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Faculty of Law

Prompting European Union Member States to Contribute to the Energy Transition

A Legal Analysis of the Renewable Energy Governance System.

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Abstract:

The European Union (EU) is committed to rapidly increase the use of renewable forms of energy, which is essential to tackle climate change. Accordingly, the current Renewable Energy Directive (REDII) sets a target to achieve 32 % of renewable energy in the EU gross final consumption by 2030. However, REDII is silent on national legally binding targets, which is a step back in comparison to the previous Renewable Energy Directive (REDI). In parallel to REDII, the Governance Regulation introduces a set of rules to promote its implementation in EU Member States and enable the achievement of the 32 % target. This dissertation analyses whether the EU tools available under the Governance Regulation can compensate the lack of national legally binding targets to achieve the energy transition. A Nordic perspective is included through an analysis of the implementation of the renewable energy component of the climate and energy targets in Finland, Sweden, Denmark and Norway.

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List of Abbreviations

CJEU	Court of Justice of the European Union
EEA	European Economic Agreement
EU	European Union
GHG	Greenhouse Gas
NDC	National Determined Contribution
NECP	National Energy and Climate Plan
NSEC	North Seas Energy Cooperation
REDI	Renewable Energy Directive (2009/28/EC)
REDII	Renewable Energy Directive (2018/2001)
RES	Directive for the Promotion of Renewable Energy Use in Electricity Generation (2001/77/EC)
TFEU	Treaty of Functioning of the European Union
TWh	Terawatt Hour
UNFCCC	United Nations Framework Convention on Climate Change

1. Introduction

1.1. Background

The EU Green Deal confirms the intention of the EU to continue strengthening efforts to lead the way towards global climate action.¹ As set in the recent Climate Change Law, the EU binds itself to achieve Climate Neutrality by 2050.² That is, the greenhouse gas (GHG) emissions produced by all activities union-wide shall be equal or lower than the GHG emissions that are being removed from the atmosphere. It is also known as the net-zero emissions target. In addition, there is a legally binding mid-term target to reduce GHG emissions at least 55 % compared to 1990 levels by 2030 union-wide.³

The above-mentioned targets are the result of the international obligations that both the EU and its Member States have committed themselves to achieve in line with the Paris Agreement.⁴ In fact, the 55 % GHG emission reduction target that the Climate Change Law makes legally binding stems from the commitment of the EU to the Paris Agreement.⁵ Even though there is no express mention of the energy sector in the Paris Agreement, one of its main purposes is promoting an economy-wide approach to GHG emission reduction targets.⁶ As will be seen, that inevitably includes the energy sector.

¹ Commission (EU) “The European Green Deal” (Communication) COM (2019) 640 final, 11 December 2019, p. 20.

² Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999, article 2.

³ Ibid, article 4(1).

⁴ Paris Agreement to the United Nations Convention on Climate Change”, adopted 12 December 2015. U.N. Doc. FCCC/CP/2015/L.9/Rev/1.

⁵ Council of the European Union “Submission to the UNFCCC on behalf of the European Union and its Member States on the update of the nationally determined contribution of the European Union and its Member States. (2020) 14222/1/20 REV 1. Brussels, 18 December 2020.

⁶ Paris Agreement to the United Nations Convention on Climate Change”, adopted 12 December 2015. U.N. Doc. FCCC/CP/2015/L.9/Rev/1, article 4(4).

The energy sector is the largest contributor to global GHG emissions, accounting for over 70 % of emissions.⁷ Yet, energy is a basic need for economic development and social welfare and its demand keeps increasing. Therefore, tackling climate change entails an energy transition. There is no unanimous definition of energy transition, but it can be defined as the profound transformation of the energy system aimed at reducing energy related GHG emissions.⁸ In this context, the increase of renewable energy sources is key to decouple economic growth from GHG emissions. That is because renewable energy sources such as wind, hydropower and geothermal have the potential to meet our energy needs without the use of fossil fuels, which are a big source of GHG emissions. Therefore, it is no surprise that one of the main components of the EU climate and energy package to achieve the energy transition is the renewable energy targets.

The 2009 Renewable Energy Directive (REDI) imposed a target to achieve at least a 20% increase of renewable energy in the energy mix of the EU by 2020.⁹ In addition, it included in its Annex I individual targets for each Member State. This provided certainty to investors and had a positive impact on the increase of renewable forms of energy EU-wide. According to the latest statistics, only France fell short of its targets. In contrast several countries exceeded their targets as did the EU with an overall 22 % share of gross final energy consumption from renewable sources.¹⁰ This shows that the REDI strategy to include national legally binding targets in order to provide certainty to investors and promote the development of renewable energy technologies worked. If such legally binding target keeps increasing it has a good potential to help the EU be on track to achieve its 2050 goal.

⁷ Hannah Ritchie and Max Roser (2020) - "CO₂ and Greenhouse Gas Emissions". Published online at OurWorldInData.org. Retrieved from: <https://ourworldindata.org/emissions-by-sector> (last accessed 3 of March 2022).

⁸ International Renewable Energy Agency – “Energy Transition”. Published online at IRENA.org. Retrieved from: <https://www.irena.org/energytransition> (last accessed 3 of March 2022).

⁹ Directive 2009/28/EC of the European Parliament and of the Council 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, article 3(1).

¹⁰ Eurostat. Your key to European Statistics (2022) – “EU overachieves 2020 renewable energy target”. Published online at ec.europa.eu. Retrieved from: <https://ec.europa.eu/eurostat/en/web/products-eurostat-news/-/ddn-20220119-1> (last accessed 20 March 2022).

Upon the new objective of the EU to achieve 55 % GHG emission reduction, the new REDII increased the EU target to 32 % by 2030.¹¹ This target is expected to keep increasing in order to achieve climate neutrality by 2050.¹² Nonetheless, it is important to remark that renewable energy targets involve both legal and political aspects. The legislative procedure of the Council along with national political interests such as the coal industry made it impossible to agree on individual legally binding targets during the negotiations of REDII. The fact that REDI contained national legally binding targets and REDII does not, is a step back.

The recent developments of the Russo-Ukrainian war make it even clearer that the EU needs a rapid energy transition. That is because Russia provides for 46 % of the coal and 27 % of the oil imports as well as 40 % of the gas consumed in the EU, which makes our energy system highly vulnerable.¹³ The increase of renewable energy production, energy efficiency and cooperation within the Energy Union internal market are key in order to reach an independent energy system.

In order to overcome the above-mentioned challenges, there has been a change in the EU governance approach to prompt the energy transition. Whether the new approach is effective in achieving climate neutrality by 2050 is yet to be seen. However, it is in the interest of everyone to make it as effective as possible, instead of waiting until 2050 to find out.

¹¹ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, article 3(1).

¹² There is a proposal from the European Commission currently under review to increase it to 40%. European Commission (2021) 557 final, “Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652 of 14th of July 2021.

¹³ Commission (EU) “REPowerEU: Joint European Action for more affordable, secure and sustainable energy” (Communication) COM(2022) 108 final, 8 March 2022.

1.2. Research Question

Through this paper, the change of the legally binding nature of renewable energy targets for Member States of the EU and the tools to implement and enforce them are going to be analysed. The aim is to answer the following research question: Can the EU tools available under the Governance Regulation guarantee the transformation of Member States' energy systems in the absence of national legally binding renewable energy targets?

The importance of this topic relies on the essential role of the renewable energy sector to tackle climate change.

The following sub-questions are discussed:

- Does the EU have the legal competence to influence the national energy mix of its Member States?
- What are the differences between REDI and REDII in terms of renewable energy targets?
- What is the governance strategy of the EU to accelerate the increase of renewable energy sources in the energy mix of its Member States?
- What are the tools of the European Commission to enforce the collective renewable energy target in absence of national legally binding renewable energy targets?
- What is the degree of contribution of the Nordic countries to the EU collective renewable energy target?
- What are the main shortcomings of the current legal framework of renewable energy targets and how could it be improved?

1.3. Methodology

Through this dissertation I will use the legal-dogmatic research methodology, which aims to *“give a systematic exposition of the principles, rules and concepts governing a particular legal field or institution and analyses the relationship between these principles,*

rules and concepts with a view to solving uncertainties and gaps in the existing law".¹⁴ In this context, I will identify, describe and analyze the existing relevant legal sources (*lex lata*) to the Energy Union. Thereby, the aim is to pinpoint the uncertainties on the competence and limitations of the EU when influencing the energy mix of its Member States. European Union law will be reviewed from an internal perspective because "*the legal system is not only the subject of the inquiry, it also provides the normative framework for analysis*".¹⁵ I will also analyze some practical solutions to the shortcomings of the existing legal framework of renewable energy targets.

As mentioned before, analyzing renewable energy targets involves not only legal aspects but also political aspects. Therefore, I will also rely in an auxiliary manner on political science research, in order to frame my research question.¹⁶ That is because political science research provides insight into the structure of the new 2030 Climate and Energy Framework, which contains the current renewable energy objectives of the EU. My area of expertise is not political science and therefore I will carry out a literature review of some relevant authors.

1.4. Sources of Law

The relevant field of law at stake is European Union Law. At the top of the hierarchy we find primary law, which is composed of EU treaties. Below in the hierarchy is secondary legislation, which is composed by regulations, directives, decisions, recommendations and opinions.¹⁷ International agreements are primary sources of law in line with article 38 of the Vienna Convention.¹⁸ The international agreements signed by the EU, prevail

¹⁴ Jan M Smits, 'What is Legal Doctrine? On the Aims and Methods of Legal-Dogmatic Research'. Maastricht European Private Law Institute Working Paper No. 2015/05. (2015), p. 5.

¹⁵ *Ibid*, p. 10.

¹⁶ S. Taekema and B. van Klink, 'Relative Autonomy: A Characterisation of the Discipline of Law', in Bart van Klink & Sanne Taekema, *Law and Method, Interdisciplinary Research into Law* (2011), p. 5.

¹⁷ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 (TFEU), article 288.

¹⁸ "Vienna Convention on the Law of Treaties", open for signature 23 May 1969, vol. 1155 U.N.T.S 332, article 38.

over secondary EU law but are subordinate to primary law. Lower in the hierarchy are domestic legal systems. This is an important feature of EU law. In contrast to international law, EU law has primacy over domestic legislation and under certain circumstances may have direct effect.

For the purposes of this dissertation, I will be using different sources of law. First, I will rely in the TFEU in order to identify the competences of the EU regulating the Energy Union. Due to the transboundary nature of climate change, internationally negotiated treaties and compromises are an essential feature of the EU renewable energy targets. Therefore, I will also rely on the United Nations Framework Convention on Climate Change (UNFCCC),¹⁹ the Paris Agreement and the Kyoto Protocol.²⁰ Regarding secondary law, I will focus on the Renewable Energy Directives and the Governance Regulation.²¹

In order to analyze the level of contribution of the Nordic Countries to the EU renewable energy target, I will look into the national climate and energy policies of Finland, Sweden, Denmark and Norway. Due to the challenge of finding national legislation available in English, I will mainly use the National Energy and Climate Plans of Finland, Sweden and Denmark to analyze the structure of their renewable energy strategy.²² Due to the special

¹⁹ “United Nations Framework Convention on Climate Change”, open for signature 20 June 1992, U.N.T.S 2707, 2010.

²⁰ Kyoto Protocol to the United Nations Framework Convention on Climate Change, adopted 11 December 1997. U.N.T.S 162.

