

The differing drivers of EU Electricity Policy

Citation for published version (APA):

Bostan, M. (2022). The differing drivers of EU Electricity Policy: Policymakers' (in)sensitivity to external factors (1986-2018). [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20220914mb>

Document status and date:

Published: 01/01/2022

DOI:

[10.26481/dis.20220914mb](https://doi.org/10.26481/dis.20220914mb)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

THE DIFFERING DRIVERS OF EU ELECTRICITY POLICY:
Policymakers' (in)sensitivity to external factors (1986-2018)

Mircea Nicolae BOSTAN

© copyright Mircea N. Bostan, 2022

Printing: ProefschriftMaken || www.proefschriftmaken.nl

ISBN 978-94-6423-879-2

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission of the author or the copyright-owning journals for previous published chapters.

THE DIFFERING DRIVERS OF EU ELECTRICITY POLICY: Policymakers' (in)sensitivity to external factors (1986-2018)

DISSERTATION

to obtain the degree of Doctor at the Maastricht University,
on the authority of the Rector Magnificus, Prof. dr. Pamela Habibović
in accordance with the decision of the Board of Deans,
to be defended in public
on Wednesday 14 September 2022, at 10:00 hours

by

Mircea Nicolae (Mike) BOSTAN

Supervisor:

Prof. dr. T. Christiansen, Professor of European Institutional Politics, UM/ Luiss Università Guido Carli, Rome;

Co-supervisor:

Dr. A. Herranz Surrallés, Associate professor, Department of Political Science, Maastricht University

Assessment Committee :

Prof. dr. E. Versluis (Chair), professor of European Regulatory Governance, Maastricht University;

Prof. dr. L. Hancher, professor of Competition Law, Tilburg University;

Dr. I. Solorio, Associate professor, School of Political and Social Sciences, Universidad Nacional Autónoma de México;

Dr. A. Spendzharova, Associate professor, Department of Political Sciences, Maastricht University.

Table of contents

List of figures	8	
List of tables	9	
Chapter 1	Introduction to the thesis	11
	1.1. Introduction	13
	1.2. Aims and central research question	15
	1.3. Literature review	17
	1.4. Analytical approach	20
	1.5. Empirical strategy	21
	1.6. Outline of the dissertation	23
Chapter 2	EU electricity policy (im)balance: a quantitative analysis of policy priorities since 1986	27
	2.1. Introduction to EU electricity policy (im)balance	29
	2.2. A stock-taking exercise on the current debate on energy priorities in Europe	30
	2.3. Developing an analytical framework for measuring the EU policy outcomes	31
	2.3.1. Methodology	33
	2.4. Policy density	34
	2.4.1. Categories	35
	2.4.2. Policy density perspective – conclusions	36
	2.5. Policy intensity	37
	2.5.1. Categories	38
	2.5.2. Policy intensity perspective - conclusions	39
	2.6. Policy importance	39
	2.6.1. Categories	42
	2.6.2. Policy importance perspective – conclusions	42
	2.7. Discussion	43
	2.8. Conclusions	44
Chapter 3	EU electricity policymakers' (in)sensitivity to external factors: a multi-decade quantitative analysis	47
	3.1. Introduction to EU electricity policymakers' (in)sensitivity	49
	3.2. The policy dynamics debate in energy policy	50
	3.3. An analytical framework to select main drivers of EU energy policy	53
	3.4. Policymakers' sensitivity to environment	56
	3.4.1. Public opinion	56
	3.4.2. Air pollutants	56
	3.4.3. Greenhouse gases emissions per capita	57
	3.4.4. Analysis	58
	3.5. Policymakers' sensitivity to internal energy market	59
	3.5.1. Public opinion	59

3.5.2. Intra-EU electricity trade	59
3.5.3. Market coupling	59
3.5.4. Analysis	60
3.6. Policymakers' sensitivity to affordability	61
3.6.1. Public opinion	61
3.6.2. Electricity price	61
3.6.3. Energy expenses	62
3.6.4. Analysis	63
3.7. Policymakers' sensitivity to security of supply	63
3.7.1. Public Opinion	64
3.7.2. Uninterrupted security of supply	64
3.7.3. Energy dependency	64
3.7.4. Analysis	65
3.8. Discussion and conclusions	66

Chapter 4	Potential drivers of environmental policy in the electricity field: a quantitative testing of the Environmental Policy Literature	71
4.1.	Introduction to potential drivers of environmental policy	73
4.2.	Literature review	74
4.2.1.	Categorisation of factors influencing environmental policy	75
4.2.2.	Neofunctionalism versus punctuated equilibrium	76
4.3.	Analytical framework	77
4.3.1.	Explaining environmental policy integration driving factors	78
4.3.2.	Patterns of policy change in the electricity field	79
4.3.3.	Empirical database of policy intensity and policy importance	80
4.4.	Empirical results	80
4.4.1.	Political factors: Eurobarometer results and timing of selected European and national elections	81
4.4.2.	Organisational factors: the legal mandate of the organisation	82
4.4.3.	Cognitive factors: awareness of the problem and sense of urgency	84
4.4.4.	Resources factors: availability of financial and human resources	85
4.4.5.	Characteristics of the adaptation problem at issue: framing of the problem	85
4.4.6.	Timing factors: the economic situation	86
4.4.7.	Neofunctionalism	87
4.4.8.	Punctuated equilibrium	90
4.4.9.	Results of empirical research	90
4.5.	Discussion and conclusions	91

Chapter 5	Overall conclusions	95
	5.1. Overview	97
	5.2. Findings	98
	5.3. Empirical contribution	100
	5.4. Theoretical contribution	101
	5.5. Policy recommendations	102
	5.6. Agenda for future research	106
Bibliography		111
Appendix	Supplementary materials overall thesis	121
	Appendix supplementary materials chapter II	377
	Appendix supplementary materials chapter III	382
	Appendix supplementary materials chapter IV	398
Impact paragraph		401
Propositions		403
Nederlandse samenvatting (Dutch summary)		404
Acknowledgments		407
About the author		409

List of figures

Figure 1. Pillars – policy density – chronological, energy packages	35
Figure 2. Categories – policy density – chronological, energy packages	36
Figure 3. Pillars – policy intensity – chronological, energy package, trends	38
Figure 4. Policy importance – overall trends	40
Figure 5. Pillars – policy importance – chronological, energy packages	41
Figure 6. Policymakers’ sensitivity to environmental external factors	58
Figure 7. Policymakers’ sensitivity to internal electricity market external factors	60
Figure 8. Policymakers’ sensitivity to affordability external factors	62
Figure 9. Policymakers’ sensitivity to security of supply	65
Figure 10. Policy importance of environmental policies against Eurobarometer environmental concerns	81
Figure 11. Policy importance of environmental policies against timing of elections	82
Figure 12. Policy importance of environmental policies against adoption of European treaties	83
Figure 13. Policy importance of environmental policies against IPCC assessments	84
Figure 14. Policy importance of environmental policies against GDP/capita growth	87
Figure 15. Legislative mapping – step 1: Council Directive 96/61/EC of 24 September 1996 and first-generation offspring (in dark green)	88
Figure 16. Legislative mapping – step 2: Council Directive 96/61/EC of 24 September 1996 and second-generation offspring (in dark green)	89
Figure 1. Policy density – chronological, trends	377
Figure 2. Pillars – policy density – chronological, energy packages, trends	378
Figure 3. Policy intensity – overall trends and energy packages	378
Figure 4. Pillars – policy intensity – chronological, energy package, trends	379
Figure 5. Categories – policy intensity – chronological, energy packages	379
Figure 6. Pillars – policy importance – chronological, energy packages, trends	380
Figure 7. Categories- policy importance – chronological, energy packages, trends	381

List of tables

Table 1.	External factors employed for analysis for each pillar	55
Table 2.	Categorisation of factors influencing policy according to Runhaar et al. 2018	76
Table 3.	Number of staff of DG Environment and DG Climate Action	85
Table I.	Scoring scale of data converted into ordinal values	382
Table II.	Legislation importance and aggregated external factors in ordinal values for security of supply	383
Table III.	Scoring scale of data converted into ordinal values	384
Table IV.	Legislation importance and aggregated external factors in ordinal values for environment	385
Table V.	Scoring scale of data converted into ordinal values	386
Table VI.	Legislation importance and aggregated external factors in ordinal values for affordability	387
Table VII.	Scoring scale of data converted into ordinal values	388
Table VIII.	Legislation importance and aggregated external factors in ordinal values for internal electricity market	389



Chapter 1

Introduction to the thesis



1.1. Introduction

As a well-known adage has it: “we are four meals away from anarchy” (quote attributed to MI5, the UK domestic counter-intelligence and security agency (Elsberg 2017, p. 116)). Interrupted supply of energy, in its various forms, is a sure way towards anarchy or chaos. But an energy policymaker has more to worry about than just the security of the energy supply. The challenges facing EU policymakers in the energy field are increasingly complex and interconnected, including issues such as import dependency, decarbonisation, energy efficiency, competition, interconnection of energy markets and, as seen recently, volatile energy prices. Often, the solutions to such challenges conflict with each other. Facing such trials, how to find the right balance? And what is really catching the attention of policymakers and is causing a particular issue to top their list of priorities, out of all the other numerous and sometimes competing objectives?

An imbalance in the energy system, for instance between affordability and security of supply priorities, can have tangible consequences. To give a practical example: countries or companies are likely to store an extra supply of gas, more gas storage, to cover more than the normal consumption need, in order to avoid any disruption of the gas supply to consumers. However, the cost of storing this extra supply must be added to the price, thus rendering the gas more expensive. Too heavy a focus on affordability may become a vulnerability of the gas supply. Conversely, too much emphasis on ensuring the supply or on the costs of storing gas can also have detrimental effects. This thesis will study such fundamental system imbalances by focusing on the narrower domain of electricity, instead of covering the entire energy system.

When investigating system imbalances from an energy priorities perspective, the natural question to ask ourselves is why policymakers prefer one policy priority over other policy options? Each policy priority has specific goals, so why do EU electricity policymakers pay more attention to one policy goal while devoting less attention to other policy goals? Furthermore, as the EU electricity policy evolves rapidly, this provides us the opportunity to study with more accuracy its external factors, as links and correlations are more easily established in a dynamic system than in a static one.

The EU electricity policy has slowly emerged as a key EU policy, having carbon neutrality as an economy-driving priority, reverberating in other domains such as manufacturing and heating. Nevertheless, the policymaking regarding this EU domain remains quite controversial, several scholars even arguing that EU energy policy was, at some point, imbalanced and unsustainable (Auverlo et al. 2014; Helm 2014). One line of reasoning suggests that a balance between climate change and the internal energy market policies is unattainable unless the policies are refocused (Helm 2014). Some other scholars criticize the insufficient climate policy integration to reach long-term climate policy objectives (Dupont and Oberthür 2012).

The current EU electricity market design has liberalisation as its basic standard, but this paradigm came under criticism by concerns about the security of supply and on environmental grounds. Recently, in late 2021 and early 2022, the affordability was put

in question as well, when electricity prices, driven mostly by gas market developments, increased significantly on the wholesale market. Some authors suggest that energy security was often used as pretext for further market integration (Huhta 2020; Judge and Maltby 2017). In the environmental – liberalisation debate, the main criticism levelled is that too high environmental externalities would trouble the energy generation and distribution chain (Hammond and Jones 2011).

In recent decades, a lively discussion has revolved around the merits of liberalisation in the energy sector, some experts praising its competitiveness, cost-reduction and higher investment rates (Joskow 2008; Pollitt 2012; Jamasb and Pollitt 2005; Cambini and Rondi 2010; Domah and Pollitt 2001; McGowan 2008), while others argue that lack of competition due to inevitable natural monopolies will unavoidably create energy market failures, including in relation to security of supply (Aalto 2014; Foley and Lönnroth 1981; Goldthau 2012; Greening and Jefferson 2013; Wen and David 2001). The debate on policy tools regarding affordability is still ongoing between proponents of major market design changes (Simon 2021) and those considering that the effects are in the short term (Permanent Representation of the Netherlands to the European Union 2021; European Commission 2021b; ACER 2021).

The EU electricity domain is well-studied and lively debated by academics, including views on the EU energy policy balance. The concept of policy priorities balance stems from the classical energy trilemma (World Energy Council 2020), which proposes the idea that three major dimensions of energy policy – affordability, security of supply and environment – find themselves in a precarious balance, often in competition with each other. Disproportionate attention from policymakers for one policy priority would be to the detriment of others, and would potentially destabilize the energy equilibrium.

To give an example of the interactions between different priorities linked to sustainability, namely climate change concerns, the EU electricity supply is transforming from fossil-fuel based energy to renewable based energy. Initially, before the costs dropped, affordability was affected (Breeze 2021). At the same time, the security of the energy supply paradigm changed, as the EU became more dependent (Eurostat 2021a), in both the short and the medium term, on imported fuels used to ensure balancing of the electricity grid. The issue became more acute when seasonality (cold winter), geopolitical tensions (with the main EU supplier of gas) and a black swan event (the restart of manufacturing after a global pandemic, which increased the pressure on the energy supply) combined to increase energy prices, which in turn caused security of supply issues to affect affordability. The situation outlined above involves a case in which the three policy priorities actually affect each other.

