastructures (including cyber security) as well as transportation. In addition to these topics, the NECP is expected to adopt straightforward plans and specific budgets for several important components in the fair transition strategy. This refers, above all, to research and innovations in climate and energy, promoting competition and problems related to energy poverty¹⁶⁹.

169 Workshop on NECPs Regional Consultation: Background Paper
<https://energy-community.org/events/2020/10/ECTWG.html>

4

OVERVIEW OF RELEVANT STRATEGIC DOCUMENTS

4.1 STRATEGY FOR ENERGY DEVELOPMENT OF THE REPUBLIC OF NORTH MACEDONIA UNTIL 2040

The Strategy for Energy Development of the Republic of North Macedonia until 2040 [46], has been drafted based on Article 11 of the Energy Law [44], and was adopted by the Government of the Republic of North Macedonia in January 2020. The Strategy provides a detailed diagnosis of the key problems facing the energy sector of North Macedonia and proposes alternative approaches, taking into account developments in global and European energy policies, and especially within the EnC, thus giving the Government an opportunity to take science-based decisions, relying on competent expertise.

EU Energy trends are emphasizing the need for more ambitious **transition towards low-carbon economy**, with RES and energy efficiency being among the most important enablers of transition. The Strategy [46] follows best practices of EU RES and energy efficiency policies as well as decarbonisation, taking into consideration targets and trajectories with realistic dynamics that are tailor-made to domestic specifics and priorities of the Government of the Republic of North Macedonia [46]¹⁷⁰.

The guiding vision of the Strategy [46] can be summarised as achieving a **“secure, efficient, environmentally friendly and competitive energy system that is capable to support the sustainable economic growth of the country”**.

The Strategy [46] has been developed based on the following key input data, assumptions, and principles:

- Projected GDP growth of 3.3% per annum, positioning North Macedonia in 2040 to Central and Eastern European countries' GDP per capita levels of today,
- Least cost principle of the total energy system during the observed period, taking into account investments, transmission, distribution and delivery costs, fuel prices, CO₂ price as well as different mechanisms and policies for supporting clean energy generation and energy poverty,
- Introduction of carbon price in different year for different scenario, which will gradually achieve the level of the Emission Trading System (ETS). Moreover, depending on scenarios, different projections are used for the CO₂ price of the World Energy Outlook (WEO) 2017, and most progressive in this aspect is the green scenario.

For purposes of achieving the vision of 2040, the Strategy [46] is considering three possible scenarios: reference, moderate transition and green scenario (Figure 10).

The Strategy [46] defines six strategic goals for North Macedonia, mapped along five energy pillars of the EU Energy Union. These strategic goals have an important role in the energy system planning and can be achieved with different approaches.

The Strategy [46] uses six indicators for assessing strategic goals results (Figure 11). The indicators pertain to each strategic goal. Results are showing a progressive energy transition towards 2040 for all three scenarios (Figure 12).

Figure 13 presents the success in the achievement of the respective EnC's indicative targets by 2030 for all three scenarios, whereby the green scenario is expected to be the most successful.

The Strategy [46] provides a strategic roadmap where it specifies the level of priority per different scenarios, estimated time frame, and responsible administrative body during implementation for each policy

¹⁷⁰ The text in this section is largely based on the Executive Summary of the Strategy [46]. The insertion of this footnote is with the aim to avoid further referencing of Strategy [46] following each paragraph of the section.

and strategic measure. Different policies and measures for achieving the strategic goals are proposed for each scenario. Proposed policies and measures are categorised along the five energy pillars and provide answers on how to resolve specific challenges and incentivise new opportunities. The policies and strategic measures are in line with the priorities established by the the Energy Law [44], too.

1. Energy efficiency: the Strategy maximizes energy savings up to 51.8% of primary and 27.5% of final energy in the 2040 green scenario. Within the energy efficiency pillar, the Strategy [46] recommends:

- **Strengthened commitment for implementation of energy efficiency policies and measures** in the sectors: buildings, public transport, industry, heating and cooling, transmission, distribution

FIGURE 10
Overview of indicative scenarios for development of the North Macedonia energy system by 2040, [46]

	Reference scenario	Moderate Transition scenario	Green scenario
Vision	Transition from conventional energy based on current policy and least cost principles	Progressive transition from conventional energy based on new policy and least cost principle	Radical transition from conventional energy based on new policy and lignite phase out
Demand drivers	• Macedonian GDP growth to reach neighboring EU countries' GDP per capita levels of today by 2040 • Current energy efficiency policies • Penetration of EVs	• Same GDP growth as for reference • Energy efficiency based on enhanced policy (in line with EU Directives / EnC guidelines) • Higher penetration of EVs	• Same GDP growth as for reference • Same as moderate transition but more incentives and advanced technologies • Highest penetration of EVs
Generation investments fokus	• Lignite PP revitalization choice based on least cost principles • High focus on RES	• Lignite PP revitalization choice based on least cost principles • Further fokus on RES technology investments	• Lignite PP revitalization choice based on least cost principles • Extreme focus on RES investments
Carbon price at ETS level	2027	2025	2023
Commodity prices (WEO 2017)¹	Based on current policies scenario	Based on new policy scenario	Based on the sustainable development scenario
Fuel Supply / Availability	• Lignite production capped at a maximum level of annual supply expected (~ 5 M tones 2018-2035, ~ 3 M tons 2034-2040) • Hydro production and wind/solar in line with historical trends and adjusted for new entering power plants • Cross Border Capacities (electricity and gas) evolution in line with the ENTSO-E, ENTSO-G and EnC • Sustainable consumption of biomass² • Battery storage (EVs and pump storage)		