²¹ 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, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council.

²² Sweden’s Integrated National Energy and Climate Plan of the 16 January 2020. Regeringen, the Ministry of Infrastructure. (2020), Finland's Integrated Energy and Climate Plan. Publications of the Ministry of Economic Affairs and Employment 2019:66. Helsinki, (2019), Denmark’s Integrated National Energy and Climate Plan under the Regulation of the European Parliament and of the Council on the Governance of the Energy Union and Climate Action of December 2019. Danish Ministry of Climate, Energy and Utilities. (2019).

situation of Norway as explained in Section 1.5, I will look at its fourth biennial report under the UNFCCC.²³ In addition, I will look at the Climate Change Act of all four countries.²⁴ Lastly, I will also use subsidiary sources of law such as journal articles, books and judicial decisions.

1.5. Limitations

There are other sectors such as energy efficiency that are also key to the energy transition for carbon neutrality. However, the energy efficiency targets are defined in a different Directive.²⁵ In addition, there are some complications in the analysis of the targets such as the difficulty to measure energy efficiency. For delimitation reasons, I will only focus on the renewable energy targets. Therefore, the analysis will mainly be on the Renewable Energy Directives and the Governance Regulation.

In an attempt to ensure the achievement of the 55 % GHG emissions reduction by 2030 and ultimately climate neutrality by 2050, the European Commission has presented a proposal to increase the renewable energy target for 2030 from 32 % to 40 %.²⁶ However, it is still pending approval by the Council and the European Parliament. Therefore, for the purpose of this dissertation I will refer to the 32 % target.

In order to include a Nordic perspective, I decided to analyze the implementation of climate and energy targets in Finland, Sweden, Denmark and Norway. It is important to

²³ Norway's Fourth Biennial Report Under the Framework Convention on Climate Change. (2020). Norwegian Ministry of Climate and Environment.

²⁴ The Swedish Climate Act (2018), Climate Change Act 609/2015. (Finland, passed in 2015), Climate Act No 965 of 26 June 2020. (Denmark, passed in June 2020), Act relating to Norway's climate targets (Climate Change Act). (2017). LOV-2017-06-16-60.

²⁵ Directive 2012/27/EU of the European Parliament and of the Council 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.

²⁶ Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652 of 14th of July 2021.

remark that Norway is not part of the EU. However, it is a member of the European Economic Area (EEA). Therefore, as part of the EU internal energy market, cooperation on energy issues has been constant and some EU energy rules incorporated in the EEA have been implemented in Norway.²⁷ For instance, Norway submitted a National Renewable Energy Action Plan in line with REDI committing to 67.5 % from renewable sources in the gross final consumption by 2020. Both the Governance Regulation and REDII are currently being examined for incorporation into the EEA Agreement. Therefore, Norway is not bound by these acts. Nonetheless, the Norwegian Government declared that it intends to increase efforts in renewable energy to contribute to equivalent EU 2030 targets.²⁸ In addition, Norway has a high potential to keep increasing the generation of renewable forms of energy and export it to the EU. Due to these special characteristics and its historical cooperation with the EU in energy matters, I find it relevant to include the analysis of the Norwegian climate and energy policies for the purpose of Section 6.

1.6. Structure

The aim of this thesis is to study the EU energy and climate policies. More concretely, I want to know what instruments the EU has developed in order to prompt Member States to transition to renewable energies. To that aim, Chapter II will focus on the legal basis of the EU to regulate the transition to renewable forms of energy. Chapter III will analyse the main changes from REDI to REDII in terms of the renewable energy targets and the reasons behind them. Chapter IV will describe the main obligations of Member States under the Governance Regulation and Chapter V will identify the powers of the European Commission to enforce the 2030 renewable energy target in the absence of national legally binding targets. In order to incorporate a Nordic perspective, Chapter VI will analyse the degree of ambition and the different approaches of the renewable energy

²⁷ E.g. the Renewable Energy Directive 2009/28/EC was incorporated into the EEA Agreement on 19 December 2011.

²⁸ See “Norwegian position on the proposed EU framework for climate and energy policies towards 2030”. Published by regjeringen.no. Retrieved from:
<https://www.regjeringen.no/globalassets/upload/ud/vedlegg/protokoll/141006-posisjonspapir-eu-klima-energi.pdf>

component of the climate and energy targets in Finland, Sweden, Denmark and Norway. Chapter VI will pinpoint the main shortcomings of the current legal framework of renewable energy targets and some ideas to improve it. I will finish with some concluding remarks in Chapter VII.

2. The Legal Basis to Regulate the Energy Union

2.1 Evolution of European Union Energy Policies Before the Lisbon Treaty

The legal basis of the EU to regulate the energy transition as it stands today is the result of a long evolutionary process. After World War II some European countries started negotiations on community agreements to end an era of war. Two of those treaties, the Treaty establishing the European Coal and Steel Community in 1951 and the Treaty establishing the European Atomic Energy Community in 1957 were energy-concerned. However, national sovereignty weighted more than the sense of an energy community. Hence, it was for the European Community Member States to regulate themselves. That partially changes during the 1970s. In 1973, a political conflict results in an oil embargo to several Member States.²⁹ It is known as the oil crisis of 1973, with great economic impacts in Europe and worldwide. As a result, in 1974 the Council creates an energy policy strategy for the Community, stressing that “world-wide aspects of energy problems necessitate cooperation”.³⁰ This is an important step towards an integrated energy policy. However, the resolution largely focuses on energy security measures in case there is another crisis. A comprehensive common energy policy is not yet in place.

In the 1990s environmental concerns and climate change become important in the political agenda of governments and there is a substantial increase of environmental-related policies. In fact, the EU and its Member States as parties to the 1992 UNFCCC are obliged to adopt mitigation measures to ultimately achieve the stabilization of GHG concentrations in the atmosphere.³¹ Even though there had already been EU legislation

²⁹ European Union – History of the European Union 1970-79. Published online at European-union.europa.eu. Retrieved from: https://european-union.europa.eu/principles-countries-history/history-eu/1970-79_en (last accessed 4 March 2022).

³⁰ Council of the European Union. “Council Resolution of 17 September 1974 concerning a new energy policy strategy for the Community”. No C 153/1 (1974), para (5).

³¹ “United Nations Framework Convention on Climate Change”, open for signature 20 June 1992, U.N.T.S 2707, 2010, articles 2 and 4.

regarding the protection of the environment,³² it is the Treaty of Maastricht of 1992 that introduces the environment as an official policy area of the EU.

In parallel, the inefficiencies of having monopolies in the electricity and gas markets developed into a liberalization process of the internal energy market in the EU.³³ The idea was that opening the market to new participants and increasing competition would lead to electricity cost reduction and innovation. That would ideally strengthen the EU energy system and help to the transition to renewable forms of energy. According to the 1995 White Paper, the increase of renewable energy production would contribute both to the security of supply of the EU and to protect the environment.³⁴ This is the start of a progressive evolution where the key importance of promoting renewable forms of energy is recognized within the EU legal system.

Even though there was still no common energy policy, the EU starts addressing energy matters more comprehensively, based on environmental grounds.³⁵ That is how the EU took the next step towards an Energy Union, creating the First Energy Package with a new set of rules, including the first Electricity Directive in 1996.³⁶ Following, the 2001 Directive for the promotion of renewable energy use in electricity generation³⁷ (RES Directive) is adopted based on environmental grounds.³⁸ The RES Directive sets indicative national targets for each Member State, which should be achieved consistently

³² For instance, the Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds. (No longer in force).

³³ Peter D. Cameron, *Competition in Energy Markets: Law and Regulation in the European Union*, 2nd ed (Oxford ; New York: Oxford University Press, 2007). Cameron, p. 9.

³⁴ European Commission “An Energy Policy for the European Union” White Paper COM(95)682, December 1995, p. 35.

³⁵ At the time being article 175(1) of the Treaty establishing the European Community (Currently article 192(1) of the Treaty of Functioning of the European Union).

³⁶ Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity. (No longer in force).

³⁷ 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.

³⁸ At the time being article 175(1) of the Treaty establishing the European Community (Currently article 192(1) of the Treaty of Functioning of the European Union).

with the indicative target of 12 % share of gross renewable energy consumption by 2010 at EU level.³⁹

At the international sphere, in 2007 the Kyoto Protocol enters into force and the EU shapes its role as a climate change leader. The EU commits to reduce GHG emissions to 8 % by 2012 and to 20 % by 2020, both compared to 1990 levels. In this context, the EU elaborates the 2020 Climate and Energy Package with four main outcomes: the EU Emissions Trading Directive, the Effort Sharing Regulation, the Energy Efficiency Directive and a Directive on the Promotion of Renewable Energy. That is the 2009 REDI, which includes an important novelty: legally binding targets, whose main purpose is “*to provide certainty for investors and to encourage continuous development of technologies which generate energy from all types of renewable sources*”.⁴⁰ It established a legally binding EU target to increase the level of renewable energy 20 % by 2020 and mandatory national targets for each Member State.⁴¹ Since the Lisbon Treaty had not yet entered into force, its legal basis continues being the environment (current article 192 TFEU) and the internal market (current article 114 TFEU).

2.2 The Lisbon Treaty: An Energy Policy for Europe

The European Commission in its communication “An Energy Policy for Europe” stresses the importance to take an EU common approach to energy with three main challenges: environmental protection, energy security and competitiveness.⁴² The Lisbon Treaty introduces energy officially as an area of competence of the EU, more concretely of

³⁹ 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, article 3(4).

⁴⁰ Directive 2009/28/EC of the European Parliament and of the Council 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. Recital, para. (14).

⁴¹ Ibid, Annex I.

⁴² European Commission “Communication from the Commission to the European Council and the European Parliament. An Energy Policy for Europe”. (2007), p. 6.

shared competence between the EU and its Member States.⁴³ It also creates article 194 TFEU, which specifies how the EU is to exercise this competence.

Article 194(1) TFEU starts identifying the objectives of the Union Energy Policy, which reflect three main policy concerns: environmental protection, energy security and competitiveness of the energy market. The Parliament and the Council shall adopt the necessary measures to achieve those objectives through the ordinary legislative proceeding.⁴⁴ However, article 194(2) second paragraph is a strong limitation for the EU to establish measures promoting renewable energy:

“Such measures shall not affect a Member State’s right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply, without prejudice to Article 192(2)(c).”⁴⁵

This limitation recognizes that energy is a sensitive matter that Member States are not willing to leave under the control of the EU and it has been very discussed in the literature. The following subchapter discusses whether the new legislation on the promotion of renewable energy should be based on article 192 or article 194 TFEU.

2.3. Choosing between the Environmental or Energy Legal Basis

According to article 192 TFEU, the European Parliament and the Council shall take action following the ordinary legislative procedure in order to achieve the objectives set out in article 191 TFEU. The objectives of the EU environmental policy are to protect the quality of the environment, pursue a rational utilization of natural resources and promoting

⁴³ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 (TFEU), article 4(2)(i).

⁴⁴ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 (TFEU), article 194(2).

⁴⁵ Note the addition of a new sentence, stressing the right of Member States to exploit its energy resources.

measures at international level that deal with climate change.⁴⁶ Even though Directives on the promotion of renewable forms of energy are with no doubt energy-related policies, they are also related to all three of the above-mentioned objectives. Therefore, they are also environmental policies.