Another way to look at the energy policy priorities is from a boundary perspective (Kanellakis, Martinopoulos, and Zachariadis 2013), an approach which bypasses the competitiveness of the energy trilemma. Basically, this approach entails categorizing the policy according to its designed purpose: for example, nuclear or renewable policy, without including it in one box that would suggest competition with another. As suggested by several scholars, both designs are a worthwhile cataloguing system to test the EU energy policy imbalance.

The puzzle of EU electricity policy (im)balance deserves to be further studied, as it is of major concern in the literature and could support EU policymaking, such as by clarifying if further action is needed and, if so, regarding which policy priority. A close look at the literature revealed that there has been a strong debate around the EU electricity policy, but that comprehensive, decades-long, quantitative studies about EU electricity policy priorities are missing. On the policymaking side, the identification of a policy imbalance would certainly help to find the root causes of some tensions with member states or citizens and might contribute to avoiding possible policy failures.

Performing a quantitative study to determine the possible EU electricity policy (im)balance, however, is only a first step in a wider quandary. A logical second step on such quantitative empirical journey pertains to the question of what makes policymakers devote more attention to one policy goal rather than to another one. Scholars have in fact provided a plethora of responses to the question of what drives such policy priorities, including technology (Alizadeh et al. 2016; Shilei and Yong 2009; Zhu et al. 2015), cultural factors (Falkner and Treib 2008; Falkner, Hartlapp, and Treib 2007), prices of raw energy materials (Schröder et al. 2013) and corporate lobbies (Cadoret and Padovano 2016; Gullberg 2015), to name just a few.

It is evident that any breakthrough on this thorny issue will be to the benefit of policymakers, researchers in academia and advocacy professionals. Noting the lively discussion and contradictory findings about the degree of (im)balance in the EU electricity policy domain and the factors driving policy priorities in this field, this thesis aspires to contribute to this debate through a new, systematic approach which is grounded in data covering a period of several decades. This will make it easier, as I will argue here, to develop an accurate and reliable diagnosis of the challenges facing EU electricity regulation.

1.2. Aims and central research question

The aim of this thesis is to research the policy balance/imbalance in the EU electricity field and to find what causes policymakers to pay more attention to one policy goal rather than to other policy goals. In other words, as each policy priority has specific goals, I investigate the drivers to which EU policymakers are most sensitive when adopting particular policy goals.

A major hypothesis of this thesis is that it is possible for particular legislation to respond consistently to certain external factors. Accordingly, when significant variation is involved in identifiable factors, this will give rise to a change in legislation. I will refer to this mechanism as *the policymakers' sensitivity to external factors*. While policymakers will more or less spontaneously respond to certain external sources of stress, it is worthwhile to test this hypothesis, as a way to identify and confirm such driving policy factors. Additionally, it is relevant to find out in this context if there are external factors that should be expected to affect legislation but that are actually ignored by policymakers. Furthermore, as indicated above, holistic, multi-decade, empirical studies, encompassing an entire domain (i.e., electricity), are still missing in the literature and therefore such study may well serve as a springboard to further research.

External factors at issue here are quantitative indicators, such as electricity prices, which are aggregated at EU level and have a long enough statistical history to allow comparison on a multidecade level with EU electricity legislation. In this thesis I will name them *external factors* to separate them from internal factors, which may result from hard to quantify mechanics internal to EU institutions, like the internal balance of power and the influence or results of sustained negotiations.

This overarching hypothesis is derived from the existing literature and theoretical propositions, along the lines of the classical energy trilemma, aiming to identify a possible imbalance in the policy. If such an imbalance is detected, the next logical step is to ask why policymakers prioritize some policy goals over others. The approach taken to this question here is to focus on policymakers' sensitivity to external factors. As explained above, the external factors are quantitative indicators, which is why this investigation predominantly involves a quantitative study as well.

In this study I define policymakers' sensitivity as the response of legislation – adding or not adding new policy instruments – to variations of external factors, for example the increase or decrease of energy dependency. The attempt to find correlations between a policymakers' sensitivity and external factors takes place along the categorisation proposed by the classical energy dilemma: affordability, security of supply and environment, to which I add internal electricity market as a fourth priority, due to its key importance for the EU policy domain. Throughout this thesis I refer to these four policy priorities as *pillars*. The division of electricity policy into these four pillars is critical for the aim of my argument, as the various comparisons between policy factors and external factors will all pertain to the pillar level. Accordingly, environmental policy instruments will be compared with environmental factors; affordability policy instruments are juxtaposed with affordability factors; security of supply is tested against security of supply factors; and, finally, internal electricity market will be discussed in relation to various internal electricity market indicators.

If anomalies are detected, or, put differently, if a pillar does not confirm the anticipated correlations with the relevant factors of its field, a further investigation will be pursued. Specifically, I propose to continue the inquiry by enlarging the sphere of relevant factors included for testing, expanding it from empirical indicators to more holistic factors which may shed a light on the determinants of that pillar's policy. A source of inspiration for the more holistic factors could be the relevant literature of the field. For example, the environmental pillar's driving factors could be inspired by the Environmental Policy Integration (EPI) literature. In short, the EPI will allow us to ask when, why and to what extent environment is incorporated or acknowledged in other domains, including energy. This makes the theories proposed by EPI scholars ideally suited indeed to be tested in relation to the EU electricity domain.

To sum up, the overarching objective of the thesis is to answer the following central research question:

- *what are the external factors to which policymakers in the EU electricity policy domain are most sensitive, from 1986 to 2018, along the lines of the classical energy trilemma?*

To find the answer to this question, I conduct my empirical study in three stages, by:

- *Assessing the existence of a policy imbalance in the EU electricity policy;*
- *Investigating the influence of external factors on policy output – by determining the policymakers’ sensitivity to selected external factors;*
- *Expanding the investigation of selected factors to more holistic ones, inspired by the literature, when a pillar does not confirm the expected correlations with relevant factors (as will be argued, the environmental pillar is not linked to relevant factors and therefore I will explore the EPI literature to identify new, holistic factors for testing).*

1.3. Literature review

The three analytical steps pursued to answer the research question are grounded in three bodies of literature. The first focuses on the EU policy balance; the second on the literature on quantitative driving factors; and the third, finally, on EPI factors driving policy dynamics, as we will have to narrow our focus to the environmental policy priority. If policy dynamics is about understanding policy change and how goals are changed, while it encompasses both policymaking and policy-implementation, in this thesis I will only refer conceptually to the latter (Bardach 2006; Capano and Galanti 2018).

When perusing the literature on the EU policy balance, it becomes clear that different research clusters attempt to reconcile energy priorities with the flagship of the current energy market design, liberalisation. The security of supply – liberalisation debate has recently been revolving around the introduction of capacity mechanisms (payments to ensure enough security of electricity supply) and their disturbance of market processes (Eurelectric 2016; Brunekreeft and Meyer 2019; Hawker, Bell, and Gill 2017; Özdemir et al. 2020). The affordability – liberalisation debate gained traction after the establishment of the Energy Poverty Taskforce and the European Energy Poverty Observatory in 2016, but it is not at the forefront of EU energy debates, except with respect to vulnerable consumers. One study suggests that liberalisation did not equate to affordability for the most vulnerable consumers (Poggi and Florio 2010). Finally, the environment – liberalisation debate is the most studied at the moment, with critics noting the high environmental externalities (Hammond and Jones 2011) and insufficient policy calibration to the task of climate protection (Dupont and Oberthür 2012).

There has been a lengthy debate on the merits of liberalisation in the energy sector, which has featured as the standard EU policy over the last thirty years (Talus 2017). The detractors highlight the environmental problems and market failures (Aalto 2014; Foley and Lönnroth 1981; Goldthau 2012; Greening and Jefferson 2013; Wen and David 2001), while supporters note the cost reduction, competitiveness and higher investment rates (Joskow 2008; Pollitt 2012; Jamasb and Pollitt 2005; Cambini and Rondi 2010; Domah and Pollitt 2001; McGowan 2008).

Whereas some authors shed light directly on contradicting policy priorities (Helm 2014; Auverlo et al. 2014), there has not been a comprehensive study involving a quantitative analysis of whether or not they are in balance. The literature is fragmented and a quantitative holistic study on all policy priorities has largely been neglected, with few authors pursuing this task (Kanellakis, Martinopoulos, and Zachariadis 2013; Pérez-Arriaga 2014). This of course motivated the initiative to study the policy balance in the European Union, but, due to the projected daunting size of such task, I decided to limit my effort to the electricity domain.

In order to move forward with the second analytical step, it is relevant to explore the existing scholarly research for potential drivers of energy policy, with the intention to test them for policymakers' sensitivity. As revealed by a survey of the literature, there has been a plethora of alternative explanations of energy policy drivers, frequently backed up by indicators. Some authors suggest as policy drivers the price of raw materials (Schröder et al. 2013). Others have a more holistic view and try to determine, often through study cases, the importance of technology and technology evolution for energy policy dynamics (Alizadeh et al. 2016; Shilei and Yong 2009; Zhu et al. 2015). Another group of scholars tries to unearth the role of international relations (Natorski and Surrallés 2008; Herranz-Surrallés 2015, 2019), often on matters of security of energy supply (Goldthau 2016; Goldthau and Sitter 2014, 2015) or corporate lobbies (Gullberg 2015; Cadoret and Padovano 2016). Cultural factors may have an influence on energy policy as well, according to some studies (Falkner, Hartlapp, and Treib 2007; Falkner and Treib 2008).

As the literature proposing influencers of energy policy, and subsequently, electricity policy, is vast, some filtering was needed in order to identify the relevant factors. First, the policy dynamics debate (Howlett and Cashore 2009), which looks specifically at drivers for policy change in the large sense, serves as a source of inspiration. The different conceptualizations of policy change can be separated into four perspectives: *structure versus agency*; *external versus internal* causal factors; *revolution versus evolution*; and *output* (linear, teleological) versus *process* (cyclical, dialectical) (Capano and Howlett 2009). In this thesis, the focus will be on the revolution versus evolution dichotomy because the long time series hopefully available will make an excellent fit with this policy dynamics perspective.

The *revolution versus evolution* lens of analysis brings forward the *historical institutionalism* perspective, which implies that important factors of change may involve either external shocks (Ikenberry 2019) or subtle change, such as displacement (removing old and adding new rules), layering (introducing new rules, without removing old ones), drift (changing the impact of existing rules) and conversion (changing the enactment of existing rules) (Mahoney and Thelen 2010). Recent research in historical institutionalism covers mainly sustainability concerns and climate issues (Allen et al. 2020; Hernandez et al. 2018; Lindberg 2019). Nevertheless, some investigations on the inclusion and expansion of energy security are from a historical institutionalist viewpoint (Bocse 2020). Finally, several authors highlight the potential for a historical institutionalist perspective in analysing energy policy, as crises may affect the policy process (McCauley et al. 2018; Quahe 2018). The *historical institutionalism* theory appears promising in identifying factors, as it fits the focus on history (long time

series) proposed here and already prompted calls from scholars to use this perspective for energy policy analysis, as mentioned above.

Secondly, the investigation turns towards specific strands of energy policy, pertaining to sustainability (the EPI literature), security of supply (recent studies) and affordability (various poverty indicators). The EPI literature proposes different categories of factors along three standard criteria and an additional one suggested: normative, organisational, governance and procedural factors (Lenschow and Zito 1998; Mickwitz and Birnbaum 2009; Persson 2004; Solorio 2011). Moreover, several empirical EPI factors are proposed when studying environmental policies (Runhaar, Driessen, and Uittenbroek 2014; Adelle and Russel 2013; Knill, Heichel, and Arndt 2012; Knill, Schulze, and Tosun 2012; Schaffrin, Sewerin, and Seubert 2015).

Considering the recent analyses in the security of energy supply domain, they appear to design new indicators and methods for studying policy dynamics. These new methods emerged after the seminal study of the Asia Pacific Energy Research Centre (Asia Pacific Energy Research Centre (APEREC) 2007), which developed a new way to present energy indicators. Other researchers contributed to the development of energy security indicators (Kruyt et al. 2009; Von Hippel et al. 2011; Chester 2010) or applied the suggested analytical methods (Malik et al. 2020; Yamanishi, Takahashi, and Unesaki 2017; Yao and Chang 2014).

Regarding affordability, the lack of clear definitions of concepts is observed in the literature (Deller 2018; Thomson, Snell, and Liddell 2016). Nevertheless, the establishment of the EU Energy Poverty Taskforce and the European Energy Poverty Observatory project in 2016, and its successor, the EU Energy Poverty Advisory Hub (Energy Poverty Advisory Hub 2022), contributed to the development of indicators that measure and drive energy poverty.

To sum up, the second analytical step is geared to identifying in the literature possible drivers influencing energy policymakers. As the literature is vast, I decided to take both a holistic and a specific approach. For the holistic approach, I singled out the *historical institutionalism* perspective as most suitable for our thesis. For the specific approach, I reviewed literature from the policy priority domains of sustainability, security of supply and affordability.

As third analytical step, I consider focusing expressly on the EPI literature to identify factors driving the EU electricity policy dynamics, and as such expanding the search to a larger context – one not just involving long time series. Building on the initial research in the second analytical step, those studies will be useful which take stock of existing hypotheses explaining EPI expansion in other domains, not only in energy, and employ them as filter for selecting a new set of factors for testing.