FIGURE 11
2040 Strategic goals, [46]

Energy pillar	Indicator	STRATEGIC GOALS	Metric
1 Energy efficiency	Energy efficiency 	Maximize energy savings	• Reduction of primary and final energy consumption vs. BAU scenario
2 Integration and security of energy markets	Energy dependence 	Maintain current energy dependence around today's level (54% net import), while improving overall integration in European markets	• Net import share in primary energy consumption
3 Decarbonisation	GHG emissions 	Limit the increase of GHG emissions	• Absolute amount of GHG emissions (CO₂, CH₄ and NO₂) vs. BAU scenario and vs. 2005
	RES share 	Strongly increase RES share in gross final consumption from today's level (19% of RES) in a sustainable manner	• RES share (heating & cooling, electricity, transport) in gross final energy consumption
4 R&I and competitiveness	Total system costs 	Minimize system costs based on least cost optimization	• System costs per annum & cumulative in euros incl. overall annualized investments, O&M costs, delivery costs & fuel supply costs
5 Legal & regulatory aspects	Legal & regulatory compliance 	Ensure continuous harmonisation EnC acquis and its implementation	• Harmonisation of national legislation with EnC acquis and its implementation in practice

as well as horizontal measures. These measures help to reduce emissions as well as dependence from import of energy and can incentivise national economy. In all three scenarios, North Macedonia will be using less resources to cover energy needs;

- **Adopting a decree on the level of ambition of national energy efficiency targets for 2030** provided for by the Law on Energy Efficiency [45], in light of the Strategy [46] results;
- **Setting the energy efficiency targets for primary energy savings.** Reduced coal consumption and an improved energy efficiency in energy production contribute to the biggest savings of primary energy under the moderate transition and the green scenario;
- **Implementing further relevant technical measures to decrease distribution network losses** which will additionally reduce consumption of primary energy;

FIGURE 12
Summary of integrated results in 2030 and 2040, [46]

Energy pillar	Indicator	Metric	Year 2030			Year 2040		
			Reference	Moderate Transition	Green	Reference	Moderate Transition	Green
1 Energy efficiency	Energy efficiency 	% reduction of primary & final energy consumption vs. BAU	-15,3% primary -10,3% final	-31,2% primary -16,6% final	-34,5% primary -20,8% final	-34,9% primary -14,2% final	-47,9% primary -21,7% final	-51,8% primary -27,5% final
2 Integration and security of energy markets	Energy dependence 	% of net import in primary energy consumption	48,7%	61,9%	59,1%	51,0%	61,9%	55,3%
3 Decarbonisation	GHG emissions 	% reduction vs. 2005 and vs. BAU	-20,9% -22,9% vs. BAU	-57,2% -58,3% vs. BAU	-64,7% -65,3% vs. BAU	-8,1% -35,6% vs. BAU	-43,3% -60,2% vs. BAU	-61,5% -72,8% vs. BAU
	RES share 	% of RES in gross final energy consumption	33%	38%	40%	35%	39%	45%
4 R&I and competitiveness	Total system costs 	Bn EUR in 2030 and 2040 with cumulative	3,8 41,0	3,3 38,3	3,2 37,3	5,1 86,5	4,8 81,2	4,5 78,1
5 Legal & regulatory aspects	Legal & regulatory compliance 	EnC acquis harmonisation & implementation	Full compliance			Full compliance		

FIGURE 13
Overview of results compared to EnC 2030 indicative targets [46]

Energy pillar	Indicator	Year 2030 (relative terms)				Year 2030 (absolute terms)			
		EnC target	Reference	Moderate Transition	Green	EnC target	Reference	Moderate Transition	Green
1 Energy efficiency	Energy efficiency 	-32,5% primary OR final vs. BAU	-15,3% primary -10,3% final	-31,2% primary -16,6% final	-34,5% primary -20,8% final	2,862 ktoe primary 1,996 ktoe final	2,975 ktoe primary 2,301 ktoe final	2,414 ktoe primary 2,138 ktoe final	2,300 ktoe primary 2,030 ktoe final
3 Decarbonisation	GHG emissions 	+13% vs. 2005	-11,4% (-20,9%)	-37,6% (-57,2%)	-43,0% (-64,7%)	14,7 Mt CO ₂ -eq	11,5 Mt (7,4 Mt) CO ₂ -eq	8,1 Mt (4,0 Mt) CO ₂ -eq	7,4 Mt (3,3 Mt) CO ₂ -eq
	RES share 	33,9% at least	33%	38%	40%	n/a	n/a	n/a	n/a

Results vs. EnC targets EnC 2030 achieved EnC 2030 almost achieved EnC 2030 not achieved Targets not available

- **Improved efficacy of district heating systems** following systemic reconstruction of distribution network and commitment for returning the disconnected customers and increasing the number of new customers.
- **Monitoring the effect of the planned energy efficiency measures** and bigger incentivising of those with largest effects on energy consumption.