The environmental legal basis is also limited by the second paragraph of article 192 TFEU. More concretely, if the decision involves “measures significantly affecting a Member State’s choice between different energy sources and the general structure of its energy supply”, a special procedure requiring unanimity of the Council is needed to adopt such measure.⁴⁷ Similarly than article 194(2) TFEU, this provision highlights that energy matters largely fall within Member States’ national sovereignty. However, the addition of the word “significant” in article 192(2)(c) TFEU leaves room for the EU to regulate to a certain extent.

The wording of article 192(2)(c) TFEU is the same than its preceding article 175 of the Treaty establishing the European Community, which was the legal basis for REDI. Even though the provision sets no clear threshold to measure the effects, the targets set out in REDI were not considered to significantly affect Member States’ energy rights.⁴⁸ That might be because each national target was set individually taking into account national circumstances, such as the starting point of renewable energy in the national energy mix and its renewable energy potential.⁴⁹ In sum, the overall target was relatively low (20% in 2020 compared to 2005) and each Member State contributed according to its circumstances, ranging from 10% in Malta to 49% in Sweden.⁵⁰ As a consequence, REDI

⁴⁶ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 (TFEU), article 191.

⁴⁷ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 (TFEU), article 192(2)(c).

⁴⁸ Melina Malfray, *Biodiversity Protection in an Aspiring Carbon-Neutral Society: A Legal Study on the Relationship between Renewable Energy and Biodiversity in a European Union Context* (Uppsala, Sweden, 2016), p. 65.

⁴⁹ Directive 2009/28/EC of the European Parliament and of the Council 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. Recital, para. (15).

⁵⁰ *Ibid*, Annex I.

was approved through the ordinary legislative procedure, requiring a qualified majority from the Council, instead of unanimity.⁵¹ Arguably, its successor REDII could have been approved through the same method. But this time article 194 TFEU had already been established. So, what are the criteria to choose between article 192 and article 194 TFEU as a legal basis?

Mengozi argues that “if a measure is designed to pursue a two-fold purpose or has a twofold component, and if one of these is identifiable as the main or predominant purpose or component, the act must be based on the legal basis required by that main or predominant purpose or component”.⁵² In my opinion, it is difficult to identify either the energy or the environment as more predominant than the other in REDII. On the contrary, it stands from the reading of REDII that its ultimate purpose is mitigating climate change and achieve energy security. Basing it solely on article 194 TFEU fails to reflect that the promotion of renewable energy is an essential measure to tackle climate change, taking into account that the energy sector accounts for over 70% of GHG emissions.⁵³ Therefore, it would have been reasonable to adopt REDII under both article 192 and article 194 TFEU as the legal basis. In line with Mengozzi argumentation “[...] only a measure which simultaneously pursues several objectives that are indissociably links, without one being secondary and indirect in relation to the other, may be founded on the various corresponding legal bases”.⁵⁴ For instance, this dual legal basis was the case of the Governance Regulation.⁵⁵

⁵¹ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 (TFEU), article 294.

⁵² Case C-490/10 Parliament v. Council (Opinion of Advocate General Mengozzi delivered on 18 April 2012, para 41).

⁵³ Hannah Ritchie and Max Roser (2020) - "CO₂ and Greenhouse Gas Emissions". Published online at OurWorldInData.org. Retrieved from: <https://ourworldindata.org/emissions-by-sector> (last accessed 3 of March 2022).

⁵⁴ Case C-490/10 Parliament v. Council (Opinion of Advocate General Mengozzi delivered on 18 April 2012, para 42).

⁵⁵ See the Preamble of the 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, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European

Before 2020 ended, the European Commission elaborated the proposal of the Clean Energy for all Europeans package, with a new set of legislation aimed at achieving 55% reduction of GHG emissions by 2050. One of the key legislative acts of the package is REDII, which derogates REDI. Regardless of the possibility to establish under a dual legal basis as argued before, it is based solely on article 194(2) TFEU, leading one to think that the energy component is predominant over the environmental component. Perhaps, there was a fear that the matter ended before the CJEU and REDII was deemed to affect the right of Member State to “determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply”.

Overall, the introduction of article 194(2) in the TFEU, which was intended to give the EU a legal basis to regulate the energy union, seems to have limited the right of the EU to continue strengthening the targets for the promotion of renewable forms of energy. In the following subsection these limits will be analyzed.

2.4. Limits of the European Union to Regulate Energy Policies

As previously identified, the main limitation of article 194(2) TFEU is its second paragraph, which strongly protects the right of Member States to exploit its energy resources and choose its energy mix and energy supply. However, the last sentence of the provision adds “without prejudice to article 192(2)(c)”.

There are several hypotheses regarding the interpretation of this last sentence.⁵⁶ In my opinion, the most loyal interpretation to the wording of the provision is that all measures affecting Member States’ energy rights based on article 194(2) TFEU need unanimity to be adopted. This interpretation also stands from the reasoning of the Court of Justice of the European Union (CJEU) in *Republic of Poland v Commission*. In the case being,

Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council.

⁵⁶ See A. Johnson and E. van der Marel, ‘Ad Lucem? Interpreting the New EU Energy Provision, and in Particular the Meaning of Article’ (2013).

Poland claimed that the European Commission's decision to determine Union-wide harmonized rules for the free allocation of emissions allowances for the EU emissions trading system was in breach of article 194(2) TFEU because it affected Member States' energy rights.⁵⁷ Poland argued that in line with article 194(2) TFEU second paragraph, that decision could not be taken unless there was unanimity of the Council. The General Court rejected the claim, arguing that the decision at stake did not need unanimity because it had been adopted on the basis of article 192(2) and not article 194(2) TFEU.

That leads one to think that indeed a measure taken on the basis of article 194(2) TFEU affecting Member States' energy rights, even if not "significantly affected" needs of unanimity. However, it is difficult to think of any policy prompting the increase of renewable energies to the level needed to achieve zero-net emissions by 2050 without affecting the energy mix of Member States. The question then is what does it take to affect a Member State's energy rights?

If measures having any kind of affection on Member States' energy rights need of unanimity, that would in practice entail a possibility for Member States to opt-out from any decision that did not match its interests, making it highly difficult to agree on a common energy policy. That may be counterbalanced if Member States' energy rights were considered to be relative as opposed to absolute.⁵⁸ But that argument may only be used temporarily because as targets approach the percentage of 100% of renewable energy, it would be difficult to argue that they do not affect Member States' energy rights. In addition, it is important to take into account that article 194(2) TFEU lacks the word "significant", which leads one to think that the legislator intended to leave less room to affect the energy rights of Member States under article 194(2) TFEU than under article 192 TFEU.⁵⁹

⁵⁷ Case T-370/11 Poland v Commission 21 July 2011, para 10.

⁵⁸ A. Johnson and E. van der Marel, 'Ad Lucem? Interpreting the New EU Energy Provision, and in Particular the Meaning of Article' (2013), p. 190.

⁵⁹ Melina Malfray, *Biodiversity Protection in an Aspiring Carbon-Neutral Society: A Legal Study on the Relationship between Renewable Energy and Biodiversity in a European Union Context*, 62.

REDII was indeed adopted through the special legislative procedure i.e., unanimity. For now, the EU has managed to find consensus. But as a consequence, it had to renounce on legally binding national targets. The EU is still in practice prompting Member States to adjust their energy choices increasingly in time. However, as 2050 approaches it is to be seen whether unanimity is achieved within the Council to agree on future Directives that contain renewable energy targets that ensure the 100% of the energy mix needed.

Given the relevance of renewable energy Directives in the context of climate change, the CJEU should shed some light on the interpretation of article 194(2) TFEU and its relationship with article 192 TFEU, in order to provide for a strong legal basis for renewable energy Directives.

3. The Non-Legally Binding Nature of Renewable Energy Targets in REDII and its Consequences

3.1. Main differences between REDI and REDII

The ambition of the EU regarding renewable energy use has increased considerably in recent years. However, the enforcement mechanisms of the EU to ensure that Member States comply with the targets has softened. The REDI, sets a target of at least 20% share of energy from renewable sources union wide for 2020.⁶⁰ The currently in force REDII introduces a new target to achieve at least 32% of energy from renewable sources in the gross final consumption of the EU in 2030, with a view to increase it by 2023.⁶¹ As previously stated, there is already a proposal of the European Commission to increase it to 40%.⁶² Therefore, the ambition of the targets keeps increasing. However, in addition to these union wide targets, REDI also set individual mandatory targets for each Member State in its Annex I, while REDII renounces on these.

In an attempt to limit the discretion of Member States in setting their indicative target, REDII creates a minimum baseline target which is equal to the national binding target for 2020.⁶³ In addition, REDII contains a formula to calculate national shares to the collective contribution.⁶⁴ However, these targets are not part of the text and therefore are not legally binding. In the preamble of REDII, the lack of national mandatory targets is justified in

⁶⁰ Directive 2009/28/EC of the European Parliament and of the Council 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, article 3(1).

⁶¹ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, article 3(1).

⁶² European Commission (2021) 557 final, “Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652 of 14th of July 2021.

⁶³ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, article 3(4).

⁶⁴ *Ibid*, Annex II.

order to give greater flexibility for Member States to meet their targets in the most cost-effective manner and respecting its energy rights.⁶⁵

The change from REDI including collective as well as individual legally binding targets to REDII only including a collective EU target has important consequences regarding the availability of enforcement instruments to ensure its compliance. In the following subsection the distinction between individual and collective targets will be discussed.

3.2. The Importance to Distinguish between Individual and Collective Targets

There has been a lot of attention regarding the legally binding nature of renewable energy targets, which has varied in all three Directives on this topic. The legally binding nature of targets matter because only legally binding obligations may trigger the strongest enforcement tool at EU level. That is the infringement proceeding under article 258 TFEU. Member States are obliged to take all necessary measures at the national level to implement legally binding EU law.⁶⁶ If a Member State fails to implement or comply with EU law the European Commission will deliver a reasoned opinion to give the concerned Member State an opportunity to amend its actions. If the Member State does not amend it, the European Commission may decide to bring the matter before the CJEU.⁶⁷ This time, upon non-compliance to the request of the CJEU, the Member State can get an economic sanction.⁶⁸

This could have been the case with the national targets set by REDI, according to which Member States shall ensure that their share of renewable sources equals or exceeds the

⁶⁵ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, Recital, para. (9).

⁶⁶ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 (TFEU), article 291.

⁶⁷ Ibid, article 258.

⁶⁸ Ibid, article 260.

amount indicated in Annex I.⁶⁹ For now, there has not been any infringement proceeding against France for not achieving its 2020 target. However, in line with article 258 TFEU, the European Commission could decide to do so.

Arguably, Member States were likely to make the necessary efforts to comply with the national legally binding targets in order to avoid an infringement procedure.⁷⁰ In addition, it gave predictability to renewable energy investors. The same may not be true for the targets of the RES Directive, that used soft language such as “encourage” and “indicative” to emphasize that Member States were not obliged to achieve them. Therefore, they were less likely to end in an infringement procedure.⁷¹ REDII, even though silent on national targets mentions a “binding” overall target that Member States shall collectively ensure.⁷² Despite the language, non-compliance of a target that is to be achieved collectively by all Member States is difficult to enforce.⁷³ The European Commission cannot start an infringement procedure against the EU as a whole or a particular Member State for an obligation that is to be achieved collectively because the infringement proceeding is a tool to ensure compliance of a specific Member State.⁷⁴

All in all, the difference between individual and collective targets matter because the failure to achieve an individual binding target gives the possibility to the European Commission to start and infringement proceeding while the failure to achieve a collective

⁶⁹ Directive 2009/28/EC of the European Parliament and of the Council 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, article 3(1).