A further objective of this third analytical step is to compare the evolution of legislative activity from two theoretical perspectives: neofunctionalism versus punctuated equilibrium. Those two theories were chosen because they fit the *revolution* versus *evolution* conceptualization of policy dynamics that I selected for research. For this reason, I intend to study the description of each theory to understand how it applies to our case. Briefly put, neofunctionalism draws attention to the role of supranational institutions and non-state

entities in influencing policy, such as political parties and interest groups (Jensen 2013). Interestingly, there is a spill-over process, where successful policy achievements in one area are used to be expanded in another area (Haas 2004; Hooghe and Marks 2019; Kuhn 2019; Niemann and Ioannou 2015) – a feature deployed in my empirical investigation.

The punctuated equilibrium theory argues that disruptive changes create rapid policy change (Flink 2017; Fernández-i-Marín et al. 2020; Kuhlmann and van der Heijden 2018). One particular study on the UK civil service concludes that policy modifications appear either when the political leadership changes or due to public opinion pressure (Hallsworth, Parker, and Rutter 2011), findings used in our investigation below. By testing particularities of each theory, it will become possible to find out whether the legislative activity in the EU electricity domain is closer to one theory or another.

1.4. Analytical approach

The analytical framework may roughly be divided into two major steps: one dealing with the type of electricity policy under analysis, and the other aiming to design a discovery process for possible driving factors of EU electricity legislation. Both analytical framework divisions endeavour to create quantitative variables (i.e., time series) that will be ultimately compared against each other to find correlations. The first major analytical step, involving the type of electricity policy under analysis, examines several perspectives for policy analysis. One option is *policy outcome*, probing if the policy adopted solved the problem it was supposed to solve (Bondarouk and Mastenbroek 2018; Tosun 2012). Another option is *policy output*, which looks at policies taken in response to a societal problem. I select the latter because policy output allows for easier quantification than policy outcome. Furthermore, the effects are much harder to detect and isolate, as EU policy output suffers from implementation or adoption problems in member states (Knill and Duncan 2007).

The policy outcome choice opens the door to two new policy analysis perspectives: *policy density*, which is the number of policies put in place to reach a policy goal, and *policy intensity*, which focuses on the content of the policy instruments (Bauer and Knill 2014; Knill, Schulze, and Tosun 2012; Schaffrin, Sewerin, and Seubert 2015). I will deploy both in the initial stages of the analysis, quantifying legislation and policy instruments – called *targets and objectives* here – appropriately in the empirical database.

As analytical perspectives, however, policy density and policy intensity come with the drawback of putting on a par pieces of legislation and, accordingly, policy instruments which have a different impact. For example, the objective of the European Commission to write a report to the European Parliament is treated as being of equal importance as a binding, EU-wide target for sulphur emissions. To eliminate this incongruity, then, this thesis devises a novel analytical perspective, labelled *policy importance*, by grading each target and objective, according to a rulebook. In the later stages of analysis, I may keep only one policy analytical perspective as basis of comparison with possible driving factors, the one which proves the most accurate method (whereby all three policy analytical perspectives

will be tested against the energy legislative packages, to identify which one predicts them the best).

Finally, I pursue further to classify the legislation and the targets and objectives by starting from two proposed frameworks: the classical energy trilemma (World Energy Council 2020) and the categorisation of a group of Greek scholars (Kanellakis, Martinopoulos, and Zachariadis 2013). I deploy them both because they offer a different perspective: the classical trilemma evoking a competitive ground between the energy priorities, while the framework by Kanellakis and colleagues proposes a non-competitive classification of legislation. In the end, for reasons of simplicity, only one of the two may be used.

I considered one other type of classification, the classical PEST analysis (Aguilar 1967), which is a framework of macro-environmental categories: political, economic, social and technological. It is commonly utilized to identify relevant factors at the strategic level. While appealing, the classical energy trilemma and the classification put forward by Kanellakis and colleagues appear to fit my purpose – which is analysis of the electricity domain – more closely.

For the second major analytical step, the process of identifying possible driving factors of EU electricity legislation, I take inspiration from the policy dynamics debate and employ theoretical frameworks pertaining to revolution versus evolution conceptualisation: historical institutionalism, neofunctionalism and punctuated equilibrium (later the EPI literature will be employed as well). Studies starting from those frameworks appear to provide fertile ground for finding possible factors to test.

Implementation times for legislative output potentially play a role in correlation with external factors. This is why, additionally, the research will factor in and test one-year and two-year delay in policy output compared with the time of the driving factor.

When the analytical framework proves not to be sufficient in the first attempt, as selected external factors fail to show any influence on environmental legislation, I will expand the sphere of selected factors for testing. Inspiration comes from historical institutionalism studies, the classical energy trilemma definitions and energy security studies to identify external factors for analysis. The way I define an energy priority correlation to an external factor is by considering it as policymakers' sensitivity to a certain number of factors relevant for that energy priority. As such, the challenge is to find policymakers' sensitivity to affordability, security of supply, and internal energy market. In this way I hope to fill a gap in the literature, a gap decried by several authors who observed that little research has been conducted so far aimed at testing existing EPI strategies (Russel and Benson 2014; Steurer and Hametner 2013; Turnpenny et al. 2009).

1.5. Empirical strategy

This thesis relies on the use of quantitative studies in order to find drivers of EU electricity legislation. It does so by comparing policy targets and objectives with possible driving

factors, which explains the need for a dependent variable in the form of measurable policy targets and objectives, as well as an independent variable in the form of quantifiable factors.

On the one hand, the targets and objectives of EU electricity legislation have to be measured empirically. While some authors attempt such endeavour (Kanellakis, Martinopoulos, and Zachariadis 2013) or consider relevant aspects on a sectoral level (Knill, Heichel, and Arndt 2012), an empirical database of targets and objectives encompassing the entire EU electricity sector was not available yet. Consequently, it was one of the challenges of this thesis to produce such an empirical database, through document research, covering all 300 pieces of binding EU legislation in the Energy and Environment directories of Eur-Lex, from 1986 to 2018.

Next, I structured the identified targets and objectives based on the following eleven dimensions: (1) the binding obligations/targets in a short résumé; (2) quantifiable/not quantifiable; (3) the pillar; (4) the category; (5) the exact provisions, quotes from legislation; (6) the importance, added in order to differentiate the importance of regulations, ranked from 1 to 4, with 4 being the highest; (7) the full title of the legislation; (8) the link to that legislation; (9) the stage of the legislation, meaning the energy package including that legislation; (10) the year when the legislation was published; (11) is the legislation still in force and, if not, which legislation repealed it. I also created a dynamic legislative map, to ensure that no important pieces of legislation were missing. Later on, this map proved to be useful for other applications as well. To assure repeatability of results, I added a sheet in the database with all the rules used when tagging the targets and objectives.

On the other hand, it proved to be a challenge to find quantifiable factors against which the empirical legislative database could be compared. While I did not find much useful data on the legislative side, the relevant literature suggests potential drivers to be tested within the boundaries of this thesis. To this end, I decided to take a two-step approach in order to find driving factors. In the first step, I consider a number of potential factors as proposed by the main theoretical views adopted here, largely pertaining to the classical energy dilemma and historical institutionalism.

This approach, however, may produce factors with incomparable units of measure, such as customer minutes lost per year of electricity and solid fuels / natural gas dependency, which need to be aggregated. To address this issue, I start from studies in the field of security of energy supply (Yao and Chang 2014), creating a scoring scale for data, which is then converted into ordinal values (one to ten). If this process is perhaps laborious and strictly mathematical, it ensures objectivity and repeatability. The long tables are presented to the reader in radar charts, to provide a clear visual image of the variables compared. In the second step, the research focuses on the environmental aspect by employing relevant research and literature surveys to find potential driving factors as a basis for comparison with my legislative database.

1.6. Outline of the dissertation

This thesis consists of five chapters, followed by a bibliography and annexes. Apart from the introduction and the concluding chapter, the main body comprises three articles on the EU electricity policy which have been published or submitted to scientific journals:

- *EU electricity policy (im)balance: A quantitative analysis of policy priorities since 1986;* (Bostan 2021a)
- *EU electricity policymakers' (in)sensitivity to external factors: a multi-decade quantitative analysis* and (Bostan 2021b)
- *Potential drivers of environmental policy in the electricity field: a quantitative testing of Environmental Policy Literature.* (Bostan, 2022, under review)

Chapter two, the first published article, builds the empirical database and argues that EU energy legislation is imbalanced. Although environmental concerns rank first among EU electricity policy priorities, since 2003, the creation of an internal market has started to challenge environment as the top priority. Furthermore, internal market policies tend to have a higher trend of adoption than environment. Security of supply is at the bottom of EU policymakers' attention. The EU energy policy is becoming more intricate, but not more revolutionary. Meaningful policy changes occur at a stagnating yearly rate, despite the increasing power of the EU institutions.

Chapter three, the second published article, argues that environment legislation is rather indifferent to the pressure of external factors, and this is in contrast with other energy pillars, for which it is actually possible to establish strong correlations between external factors and legislative output. Possible explanations here pertain to incorrect policy calibration or internal factors, originating in the rational choice realm. This research is one of the first to introduce comparative assessments in the Environmental Policy Integration discussion and employs in novel ways research methods for energy policy analysis as it emerged in the field of energy security policies.

Chapter four, the third article (submitted for publication), endeavours to identify the main drivers of EU environmental policy in the electricity field. Additionally, my argument is aimed at establishing on which side of the balance the policy dynamics of environmental policy inclines: on the side of neofunctionalism or on that of punctuated equilibrium? This empirical study shows that organisational aspects and characteristics of the problem (defined as framing of the problem) seem to influence the legislative output most. To a lesser degree, political factors, specifically the European Parliament elections, may also contribute to altering environmental policies. The examination of the theoretical approaches exhibited strong signals that neofunctionalism is a major source of evolution.

Chapter five presents the conclusions of thesis, including its response to the main research question, its empirical contribution, its theoretical additions and how its findings impact existing scholarly debates. The chapter proposes several policy recommendations, discusses

the limitations of the thesis and looks ahead at the future research agenda. Finally, I provide some reflections on the current energy developments in the light of the thesis' findings.

The annexes are roughly divided into two major parts. First, there is an appendix of supplementary materials valid for the entire thesis, including the empirical database, the related legend and charts and a legislative map. Secondly, there are appendixes by chapters, encompassing additional charts, tables for scoring scale of data and technical notes.

The main argument of this study is that a better understanding of policy drivers will be helpful to policymakers, scholars in academia and advocacy professionals alike. For policymakers, more specifically, this study may help to measure the adoption rate of pioneering legislation and to gain a better general insight into which policy goals are under- or over-represented. This, in effect, will support a better calibration of electricity policy. For those in academia, understanding policy drivers will reveal the ways in which indicators or policy domains need to be better studied or developed. Finally, for advocacy professionals, it is crucial to know what gets the policymakers' attention; such knowledge, after all, is an indispensable tool for influencing policy.



Chapter 2

EU electricity policy (im)balance:
a quantitative analysis of policy
priorities since 1986



2.1. Introduction to EU electricity policy (im)balance

On any given work day, the Official Journal of the European Union publishes at least one piece of legislation related to energy. Merely summing up the titles of binding rules will cover more than 30 pages in the nuclear field alone. Using the World Energy Council (World Energy Council 2020) framework of a classical energy trilemma between the competing energy priorities of affordability, security of supply and environmental sustainability, this chapter aims to shed light on the existence or absence of such balance in the European energy policy.

There are several attempts to analyse this equilibrium between policy priorities, but comprehensive, decades-long, quantitative studies are missing. In a strategy paper for the French government, the offset between electricity prices and environment measures is studied, arguing that the electricity sector is in crisis, aggravated by an electricity generation oversupply (Auverlo et al. 2014). A long-term analysis of the legislative output in the EU energy sector, probing for policy patterns, concludes that neither incremental progress nor punctuated equilibrium satisfactorily explains the patterns of EU policymaking, stopping short of giving a verdict on policy balance (Benson and Russel 2015). In another article, the balance between climate change and the internal energy market policies is investigated, and the conclusion is that both will fail, unless refocused (Helm 2014).

This chapter intends to solve this puzzle of assessing the balance between European energy priorities in two steps. The first step is to quantify all legally-binding legislation (a policy density perspective), followed by all policy instruments such as targets and objectives (a policy intensity perspective) and, in a novel approach, to value those targets and objectives according to a self-developed taxonomy (a policy importance perspective). The quantification is conducted at two levels: pillars (energy priorities defined according to the classical energy trilemma) and categories (a more refined classification of priorities). The second step is to assess the balance of energy priorities through all three perspectives (density, intensity and importance), but also to recognize patterns in EU policymaking and identifying gaps in EU policy. If the empirical database created, including about 8,000 data points, allows many more applications, this chapter focuses on assessing the EU energy policy (im)balance and on recognizing policy patterns.