2. Integration of energy markets and security of energy supply: the Strategy aims towards a stronger integration of North Macedonia in Europe's energy markets, without increase in the energy dependence, and providing the necessary flexibility for higher RES integration. Current electricity consumption relies on around 30% import, with the rest supplied from domestic generation capacities, mainly lignite fired TPPs and large hydro power plants. The TPPs are relatively old and face challenges of future coal supply. The Integration and security of energy markets pillar in the Strategy [46] recommends:

- **Implementing new interconnection with Albania and continued investment in the electricity transmission and distribution networks** for purposes of:
 - * increased integration of electricity production from RES, especially from wind and solar,
 - * enabling the prosumer concept,
 - * higher penetration of electric vehicles (EV),
 - * meeting the increased demand of electricity in the region in all three scenarios.
- **Establishing an organised day-ahead electricity market in North Macedonia, coupling with the Bulgarian market and participation in initiatives for establishing a regional market.** In the Strategy [46], the price of electricity from imports is used as parameter for deciding whether to construct or revitalise national generation capacities;
- **Revitalising TPP Bitola, but only in the reference scenario** under the condition that Zivajno mines are opened and a continuous supply of coal at competitive prices is enabled;
- **Decommissioning of TPP Bitola in the moderate transition and the green scenario**, whose production would be supplemented by combination of new RES and natural gas capacities;
- **Decommissioning of TPP Oslomej in all three scenarios.** Part of the measures for a just energy transition could be a PV power plant (installed capacity of 80 – 120 MW) which will use the same infrastructure (site and transmission network) and employees. The same approach could be applied to TPP Bitola;
- **Monitoring and adjusting investment plans** in order to avoid the risk of stranded and underutilised technologies and infrastructure, considering the expectations for pollution reduction from local polluters and the potential CO₂ price;
- **Developing socially responsible and just transition programs** to mitigate the negative effects of associated job losses due to the energy transition, through job requalification and reassigning of and stimulating new jobs in low-carbon technologies and services;
- **Managing the power system flexibility** by establishing cross-border market of reserves and balancing energy in short run, as well as increasing flexibility by increased use of existing and construction of new plants (e.g. storage hydro, hydro-pumped storage and gas fired capacities), in the medium and long term. Use of demand side management will also be important in the future, just like the energy storage technologies (vehicles to grid, power-to-heat and battery storage) expected to help significantly to increase power system flexibility and enabling integration of larger quantity of electricity generated from RES;
- **Developing regulatory framework and support to relevant public institutions** to enable new distribution network investments, and behind the meter¹⁷¹ service;
- **Planned interconnections of the transmission system of natural gas** with Greece and the other countries, as well as the gasification plan. This will increase security of natural gas supply as a bridge fuel to 2050. The natural gas, combined with RES is expected to gain an important role in replacement of coal used in electricity production capacities and industry, in the moderate transition and green scenario. The new cross-border infrastructure will diversify supply routes and increase market competitiveness;
- **Providing the necessary infrastructure for storage of petroleum product reserves.**

3. Decarbonisation: in the green scenario, in 2040 GHG emissions decrease by 61.5% compared to 2005, with increased use of RES and their share of 45% in gross-consumption of final energy. Even though North Macedonia has lower GHG emissions per capita by around 30% compared to EU, the GHG emissions per GDP were five times higher than EU in 2014. Two thirds of overall GHG emissions come from

¹⁷¹ The term “behind the meter” or BTM is used in more recent literature as joint reference to the concepts of installing dispersed micro-production, battery storage and prosumers, whereby generated electricity is used for self-consumption, meaning that neither the production nor the consumption is registered at the house meter. Such concepts are complementary to the demand side management and enable additional flexibility of the system.

energy sector fuel combustion, with energy transformation, industry and transport sub-sectors having the highest share. The moderate transition and green transition scenario indicate that coal use after 2025 is not cost-efficient due to the introduction of the carbon price. Therefore, the introduction of the carbon price should be considered as one of the leading factors of reducing CO₂ emissions in electricity and heat production. The Strategy [46], in the decarbonisation pillar, recommends the following:

- **Promoting the use of RES in a manner that provides sustainable energy development.** The share of RES in the gross final energy consumption is increased in a sustainable manner and in all scenarios is reaching 35 – 45% in 2040. According to estimates, for electricity generation, PV and wind will be the fastest growing technologies in all scenarios (up to 1,400 MW PV and 750 MW wind), while construction of new small hydro power plants should be carefully assessed to avoid the impact on environment compared to benefits of generated electricity;
 - **Financial support mechanisms** through FIT and FIP awarded in a tendering procedure, in all three scenarios, especially for the 2020 – 2025 period;
 - **Electrification of the heating & cooling sector** using more efficient heat pumps and district heating fuelled by CHP on gas and biomass (including residual biomass). The Strategy also recommends use of large heat pumps, waste heat and thermal storage capacities for the production of heating energy in district heating systems. The electrification, combined with energy efficiency measures, will enable gradual reduction of the inefficient biomass usage;
 - **Promoting combined hot water systems** by using district heating, electricity and solar thermal systems;
 - **Increased share of biofuels to 10% in 2030 and expanded use of EV.** Financial support mechanisms are planned for purchase of EVs, as well as the upgrade of the necessary infrastructure at the national and local level;
 - **Strengthened role of municipalities and the City of Skopje in energy planning** with a view to better integration of the national targets at the local level (e.g., more RES and energy efficiency, prosumers, elimination of local polluters etc.);
 - **Installing equipment for controlling local pollutants** in order to meet the requirements of the Large Combustion Plants Directive and the Industrial Emissions Directive in case of TPP Bitola revitalisation.
4. **Research, innovation and competitiveness: the Strategy minimises overall costs in the energy system, considering the specific conditions in the country.** The research, innovation, and competitiveness pillar of the Strategy [46] recommends:
- **Streamlining energy transition technologies and measures into national priorities for research and development** and stimulating cooperation with scientific and research centres (institutes, universities and development departments) with policy makers, industry, utility enterprises, municipalities and associations;
 - **Adjusting energy related curricula at all educational levels to make them responsive to energy transition trends**, and stimulating geographical and inter-sectoral mobility of researchers;
 - **Stimulating new services and jobs especially for medium and small enterprises** in the RES and energy efficiency areas. North Macedonia has a positive business environment, which is a good pre-requisite for supporting small and medium enterprises in strengthening new investments, reducing unemployment and stimulating overall growth. Still, additional financial and technical expertise is needed for these enterprises in the energy sector, in order to facilitate their access towards external services;
 - **Revising the business models of key energy enterprises with the Government support**, to better cope with the challenges of decarbonisation and liberalisation of the energy sector and ensuring competitiveness in the future;
 - **Increase competence in pulling international donor funds.** This pertains, above all, to the municipalities which are tasked with the planning, evaluation and monitoring of donor projects. This will help increase utilization of funds from international donors and financial institutions which the country is entitled to, including the funds for meeting obligations from the Paris Agreement.
5. **Legislative and regulatory aspects:** The Strategy [46] emphasized the need for full alignment with the EnC *acquis*:
- **Implementing the Law on Energy Efficiency**, [45], and all the related secondary legislation;
 - **Implementing the four core topics defined by the EnC Climate Action Group**, which includes the Monitoring Mechanism Regulation, mainstreaming climate related obligations across sectors, integrated National Energy and Climate Plans, as well as setting targets for 2030 targets (and possibly beyond). It is recommended that the working group on energy and climate continues its work in order to ensure better cooperation between institutions and a more efficient decision-making process;
 - **Implementing the environmental *acquis* of the EnC**, which includes:

- * enforcing the Large Combustion Plants Directive in practice,
- * adopting the Law on Control of Industrial Emissions, and transposition of the relevant requirements from the Industrial Emission Directive (with a deadline for the existing installations being 1 January 2028).

In order to enable cost competitive energy transition, the energy system will require urgent capital investments with a cumulative value ranging from 9.4 to 17.5 billion EUR in the period until 2040, depending on the selected scenario. Investments in energy efficiency and RES are the primary focus of all scenarios. This accentuates the need for increased access to funding programmes that recognize the importance of energy transition projects – primarily EU funds as well as funds of international financial institutions and donors. The Strategy assumes that energy efficiency and RES projects, as well as the revitalization of TPP Bitola, will be supported through the national budget as well. The green scenario is the most cost-effective. The cumulative savings in the moderate transition scenario are estimated at 5.4 billion EUR, while under the green scenario estimated savings are 7.4 billion EUR.

According to the Strategy, from the viewpoint of all three scenarios, the pivotal year in the development is expected to be 2025, and the decision on what needs to happen that year should be made in 2020 or 2021 at the latest. This requires immediate action from the relevant energy stakeholders to start activities at all governance levels. The Strategy [46] recommends that a Steering Committee be formed, chaired by the Deputy Prime Minister of Economic Affairs that would be responsible for its implementation. As a first step, the Government needs to adopt a Program for realization of the Strategy [46], within six months from the day of its adoption.

4.2 ACTION PLAN ON USE OF RENEWABLE SOURCES IN THE REPUBLIC OF NORTH MACEDONIA UNTIL 2025 WITH A VISION UNTIL 2030

The Energy Law, [44], in its Article 172 lays down that “The Government, upon proposal of the Ministry, within six months from the day of adopting the Strategy,¹⁷² shall adopt an Action Plan for Renewable Energy Sources for a period of ten years. The Action Plan for Renewable Energy Sources shall contain, in particular: review and assessment of the situation in the energy sector and the market for RES, comparative analysis, objectives and dynamics of the indicative trajectory,

sectoral goals and annual forecasts and measures for achieving the objectives by determining the holders, deadlines and means of implementation.”

Considering that a new Action Plan, is still not adopted¹⁷³, as provided for by the Law [44], below are the main elements of the Renewable Energy Action Plan for the Republic of North Macedonia until 2025 with a vision until 2030 [47], which is in force until the new document is adopted, as well as some research findings observed during the drafting of the overview [54].

The Action Plan [47] was adopted as an obligation from the previous Energy Law of 2011, which only envisaged the FIT as a SS for RES. This Plan presented development scenario for RES with defined national binding targets for share of energy generated from RES in gross final energy consumption of 21% in 2020, 25% in 2025 and 28% in 2030. These targets were assessed as not ambitious enough, so they were revisited by the State Statistical Office of the Republic of North Macedonia, which identified increased electricity generation from biomass in the 2009 – 2015 period. Accordingly, the plan scenarios were adjusted and amendments were adopted to the Action Plan [47] in 2017. According to the amendments, the target RES share in gross final electricity consumption in 2020 was set at 23.9% and estimated at 25% in 2025.

With a view to achieving the indicated mandatory national targets, the Action Plan [47], has adopted the following SSs for RES:

- investment support,
- tax breaks,
- obligation of the electricity suppliers on purchasing electricity generated from RES and obligation on mandatory placing of blends of fossil fuels with bio-fuels on the market,
- issuing guarantees of origin for electricity generated from RES,
- FITs for the purchase of electricity generated from RES by PEPs, or
- increased prices for the customers, as regards the use of energy from RES.

The funds required to implement the SSs can be provided through [47]:

- grants, donations, sponsorships,
- loans,
- state aid pursuant to the Law, or
- the Budget of the Republic of North Macedonia.

¹⁷² Reference to the Strategy for Energy Development of the Republic of North Macedonia until 2040 [46]

¹⁷³ 22 August 2020

Furthermore, the Action Plan [47] stipulates in detail the indicated measures and sources of funding, with specific obligations of competent institutions in the country.

Still, in February 2019 the Government corrected again the values for 2020 targets, in its Decision on the national mandatory targets for the share of energy from renewables in gross final energy consumption and for share of energy from RES in final energy consumption in transportation. The targets have been set at [53]:

- 23% of the gross final energy consumption by 2020, and
- 10% of the final energy consumption in transportation by 2020.