⁷⁰ Alessandro Monti and Beatriz Martinez Romera, ‘Fifty Shades of Binding: Appraising the Enforcement Toolkit for the EU’s 2030 Renewable Energy Targets’, *Review of European, Comparative & International Environmental Law* 29, no. 2 (July 2020): 223, <https://doi.org/10.1111/reel.12330>.

⁷¹ The European Commission would have to argue that a Member State has clearly and completely ignored the indicative target.

⁷² Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, article 3.

⁷³ Alessandro Monti and Beatriz Martinez Romera, ‘Fifty Shades of Binding: Appraising the Enforcement Toolkit for the EU’s 2030 Renewable Energy Targets’, *Review of European, Comparative & International Environmental Law* 29, no. 2 (July 2020): 224.

⁷⁴ Nils Meyer et al., ‘Compliance with EU 2030 Renewable Energy Target: How to Fill a Gap’. Vrije Universiteit Brussel. (2016), p. 24.

binding target does not. This change from REDI to REDII is a weakening feature of the 2030 Climate and Energy Framework. It may even sound contradictory with the aim of the EU to take the lead to tackle climate change. However, giving up on individual legally binding targets were not light decisions.⁷⁵ In the following subsection, the political reasons behind this change in approach will be examined.

3.3. Reasons Behind those Differences: Sovereignty over the Energy Mix vs Environmental Protection

Section 2.4 identified the legal limitation of the EU in the negotiations of REDII as an energy related legislation. However, there are also political limitations that explain the lack of legally binding targets in REDII. It has been stressed in Section 1 the close connection between the energy sector and climate change. Nonetheless, energy is also highly related to energy security and economic growth. Historically, these have been matters of national interest. Therefore, Member States have been reluctant to concede energy-related competences to the EU.⁷⁶

As seen in Section 2.4, energy related instruments adopted at EU level need of a special legislative procedure, requiring unanimity at the European Council, which is composed by the heads of all EU Member States. The unanimity requirement translates into a veto power of legislative acts by the governments of Member States. Therefore, the different views and political interests regarding the energy sector were reflected in the final text of REDII.

During the negotiations of the new 2030 Climate and Energy Framework, Poland took a strong opposition role to the binding targets in the energy field claiming national

⁷⁵ Pierre Bocquillon and Tomas Maltby, 'EU Energy Policy Integration as Embedded Intergovernmentalism: The Case of Energy Union Governance', *Journal of European Integration* 42, no. 1 (2 January 2020): 45, <https://doi.org/10.1080/07036337.2019.1708339>.

⁷⁶ Jale Tosun et al., 'Building the EU's Energy Policy Agenda: An Introduction', in *Energy Policy Making in the EU: Building the Agenda* (Springer, 2015), p. 4.

sovereignty over their energy mix in line with article 194(2) TFEU.⁷⁷ In contrast, other Member States, including Denmark and Germany with an environmental protective perspective pushed for ambitious and legally binding targets.⁷⁸ The outcome is therefore a compromise between different perspectives. The effort of environmentally progressive countries were key to set an increased and ambitious renewable energy target at EU level.⁷⁹ However, Poland was successful in avoiding national legally binding targets, which aims at giving flexibility to Member States to meet their targets “*in the most cost-effective way in accordance to their specific circumstances, energy mix and capacity to produce renewable energy*”.⁸⁰ Another consequence of the negotiation is that many of the provisions regarding enforcement are vague.⁸¹ As will be seen through this dissertation, the Governance Regulation contains some provisions that limit the possibility for Member States to be vague or non-cooperative in setting their contribution. It also offers some soft enforcement tools. However, the lack of national legally binding targets does indeed limit the control that the EU had over its Member States to ensure compliance.

⁷⁷ Severin Fischer, ‘The EU’s New Energy and Climate Policy Framework for 2030: Implications for the German Energy Transition’, 2014, p. 2.

⁷⁸ Ibid, p. 2.

⁷⁹ Severin Fischer, ‘The EU’s New Energy and Climate Policy Framework for 2030: Implications for the German Energy Transition’, 2014, p. 2.

⁸⁰ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, Recital, para (9).

⁸¹ Severin Fischer, ‘The EU’s New Energy and Climate Policy Framework for 2030: Implications for the German Energy Transition’, 2014, p. 3.

4. The Strategy of the European Union to Promote the Implementation of REDII in its Member States: The Governance Regulation

4.1. Main Obligations Imposed by the Governance Regulation

It has been stressed in the previous section that the non-compliance of the national legally binding targets of REDI could end up in an infringement proceeding, which is the strongest enforcement mechanism at EU level. However, the lack of individual legally binding targets in REDII makes it difficult for the European Commission to bring infringement proceedings against Member States to enforce the target. In addition, the infringement proceeding also has several inconveniences. To start with, the process is lengthy, which is inconvenient given that in less than three decades the EU needs to be completely run by renewable forms of energy.⁸² Also, the European Commission could only bring infringement cases to the CJEU once the target year had passed upon non-compliance. Therefore, harm had already been done.⁸³ Since renewable energy targets are to be achieved in a 10-year period, there may be Member States completely falling behind and nothing could be done until that period finishes. Hence, the new climate and energy legislative package was an opportunity to change the implementation strategy towards a more effective one.

The Governance Regulation is a novelty instrument introduced to set the necessary foundation for the Energy Union and Climate Action, which enables the achievement of the 2030 and 2050 objectives.⁸⁴ In the renewable energy field in particular, it has the purpose to (1) ensure that Member States will make the necessary contributions to achieve the collective 2030 target set in REDII and (2) that progress towards that achievement is satisfactory. More concretely, it sets several procedural obligations that partially

⁸² Meyer-Ohlendorf and Roberts, 'Compliance with EU 2030 Renewable Energy Target: How to Fill a Gap', p. 23.

⁸³ Angus Johnston and Eva Van Der Marel, 'How Binding Are the EU's "Binding" Renewables Targets?', *Cambridge Yearbook of European Legal Studies* 18 (December 2016): 177, <https://doi.org/10.1017/cel.2016.7>.

⁸⁴ 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, Recital para. (1).

compensate the soft nature of the substantive obligation of REDII. As will be seen, these mechanisms allow the necessary flexibility for Member States to decide according to their national circumstances how to contribute to the EU objectives while establishing the ex-ante and ex-post monitoring role of the European Commission.

4.1.1. Long-Term Strategies

To start with, the Governance Regulation makes it mandatory for Member States to elaborate long-term strategies of GHG emissions reduction with a perspective of 30 years and update them every 5 years.⁸⁵ Such long-term strategies shall contribute, among others, to a highly renewables-based energy system.⁸⁶ Both the long-term strategy and its update every 5 years was already incorporated in the Paris Agreement but in a non-binding manner.⁸⁷ The Governance Regulation makes it an obligation under EU law. The European Commission also has to elaborate a long-term strategy for the EU as a whole and assess whether the national long-term strategies are satisfactory.⁸⁸

4.1.2. National Energy Climate Plans

The centrepiece of the Governance Regulation is the obligation for Member States to elaborate a policy document that reflects its contributions to the collective binding target. That is done through the National Energy and Climate Plans (NECPs), which will be elaborated for a 10-year period and renovated for an equal period thereafter.⁸⁹ Arguably, one of the successes of the Governance Regulation is that it explains in quite detail what NECPs shall consist of, which reduces the chances of unclear or ambiguous compromises. In short, Member States have to set in the NECP their contribution to each of the five

⁸⁵ 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, article 15(1).

⁸⁶ *Ibid*, article 15(3)(d).

⁸⁷ See Paris Agreement to the United Nations Convention on Climate Change”, adopted 12 December 2015. U.N. Doc. FCCC/CP/2015/L.9/Rev/1 articles 4(19) and 4(9) respectively.

⁸⁸ 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, article 15(9).

⁸⁹ *Ibid*, article 3.

objectives of the Energy Union and how they plan to achieve them.⁹⁰ Unsurprisingly, the compromise to increase renewable energy technologies is of great importance. Member States have to reflect in their NECP their contribution to achieve the 2030 target set in REDII and an indicative trajectory that achieves at least 18% of that target in 2022, 43% in 2025 and 65% in 2027.⁹¹ The technical aspects that shall be included are further specified in Annex I. In addition, the Governance Regulation provides for an indicative formula to calculate national shares of the collective target.⁹² This facilitates the task of the European Commission to identify if a Member State is falling behind its compromise and sets an expectation that may guide Member States when setting their own renewable energy targets.⁹³

4.1.3. Biennial Progress Reports

By March the 15th of 2023 and two years thereafter, each Member State has to elaborate progress reports regarding the implementation of their NECP and submit it to the European Commission.⁹⁴ These will be the basis for the biennial assessment carried by the European Commission to avoid any ambition gaps.⁹⁵ If the progress is deemed insufficient to meet the target, the European Commission will issue a recommendation, taking into consideration the national circumstances of the Member State.⁹⁶

The reporting obligations that have been examined in this section have created a new mechanism for the European Commission to ensure that Member States set measures ambitious enough to achieve the collective target from the very beginning or at least long

⁹⁰ The five objectives of the Energy Union are energy security, functioning of the internal market, energy efficiency, decarbonization of the economy and research, innovation and competitiveness.

⁹¹ 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, article 4(1)(2).

⁹² *Ibid*, Annex II.

⁹³ Sabine Schlacke and Michèle Knodt, 'The Governance System of the European Energy Union and Climate Action', *Journal for European Environmental & Planning Law* 16 (2019) 323-339 (6 December 2019), p. 330, <https://doi.org/10.1163/18760104-01604002>.

⁹⁴ 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, article 17(1).

⁹⁵ *Ibid*, article 29(1).

⁹⁶ *Ibid*, article 32(1).

enough before the target year. Therefore, there are several opportunities to amend gaps before the end of the target period. Also, it allows the European Commission to track progress of Member States in implementing their NECPs. The idea is that Member States and the European Commission work closely together with a spirit of collaboration to implement their NECP.⁹⁷

Many of these procedural obligations are a novelty within the Member States renewable energy obligations. In the following subsection, the changes from REDI to REDII will be compared with the changes between the 2007 Kyoto Protocol and the 2015 Paris Agreement.

4.2. Similarities with the Change of Approach between the Kyoto Protocol and the Paris Agreement: From Punitive Governance to Dialogue

4.2.1. The Bottom-Up and Top-Down Approaches

In the sphere of international climate change, the Paris Agreement introduced some novelties, departing from the previous form of the Kyoto Protocol. Starting with the architecture of the legal text, one can distinguish between a top-down approach or a bottom-up approach.⁹⁸ The Kyoto Protocol contained binding targets that had been negotiated internationally and developed states parties to the agreement had to achieve at a specific target year.⁹⁹ The text also provided for reporting and accounting rules and a compliance mechanism with an enforcement branch.¹⁰⁰ It is therefore a good example of

⁹⁷ See “Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions United in delivering the Energy Union and Climate Action – Setting the foundations for a successful clean energy transition”. (2019). COM/2019/285 final.

⁹⁸ Daniel Bodansky, Jutta Brunnée, and Lavanya Rajamani, *International Climate Change Law*, First edition (Oxford, United Kingdom: Oxford University Press, 2017), p. 214.