The question addressed by this chapter is to quantitatively determine if the European electricity policy is in the balance suggested by the classical energy trilemma framework. Assessing the policy (im)balance is useful, as it allows us to identify policy gaps and to explain the roots of tensions with major stakeholders, such as member states. This chapter also aims to give quantitative arguments in the centralization versus liberalisation debate, noting the inclusion of “internal energy market” as the fourth energy priority.

The chapter is divided into seven parts: an introduction and a background, followed by a presentation of the analytical framework employed, including the methodology. The empirical results are separated into the three developed policy perspectives: policy density, policy intensity and policy importance, each displaying their own findings. Finally, the discussion and the conclusions respond to the questions addressed by the study: proposing

a ranking of EU ambitions, assessing their balance, or lack thereof, and discussing the evolution of those priorities.

2.2. A stock-taking exercise on the current debate on energy priorities in Europe

While energy and politics are generally intertwined at the global level, in the case of the EU liberal market thinking served as the main guide for decades (Talus 2017). Liberalisation and EU energy market integration came hand in hand, in consecutive energy reforms (KU Leuven Energy Institute 2015). Hence, different strands of literature are trying to reconcile major policy priorities, such as security of supply, environment or affordability, with the EU energy market liberalisation, in multiple, fragmented debates. However, a comprehensive analysis of how the EU priorities have evolved over time is missing.

The security of supply – liberalisation debate is impeded by the vague notion of security of supply (Chester 2010; Ang, Choong, and Ng 2015). Nevertheless, some authors note that EU energy security was often used as justification for further market integration (Judge and Maltby 2017; Huhta 2020). A lively debate resulted from the introduction of capacity mechanisms (Eurelectric 2016) and their compatibility with the internal market (Hawker, Bell, and Gill 2017; Brunekreeft and Meyer 2019; Özdemir et al. 2020).

The affordability – liberalisation debate became more prevalent since the establishment of the Energy Poverty Taskforce and the European Energy Poverty Observatory in 2016. The debate suffered as well from unclear definitions of concepts (Deller 2018; Thomson, Snell, and Liddell 2016) and an early study found that liberalisation did not equate to affordability, at least for the most vulnerable consumers (Poggi and Florio 2010).

The environment – liberalisation debate is well-known and goes at the heart of the liberalisation argument. The main critique is that too high environmental externalities would occur in the energy generation and distribution chain (Hammond and Jones 2011). In the EU energy sector, it is argued that not enough climate policy integration is employed to reach long-term climate policy objectives (Dupont and Oberthür 2012).

There is a decades-long discussion over the merits of liberalisation in the energy sector. On one hand, some authors note that lack of competition due to inevitable natural monopolies in generation, and distribution and the widespread lack of information for actors on this particular market would unavoidably create energy market failures (Goldthau 2012; Greening and Jefferson 2013; Foley and Lönnroth 1981; Aalto 2014). The 2001 California shortage of electricity supply is portrayed as another example of market failures (Wen and David 2001).

On the other hand, European energy liberalisation is praised, mainly owing to providing cost reductions and price finding. Looking at the changes to electricity markets due to liberalization, Joskow concludes that liberalization brought significant costs reduction without compromising quality of service. The primary problem is if the regulators can resist to group pressures (Joskow 2008). Pollitt discusses the energy policy liberalization since

the 1980s, looking at several aspects of the market, including electricity, climate policies, coal subsidies and their effects, concluding that it had positive, but limited effects (Pollitt 2012). Using an innovative measure of electricity price, the EU annual average real price, an analysis focusing on the legal developments for power utilities finds that the early effects of liberalization are reduced electricity prices (Jamashb and Pollitt 2005).

Similarly, investigating the relationship between investment and regulatory regimes, from the perspective of electric and gas utilities in several EU member states, over 1997-2007 decade, a study finds that private ownership provides higher investment rates (Cambini and Rondi 2010). For example, in the UK, the energy market privatization in the 1990s provided increased net efficiency gains, doubled labour productivity, increased government revenues (sales and taxes) and offered better prices for consumers (Domah and Pollitt 2001). Finally, the liberalized energy market policy is shown to achieve some success particularly for the new EU member states, on costs reduction and competition (McGowan 2008).

In terms of energy policies mapping, Kanellakis, Martinopoulos, and Zachariadis record diligently the existing regulatory landscape, creating categories for various electricity market parameters (Kanellakis, Martinopoulos, and Zachariadis 2013). Their article is a benchmark against which this chapter's empirical analysis may be compared. However, while their stock-taking exercise is extensive, the research is not aiming specifically at quantifiable targets, as this chapter intends. Another comprehensive analysis of EU electricity policies was compiled by Ignacio Pérez-Arriaga (Pérez-Arriaga 2014), the editor of the *Regulation of the Power Sector* book. The book methodically describes the evolution of the electricity market design, explaining the motivation for each design adjustment. However, the book is intended as a manual and it does not provide a legislative analysis, but rather a historical outlook and a regulator's perspective.

The political science scholarly literature discussing the merits of liberalisation is developed and rich, but fragmented. While there is ample research on various approaches to normative policy design and policy priorities, there is relatively little on their mapping, evolution, balance or patterns, presented in a detailed, comprehensive and quantifiable analysis. This chapter aims to fill those gaps by offering an all-inclusive and quantifiable measurement of the degree of attention given by European policymakers to the competing energy policy priorities, using a novel methodological analysis (policy importance). Such measurement is then applied to find policy imbalances and explore what those imbalances would mean for the current policy debate and the crisis that some authors mention (Helm 2014), if current policies continue without balancing.

2.3. Developing an analytical framework for measuring the EU policy outcomes

Filling the existing gap is achieved by analysing the objectives and targets of the EU electricity policy since 1986, when the Single European Act was adopted (Council of the European Communities 1986). This document expanded significantly the powers of European institutions and gave a timetable for the creation of the internal market, one of energy pillars analysed. The objectives and targets are then classified at two levels: pillars,

according to the classical energy trilemma, and categories, a more refined classification of priorities.

The first level of the analysis, the classical energy trilemma, was proposed by the World Energy Council and means: energy *security*, e.g. no power cuts; *environmental* impact mitigation, e.g. decarbonisation and air quality; and social equity or *affordability*, i.e. accessibility and affordability of electricity across the population (World Energy Council 2020). The advantage of this classification is that it acknowledges that achieving the three goals simultaneously is often a delicate balancing act, sometimes a zero-sum game. Those priorities were encoded as pillars: affordability, security of supply and environment; to which internal market was added due to the significant European importance. The balancing act is given by the fact that pursuing an energy pillar often, but not always, means trade-offs with the other pillars (World Energy Council and OLIVER WYMAN 2015); for example, environmental sustainability may be at odds with affordability, or affordability with security of energy supply.

The second level of the analysis is a detailed cataloguing of priorities, based on Kanellakis, Martinopoulos and Zachariadis's proposal (Kanellakis, Martinopoulos, and Zachariadis 2013). While the energy trilemma implies competing priorities, this cataloguing recommends a cooperative arrangement, where different energy priorities are defined by their field, not purpose. Hence, a new catalogue was created, with eight categories: renewable energy; energy efficiency and savings; internal energy market; security of energy supply; environmental protection; nuclear energy; nuclear research; and research and development.

Besides categorizing the policy priorities, different perspectives for policy analysis required examination. One theoretical strand looks at policy outcome, searching if the policy adopted solved the problem that was supposed to solve (Bondarouk and Mastenbroek 2018; Tosun 2012). This analytical framework contrasts with policy output, which looks at policies taken in response to a societal problem at the point of adoption. The critique of a policy outcome approach is that the policy effect is hard to isolate; for example, there could be implementation or adoption problems in member states, as some authors suggest (Knill and Duncan 2007).

In the vein of the policy output perspective, two methods are proposed: *policy density*, which is the number of policies put in place to reach a policy goal, and *policy intensity*, which focuses on the content of the policy instruments (Bauer and Knill 2014; Knill, Schulze, and Tosun 2012; Schaffrin, Sewerin, and Seubert 2015; Bondarouk and Mastenbroek 2018). For our comprehensive research purposes, the policy density and policy intensity analysis fit best, as they unearth a large volume of pieces of legislation and targets, which allow measurement of the most impactful legislation and years, evolution in time, trends and ranking of policy priorities.

However, policy density and policy intensity perspectives have the drawback that major, binding targets are on the same scale as an obligation to send a report, for example. The toolbox provided by policy density and policy intensity analysis does not differentiate between those targets. To eliminate this limitation, a novel, third perspective, *policy*

importance, was created by grading each target and objective, according to own criteria. This way, the indiscriminate measurement of targets is eliminated and ground-breaking targets differentiate from lesser ones, allowing a finer view of policy targets.

To test the precision of our three perspectives, each chronological display of pillars and categories was juxtaposed, for each perspective, against the adoption year of the energy packages. This trial measures how well the new perspective fares compared with the traditional policy density and policy intensity. Energy packages are legislative cycles starting when the European institutions are adopting major reforms. As an energy package has a cycle of about six-seven years and new major proposals from the Commission for the energy market design were adopted in November 2016, it was considered, for testing, as a new energy package.

2.3.1. Methodology

In order to measure the policy density, policy intensity and policy importance of the European Union's electricity policy a database was created, quantifying each individual target and objective of EU binding legislation in the electricity sector. The electricity sector pertains to electricity-related pieces of legislation only, eliminating for example the legislation referring to vehicle or maritime fuel. Binding refers to the EU documents with legal effects: Regulations, Directives and Decisions. Regulations are binding legal acts, with detailed provisions. Directives set objectives that member states have to achieve by devising their own laws. Decisions are also binding legal acts, with a deadline to comply with, but applicable only to whom they are addressed (European Union 2017). Delegated acts or regulatory technical standards are not included. While they are binding, they do not provide targets or objectives and would clog the study.

The empirical data collection starts from 1986, taken as a starting point for European markets by much of the literature (Black 2013; KU Leuven Energy Institute 2015), and continues until 2018. The identified target/objective was coded along 11 dimensions: (1) the binding obligations/targets in a short résumé; (2) quantifiable/not quantifiable; (3) the pillar; (4) the category; (5) the exact provisions, quotes from legislation; (6) the importance, added in order to differentiate the importance of regulations, ranked from 1 to 4, with 4 being the highest; (7) the full title of the legislation; (8) the link to that legislation; (9) the stage of the legislation, meaning the energy package including that legislation; (10) the year when the legislation was published; (11) if still in force or by which legislation was repealed.

The empirical research led to about 300 pieces of binding EU legislation in the electricity sector, reuniting around 700 obligations/targets in about 30 years of data, and over 8,000 tags. The own cataloguing system gave an *importance* number, one to four, to each legislation, target and objective, according to a predefined rulebook, as below:

- 1 = small: project with budget under 20 million EUR/year; minor development (such as updating the list of projects of common interest or establishing an experts' group); foreign affairs (such as treaties on collaboration with other countries);

- 2 = increasing: project with budget under 50 million EUR/year; member states to inform Commission; guidelines (Commission empowered to draft delegated acts); Commission reporting (to the Parliament and to Council); medium development (such as obligation of member states to form independent gas/ electricity authorities);
- 3 = significant: project with budget under 100 million EUR/year; targets given/diluted (legislation setting up, increasing or reducing quantifiable targets for member states to achieve, for example GHGs reduction); expansion of (Commission's) duties; new EU programme established; important development (such as member states obliged to set up GHGs national inventory systems or establishing a European programme on environment);
- 4 = large: project with budget over 100 million EUR/year; major expansion of (Commission's) duties; major development (such as unbundling of electricity and gas companies or common rules for the electricity market); new EU body (or scheme) established.

The EU energy policy balance is investigated in gradual steps, through the pillars of the classical energy trilemma (affordability, environment, security of supply; internal market) and through separate categories (renewable energy; energy efficiency and savings; internal energy market; security of energy supply; environmental protection; nuclear energy; nuclear research; and research and development) through the lenses of three perspectives (policy density; policy intensity and policy importance). This matrix with six cells (pillars/ categories on one axis; policy density, intensity and importance on the other axis) is investigated for each result in the sections below.

2.4. Policy density

There are 291 binding pieces of legislation in the electricity field from 1986 to 2018 published in the Official Journal of the European Union. Displayed chronologically, they show ebbs and flows, but clearly exhibiting an increasing trend. The 2001-2010 decade seemed particularly fruitful in terms of adopted legislation. In general, more pieces of legislation are adopted each year by EU policymakers. However, policy density seems to miss the appearance of energy packages. Those two observations condense the advantages and drawbacks of the density analysis: showing trends, but missing qualitative developments.

In terms of number of pieces of legislation, the investigation shows a strong dominance of the “environmental” pillar. Almost half of the EU electricity legislation is having environment as the main objective (e.g., Council Regulation 1210/90 on the establishment of the European Environment Agency; Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading). “Affordability” and “internal market” pillars follow with about equal shares, roughly a quarter (e.g., 94/799/Euratom: Council Decision adopting a specific programme of research and training in the field of controlled thermonuclear fusion; Directive 96/92/EC concerning common rules for the internal market in electricity). Finally, only a few pieces of legislation are dedicated to “security of supply” (e.g., 97/7/EC: Council

Decision repealing Directive 75/339/EEC obliging the Member States to maintain minimum stocks of fossil fuel at thermal power stations; Regulation 1407/2002 on State aid to the coal industry).