According to the Government Decision, all the previously stipulated measures under the Action Plan [47] need to be implemented in order to achieve these targets. What is notable is that in the mentioned Decision, the mandatory target for 2020 was reduced by 0.9%, which can be attributed to the lower growth of electricity generation from RES from the projected value in 2017. Nevertheless, this is a minor change in the target for RES and allows for an accurate monitoring of the Action plan [47], and for assuming a good course for achieving the targets for 2025 and 2030.

Tables 1 and 2 present the historic and projected data on installed capacity and production of power plants using RES in North Macedonia by 2025, in accordance with the Action Plan [47].

TABLE 1
Achieved and planned capacity of power plants on renewable technologies in North Macedonia from 2009 to 2025 (MW), [53]

Year	2009	2014	2015	2016	2017	2018	2019	2020	2025
Hydro (normalised)	553,3	632,0	657,3	659,5	669,6	683,2	696,9	709,0	866,0
< 1 MW	3,8	16,2	95,6	97,8	107,9	121,5	135,2	147,3	191,1
1 MW–10 MW	34,8	53,7	95,6	97,8	107,9	121,5	135,2	147,3	191,1
> 10 MW	514,7	561,7	561,7	561,7	561,7	561,7	561,7	561,7	674,9
Solar		14,8	16,7	17,4	20,8	22,2	23,6	25,4	35,6
Wind		36,8	36,8	36,8	36,8	50,0	50,0	50,0	150,0
Biomass			0,0	0,0	0,0	1,3	3,0	6,2	10,0
Biogas			4,0	6,0	7,0	7,0	7,0	8,0	12,0
Total	553,0	683,0	715,0	720,0	734,0	764,0	781,0	799,0	1.074,0

TABLE 2
Achieved and planned electricity generation of power plants from renewable technologies in North Macedonia from 2009 to 2025 (GWh), [53]

Year	2009	2014	2015	2016	2017	2018	2019	2020	2025
Hydro (normalised)	1.358,6	1.524,2	1.594,8	1.648,2	1.702,1	1.748,2	1.794,1	1.835,1	2.355,6
< 1 MW				293,2	347,1	393,2	439,2	480,2	628,0
1 MW–10 MW				293,2	347,1	393,2	439,2	480,2	628,0
> 10 MW				1.355,0	1.355,0	1.355,0	1.355,0	1.355,0	1.727,6
Solar		14,4	22,6	24,3	29,1	31,1	33,1	35,6	49,9
Wind		70,6	120,8	109,4	110,0	140,0	140,0	140,0	337,9
Biomass			0,0	0,0	0,0	5,2	12,1	25,0	40,0
Biogas			20,2	42,1	49,1	49,1	49,1	56,1	84,1
Total	1.359,0	1.609,0	1.758,0	1.824,0	1.890,0	1.974,0	2.028,0	2.092,0	2.867,0

With the newly introduced SSs, the FIP, the number of RES investment projects in North Macedonia is expected to increase in the following years. For the time being, there are several currently on-going RES investment projects [54]:

1. Second phase of the Wind Park Bogdanci for finalising the projected installed capacity of 50 MW. With 38.2 MW already built and commissioned in 2014, ESM has been working on completing the project in the previous years. The projected construction period is 2.5 years and the planned commissioning date is in early 2022. The new 13.2 MW are expected to yield a yearly generation of 37 GWh;
2. ESM has also announced and initiated works on two large PV long-term projects to be built in multiple stages:
 - PV power plant Oslomej which is planned to have total installed capacity of 100 MW at its final stage. So far, there are actions taken for the first two stages.
 - * The first stage is 10 MW photovoltaic plant with expected commissioning date in late 2020. The planned yearly generation is 15 GWh.
 - * The second stage consists of 20 MW PV plants with planned yearly generation of 30 GWh and expected commissioning date in 2021;
 - PV plant Bitola with planned installed capacity of 120 MW, expected to be built near the largest TPP in the country – REK Bitola.
 - * In the first stage of this power plant 20 MW will be installed, with a planned yearly generation of 30 GWh, and an expected commissioning date in 2022.

3. The new SS to RES (FIP) is expected to cover 200 MW of installed capacity in PV plants. It was implemented for the first time through a tender procedure in summer 2019. With this, North Macedonia has become the third Contracting Party to the EnC to launch a competitive process for supporting the investment in RES. The first tender awarded support in the form of fixed premium for a total of 35 MW of PV plants, which are to be built on state-owned land, in two locations:

- 25 MW in Sveti Nikole split into 10 MW, 5 MW, two plants of 2 MW and six plants of 1 MW,
- 10 MW installed capacity on a location in Makedonski Brod.

The Government has still not adopted a quota on the installed capacity of wind plants supported by FIP, but once the decision for publishing a tender is reached, interest is expected to rise significantly. The wind potential in North Macedonia is presented in Figure 14.

4.3 MEASURES AND PLANS FOR PROMOTING ENERGY EFFICIENCY IN THE REPUBLIC OF NORTH MACEDONIA

The latest (third) NEEAP [48], covered the period until 2010 and its achievements were duly reported to the EnC Secretariat. The assessment of the EnC Secretariat based on this and the previous reports, are shown in Figure 15.