⁹⁹ Kyoto Protocol to the United Nations Framework Convention on Climate Change, adopted 11 December 1997. U.N.T.S 162, article 3 read in conjunction with Annex B.

¹⁰⁰ *Ibid*, articles 5, 8 and 18.

a top-down agreement, which has been considered an effective approach for international environmental law after the success of the Montreal Protocol.¹⁰¹

However, the Kyoto Protocol failed in keeping major GHG emitting countries as parties, which mainly opposed to binding targets solely for developed countries.¹⁰² Therefore, the Paris Agreement introduced several novelties to obtain as much acceptance as possible. One of the novelties was to mix top-down elements with bottom-up elements. It set a common objective to hold the increase of the global temperature to well below 2°C above pre-industrial levels and with efforts to achieve 1.5°C.¹⁰³ In order to achieve this temperature goal, it sets an obligation on each state party to elaborate and communicate a document with its contribution to the long-term temperature target.¹⁰⁴ These documents are called National Determined Contributions (NDCs). They are the key obligation of the Paris Agreement and a clear bottom-up element because each party sets its own intention towards the common objective and the plans to obtain it. It is a binding obligation to submit and update NDCs, but not to achieve its content. This is because NDCs are not part of the main text.¹⁰⁵

Similarly, both the Paris Agreement and REDII continue being legally binding documents, as their antecessors.¹⁰⁶ However, they depart from the purely top-down approach of the Kyoto Protocol and REDI to include bottom-up elements. They both set a common objective to be achieved collectively but leaving flexibility for states as to their national contribution to the target. It is also inevitable to see the similarities between the NDCs of the Paris Agreement and the NECPs of the Governance Regulation.

¹⁰¹ Daniel Bodansky, Jutta Brunnée, and Lavanya Rajamani, *International Climate Change Law*, First edition (Oxford, United Kingdom: Oxford University Press, 2017), p. 162.

¹⁰² E.g., the United States, Canada, Russia, Japan and New Zealand.

¹⁰³ Paris Agreement to the United Nations Convention on Climate Change”, adopted 12 December 2015. U.N. Doc. FCCC/CP/2015/L.9/Rev/1, article 2(1)(a).

¹⁰⁴ Ibid, article 4(2).

¹⁰⁵ Daniel Bodansky, Jutta Brunnée, and Lavanya Rajamani, *International Climate Change Law*, First edition (Oxford, United Kingdom: Oxford University Press, 2017), p. 231.

¹⁰⁶ The Paris Agreement is legally binding for its signing parties and the Directive is binding as to the result to be achieved for European Union Member States.

The Paris Agreement also renounces on the enforcement branch of the Kyoto Protocol in case of non-compliance. However, it introduces a transparent system of reporting, progression and monitoring to compensate the lack of enforcement. The main elements of this new system, also known as the ambition cycle, will be analyzed as follows.¹⁰⁷

4.2.2. *The Ambition Cycle*

To start with, the Paris Agreement obliges its parties to update NDCs every five years and show the highest possible ambition and progression over time.¹⁰⁸ These requirements may be difficult to measure, but it is generally accepted that at the very least parties cannot show regression in their updated NDCs. This is also reflected in REDII, which states that under no circumstances should the national share of any Member State fall below the 2020 targets set by REDI.¹⁰⁹

One tool to monitor progression under the Paris Agreement is the biennial reports that parties are to submit with a national inventory of emissions and the necessary information to track implementing progress.¹¹⁰ In addition, collective progress towards the common target will be measured in 2023 and every five years thereafter on a global stocktake elaborated by the Conference of the Parties.¹¹¹ As seen in Section 4.1, the Governance Regulation also sets the obligation to create biennial progress reports to each Member State and to the European Commission for a collective report.

All the above documents will be publicly available. Even though the Paris Agreement does not contain an enforcement branch that imposes consequences for its parties upon

¹⁰⁷ Daniel Bodansky, Jutta Brunnée, and Lavanya Rajamani, *International Climate Change Law*, First edition (Oxford, United Kingdom: Oxford University Press, 2017), p. 234.

¹⁰⁸ Paris Agreement to the United Nations Convention on Climate Change”, adopted 12 December 2015. U.N. Doc. FCCC/CP/2015/L.9/Rev/1, article 4(3).

¹⁰⁹ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, Recital, para (1).

¹¹⁰ Paris Agreement to the United Nations Convention on Climate Change”, adopted 12 December 2015. U.N. Doc. FCCC/CP/2015/L.9/Rev/1, article 13(7)(a).

¹¹¹ *Ibid*, article 14.

non-compliance, this transparency framework can have a similar outcome.¹¹² That is because parties will feel the pressure from other states and from the public in general to act towards the common target. This is to avoid the so-called “naming and shaming”.¹¹³

All in all, both the Paris Agreement and REDII do not contain individual targets nor enforcement mechanisms to achieve the collective target. However, they introduce extensive procedural obligations. Learning from previous experiences, in the case of the Paris Agreement because enforcement had not been particularly successful before and in the case REDII because it was not possible to agree on individual legally binding targets, they rely on cooperation, progression over time, transparency and public pressure to achieve a collective target and ensure broad acceptance to the agreement.

¹¹² Daniel Bodansky, Jutta Brunnée, and Lavanya Rajamani, *International Climate Change Law*, First edition (Oxford, United Kingdom: Oxford University Press, 2017), p. 242.

¹¹³ Johnston and Van Der Marel, ‘How Binding Are the EU’s “Binding” Renewables Targets?’, p. 212.

5. European Commission Tools to Enforce the Renewable Energy

Target

In section 4, it was argued that the procedural obligations set by the Governance Regulation partially compensate for the soft nature of the obligations set by REDII. Another highlight of the Governance Regulation is that it grants powers to the European Commission to participate in the process and promote ambition. This section shows that the new strategy of the Governance Regulation focuses more on the participation of the European Commission in the process of implementation than on enforcement mechanisms.

5.1. Regular Enforcement Tools of the European Commission

As seen in Section 3, the strongest enforcement tool of the European Commission to ensure compliance with EU law is the infringement procedure. Therefore, if any Member State failed to comply with the procedural obligations of the Governance Regulation e.g., not submitting its NECPs or its biennial report, the European Commission can start an infringement proceeding in line with article 258-260 TFEU. According to the European Commission, the same infringement proceeding can be brought against a Member State that does not comply with the minimum baseline that is equal to the mandatory national targets for 2020.¹¹⁴

This situation changes regarding the substantive obligation of REDII to achieve the EU renewable energy target. As will be seen, the Governance Regulation provides for some tools to ensure implementation by Member States. However, they are softer enforcement tools than the infringement proceeding. In order to analyse them, we will distinguish between the two situations that may trigger them: (1) insufficient contributions to the renewable energy collective target and (2) insufficient progress to achieve it.

¹¹⁴ Answer given by Mr. Arias Cañete on behalf of the European Commission on the 16 November 2018. www.europarl.europa.eu/doceo/document/E-8-2018-005110-ASW_EN.pdf

5.1.1. Promoting Sufficient Ambition in the National Contributions to the Renewable Energy Target

Here, it is important to distinguish between the drafted NECP, final NECP and updated NECP. In line with article 9(1) Governance Regulation, all Member States submitted on time their first drafted NECP by 31 December 2018, after public consultation at the national level. The European Commission was to collectively assess them and send country-specific recommendations when it deemed that the contributions of a Member State were insufficient to achieve the 2030 EU collective binding target.¹¹⁵ The overall assessment was done in the 2019 Communication of the Commission, which found that there was a gap between the national contributions and the overall 32% target.¹¹⁶ Therefore, in the collective assessment it identified the main priorities to take into account for each of the five dimensions of the drafted NECPs and stressed the importance to include in the process all segments of society.¹¹⁷ In addition, it issued country-specific recommendations with detailed expectations and calling for several countries to increase their ambition. For instance, it recommended Finland to increase its renewable energy share to at least 51% in line with the Annex II formula and to include detailed and quantified policies to achieve it.¹¹⁸

¹¹⁵ 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, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council, article 31(1).

¹¹⁶ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions United in delivering the Energy Union and Climate Action – Setting the foundations for a successful clean energy transition. COM/2019/285 final. Section 2.1.1.

¹¹⁷ *Ibid*, Section 4.

¹¹⁸ Commission Recommendation of 18 June 2019 on the draft integrated National Energy and Climate Plan of Finland covering the period 2021-2030. Brussels (2019). SWD (2019) 276 final, p. 4.

It is important to remark that recommendations are generally not legally binding at EU level.¹¹⁹ However, the weight of these recommendations may vary depending on the language used in the specific provision. The Governance Regulation proposal stated that Member States “shall take utmost account of the recommendation”.¹²⁰ However, the approved version of the Governance Regulation says that Member States shall take “due account” in their final NECP, which is formulated in a significantly softer language, highlighting that following those recommendations is not legally binding. In certain circumstances the Member State has to specify in the progress report of the following year how the recommendation was taken into account or if it has not taken due account, explain the reasons why.¹²¹ The fact that these documents are publicly available puts an extra pressure on Member States to follow the recommendations of the European Commission. However, keeping the original formulation in which Member States were obliged to take utmost account of the recommendation would have provided the provision for a stronger enforcement character.

The revision process was repeated in 2020 with the final NECPs. This time the overall assessment concluded that the final NECPs could surpass the 32% target.¹²² Therefore, some Member States had followed the recommendations. However, the European

¹¹⁹ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 (TFEU), article 288 TFEU.

¹²⁰ Proposal for a Regulation of the European Parliament and of the Council on the Governance of the Energy Union, amending Directive 94/22/EC, Directive 98/70/EC, Directive 2009/31/EC, Regulation (EC) No 663/2009, Regulation (EC) No 715/2009, Directive 2009/73/EC, Council Directive 2009/119/EC, Directive 2010/31/EU, Directive 2012/27/EU, Directive 2013/30/EU and Council Directive (EU) 2015/652 and repealing Regulation (EU) 525/2013, article 28. COM/2016/0759 final – 2016/0375 (COD).

¹²¹ 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, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council, article 34.

¹²² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions An EU-wide assessment of National Energy and Climate Plans Driving forward the green transition and promoting economic recovery through integrated energy and climate planning. COM/2020/564 final, Section 2.1.1.

Commission found that there were still some Member States lagging behind, which was closely examined in the individual assessments.¹²³ There is still time within the process to amend such situation because by the 30th of June 2023 and every 10 years thereafter, each Member State shall submit a draft update of their NECP.¹²⁴ If the European Commission still finds a NECP to be insufficient to achieve the collective EU target, it shall propose measures and “exercise its powers at Union level” in order to ensure its achievement.¹²⁵ The Governance Regulation does not specify what measures the European Commission may propose or what those powers at Union level are. However, the legislator seems to imply that there is a first phase in which dialogue prevails and a second phase where the European Commission has an “extra” power upon non-compliance of Member States. We have not yet reached that point in the process. However, Section 5.2 contains some thoughts on what these extra measures and powers at Union level may mean.

5.1.2. Promoting Progress Towards Achieving the Renewable Energy Target

By October 31st 2021 and every two years thereafter, the European Commission shall assess the progress of Member States in implementing the measures set out in their NECP to meet the 2030 target.¹²⁶ In order to help the European Commission assess progress and to Member States themselves to know what level of progress is expected, article 4(a)(2) Governance Regulation sets an indicative trajectory. By 2022, the share of renewable energy should reach “at least 18% of the total increase in the share of energy from renewable sources between that Member State’s binding 2020 national target, and its

¹²³ See Staff working documents of the 12 October 2020. Published by ec.europa.eu. Retrieved from: https://energy.ec.europa.eu/individual-assessments_en. (last accessed 3 March 2022).