If each policy priority is followed, on an individual progression (Figure 1), the results show no obvious domineering policy priority. With the exemption of “security of supply”, all other policy priorities have years when they are on top. In 2001 and 2013, “environment” reaches unprecedented highs, which hints at important pieces of legislation published in those years (e.g., Directive 2001/81/EC on national emission ceilings for certain atmospheric pollutants; Regulation (EU) No 525/2013 on a mechanism for monitoring and reporting greenhouse gas emissions). However, regarding trends, “environment” is the only one seeing an increasing tendency, while “internal market” and “affordability” are rather flat. Notably, there is a distinct declining trend for “security of supply”.

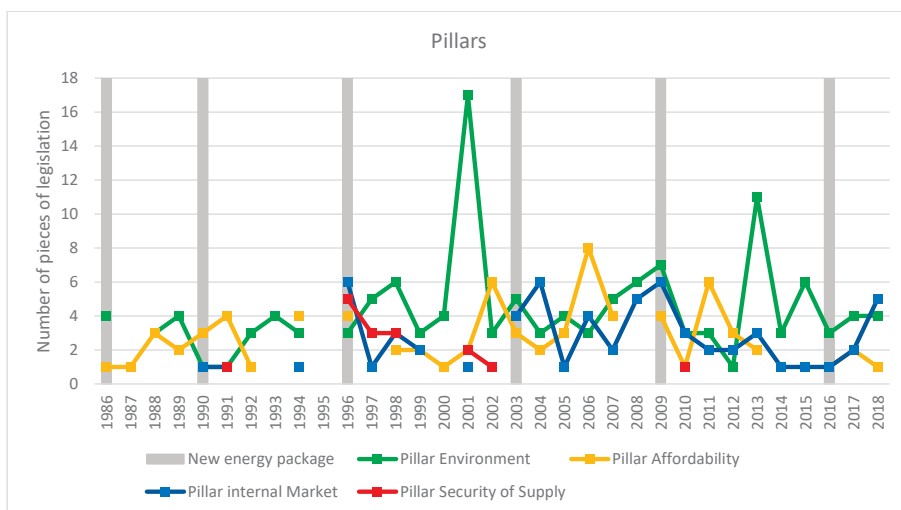


Figure 1. Pillars – policy density – chronological, energy packages
Source: author’s elaboration

2.4.1. Categories

Looking at the data from the categories’ perspective, there is a constant presence of “environmental protection” and “nuclear research” categories in almost all years. “Nuclear energy” gets constant attention since 2002, while “energy efficiency and savings” picks up pace since 2004. “Research and development” flare up only every couple of years, the same as “renewable energy”.

If categories are plotted in a chronological graph (Figure 2), a large spike is observed in 2001 (e.g., Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants; Directive 2001/81/EC on national emission ceilings), followed

by a clear dominance of “environmental protection” legislation after 2013 (largely due to the development of the EU emissions trading system legislation).

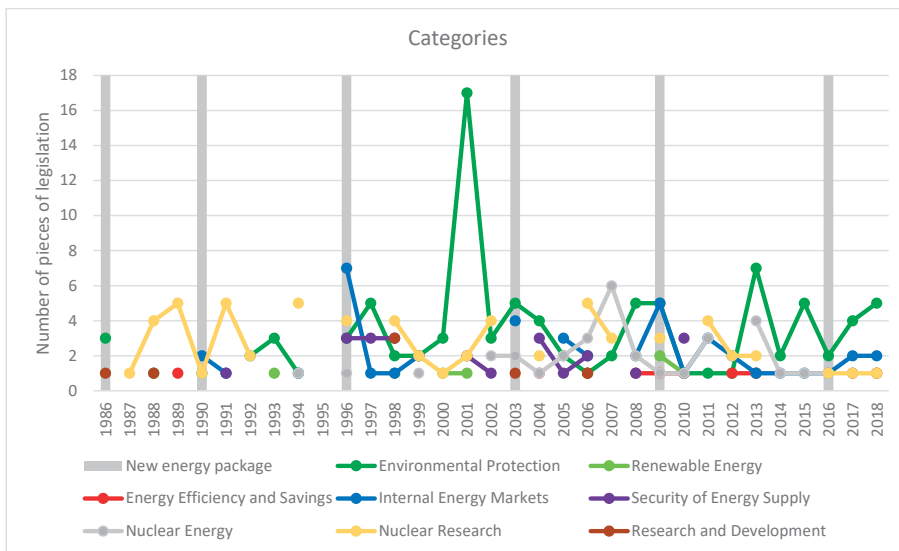


Figure 2. Categories – policy density – chronological, energy packages
Source: author’s elaboration

In terms of percentage of total adopted legislation, out of the eight categories, “environmental protection” makes a third, followed by “nuclear research” with about a quarter of all legislation. The two categories together represent more than half of all European electricity legislation. “Nuclear research” and “nuclear energy” add up to 36%, meaning that more than a third of the legislation is dedicated to the nuclear sector.

2.1.2. Policy density perspective – conclusions

Putting all the observations above together, firstly, more legislation is adopted on annual basis. Nevertheless, rarely more than four-five pieces of legislation of the same classification are adopted in a year. Secondly, we find a clear ranking of energy priorities, identified by both our classification methods. Topping the rank of EU policymakers’ attention is “environmental protection”, followed by “internal energy market” with “security of supply” having least attention. “Nuclear energy” and “nuclear research” together have more than a third of all pieces of legislation, dwarfing “renewable energy” as the other named energy source.

In terms of consistency, with the noticeable exception of 2001, when environmental legislation skyrockets (due to several pieces of legislation tackling air pollution, such as Directive 2001/81/EC on national emission ceilings for certain atmospheric pollutants), there is a remarkable steadiness of legislation adopted by the European institutions, with rarely more than 4-5 pieces of legislation of the same kind in a year.

On individual policy priorities, “environment” has a dedicated piece of legislation almost every year, for more than three decades. “Internal energy market” has also consistent attention from policymakers, particularly after 2003. Other policy priorities come as a group, with two-three years of intense effort on a particular policy, such as “nuclear research”, followed by a break. This leads to the conclusion that it is not the number of pieces of legislation that makes an energy package, but the importance of provisions in it.

However, while policy density offers some important glimpses into the EU policymakers’ attention towards various energy priorities, classification of an entire piece of legislation as one policy priority hides provisions with a different intent. Policy density is a rather raw way to analyse policy priorities. Consequently, a more in-depth examination is needed for definite results.

2.5. Policy intensity

Building on previous data, the investigation turns towards policy *intensity* analysis, which looks at the content of legislation. This perspective is more complex and more challenging, as each target and objective had to be labelled. If in the previous section analysis there were 291 pieces of legislation to quantify and display, this section classifies 685 targets and objectives.

Taking a step back and looking at trends for all policy targets and objectives, there is an undoubtable increasing trend. There are several cyclical yearly spikes, an indication of legislation adoption in waves. Additionally, the precision of the policy method is verified by its power to identify energy packages. This test is performed by juxtaposing the adoption year of an energy package over the chronological evolution of the policy targets and objectives. While some energy packages are correctly guessed, there is not enough precision to make correct measurements. Nevertheless, the method reveals some useful insights.

From a pillars’ perspective, “environment” and “internal market” are dominating the policy priorities, but while “environment” is adopted in almost every year, “internal market” is significantly more present since 2003. “Affordability” is also a constant presence, but less than “environment” and almost disappearing since 2014. “Security of supply” pillar has an irregular presence, with no clear pattern. In terms of percentual number of targets and objectives, “environment” and “internal market” make more than two thirds of all EU electricity-binding legislation. “Affordability” is half the numbers of “environment”, while “security of supply” is in last place, with only 6% of all legislation.

If each pillar’s progression is examined (Figure 3), “environment” and “internal market” pick up policymakers’ interest significantly after 2001 and, excepting a few years, alternate at the top of energy priorities. “Security of supply” is clearly at the bottom of policymakers’ attention with the least number of targets and objectives. Looking at trends, both “environment” and “internal market” have increasing trends, with the latter actually overcoming “environment” in recent years. Pillar “affordability” is slowly increasing in targets and objectives (e.g. Decision No 647/2000/EC for the promotion of energy efficiency – SAVE II, offering larger

funding than SAVE I), while “security of supply” is rather stable, with a low base (e.g. Council Regulation 1407/2002 on State aid to the coal industry has provisions where state aid to the coal industry may be considered compatible with the proper functioning of the common market, under certain conditions; Regulation 994/2010 states that gas transmission system operators need to find bi-directional cross-border solutions).

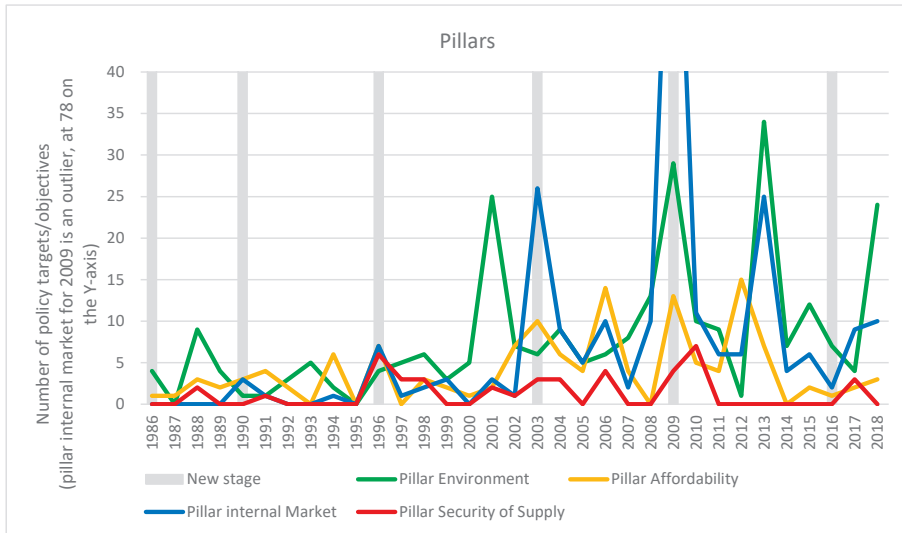


Figure 3. Pillars – policy intensity – chronological, energy package, trends
Source: author’s elaboration

2.5.1. Categories

The categories classification of energy targets and objectives shows constant attention to “environment”, with targets and objectives adopted almost every year. “Internal energy market” progresses in ebbs and flows, but gets significant attention after 2003. Other categories have a cyclical development, with two-three years of intense effort, followed by a break of several years.

Looking at the percentual number of EU electricity-binding legislation, there is a distinct ranking of energy priorities. The top spot is taken by “internal market” with almost a third of all targets and objectives. This is closely followed by “environmental protection” with about a quarter, while third place is “security of supply” with half the targets of “environment”. However, if the two categories of nuclear are taken together, “nuclear energy” and “nuclear research”, they would place jointly on the third place. At the bottom of policymakers’ attention is “renewable energy” and “research and development”.

Analysing the chronological evolution of categories, “internal market” and “environment” are ranking at the top of attention of policymakers. “Environment” seems to receive more consideration since 2015. “Security of supply” shows clearly a cyclicity in energy policy

attention, with many targets adopted in 1996, 2003, 2010, 2013 and 2017. Trends are difficult to analyse as data is too sparse, making it impossible to determine what direction policy priorities are taking from a categories' perspective.

Finally, by juxtaposing the adoption year of an energy package over the chronological display of categories' evolution, the policy intensity analytical method could be investigated if it is a precise enough toolbox to determine what literature recognizes as energy packages. The findings show that while some adoption years of energy packages can be seen, there is no consistent identification. Nevertheless, it is worth noting that the more complex the analysis, the closer is the match to identify energy packages. For example, the most complex toolbox so far, policy intensity and categories, correctly notices a bump in "internal market" targets and objectives in four out of six energy packages adoption years.

2.5.2. Policy intensity perspective - conclusions

In conclusion, the empirical results from a policy intensity perspective analysis are ambiguous over the ranking of policy priorities. While from the perspective of the classical energy trilemma, "environment" tops the ranking of priorities, from the perspective of categories, the "internal market" is the dominant priority. It could be argued that "renewable energy" category is belonging to the environmental field, which would change the standing of priorities, however, "renewable energy" could also support energy independence. Therefore, "internal market" is crowned as the most pursued policy of this analysis perspective.

The results also show an increasing trend of targets and objectives added each year. On average, a piece of legislation from 2018 has more targets and objectives than one from 1990, for example. Looking at individual policy priorities from the energy trilemma perspective, it is worth noting that there is a trend for the "internal market" to overtake "environment" as the main energy policy priority in the European Union. Particularly from 2003, there is concerted effort from policymakers towards building the internal market. Furthermore, policy priorities appear in cycles, with two-three years of intense effort, followed by a break of several years. This is valid for most of policy priorities, except "environment", which receives persistent attention. EU policymakers adopt every year new or updated targets and objectives in the field of environment.

Finally, intensity policy analysis is insufficiently precise to detect energy packages. However, a pattern is found, indicating that the more precise is the classification and analysis adopted, the more energy packages become clearer to detect. The analysis points to the fact that further precision, more accurate instruments, would be able to offer better insight in determining the ranking of EU energy policies. Therefore, the next section follows up with the policy importance analytical framework.