FIGURE 14
Wind speed map in North Macedonia at 80 m, <https://www.mepso.com.mk/>

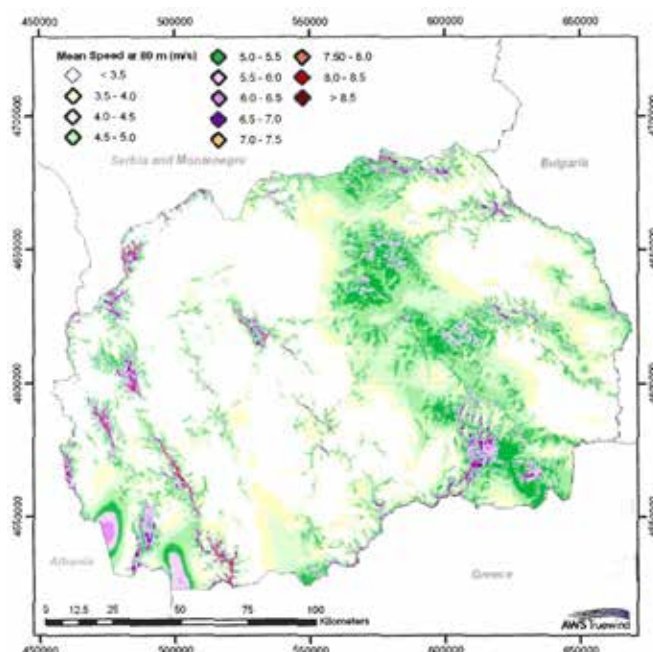
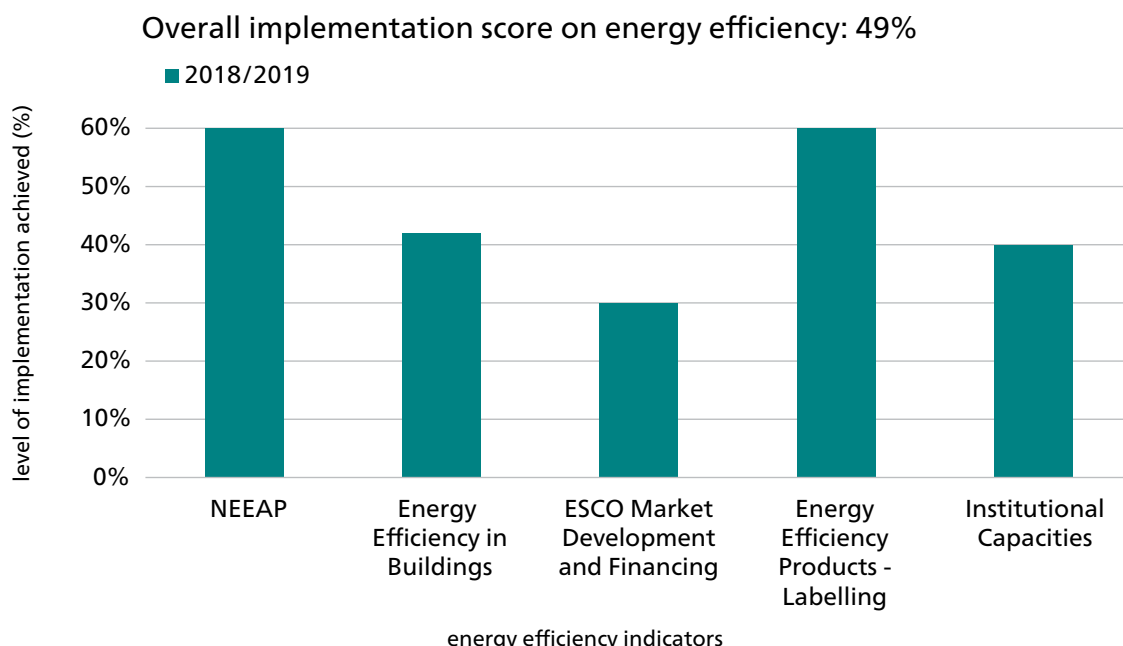


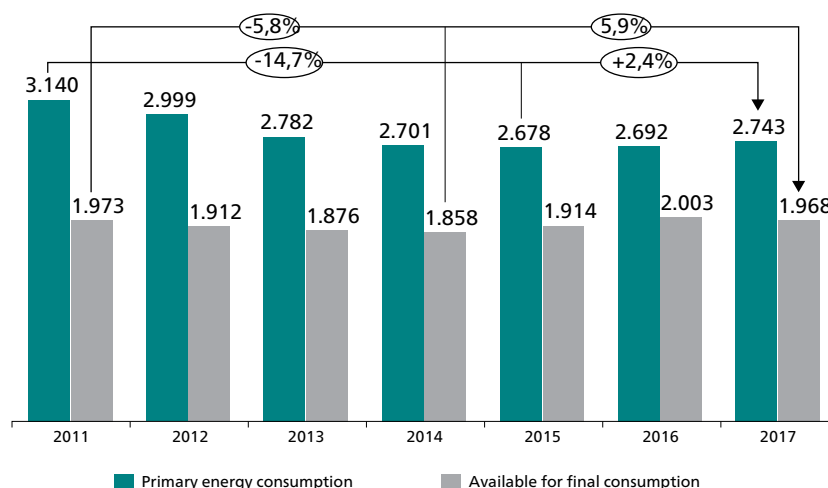
FIGURE 15
Implementation of North Macedonia according to Energy Efficiency Indicators, status as of 1 November 2019
https://www.energy-community.org/implementation/North_Macedonia.html



In brief, the comments are that the consumption of primary energy in the country denotes a downward trend, whereas the consumption of final energy remains unchanged. In the 2011 – 2017 period, the primary energy consumption decreased by 12.6% mainly due to a higher import of electricity and petroleum products, but partly due to the committed implementation of energy efficiency measures and the increased RES electricity production. This is shown in Figure 16, [46].