¹²⁴ 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, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council, article 14.

¹²⁵ Ibid, article 31(3).

¹²⁶ Ibid, article 29(1)(b).

contribution to the 2030 target”.¹²⁷ By 2025 that amount should reach at least 43% and by 2027, 65%.

If the European Commission deems that progress is insufficient towards meeting the objectives, it shall issue recommendations to the Member State, which will take due account and explain how it did so in the in the progress report of the following year.¹²⁸ Moreover, if the European Commission deems that the Union is at risk of not meeting the objective of 32% of renewable energy union-wide, it shall propose additional measures and exercise its power at Union level.¹²⁹ When the Union falls below one of the indicative targets in 2022, 2025 or 2027, the Member States that have received an assessment that also shows a gap towards the trajectory have one year after receiving the assessment to take the necessary measures to cover it. For instance, it can adjust the share of renewable energy in the heating and cooling sector or make a financial payment to the Union renewable energy financing mechanism.¹³⁰ Member States can choose which measures to take. However, if they take no measure at all, the European Commission would be entitled to start an infringement proceeding.

Overall, the Governance Regulation established an iterative process between the European Commission and its Member States. Cooperation and dialogue are preferred towards the achievement of the 2030 renewable energy target. In order to ensure ambition and implementation, recommendations to Member States are the primary instrument of the European Commission, which is a soft enforcement tool. The Governance Regulation also leaves open the possibility to use “extra” powers if there is a risk not to achieve the 2030 climate and energy targets of the Union or the Paris Agreement targets. However, it

¹²⁷ 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, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council, article 4(a)(2).

¹²⁸ Ibid, article 31(1).

¹²⁹ Ibid, article 31(2).

¹³⁰ Ibid, article 32(3)(b) and (d).

does not specify which are those powers. The following subsection analyzes what these additional measures and powers may be.

5.2. Analyzing the Meaning of “Propose measures and Exercise its Powers at Union Level”

It has already been emphasized that the European Commission has the task to ensure that Member States respect EU law, especially through the infringement proceeding. However, the European Commission as the executive branch of the EU also has political powers. It has among its functions the important task of legislative initiative.¹³¹ This is the right to draft and propose new EU legislation. For instance, upon the risk of not complying with the 2030 target at EU level, the European Commission may propose a new Directive that sets not only an EU-wide target but also legally binding individual targets. In addition, it can issue other documents such as state-aid guidance for Member States and communications.¹³² An example of this is the Communication of the European Commission upon the recent events of Russo-Ukrainian war, which asks co-legislators to boost the renewable energy targets. In addition, it introduces the REPower EU plan, which will be elaborated in the following months to rapidly make the EU independent from Russia’s fossil fuels imports. To this aim, the EU will double its photovoltaic and wind capacities by 2025 and triple them by 2030.¹³³

The importance of these competences of the European Commission relies on its possibility to influence the direction of EU policies. Therefore, these political tools may be one way to “propose measures and exercise its powers at Union level”. This is reminded by the Governance Regulation in its article 45. After each global stocktake carried out by the Conference of the Parties of the Paris Agreement, the European

¹³¹ Consolidated Version of the Treaty on the Functioning of the European Union [2012] OJ C326/47 (TFEU), article 17(2).

¹³² David Jacobs, ‘Designing Financing Mechanisms for Electricity from Renewable Energy Sources: The Role of the European Commission as an Agenda Shaper.’, in *Energy Policy Making in the EU: Building the Agenda* (Springer, 2015), p. 108.

¹³³ Commission (EU) “REPowerEU: Joint European Action for more affordable, secure and sustainable energy” (Communication) COM(2022) 108 final, 8 March 2022.

Commission is to send to the European Parliament and the Council a report on the contribution of the Governance Regulation to the achievement of the long-term goals under the Paris Agreement and under the 2030 climate and energy targets of the EU. This report may be accompanied by legislative proposals “where appropriate”.¹³⁴ Arguably, if the EU is at risk of not meeting its targets because its Member States are not cooperating it would be appropriate to start a legislative initiative that aims to solve the gap.

Another task of the European Commission is to elaborate the draft budget of the EU and implement it. Even though bound by the approval of the Council and the Parliament, it can link a specific financial mechanism to the promotion of renewable forms of energy. An example of this is the Next Generation EU package, which is the temporary instrument that aims to stimulate the economic recovery of the EU after the COVID-19. Strategically, it has co benefits by helping Member States achieve the EU Green Deal targets, with a minimum percentage of expenditure related to climate. The amount of the Next Generation package and the 2021-2027 multiannual financial framework together is 1.8€ trillion and at least 30% will support climate objectives. One of the ways Member States can use it is through investment in renewables. That aims to promote the energy transition while creating new jobs and boost the economy.¹³⁵ In addition, such a commitment provides security and unlocks private funding.

Schlacke and Knodt suggest that linking the Governance Regulation and the European Structural and Investment Funds of the EU could be used as a sanctioning technique.¹³⁶ That is, if the Member States do not take the necessary measures to achieve the renewable

¹³⁴ 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, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council, article 45.

¹³⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “Fit for 55”: delivering the EU’s 2030 Climate Target on the way to climate neutrality. COM/2021/550 final.

¹³⁶ Sabine Schlacke and Michèle Knodt, ‘The Governance System of the European Energy Union and Climate Action’, *Journal for European Environmental & Planning Law* 16 (2019) 323-339 (6 December 2019), p. 336, <https://doi.org/10.1163/18760104-01604002>.

energy targets, the funds could be cancelled. Therefore, the financial incentives could have a twofold purpose: to incentivize ambitious targets and disincentivize Member States from not implementing them. However, in order to guide Member States' behavior, there should be clear rules regarding the requirements to get financial aid and the situations that may lead to its withdrawal.

Overall, the European Commission acts from a strong position within the EU. Therefore, I believe the mention to “propose measures and exercise its powers at union level” refers to the political tools of the European Commission to influence an ambitious contribution of Member States into the EU renewable energy target.

6. An Analysis of the Renewable Energy Targets of the Nordic Countries

The Nordic countries climate and energy strategies are particularly interesting since they are seen as a role model in this matter. Nonetheless, their approaches to the increase of renewable energy vary in accordance to their national circumstances. In this section the renewable energy component of the climate and energy policies of Finland, Sweden Denmark and Norway will be analyzed and compared.

6.1. Different Energy Portfolios

The national climate and energy policies vary according to national circumstances because not all countries have the same potential for renewable energy production. It will depend, among others, on its geographical and climate characteristics. These differences are also reflected in their energy portfolios.

Finnish share of renewable sources in the final energy consumption of 2019 was 45.8%.¹³⁷ Its main renewable energy sources are bioenergy and wood-based fuels, with a smaller amount of hydropower and wind power.¹³⁸ For the coming years it is planning to increase the use of forest chips and waste liquors from forestry.¹³⁹ Therefore, given the large reliance on biomass, its strategy should largely focus on the sustainable use of biomass.¹⁴⁰

¹³⁷ International Energy Agency. Data and Statistics – Renewable share in final energy consumption (SDG 7.2), Finland 1990-2019. Retrieved from: <https://www.iea.org/fuels-and-technologies/renewables> (last accessed 15th April 2022).

¹³⁸ Finland's Integrated Energy and Climate Plan. Publications of the Ministry of Economic Affairs and Employment 2019:66. Helsinki, (2019), p. 139.

¹³⁹ Government report on the National Energy and Climate Strategy for 2030. (2017). Publications of the Ministry of Economic Affairs and Employment, p. 29

¹⁴⁰ Commission Staff Working Document: Assessment of the final national energy and climate plan of Finland of the 14 October 2020. Brussels. SWD (2020) 925 final, p. 14.

Sweden has a slightly higher share of renewable energy sources in its final energy consumption, amounting to 52.9 %.¹⁴¹ Its main renewable energy source is biofuels, followed by hydropower and little contribution of wind power.¹⁴² Therefore, the European Commission also advised Sweden to focus on the sustainable use of biomass.¹⁴³ Its objective is to exponentially increase wind power. To that aim, the Swedish Energy Agency and the Swedish Environmental Protection Agency are developing a strategy for the expansion of wind power.¹⁴⁴

Denmark has a lower share of 37,5 % of renewable in its final energy consumption.¹⁴⁵ Currently, its largest share of renewable energy source is biomass. However, wind power is rapidly increasing, and it plans to continue such increase.¹⁴⁶ Given that wind power generation is highly variable and reliant on wind, interconnection with other countries is key for its energy security when the meteorology is not favorable for wind-power generation.

Lastly, Norway has the largest share of renewable sources in the final energy consumption in the world, ascending to 62.4 % in 2019.¹⁴⁷ Their main source of renewable energy is hydropower and it will likely continue being its main source because hydropower is a

¹⁴¹ International Energy Agency. Data and Statistics – Renewable share in final energy consumption (SDG 7.2), Sweden 1990-2019. Published by [iea.org](https://www.iea.org/fuels-and-technologies/renewables). Retrieved from: <https://www.iea.org/fuels-and-technologies/renewables>. (last accessed 4th April 2022).

¹⁴² Sweden's Integrated National Energy and Climate Plan of the 16 January 2020. Regeringen, the Ministry of Infrastructure. (2020), p. 131.

¹⁴³ Commission Staff Working Document: Assessment of the final national energy and climate plan of Sweden of the 14 October 2020. Brussels. SWD (2020) 962 final, p.14

¹⁴⁴ Sweden's Integrated National Energy and Climate Plan of the 16 January 2020. Regeringen, the Ministry of Infrastructure. (2020), p. 64.

¹⁴⁵ International Energy Agency. Data and Statistics – Renewable share in final energy consumption (SDG 7.2), Denmark 1990-2019. Published by [iea.org](https://www.iea.org/fuels-and-technologies/renewables). Retrieved from: <https://www.iea.org/fuels-and-technologies/renewables>. (last accessed 12 April 2022).

¹⁴⁶ International Energy Agency. Data and Statistics – Renewable electricity generation by source (non-combustible), Denmark 1990-2019. Published by [iea.org](https://www.iea.org/fuels-and-technologies/renewables). Retrieved from: <https://www.iea.org/fuels-and-technologies/renewables>. (last accessed 12 April 2022).

¹⁴⁷ International Energy Agency. Data and Statistics – Renewable share in final energy consumption (SDG 7.2), Norway 1990-2019. Retrieved from: <https://www.iea.org/fuels-and-technologies/renewables> (last accessed 4th April 2022).

dispatchable power generator and therefore security of supply is not endangered.¹⁴⁸ However, it is appreciable in the statistics from 1990 to 2019 that the amount of renewable energy sources in the final energy consumption in Norway has been fairly steady, given that in 1990 the renewable share in final energy consumption was already 59 %.¹⁴⁹ On the contrary, Finland, Sweden and Denmark have rapidly increased their shares of renewable sources in the last two decades, coinciding with the entry into force of REDI.¹⁵⁰ This was mainly accomplished through market mechanisms, which will be described as follows.