2.6. Policy importance

Finally, a third layer of analysis is added, as an original policy perspective: policy importance. While various pieces of legislation have targets and objectives, not all are equal in importance. Some targets are impactful, such as setting new pollutant limits, creating new

European agencies or splitting monopolies, while others present only the obligation of the European Commission to report the implementation of a policy to the European Parliament and to European Council, for example. Employing only the two perspectives displayed above, results would be skewed in favour of volume and not on impact. Therefore, a new taxonomy of EU energy policy targets and objectives was created, according to a self-developed system, detailed in the methodology chapter. This third viewpoint benefits from the policy intensity perspective, adding a grade according to importance to each target and objective of every piece of legislation within our defined scope.

Regarding tendencies (Figure 4), there is an increasing trend in importance of legislation on an annual basis, but a flat trend for the importance of objectives and targets. Importance of legislation means all objectives and targets multiplied by their points divided by the number of pieces of legislation in that year. Importance of objectives means average importance of objectives and targets in a year. This outcome shows that the EU energy policymaking is producing pioneering provisions at a stable rate, an almost flat curve. While each piece of legislation is becoming more intricate, with more objectives and targets per piece of legislation, this does not reflect in the average importance of those objectives and targets. Most of them are only low importance, meaning that the legislation is unnecessarily complicated.

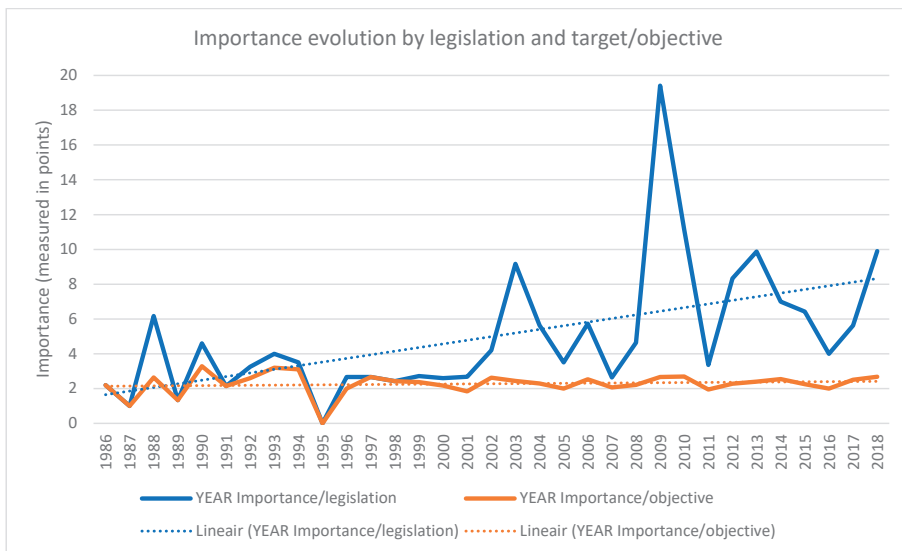


Figure 4. Policy importance – overall trends
Source: author's elaboration

The outcome of the empirical research from an energy trilemma perspective largely follows the previous analyses: a skyrocketing policy ambition in 2009, bumps in 1996, 2003 and 2013; and ebbs and flows in energy policy adoption, but with an increasing general trend.

These results are condensing what could be the most accurate display to the question of the degree of ambition of the energy policy of the European Union.

Examining the points percentage for each pillar, pillar “environment” ranks first, followed closely by “internal market”, then “affordability” and “security of supply”. This ranking is consistent with earlier findings. In a chronological display of pillars (Figure 5), “environment” and “internal market” are alternating, both topping the policymakers’ attention in most years. “Affordability” and then “security of supply” policy priorities follow far behind.

Looking at trends, “environment” and “internal market” have almost identical increase rates, a clear competition between the two for the top spot of EU energy policy attention. “Affordability” is ranked third, with a moderate increase rate. Finally, “security of supply” trend rate seems flattened, with no increase. Furthermore, this is visibly an increasingly accurate identification of the start date of energy packages, as the figure shows, even without having the points stacked.

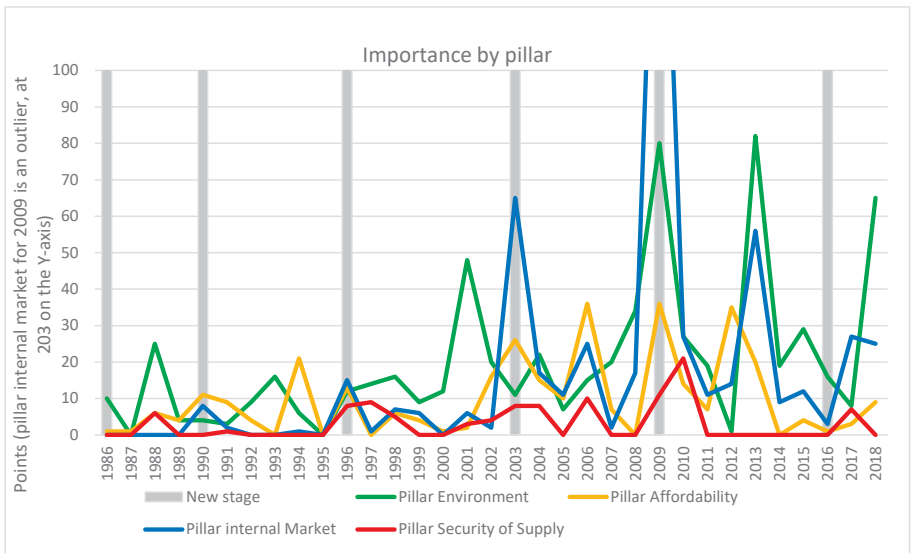


Figure 5. Pillars – policy importance – chronological, energy packages
 Source: author’s elaboration

Finally, making a comparison between pillars from the perspective of the highest graded targets and objectives (three and four-graded policy objectives and targets), “environment” policy priority has the most ground-breaking, major targets and objectives. However, for the second place, “affordability” is not far from “internal market”, showing that while “internal market” has numerous targets and objectives, they are not as important as their number would imply. “Affordability” punches higher than the number of targets and objectives tagged as such.

2.6.1. Categories

If the categories' classification is employed, there is a constant, yearly attention to "environmental protection". "Internal energy market", particularly after 2003, receives persistent attention as well, with some years even booming, such as 2009 and 2013. Other categories are less popular and their presence is not on a yearly basis, but more as cycles of two-three years followed by an interruption of a couple of years, such as "security of energy supply" or "nuclear research".

Looking at percentual numbers, "internal energy market" has about a third of all points, followed by "environmental protection" and, third, "security of supply". Additionally, as in the pillars' section, a comparison is made between pillars from the perspective of the highest graded targets and objectives. "Environmental protection" tops the rank by far, followed by "internal energy market" and "security of supply" on the third place.

On a chronological basis, the prominent categories are "environmental protection" and "internal energy market", flashing on top of the energy policy ranking. After 2009, "environmental protection" seems to lead the ranking, with policymakers giving the most attention to this policy priority. As a notable exception, "security of supply" category leads in 2010 and 2017. To test the precision of the policy importance perspective, energy packages adoption year are juxtaposed with the chronological display of categories by the policy importance analysis framework. The results show an accurate tracking of the energy package adoption, which proves the value of policy importance as a toolbox to identify ground-breaking energy developments in the EU energy policy field.

2.6.2. Policy importance perspective – conclusions

In conclusion, the empirical research displayed an increasing trend on an annual basis in importance of legislation, but a flat trend for the importance of objectives and targets. Many of the new objectives and targets have low importance and could be eliminated without affecting the policy steering. For example, the Regulation 714/2009 on conditions for access to the network for cross-border exchanges in electricity has no less than 33 targets and objectives. Regulation 715/2009 on conditions for access to the natural gas transmission networks has 24 targets and objectives.

The policy importance analysis shows "environment" and "internal market" as the main energy policy priorities of EU policymakers, followed, far behind, by "affordability" and "security of supply". Both the former policy priorities are tied in trends and receive continuous, annual attention from policymakers through new adopted targets and objectives. While "internal market" tends to dominate in volume, meaning number of points, "environment" received higher attention in recent years, after 2013. Therefore, delving into the trailblazing targets and objectives, those graded highest in our methodology, "environment" appears as the most pursued policy. Most ground-breaking provisions are in the field of environment (for example, creating an auctioning of allowances system for the reduction of GHGs; introducing guarantees of origin for renewable energy supply; the decision to sign the Paris Agreement), adding the most changes to the EU energy landscape.

A clear comparison between “affordability” and “security of supply” cannot be made, as they do not have an equivalent in both pillars and categories. From a pillars’ perspective, “affordability” leads and “security of supply” takes the last place.

Finally, the policy importance toolbox proved remarkably accurate in detecting energy packages, all adopting years being in areas with high targets and objectives’ importance. From both pillars and categories’ standpoint, the highs correspond with an increase in “internal market” energy policy importance, meaning that energy packages are, in effect, major expansions of the “internal market” ambitions.

2.7. Discussion

The market liberal thinking dominated EU policymaking for decades (Talus 2017); nevertheless, many scholars argue that the environmental energy ambitions of the European Union are incompatible with this school of thought (Hammond and Jones 2011; Aalto 2014; Helm 2014). We find that EU policymakers are in situation with little room for manoeuvre, environment being already at the top of the agenda.

The outcome of the research showed that, from a policy importance perspective, environment and internal energy market are the main policy priorities for EU policymakers, supporting Helm’s (Helm 2014) claims that the current EU energy design is based on the, presumably incompatible, internal energy market and the climate change package. Helm considers that this design is not tenable, and internal market must prevail. The findings seen so far (until 2018) show that internal market policies tend to have a higher trend of adoption than environment. In other words, the EU policymakers were choosing internal market over stronger environment measures, at least until 2018, heeding Helm’s advice. This finding responds to several authors wondering about the direction of the EU policies (Szulecki and Westphal 2014; Dupont and Oberthür 2012).

This research did not find arguments to support market failures due to the intrinsic characteristics of the energy sector, as theorized by some authors (Foley and Lönnroth 1981; Goldthau 2012; Greening and Jefferson 2013). The decades-long accelerating development of the internal market did not create additional market problems such as market failures or increasing market share of the largest generator in the electricity market (Eurostat 2021b). However, there is support resulting from this research for authors arguing that the energy sector has high externalities and internal market might be unable to solve them (Hammond and Jones 2011). The argument for this conclusion is that despite numerous and major targets and objectives in the internal market domain, the environment priority needed hefty attention from policymakers to respond to the problems in that domain.

Substantial support is found by the results of this research for the supporters of liberalisation (Domah and Pollitt 2001; Joskow 2008; McGowan 2008; Cambini and Rondi 2010; Pollitt 2012). Despite rather little attention towards affordability measures, the development of the internal market allowed major funding programs (e.g., the support for renewable energy sources, nuclear research) and higher prices for pollution (the EU Emissions Trading

System, the National Emissions Ceiling Directive, the Industrial Emissions Directive), without an explosion in electricity prices.

2.8. Conclusions

The research question addressed if there is an imbalance in EU electricity policies, what are its effects and how it reflects on the general discussion on liberalisation. The results of this investigation suggest that an imbalance indeed exists. The ranking of policy priorities, displaying a dominance of “environment” and “internal market”, and only a few “security of supply” policies, show an imbalance of the energy trilemma for the European Union. The possible solution for this conundrum would be more attention to EU security of supply and defusing in this manner potential tensions with member states. European treaties constantly reinforce European Commission’s mandate in the environment area, but ringfence the energy independence of Member States. To be clear, this does not mean that the European institutions were banned from proposing European “security of supply” legislation. This grey area could be a reason for this imbalance in the classical energy trilemma for the European Union.

Going further into the investigation, the results show that EU energy policymaking is producing pioneering legislation (importance per target/objective) at a stable rate, an almost flat line over the three decades studied. The average importance per each piece of legislation increases over time, but each legislation has also more objectives and targets. This means that pieces of legislation are more complex (with more targets and objectives), but not necessarily more radical (they provide almost the same number of pioneering provisions every year). This shows that the European institutions keep in fact a certain *couloir* of pioneering provisions. Meaningful change comes at a stagnating rate, despite increasing power for the EU institutions.

Looking at patterns through the pillars and categories classification, there are energy policies, such as “environment”, given constant attention by policymakers, with pieces of legislation or targets/objectives adopted almost every year. However, a change of pattern occurs with “internal market”, which has occasional occurrences in EU energy legislation adoption until 2003. From then on, the pattern changes and policymakers adopt every year, and in great numbers, targets and objectives on this energy priority. For example, the most important EU electricity-relevant binding pieces of legislation, totalling the most importance points per piece of legislation, are Regulation 714/2009 on conditions for access to the network for cross-border exchanges in electricity and Regulation 715/2009 on conditions for access to the natural gas transmission networks. Both are in the “internal market” domain. In the “environment” domain, the most important piece of legislation according to this article’s methodology is Directive 88/609/EEC on the limitation of emissions of certain pollutants into the air from large combustion plants.