In the third NEEAP, in addition to the measures from the second NEEAP, two new measures are included, so all three together contribute to the cumulative final energy savings of 148.7 ktoe in 2018. This value represents a 9.09% reduction compared to the reference consumption, which is a bit over the indicative target of 9%. Furthermore, the third NEEAP assesses that the achieved energy savings in 2015 amounted to 79.4 ktoe, or 4.85% of the reference consumption. This means that 99% of the planned energy savings in 2015 were achieved, as shown in Figure 16. [46]

FIGURE 16
Consumption of primary and final energy in North Macedonia, 2011 – 2017 ktoe, [46]



For the first time in the third NEEAP, the consumption targets of primary energy in 2020 were analysed. Projections of primary energy consumption were made taking 2016 as a base year and assuming an annual growth rate of 2.2%. As a result, the NEEAP estimated that primary energy consumption in North Macedonia would reach 3,014 ktoe in 2020, upholding the primary energy individual consumption per capita set for EnC Contracting Parties, which is 3,270 ktoe. [46]

The fourth NEEAP for the 2020–2023 period is currently under preparation and is expected to be submitted to the Government by the end of 2020. It should set new indicative targets against 2015 as a base year. [54]

Furthermore, considering the short deadlines for adoption of bylaws foreseen by the Law on energy efficiency [45], a donor meeting was held with the aim to coordinate foreign technical assistance for their drafting. A consultancy of EBRD has been agreed for the drafting of secondary regulation setting out the binding energy efficiency SS and the manner and measures for achieving the target referred to in Article 7 of the Energy Efficiency Directive [17]. This means that the Government can choose concrete measures to achieve savings of 0.7% per annum in final energy consumption compared to 2015. [54]

The Fourth Annual Report Under the Energy Efficiency Directive [17], identifies the following on-going and future projects on energy efficiency in buildings [55]:

- A grant of 4 million EUR has been made available through the Instrument for Pre-accession (IPA), for implementation of pilot-measures on climate change and energy efficiency, targeting primarily the building sector,
- Renovations in order to achieve better energy efficiency in state student dormitories, in the period until 2024, with a total investment of 24 million EUR, of which 20 million EUR are loan from KfW, and 4.785 million are grant from the EU,

- A loan has been provided in the amount of 25 million EUR for energy efficiency project in public buildings, part of a four-year strategy (2019 – 2023) of the EBRD and WB for partnership with our country,
- A potential grant of 10 million dollars from the Green Climate Fund which is expected to be added to the Project from the previous paragraph, to help increase the start-up capital of the proposed Energy Efficiency Fund, and additional grant of 3 million EUR is expected to be added to this project.

Furthermore, the Law on Energy Efficiency [45] prescribes application of measures such as Energy Efficiency Binding Scheme, which stipulates obligations for DSOs and/or suppliers to achieve savings in the end-user energy consumption or to prove them by application of alternative measures. Alternative measures include introduction of new pollution taxes, sales of energy-efficient products (other than those already in place), establishment of an Energy Efficiency Fund, voluntary agreements introducing high-efficiency technologies, campaigns, introduction of fees for purchasing inefficient products, i.e. use of inefficient services, renovation of municipal and public buildings. The Law [45] introduces an obligation for reconstruction of at least 1% of the total range of buildings used and/or owned by Government, annually.

Lastly, in addition to the many current and planned projects in this area, it is important to mention that the EnC Secretariat, in its 2021 – 2027 program¹⁷⁴, places a focus on energy efficiency of buildings. The Secretariat has drafted this program with a full awareness of the prominent role that energy efficiency will have in the EU financial framework for this period. The program sets as a goal to assess and improve the national institutional, legal, and regulatory frameworks governing the housing sector with an impact on energy investments. Its priorities include working with municipalities on heating and cooling, as well as nearly zero energy buildings, stricter energy efficiency requirements for appliances, and innovative funding programmes for residential buildings renovation [54].

174 <https://energy-community.org/news/Energy-Community-News/2020/03/12.html>

5

CONCLUSION

Set out to depict the current position of the legislative framework of the energy sector of the Republic of North Macedonia internationally, this study at the outset defines the fundamental determinations of the country, with due consideration to its strategic and geo-political commitments, as well as the ratified international agreements pertaining to the area. The summary immediately places our country's focus on the political sphere of the EU, as well as on the need for a corresponding harmonization of the national law. It is quite straightforward that the road to harmonization with the EU in the energy sector entails cooperation and fulfilment of the obligations undertaken with the EnC Treaty. This Treaty is significant because it is the first legally binding agreement that North Macedonia has concluded with the EU. The timely fulfilment of the obligations and in general, the overall attitude of the competent authorities, the expert and general public towards this Treaty, projects a picture of preparedness and seriousness of reforms in the process of our country's accession to the EU.

Although when established the EnC primarily focused on creating basic conditions for expansion of EU markets in the so-called network energies (electricity and natural gas) towards SEE, today, its mandatory legal framework includes the *acquis* on network energy markets, but also on number of closely related and interdependent areas, such as environment, RES, energy efficiency and climate. The legal framework of the EnC not only expands with the law of horizontally related areas, but also the binding legal acts are regularly replaced by the corresponding newly adopted EU law with a delayed implementation of several years compared to the EU.

Following the comments from the introductory part, the first chapter of this study provides an overview of the current strategic and legislative framework of the EU in the field of electricity market and its inextricably linked parts – environment, RES, energy efficiency and climate. Subsequently, the second chapter presents the EnC law in the mentioned areas, which is binding for all its Contracting Parties, including the Republic of North Macedonia. Finally, in the

third and fourth chapters, it provides analysis of the achievements of our country in the transposition and implementation of that legislation.

It is quite obvious that the material presented in this publication can be followed-up by further comparative analysis of the national against the target legislation. Such analysis has already been prepared and will be presented as an addendum to this edition.