6.2. Market Mechanisms to Increase Renewable Energy Sources

The most common measures to promote the increase of renewable energies are market-based mechanisms. There is no unanimous definition, but they can be defined as instruments that use the market to provide incentives to targeted actors to change their behavior and reach their obligation. In the context of renewable energies, market-based instruments can correct market failures and appeal the economic interest of companies.¹⁵¹ There is a great variety of mechanisms that can be used. Here, we will only describe the main ones used in Finland, Sweden, Denmark and Norway.

Finland offers a premium feed-in tariff in order to promote renewable energy generation. It offers producers of renewable electricity an extra price for its electricity, on top of the market price.¹⁵² Sweden has tax exemptions for small-scale generators of renewable

¹⁴⁸ As opposed to wind power, whose output is difficult to control.

¹⁴⁹ International Energy Agency. Data and Statistics – Renewable share in final energy consumption (SDG 7.2), Norway 1990-2019. Retrieved from: <https://www.iea.org/fuels-and-technologies/renewables> (last accessed 4th April 2022).

¹⁵⁰ See International Energy Agency. Data and Statistics – Renewable share in final energy consumption (SDG 7.2) of Sweden, Finland and Denmark (1990-2019).

¹⁵¹ Catherine Banet, “The Use of Market-Based Instruments in the Transition from a Carbon-Based Economy”, *Beyond the Carbon Economy*, p. 210.

¹⁵² Act on Production Subsidy for Electricity Produced from Renewable Energy Sources (1396/2010) as amended by Act No. 441/2018. (Finland, 2010).

energy and it also grants subsidies for photovoltaic installations.¹⁵³ However, its main mechanism is the Green Support Scheme, an electricity trading certificate system along with a quota system established in 2003. Electricity generators that qualify for the program receive one green certificate per each megawatt hour of electricity they generate. In parallel, there is an obligation on some suppliers and consumers to prove that a certain amount of electricity they use comes from renewable sources. This is done by the Electricity Certificates Act.¹⁵⁴ The price established by the market gives electricity generators an extra income from renewable energy production. Since 2012 this system is operated jointly with Norway.¹⁵⁵ Therefore, this system creates a parallel market of green certificate in which electricity generators and consumers from both Norway and Sweden can participate. This is known as a Joint Support Scheme, which is encouraged from the EU as a cooperation mechanism.¹⁵⁶

The Green Certificates Support Scheme of Sweden and Norway between 2012 and 2019 contributed to finance 34,4 terawatt hours (TWh) of renewable electricity production. Sweden extended the system to keep promoting renewable energy until 2045. However, Norway will not keep contributing.¹⁵⁷ This may be because Norway already has a great share of renewable energy and therefore it does not consider incentives necessary.

Denmark also makes use of market mechanisms in order to increase renewable energy. For instance, it has had in place a carbon tax reflecting the externalities of fossil fuels in order to promote renewable energy sources.¹⁵⁸ It also promotes the use of electricity over

¹⁵³ Sweden's Integrated National Energy and Climate Plan of the 16 January 2020. Regeringen, the Ministry of Infrastructure. (2020), p. 61.

¹⁵⁴ Act on Electricity certificates: Act No. 2011:1200. (Sweden, passed in 2011).

¹⁵⁵ Sweden's Integrated National Energy and Climate Plan of the 16 January 2020. Regeringen, the Ministry of Infrastructure. (2020), p. 59.

¹⁵⁶ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, article. 13.

¹⁵⁷ Sweden's Integrated National Energy and Climate Plan of the 16 January 2020. Regeringen, the Ministry of Infrastructure. (2020), p. 59.

¹⁵⁸ Denmark's Integrated National Energy and Climate Plan under the Regulation of the European Parliament and of the Council on the Governance of the Energy Union and Climate Action of December 2019. Danish Ministry of Climate, Energy and Utilities. (2019), p. 84.

other forms of energy through tax reduction measures.¹⁵⁹ In addition, it has support schemes for wind and solar PV.¹⁶⁰ The premium support scheme that had been taking place until 2019 has been renovated for the period 2021-2024. It is a tender that supports producers of electricity from renewable energy sources through a minimum-price guarantee.¹⁶¹ Overall, market mechanisms have been successful in achieving the renewable energy targets of Finland, Sweden and Denmark as set in REDI and they plan to continue developing them and establishing new ones in order to increase the share of renewable energy. Norway however does not deem market incentives necessary.

6.3. Ambition and Coherence of Renewable Energy Targets in their National Policies

Finland has a National Energy and Climate Strategy that contains its main objectives for 2030 and an Energy and Climate Roadmap towards a carbon-neutral society.¹⁶² It also has a Climate Change Act from 2015 that contains the main climate-related obligations set internationally and at EU level.¹⁶³ Even though the Climate Change Act does not specify its renewable energy target, it is currently under review and its updated version will likely contain the new obligations set by REDII and the Governance Regulation. In its NECP Finland sets the objective to achieve 51 % of share in renewable energy as a contribution to the 32 % collective target.¹⁶⁴ Therefore, it took into account the

¹⁵⁹ Energy Agreement of the Danish Government, the Social Democracy, the Danish People's Party, the Red-Green Alliance, the Alternative, the Social Liberal Party and the Socialist People's Party, of 29 June 2018, p. 7.

¹⁶⁰ Denmark's Integrated National Energy and Climate Plan under the Regulation of the European Parliament and of the Council on the Governance of the Energy Union and Climate Action of December 2019. Danish Ministry of Climate, Energy and Utilities. (2019), p. 89.

¹⁶¹ Energy Agreement of the Danish Government, the Social Democracy, the Danish People's Party, the Red-Green Alliance, the Alternative, the Social Liberal Party and the Socialist People's Party, of 29 June 2018, p. 7

¹⁶² Ministry of Employment and the Economy (Finland, 2014). "Energy and Climate Roadmap 2050: Report of the Parliamentary Committee on Energy and Climate Issues of 16 October 2014".

¹⁶³ Climate Change Act 609/2015. (Finland, passed in 2015).

¹⁶⁴ Finland's Integrated Energy and Climate Plan. Publications of the Ministry of Economic Affairs and Employment 2019:66. Helsinki, (2019), p. 47.

recommendation of the European Commission to increase its target in line with the formula of Annex II. In addition, in 2019 the Parliament approved an Act to phase out the use of coal by 2029.¹⁶⁵ Overall, Finland has set fairly ambitious standards and measures to keep on track of the EU 32 % renewable energy target.

The Swedish Parliament or Riksdag adopted in 2017 a Climate Policy Framework and a Climate Act in order to comply with the Paris Agreement compromises.¹⁶⁶ It set the ambitious target to be carbon neutral by 2045. It also creates a Climate Policy Council as an independent body to evaluate the progress of the Government to achieve the climate goals.¹⁶⁷ In terms of renewable energy it commits to a 65 % of the gross energy consumption in 2030.¹⁶⁸ Concretely on the electricity sector it commits to use 100 % of renewable electricity by 2040.¹⁶⁹ Overall, very ambitious targets. However, the European Commission found that the policies and measures described in its NECP may not be enough to achieve them. In addition, it should further focus on eliminating administrative burdens and ensuring the long-term sustainability of biofuels.¹⁷⁰

Denmark has committed to being climate neutral by 2050 at the latest.¹⁷¹ In terms of renewable energy, it will contribute to the EU target with a 55 % of renewable energy of the final energy consumption by 2030, which is well above the 46 % indicative target of the Annex II formula. In addition, the parliamentary parties made an agreement to achieve a 100 % share of renewable energy in the electricity consumption by 2030.¹⁷² Like Sweden, it creates the Danish Council on Climate Change as an independent body to

¹⁶⁵ Law 416/2019 Banning the Use of Coal for Energy Purposes. (Finland, passed in 2019).

¹⁶⁶ The Swedish Climate Act (2018).

¹⁶⁷ Sweden's Integrated National Energy and Climate Plan of the 16 January 2020. Regeringen, the Ministry of Infrastructure. (2020), p. 6.

¹⁶⁸ Ibid, p. 19.

¹⁶⁹ Ibid, p. 8.

¹⁷⁰ Commission Staff Working Document: Assessment of the final national energy and climate plan of Sweden of the 14 October 2020. Brussels. SWD (2020) 962 final, p. 5.

¹⁷¹ Climate Act No 965 of 26 June 2020. (Denmark, passed in June 2020), chapter 1.

¹⁷² Energy Agreement of the Danish Government, the Social Democracy, the Danish People's Party, the Red-Green Alliance, the Alternative, the Social Liberal Party and the Socialist People's Party, of 29 June 2018, p.2.

assist the Minister for Climate, Energy and Utilities in the energy transition.¹⁷³ Its main focus for the increase of renewable generation will be on offshore wind projects and the so-called energy islands.¹⁷⁴ However, taking into account the ambitious target it set in comparison to its current percentage of renewable energy consumption, it does not specify what policies it will put in place to ensure its achievement. Therefore, it is to be seen whether such an ambitious target can be met.

Norway is in a slightly different situation since it is not part of the EU. However, it is a member of the EEA Agreement, and it has a long history of cooperation with the EU on energy matters. For instance, REDI was part of the EEA Agreement and accordingly Norway submitted a National Renewable Energy Action Plan committing to 67.5 % from renewable sources in the gross final consumption by 2020. However, REDII has not been incorporated into the EEA Agreement yet and therefore Norway has not updated the renewable energy target for 2030. But that is not to say that Norway has no obligation to increase renewable energy sources.

Norway has a Climate Change Act with the objective to implement its GHG emission reduction targets as included in its NDC.¹⁷⁵ Its updated target is a reduction of GHG emissions of at least 50 % and towards 55 % compared to 1990 levels by 2030. The three main areas to achieve this target are reducing emissions from deforestation and forest degradation, renewable energy and climate adaptation.¹⁷⁶ Accordingly, it has recently set a strategy for the promotion of hydrogen, which is to contribute to the development of low emission technologies.¹⁷⁷ Taking into account that Norway has the resources to be completely run by renewable energy technologies and even export it, it should commit to

¹⁷³ Climate Act No 965 of 26 June 2020. (Denmark, passed in June 2020), chapter 2.

¹⁷⁴ Denmark's Integrated National Energy and Climate Plan under the Regulation of the European Parliament and of the Council on the Governance of the Energy Union and Climate Action of December 2019. Danish Ministry of Climate, Energy and Utilities. (2019), p. 16

¹⁷⁵ Act relating to Norway's climate targets (Climate Change Act). (2017). LOV-2017-06-16-60, Section 1.

¹⁷⁶ Norway's Fourth Biennial Report Under the Framework Convention on Climate Change. (2020). Norwegian Ministry of Climate and Environment, p. 104.

¹⁷⁷ See The Norwegian Government's hydrogen strategy towards a low emission society of 3 of June of 2020. Norwegian Ministry of Petroleum and Energy and Norwegian Ministry of Climate and Environment.

a specific target in accordance to its capabilities. However, it has complied with its 2020 target and it plans to continue increasing the share of renewable energy. In addition, it takes part in regional energy cooperation agreements.