The charts resulted from mapping the energy policy field offer visual cues for energy packages identification. The precision of the perspectives deployed in this chapter (policy density, intensity and importance) was tested thereby and proved that the policy importance

perspective was the most precise in recognising the adoption year of energy packages. Furthermore, correct identification of energy packages means that the policy importance analysis can be used to detect any future legislative package even if they are published or recognized by policymakers as a “package”.

2016 was hypothesized as the adoption year for a new energy package, but this assumption was proved wrong. This leaves the question of why there is no energy package from 2009 to 2018. This is a clear change of pattern as previous packages appeared every five-six years. There is jump in targets and objectives’ importance in 2013, which could be interpreted as an unidentified energy package.

The imbalance in the energy trilemma is clear, but why is this happening? What drives the adoption of energy policy priorities in different years, different degrees of importance, different priorities? Scholarly literature exploration gives a plethora of responses, considering numerous factors as critical: from external factors, like price of raw energy materials (Schröder et al. 2013), technology (Shilei and Yong 2009; Zhu et al. 2015; Alizadeh et al. 2016) and international relations (Taggart and Szczerbiak 2013) to internal factors, such as policy implementation and adoption or even cultural factors specific to each member state (Falkner, Hartlapp, and Treib 2007; Falkner and Treib 2008). The empirical mapping presented in this chapter allows such theories to be quantifiably checked, as there is enough body of data to act as control group and offer new insights into EU policy ambition and policymaking.



Chapter 3

EU electricity policymakers' (in) sensitivity to external factors: a multi-decade quantitative analysis



3.1. Introduction to EU electricity policymakers' (in)sensitivity

“Rage, rage against the dying of the light” the Welsh poet Dylan Thomas is urging. For an energy policymaker, keeping lights on is only one side of the energy equilibrium. Environment and affordability need to be considered as well, if the reference framework is the classical energy trilemma. The trilemma defines three main priorities of energy policy: environment, affordability and security of supply, and postulates that those policies are in a rather competitive state. However, there is little research into what drives the prioritisation of EU electricity policies.

A systematic quantitative mapping of the EU electricity policies from 1986 to 2018 (Bostan 2019) showed a large number of laws, policy instruments and newly-proposed policy importance in favour of the environmental pillar, compared with the other energy pillars. For any of those three perspectives, environment hovers around 40% of total laws, policy instruments or policy importance. But more policy attention to an energy priority would affect the others (Gunningham 2013; Auverlo et al. 2014; World Energy Council and OLIVER WYMAN 2015), all being a balancing act.

Why, then, is there a consistent dominance in the EU energy space of one energy policy priority, when we would expect to have a balanced policy? Why do some energy priorities receive far little energy attention from EU policymakers? A temporary situation determined by some particular circumstances, such as an oil crisis or an economic downturn, is not a valid explanation, as the mapping encapsulates 30 years of data, enough to eliminate any passing driving factors. Therefore, there could be some long term, structural explanation to this policy bias.

This chapter aims to find a response to the question of why environmental priorities were favoured over other energy priorities, and it postulates that sensitivity or insensitivity of policymakers to certain key external factors is a cause. There is a significant strand of literature dedicated to the question of why environmental priorities are favoured, namely the Environmental Policy Integration (EPI) debate. To recall, EPI literature looks at when and why environmental policies are successfully mainstreamed and converted into a priority in sectoral policy areas. More recently, the EPI scholarly conversation evolved to discuss the Climate Policy Integration (CPI) as well (Kettner and Kletzan-Slamanić 2020).

Furthermore, this chapter aims to examine the existing explanations, test them quantitatively where possible, compare them with other pillars for benchmarking and attempt to bring new explanations to this puzzle. Furthermore, the research includes all electricity binding legislation, creating an overarching empirical testing study of the EU environmental policy success in the electricity area. Our explanation to the conundrum is that EU policymakers have a different policy response to changes in key environmental factors than any other policy response for other electricity policy priorities. I propose testing this hypothesis by comparing changes in electricity legislation (in terms of importance of policy instruments) against selected factors (or benchmarks), over a 30-year period.

The methodology relies on the fact that a variation of a factor relevant for the electricity sector triggers a policy response, and the policy response can be measured and compared. The policy response is divided into the three pillars of the energy trilemma, plus the internal energy market. A much different policy response, in terms of importance of policy instruments, to external factors influencing environment should be expected compared with the policy response to affordability, security of supply or internal market development factors.

A conceivable reason for this sensitivity mismatch is that the EU public was rarely confronted with a major crisis (such as blackouts or high percentage of electricity cost in a household budget) in any other field than climate (in the medium to long term). This investigation into EU policymakers' sensitivity would help to predict future policy responses, by monitoring the relevant factors. This is why the first objective of the chapter is finding the relevant factors to test. Such endeavour has an inevitable grain of subjectivity, even with a thorough literature perusal in support. Nevertheless, triangulating between statistically-recognized indicators, data availability and employed factors in current research, the selection process ensures an objective draft.

A second major objective of the study is to find explanations for why environmental factors draw such particular attention from policymakers compared with other electricity priorities. The findings would contribute to understanding the theoretical bodywork under which environmental policy is designed. As such, this objective contributes directly to the EPI scholarly debate by investigating existing explanations and finding responses to the question of why EU environmental priority is so successful in gaining EU policymakers' attention. However, the research is not limited to the environmental debate, as external factors driving all electricity pillars are under analysis. The overall purpose of the chapter is to narrow down what drives the EU electricity policy by successively distilling and quantitatively testing various explanations.

The chapter is divided into eight parts: an introduction and a background, followed by an exposition of the analytical framework employed, including the methodology. The empirical results are separated into the four developed policy perspectives: security of supply, environment, affordability and internal electricity market, each with its own conclusions. Finally, the conclusions respond to the questions addressed by the study if EU policymakers are more sensitive to the variation of the main external factors that influence environment, compared with the variation of main external factors influencing the other pillars of the classical energy trilemma.

3.2. The policy dynamics debate in energy policy

An important scholarly contribution to determining the main influences to legislative evolution is the policy dynamics debate (Howlett and Cashore 2009), which looks specifically at the drivers of policy change. The different conceptualizations of policy change can be summarized into four perspectives: *structure vs. agency*; *external vs. internal* causal factors; *revolution vs. evolution*; and *output* (linear, teleological) vs. *process* (cyclical,

dialectical) (Capano and Howlett 2009). In this chapter the focus is on the *revolution vs. evolution* dichotomy, arguing that a change in policies is caused by external factors creating disruptions to the existing paradigm (Smith 2000; Thelen 2004). Such taxonomy clarification is important as policy change and, inherently, policy determinants mean different things for different scholars.

This academic view focusing on external factors has its roots in the *punctuated equilibrium* concept (Baumgartner and Jones 2010), similar to *historical institutionalism* (Jevnaker 2015), which argues that policy alters only gradually, due to an inherent calcification of institutions. Policy modifications appear only when the government party changes or when there is major pressure from public opinion (Hallsworth 2011). This institutional ossification is used for energy regime analyses (Colgan, Keohane, and Van de Graaf 2012) and noted in the EU space as well (Herranz-Surrallés 2015). The notion comes in contrast with *rational-choice institutionalism*, which looks at policy output from the perspective of institutional negotiations and sees their interests as causal factors (Jevnaker 2015; Farrell 2018).

The selection of relevant factors for this research builds on those theoretical grounds, but it is also inspired by the classical energy trilemma definitions and the policy measurements employed by energy security studies in recent years. To sum up, relevant factors are drafted from four sources: a) from the existing EPI literature, to a great extent, b) from historical institutionalism theory, c) from World Energy Council definitions, and d) from the energy security analytical framework, each source being discussed below.

First, an in-depth view of EPI factors is developed, as the research question is why environmental priorities were preferred compared with other energy priorities. Environment policy integration, broadly speaking, pertains to the incorporation of environmental aspects and targets into sector policies (Jordan and Lenschow 2010), such as energy. It is differentiated from environmental policy, as its purpose is to integrate environmental objectives into other policies (Eckerberg and Nilsson 2013). A summarized version of the main factors found in EPI literature is generally classifying them along three divisions: normative factors, organisational factors and procedural factors (Persson 2004; Lenschow and Zito 1998; Mickwitz and Birnbaum 2009), to which some authors include a governance strand, a “green Europeanisation” in the energy sector (Solorio 2011, , page 397).

Another classification of factors includes: “High-level political commitment”; “Societal backing” or “Change of routine procedures: impact assessment of policy proposals, consultation and participation, rules of decision-making” (Persson 2004, , page 36). However, not all of those external factors are quantifiable and an assortment of them is needed, as argued in the analytical framework section. “High-level political commitment” and “societal backing” are good candidates, as they are also suggested by the historical institutionalism approach. Additionally, several normative, empirical EPI factors are proposed (Runhaar, Driessen, and Uittenbroek 2014), most prominent being EU CO₂ emissions (Adelle and Russel 2013).

As the aim of this chapter is to learn if EU policymakers have a different policy response to variations in external environmental factors compared with other external electricity policy

factors, comparable factors are required for the three other policy priorities: affordability, security of supply and internal market. The comparison of the ordinal scale of environment external factors with the scales of the other pillars is necessary because the other pillars provide the benchmark against which the sensitivities are measured.

Few studies have been devoted to empirical testing of policy outputs, and most were largely restricted to sectoral investigations as well (Knill, Heichel, and Arndt 2012; Knill, Schulze, and Tosun 2012; Schaffrin, Sewerin, and Seubert 2015). One study, while quantitatively analysing the major EU environment policies implementation to see leaders and laggards (Knill, Heichel, and Arndt 2012), generated a comprehensive list of policies, including measurable indicators. In another article, Knill and colleagues focus on clean air policy and test empirically regulatory density and intensity with measured emissions. In a further step, the authors look for determinants of air emissions, but find no correlations (Knill, Schulze, and Tosun 2012). An investigation into national climate policy instruments in selected countries verifies successfully the activity of a number of policy instruments (Schaffrin, Sewerin, and Seubert 2015), a useful set of factors to this analysis, but confined to the climate field.

In an EPI literature review (Runhaar, Driessen, and Uittenbroek 2014), authors decry that there is no research testing which proposed EPI strategies work (Turnpenny et al. 2009; Steurer and Hametner 2013; Russel and Benson 2014) and note that comparative assessments are missing altogether. To our knowledge, this thesis is the first to quantitatively study the success of EPI, suggesting policymakers' different sensitivity to electricity policy priorities as a reason.

Second, historical institutionalism in the framework of the European Union was employed mainly on the integration process, on the study of EU institutions and on EU policies (Christiansen and Verdun 2020). In the EU energy policies sector, recent research focused mainly on the sustainable transition, such as revealing causal links between institutions and renewable energy (Allen et al. 2020), material efficiency in energy and climate policies (Hernandez et al. 2018) and climate issues (Lindberg 2019). Some investigations endeavoured to understand factors that led to the inclusion and expansion of energy security (Bocse 2020). Several scholars argue that critical junctures are undervalued in energy research, and crises may indeed strongly affect the policy process (McCauley et al. 2018; Quahe 2018).

Third, World Energy Council definitions for the classical energy trilemma priorities are: energy security defined as meeting reliably a country's current and future energy demand; affordability meaning providing universal access to energy; and environment representing the transition to an energy system mitigating and avoiding environmental and climate change impacts (World Energy Council 2020). Some of these definitions translate into quantitative indicators, for example, energy reliability of a country has quantitative indicators such as energy dependency and length of interrupted energy supply.

Finally, important advancements in policy measurement and comparison emerged in the field of energy security policies, where a large number of scholars are developing quantitative analysis frameworks and measurable factors in policy output studies. The concept of energy

security, as presented by specialist literature (Asia Pacific Energy Research Centre (APERC) 2007; Kruyt et al. 2009; Chester 2010; Von Hippel et al. 2011) includes *availability of energy products, affordability and sustainability*. Incidentally, those are the very pillars, including the internal electricity market, of the EU electricity policy that this research is focusing on. The analytical framework provided by the energy security policies is used as inspiration for the methodology of this research, more detailed in the subchapter below. Furthermore, the literature under energy security studies provides inspiration for external factors as well, as quantitative indicators are searched for each energy pillar to allow energy security analyses.

3.3. An analytical framework to select main drivers of EU energy policy

The chapter aims to rate sensitivities between *a change in policies* and *variations of external factors*, by creating a scoring scale for data and convert it into ordinal values. The change in policies is measured by the targets and objectives' importance over 30 years of analysis, divided according to the classical energy trilemma policy priorities. There are a number of ways to divide electricity policies. For example, the Directorate-General Energy of the European Commission divides energy policies in several fields, ranging from "energy efficiency" to "oil, gas and coal" (European Commission 2020b). The European Green Deal focuses on GHG emissions, decoupling the economic growth from resource use and on social equity (European Commission 2020a). Some authors propose a cooperative arrangement, where different energy priorities are classified in separate arenas (Kanellakis, Martinopoulos, and Zachariadis 2013).

However, one of the more popular classifications is the one proposed by the World Energy Council (World Energy Council 2020), as it acknowledges that attaining simultaneously the three policy priorities of environment, affordability and security of supply, is often a delicate balancing act, even a zero-sum game at times. Such inherent competition of these so-called "pillars" supports the cataloguing process of EU binding legislation. To those three, a fourth was added, internal market, due to the key priority of creating a single market that permeates the EU policymakers' decisions.