It is, however, important to mention that experts in this area could problematize the lasting value of this work, and partially they would be right. This especially stands for the comparative analysis part, given the virtually continuous influx of newly adopted legislative acts at all three levels - EU, EnC and North Macedonia. Experts are well aware that the dynamics of adoption of new documents surely changes the presented overview and conclusions, every three to six months. Even more, these changes intensify going from the higher (EU) to the lower (national) level of implementation. At the national level, the adoption of new documents is especially frequent in periods immediately after the adoption of new laws in the area, as was the case in the last two years in North Macedonia.

Nevertheless, experience shows that there are no hesitations or deviations from the adopted EU strategies in the medium and long term. The strategic commitments for liberalization and integration of energy markets, as well as the environmental criteria laid down in the first decade of this century, are systematically implemented and have only become more profound with every new ten-year energy strategy and the accompanying new package of legislation in the relevant area. Hence, it is expected that the market liberalization criteria, customer rights and target percentages which favour environmental and climate improvements can only improve, in compliance with the achievements and newly defined ambitions, but shall never decrease or stagnate for a longer period. The approach of the EnC to implement its unifying role of guiding the Contracting Parties and their commitment to achieving EU criteria and practices in the energy and related areas is well known - whenever the needed maturity and level

of implementation are acknowledged, new additional documents from the standing EU law are added to the mandatory *acquis*. This leads to a state of constant but steadily predictable challenge for the aspiring countries, one of which is ours.

As far as our country is concerned, the awareness of the established dynamic goals and our continuous progress on the set path are important not only for promoting the wellbeing of its citizens, but also for achieving a stable predictable environment, both for the existing legal entities that are already active mar-

ket participants, and for the potential new investors in this important economic sector.

Considering the broad overview and in-depth analysis of the topics covered in this edition, the authors hope that, coupled by critical thinking and additional monitoring of the situation, this material can be used for quite some time as the basic guide for understanding the development of issues and for monitoring the progress of the Republic of North Macedonia in its achievement of the target level of rule of EU law in the relevant area which is quite dynamic.

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LIST OF ACRONYMS

ACER	European Union Agency for the Cooperation of Energy Regulators	ITC	Inter-TSO Compensation
BAU	Business as Usual	ITO	Independent Transmission Operator
CIDA	Canadian Agency for International Development	KfW	Bank aus Verantwortung
Clean Energy Package	Winter Package of EU legislation on energy and climate, or Clean Energy for all Europeans	MANU	Macedonian Academy of Sciences and Arts
DSO	Distribution System Operator	MC	Ministerial Council of the Energy Community
EAR	European Agency for Reconstruction	MEMO	National Operator of the Organised Electricity Market in North Macedonia
EBRD	European Bank for Reconstruction and Development	MEPSO	North Macedonian Electricity Transmission System Operator
EC	European Commission	NDCs	Nationally Determined Contributions
EEAG	Guidelines on state aid for environmental protection and energy 2014 - 2020, European Commission	NECP	National Energy and Climate Action Plan
EIB	European Investment Bank	NEEAP	National Energy Efficiency Action Plan
EMO	Electricity Market Operator	NEMO	Nominated Electricity Market Operator
EnC	Energy Community	NRA	National Regulatory Authority for Energy
ENTSO-E	European Network of Transmission System Operators – Electricity	O&M	Operation & Maintenance
ENTSO-G	European Network of Transmission System Operators – Gas	OU	Ownership Unbundling of TSO
ERC	Energy and Water Services Regulatory Commission of the Republic of North Macedonia	PEP	Preferential Electricity Producer
ESCO	Energy Service Company	Person	Natural or Legal Person
ESM	Power Plants of North Macedonia	PV	Photovoltaic
ETS	Emissions Trade System	RES	Renewable Energy Sources
EU	European Union	SEE	South East Europe
EV	Electric Vehicle	SS	Support Schemes
FIP	Feed-in Premium	Third Package	Third legislative package for the internal electricity and gas markets of the EU
FIT	Feed-in Tariff	TPP	Thermal Power Plant
GDP	Gross Domestic Product	TSO	Transmission System Operator
GHG	Green House Gases	UN	United Nations
Governance Regulation	Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action	UNFCCC	United Nations Framework Convention on Climate Change
IPA	Instrument for Pre-Accession Assistance	UNMIK	United Nations Mission in Kosovo
IPCC	Intergovernmental Panel on Climate Change	USAID	United States Agency for International Development
IRENA	International Renewable Energy Agency	VIU	Vertically Integrated Undertaking
ISO	Independent System Operator	WB	Western Balkans
		WB	World Bank
		WEO	World Energy Outlook

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LEGISLATIVE FRAMEWORK OF THE POWER SUPPLY SECTOR IN THE REPUBLIC OF NORTH MACEDONIA AND ITS INTERNATIONAL STANDING



With an intention to critically analyse the current accommodation of the electricity sector legislation in the Republic of North Macedonia to the international legal framework, this publication affirms, first of all, the basic state strategic and geopolitical determinations of the country and taking into consideration the ratified international agreements that are relevant to the sector. The short introductory review instantly locates the strategic interest of our country within the political sphere of the EU as well as the need for a consistent harmonization of the national law.



Similarly, it is easily perceived that the path to "EU harmonization" in the electricity sector goes across cooperation and fulfilment of the obligations undertaken with the Energy Community Treaty. This Treaty is especially important for North Macedonia because of the fact that it is the first legally binding agreement that the country has signed with the EU.



Regular accomplishment of the requirements as well as the attitude of the competent institutions and of the professional and broader public in North Macedonia against this Treaty reflects a picture of the overall readiness and seriousness of the reform process towards the EU accession.