6.4. Nordic Cooperation on Renewable Energy

It has been highlighted that national circumstances are key in the potential for renewable energy generation. Norway has the right characteristics to produce different types of renewable energy like hydro, wind, hydrogen and thermal energy while Finland largely depends on biomass and Denmark on wind. Therefore, cooperation is key in order to achieve the EU 2030 target. Sweden, Finland, Denmark and Norway, along with other countries in the Nordic region have cooperated through the Nordic Council of Ministers. In fact, the national energy and climate plans of Finland, Sweden and Denmark were coordinated through an ad-hoc group.¹⁷⁸

In addition, Sweden, Denmark and Norway are members of the North Seas Energy Cooperation (NSEC). In 2021 the NESC countries and the European Commission signed a declaration which stressed the common objective to promote wind offshore renewable energy through further interconnection between the North Seas countries with the ultimate aim of achieving the EU climate and energy targets.¹⁷⁹

All four countries reflect in their national energy and energy policies the three basic energy dimensions: environmental protection, energy security and competitiveness. However, the degree of concern over these three pillars vary according to the national circumstances. In terms of energy security, Finland, Sweden and Denmark are highly dependent on imports while Norway is not. Regarding their climate and energy policies, Finland, Sweden and Denmark are much more ambitious in their targets than Norway. Finland even announced the phase out from coal for the year 2029, while Norway has economic interests involved as an exporter of coal.

¹⁷⁸ Sweden's Integrated National Energy and Climate Plan of the 16 January 2020. Regeringen, the Ministry of Infrastructure. (2020), p. 13.

¹⁷⁹ See Political Declaration on energy cooperation between the North Seas Countries and the European Commission on behalf of the Union ("The North Seas Energy Cooperation").

Overall, it has been reflected that renewable energy increase is a key matter in all four countries. REDI was effective in contributing to the increase of renewable energy in Finland, Sweden and Denmark and so far, their updated targets are in line with the 32 % target set in REDII. However, ambitious targeting does not guarantee a successful energy transition. Whether the necessary measures to achieve their respective targets are set largely depends on their political will. The same is true for Norway, whose statistics show that its energy portfolio has been fairly steady with slow increases. However, its capabilities for renewable energy production can play a key role in the energy transition of the EU. Therefore, enhancing its historical cooperation in energy matters with the EU would be highly beneficial.

7. Main Shortcomings of the EU Renewable Energy Legal Framework and Potential Improvements

7.1. Enhancing the Enforceability of Renewable Energy Targets

Regardless of the positive results of REDI towards the achievement of 20 % of renewable energy by 2020, during the negotiations of REDII there was no consensus within the Council to set legally binding individual targets. The Governance Regulation attempts to compensate that loss through procedural obligations that enhance the ex-ante and ex-post monitoring by the European Commission. However, these tools are highly dialogue oriented and following the recommendations of the European Commission largely depends on the will of national governments. While there may be political tools such as agreeing on financial incentives or pressure to avoid “naming and shaming”, it does not fully compensate an enforcement tool like the infringement procedure. As long as Member States comply with their procedural obligations, there is no legal action to be taken if they do not achieve the renewable energy targets set in their NECPs. The same is true for the binding EU collective target, since it is not enforceable through the infringement proceeding. As a consequence, the message sent to investors of renewable energy is not that of predictability anymore. Even though the cost of renewables is decreasing over time, the initial cost is still high and therefore boosting private investment needs of a certainty that national legally binding targets can provide.

The recent events of the Russo-Ukrainian war remind the EU of the importance to become independent from Russian imports of fossil fuels. That will be possible through regional cooperation and a strong strategy for the increase of renewable energy and energy efficiency. As a consequence of the external threat, there may be less constraints within the Council to agree on a revision of REDII that includes national legally binding targets for each Member State to be achieved in 2030. That would enhance effectiveness towards achieving the EU renewable energy target and make the EU internal energy system less vulnerable.

An ambitious legally binding target of renewable energy for 2030 is important to build a coherent strategy towards climate neutrality. However, the mid-term reports and revisions

established by the Governance Regulation are also important to monitor compliance before the target year ends. In addition, they enhance transparency to the process.

Overall, the procedural obligations established by the Governance Regulation are a positive complement to the substantive obligations set by REDII. However, the EU Climate and Energy Strategy would also benefit from a revision of the Governance Regulation that enhances the enforcement powers of the European Commission in a clearer way. For instance, article 32 Governance Regulation could oblige Member States to follow the recommendations they receive from the European Commission upon the risk of not achieving the EU collective target for 2030. Member States would still benefit from the flexibility to design their own NECPs. However, if one Member State's inaction or extraordinary circumstances put at risk the non-achievement of the 32 % target, the European Commission can take action to mend it. It is in line with the idea of working together through the process, but it keeps the possibility to start an infringement proceeding if necessary. It sends the message to investors that the EU commitments to transition to renewable forms of energy are stable.

7.2. Other Hurdles to the Transition of Renewable Energy Deployment

Administrative hurdles to investors have been identified as the major block to a rapid deployment of renewable energy. The biggest impact is for wind and solar projects, which are the main renewable sources that the EU is planning to increase.¹⁸⁰ The hurdles come from the process of acquiring the different permits needed e.g., environmental impact assessment, license to generate and sell electricity and construction permits.¹⁸¹ Articles 15 and 16 of REDII are aimed at simplifying and reducing the duration of the permitting procedures at Member State level and the European Commission asks Member States to adapt national permitting procedures taking into account that the increase of renewable

¹⁸⁰ J. Banasiak et al., "Barriers and Best Practices for Wind and Solar Electricity in the EU27 and UK", Final Report. (14 March 2022), p. 32.

¹⁸¹ European Court of Auditors. Special Report No 08 2019 Para 60. "Wind and solar power for electricity generation: significant action needed if EU targets to be met" (2019). Published by op.europa.eu. Retrieved from: <https://op.europa.eu/webpub/eca/special-reports/wind-solar-power-generation-8-2019/en/> (last accessed 25 March 2022).

energy production is of “overriding public interest”.¹⁸² However, the process in many Member States continues being too lengthy and not transparent.

Therefore, attention must be paid to this issue in order to decarbonize the EU. The permitting procedure varies in each Member State and the assigned authority may be of national or local level. Therefore, the network of national environmental authorities at EU level can be key in sharing good practices and aligning the permit requirements. One of these good practices is unifying all the necessary permits into one.¹⁸³

Since harmonization has not been reached for now, a way to facilitate the process to investors would be publishing on an accessible website the information regarding the required permits to open an installation, the authority that has to be contacted and the time limit of the process in all EU Member States. That would also facilitate the European Commission to monitor whether articles 15 and 16 REDII have been implemented in national legislation. Altogether the aim is to ensure transparency and create an efficient administrative procedure that ensures the protection of the environment without creating a barrier to investment.

In this context, public participation has an important role. It may be seen as an element that makes the permit process longer. However, on the contrary early involvement of relevant stakeholders can avoid future conflicts and legal battles and therefore it can make the process smoother.¹⁸⁴

In addition to a rapid increase of renewable energy, enhancing energy security needs of higher interconnection to strengthen the EU energy internal market. As stated before, Member States have different feasibilities for the production of different types of renewable sources. Therefore, interconnection would allow production to be organized efficiently. REDII offers mechanisms such as the Joint Support Scheme to enhance

¹⁸² Commission (EU) “REPowerEU: Joint European Action for more affordable, secure and sustainable energy” (Communication) COM (2022) 108 final, 8 March 2022.

¹⁸³ J. Banasiak et al., “Barriers and Best Practices for Wind and Solar Electricity in the EU27 and UK”, Final Report. (14 March 2022), p. 41.

¹⁸⁴ Ibid, p. 59.

energy cooperation.¹⁸⁵ However, Member States seem reluctant to open their market. Proof is that the Green Certificates System between Sweden and Norway has been the only Joint Support Scheme carried out in the EU. Therefore, more efforts to interconnect the EU internal market are needed.

¹⁸⁵ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, article 13.

8. Conclusion

Renewable energy sources have the potential to transform the EU energy system in order to decouple economic growth from GHG emissions. Hence, it is essential to allow the EU to achieve its climate neutrality target by 2050 and the mid-term target of 55 % GHG emissions reduction by 2030. The increase of renewable forms of energy use is also an opportunity to create an interconnected and secure EU internal energy system that does not depend on energy imports. Accordingly, the promotion of renewable energies is one of the main priorities of the EU Climate and Energy Packages of 2020 and 2030. However, the legal basis of the EU to regulate on energy matters has developed over time and it has been object of great debate.

Since the entry into force of the Lisbon Treaty, the EU has the competence to regulate on energy matters under article 194 TFEU. However, the formulation of the provision rather limits the possibility of the EU to affect the right of Member States to exploit its energy resources, choose between them and decide the general structure of their energy supply. Yet, it is not possible to achieve the EU climate and energy targets without influencing the national energy systems of Member States. REDII was elaborated in this context. Perhaps with the intention to avoid that the matter ended before the CJEU, REDII is silent on legally binding national renewable energy targets for Member States. Instead, REDII contains an EU wide target and a formula to calculate the national share that each Member State is to pledge. However, neither of them is enforceable through the infringement proceeding of article 258 TFEU, the strongest enforcement tool at EU level. Arguably, this is a step back from the previous REDI.

In order to compensate the lack of legally binding targets, the Governance Regulation introduces a set of procedural obligations with the aim to ensure that Member States make the necessary contributions to achieve the 32 % target and work towards achieving it.¹⁸⁶ Altogether, there is a change of approach from the traditional punitive governance system regulated in REDI to a dialoged-based system regulated by REDII in conjunction with

¹⁸⁶ 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, Recital para. (1).

the Governance Regulation. More concretely, the Governance Regulation creates an iterative process between the European Commission and its Member States, working together around the NECPs towards the common objective to achieve 32 % of renewable energy in the gross final consumption by 2030. This approach provides transparency to the process and introduces an ex-ante monitoring of Member States' progress before the target year ends, allowing time to mend the situation. In addition, it provides Member States for the necessary flexibility to adapt their energy systems according to their national circumstances.

A great example of the use of flexibility at the national level is the different approaches taken by the Nordic Countries, which are amongst the countries with the highest percentage of renewable energy shares. Their energy portfolio shows that each of them focuses on the resources better available to them: bioenergy in the case of Finland and Sweden, hydropower in Sweden and Norway and wind power in Denmark. They also chose different market mechanisms for the promotion of renewable energy. Yet, all of them achieved their 2020 target as set by REDI.

The iterative process established by the Governance Regulation was successful to promote ambitious renewable energy targets in the NECPs of Finland, Sweden and Denmark as a contribution to the 32 % EU target for 2030. However, the achievement of the targets is dependent of their political will. If there was a risk not to achieve the collective EU target, the European Commission can “propose measures and exercise its powers at union level” to mend it. It has been argued that those powers refer to the special position of the European Union as the executive branch of the EU. For instance, the European Commission can influence the direction of EU policies through legislative proposals, official communications or linking new EU financial mechanisms to the promotion of renewable forms of energy. However, the European Commission has no legal tools to enforce the targets. In this sense, the introduction of the Governance Regulation cannot by itself guarantee the transformation of Member States' energy systems in the absence of national legally binding renewable energy targets. In my view, this is the major shortcoming of the EU renewable energy legal framework.

As previously argued, the recent events of the Russo-Ukrainian war may enhance internal cooperation and allow an agreement within the Council to revise REDII and include

national legally binding targets of renewable energy for 2030. That would provide certainty for investors and encourage Member States to take the necessary measures to avoid an infringement procedure. The Governance Regulation would also benefit from a revision in which the enforcement powers of the European Commission were strengthened.

Other hurdles such as lengthy and non-transparent administrative processes to acquire licenses and insufficient grid interconnection between Member States have been identified. Future directives on the promotion of renewable energy should focus on these hurdles in order to transition to an EU energy system completely run by renewable forms of energy.

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