Historical institutionalism postulates that policy changes occur only when there is *government change or public opinion pressure*. The first option, governmental changes, is mainly translated within our EU analytical framework scope, as European Commission president changes and, in a larger sense, changes of European Parliament's political balance and European Council's leaders party leaning. For this reason, these three governmental changes are examined, but the results are found inconclusive. The "government" would mean the European Commission president. Between 1986 and 2018, there are seven mandates of Commission president (Jacques Delors II – 1989; Jacques Delors III – 1993; Jacques Santer – 1995; Romano Prodi – 1999; José Manuel Barroso I – 2004; José Manuel Barroso II – 2009 and Jean-Claude Juncker – 2015). In fact, only five people headed the European Commission during three decades. The number of variables is not sufficient to draw any significant conclusions.

It can also be argued that “high-level political commitment” could come from the European Parliament or the European Council. For the European Parliament, there is the same insufficient number of variables to draw relevant conclusions; weighted down by the long-standing alliance between centre-left Socialists (Party of European Socialists) and centre-right EPP (European People’s Party). For the European Council, the increasing number of EU members and frequent national elections at top and parliamentary level makes the analysis too fragmented.

Therefore, our investigation concentrates on the second strand of the historical institutionalism approach: pressure from public opinion. This approach is underlined by one of the EPI empirical factors, “societal backing”. Furthermore, there is sufficient data under the Eurobarometer surveys, from all EU (European Communities pre-1993) members starting from 1974 (European Commission 2020c).

Public opinion is one of the external factors that cuts across energy pillars, allowing comparisons between those pillars and offering deep insights into what the public sees as important. It is one of the main external factors, singled out by both historical institutionalism and EPI literature. There is no single EU survey that runs over the entire 30 years of study; however, the comparison between the three pillars of affordability, security of supply and environment appears frequently in the Eurobarometer, either as a straight comparison or choice amongst other options.

In the 1980s, several surveys asked specifically what, according to the public, is the preferred policy between the three. Afterwards, in the 1990s, the question was changed, asking what pillars the public considered as the most serious problem. The 2000s was quite barren in energy policy surveys, with few questions useful for our research. The last decade asked the public what problem citizens seem most important and the closed answer surveys included energy topics that could be assimilated under the pillars selected by this study. A detailed presentation of the surveys and questions selected is provided in the indicators technical note, while coding calculations can be found in the tables technical note.

An additional challenge was to compare and code answers that have different question structures: some required unique answers, some multiple answers, while some others allowed two main answers. This obstacle was surpassed by calculating the figures for each pillar (percentage of responses from respondents) as a ratio within the sum of all the other pillars. This solution eliminated the “don’t knows” or other available answers in the questionnaire. This resolution was employed as there is no research interest in this chapter in the public opinion on security of supply, but in how public opinion ranks this pillar of security of supply compared with other pillars. The coding kept an ordinal scale of 10 through the process, to create comparative variables with the similarly coded scale of legislation importance.

Public opinion pressure is sometimes a symptom of other external factors; for example, a high electricity price will be perceived as energy poverty. Additionally, public opinion cannot be always known in the detail needed to identify policy choices, as there is no available data. Hence the importance of aggregating external factors, in order to dilute unrepresentative

variations of single factors and allow an illustrative comparison with the evolution of policy changes. As identified in the literature, distinct external factors can cause policy change, separate from public opinion, such as raw materials price (Schröder et al. 2013), foreign relations (Taggart and Szczerbiak 2013) or technology (Shilei and Yong 2009; Zhu et al. 2015; Alizadeh et al. 2016).

Consequently, while public opinion is a factor that goes across energy pillars, distinct external drivers (independent variables) for each pillar are under analysis as well, to allow measuring and comparing policymakers’ sensitivities to external factors across the four energy pillars. The table below displays the analytical matrix of external factors used for the four pillars, each of the factors being elaborated in the empirical sections.

Table 1. External factors employed for analysis for each pillar

Pillar	External factors		
<i>Environment</i>	Public opinion for environment	Air pollutants	GHGs emissions
<i>Internal energy market (IEM)</i>	Public opinion for IEM	Intra-EU energy trade	Market coupling
<i>Affordability</i>	Public opinion for affordability	Electricity prices	Household energy expenses
<i>Security of supply</i>	Public opinion for security of supply	Customer minutes lost	Solid fuels / natural gas dependency

Source: author’s elaboration

“Simple” factors are the direct numerical data that can be extracted from statistical sources, such as the Eurobarometer surveys or the electricity price. “Aggregated” factors are composites of the “simple” factors. One of the insights of the successful quantitative analytical frameworks from the security of supply field is the development and employment of aggregated factors (Yao and Chang 2014; Yamanishi, Takahashi, and Unesaki 2017; Malik et al. 2020). The usefulness of adding this extra layer of complexity is that it allows comparison of our constant (policy importance) with multiple variables (the “simple” factors) in one aggregated factor. The methodological solution is an average value of the simple factors, after those factors are converted into ordinal values. To note, all the “simple”, and, consequently, the “aggregate” factor, use data consolidated at the EU level.

Legislation takes time to take effect and steer the agents towards the regulators’ desired result (Pérez-Arriaga 2014). This is valid the other way around as well, when a factor, such as public opinion, pressures for action. As such, one of the minor objectives of this study is to measure how much time it takes from pressure to approved policy (EU binding legislation published in the Official Journal). Earlier, successful testing on approved climate policies effects on RES generation and production (Bostan 2019) suggests examining one- and two-year timelines; further timelines, three-year for example, show much weaker effects. The scope of the research, then, applies to one-year and two-year factor-delay testing.

The “electricity” sector pertains to electricity-related pieces of legislation only and “binding” means EU documents with legal effects: Regulations, Directives and Decisions. Each target and objective received an “importance” number, from one to four, according to a predefined rulebook. A database of about 700 obligations and targets was thus created, including over 8,000 tags.

To conclude, this study intends to find why the electricity environmental legislation is so dominant compared with other electricity policy priorities, by testing the EU policymakers’ sensitivity to variations of external factors, such as public opinion, and expecting to find a distinctly different sensitivity. To achieve this purpose, the investigation needs to convert into ordinal values the data from external factors so as to create comparable scales. The codification of results into ordinal values uses a decimal, 10-points scale, from 1 to 10, each point of the scale being an equal interval for the selected factors. The average value of the selected factors would give the value of the aggregated factor, used for comparison. Using this methodology, this exploration hopes to reveal some important factors in policymaking, useful for future prediction of policy output. Finally, the research aims also to determine, for legislative sensitivity, the significance of the one-year and two-year delay in policy results, compared with the time of the driving factor.

3.4. Policymakers’ sensitivity to environment

Environment as policy priority is one of our main points of interest, as environment-related legislation has a commanding presence in the policymakers’ attention, looking at the number of pieces of legislation, objectives and targets, and the importance of those objectives and targets compared with other policy priorities. Under the umbrella of “environment”, both environment and climate issues are covered, to ensure consistency over the 30-year of empirical observations. The external factors selected are: the omnipresent across all pillars, public opinion; air pollutants; and greenhouse gases per capita.

3.4.1. Public opinion

The inquiries found in the Eurobarometer on the EU public regarding environment include terms such as “pollution”, “cleaner energy” or “protection of the environment”. The legislation compared against includes targets and objectives encompassing renewable energy sources, air pollutants or measures to protect the environment, making it a relevant comparison. Only surveys comparing environment against other energy priorities were taken into account, ignoring priorities within environment (air pollutants or renewable energy) or sectoral (nuclear environmental safety or energy independence).

3.4.2. Air pollutants

Air pollutants feature as the most frequent indicators in all of the European Environment Agency (EEA) database, and they also have received most legislative coverage. Furthermore, there are long-time series going until the 1970s for the main pollutants. However, compressed data was found only since 1990, at European Community level. In the electricity field, there are pieces of legislation aimed specifically at reducing the amount of emitting pollutant gases (e.g., Directive 2010/75/EU on industrial emissions (the Industrial Emissions

Directive); Directive 2001/81/EC on national emission ceilings for certain atmospheric pollutants).

For these reasons, available data and importance of indicators, this external factor was included in the empirical research. For the purpose of this study, the latest data on emissions of the main air pollutants in Europe was employed, as provided by EEA (European Environment Agency 2019). The pollutants measured are ammonia (NH_3), non-methane volatile organic compounds (NMVOC), nitrogen oxides (NO_x), particle matter that have diameter less than 2.5 micrometres ($\text{PM}_{2.5}$) and sulphur oxides (SO_x). These air pollutants were aggregated into one air pollutants external factor.

3.4.3. Greenhouse gases emissions per capita

Climate policies have become a key overarching policy, now only in the electricity sector, but for the European Union as a whole, generating an active policy debate reflected in the climate policy integration discussion. Climate preoccupations have imposed on the attention of policymakers and, consequently, an external factor related to this development was selected. The key measurement is the greenhouse gases emissions (GHGs emissions). The expansion of the European community over years and the availability of data suggests using the GHGs emissions tonnes per capita as the most precise, long-term external factor to add into the analysis.

The chart below (Figure 6) displays in a radar plan the external aggregated factors and the legislation importance. This method is frequently used for security of supply analyses (Asia Pacific Energy Research Centre (APEREC) 2007; Yao and Chang 2014; Yamanishi, Takahashi, and Unesaki 2017; Bogoviz et al. 2019; Malik et al. 2020), but used in this thesis for cross-sector investigation. The key indicators to examine are the scale, frequency and evolution of the external factors and legislation importance. Such display allows insights into the meaning of data, which are presented in the conclusions part of this chapter. The chart presents data since 1990, the year when at least two external factors come into play.

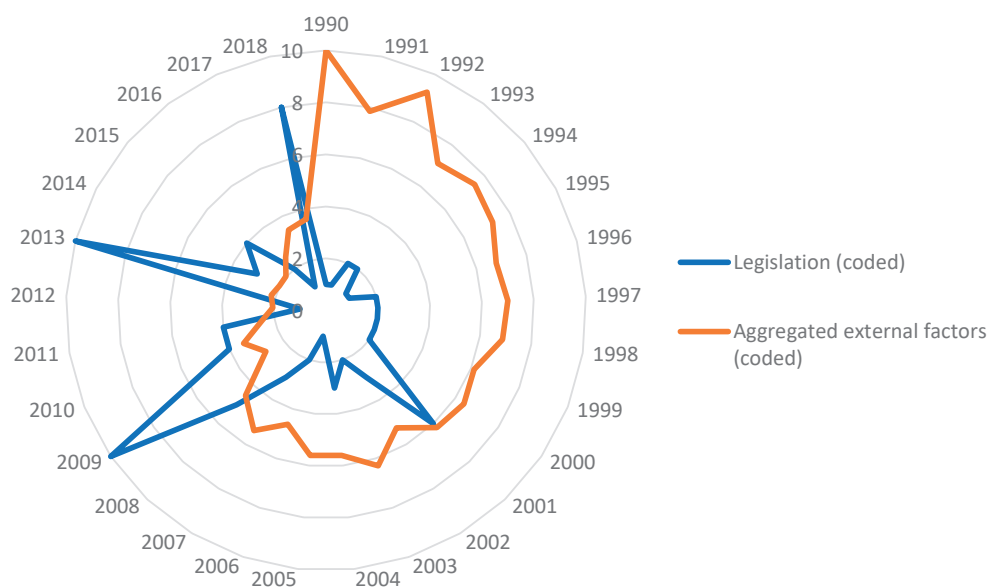


Figure 6. Policymakers' sensitivity to environmental external factors
Source: author's elaboration

3.4.4. Analysis

The aggregated external factors' pressure is gradually declining, from highs close to maximum 10 in the 1990s to almost 2 at the end of the 2010s. A small dip appears in 1993 and again in 2003, followed by a larger drop in 2010. Unlike affordability or security of supply pillars, there is no seesaw evolution of external factors, but a rather constant decline.

The published environmental legislation, however, has a contrasting evolution, with periods of dwindling presence followed by towering highs, in 2001, 2009, 2013 and 2018. These years correspond with ground-breaking environmental legislation, including: Directive 2001/81/EC on national emission ceilings for certain atmospheric pollutants; Directive 2009/28/EC on the promotion of the use of energy from renewable sources (RED I); Decision No 406/2009/EC on the effort of Member States to reduce their greenhouse gas emissions (the Effort Sharing Decision); Regulation (EU) No 1293/2013 on the establishment of a Programme for the Environment and Climate Action (LIFE); Regulation (EU) No 525/2013 on a mechanism for monitoring and reporting greenhouse gas emissions (Monitoring Mechanism Regulation); Regulation (EU) 2018/1999 (Governance of the Energy Union and Climate Action). To note, it is not one single piece of legislation that creates a spike, but rather several pioneering pieces in a given year.

There is an obvious decline in external factors' pressure after legislation is published, visible in 2002, in 2009 and 2014. The drop in pressure of external factors follows legislative spikes closely. However, it seems anomalous to have a constant decay in external factors' pressure, but a dramatic increase in published legislation in the environmental domain. No individual

external factor under investigation sees a marked increase in pressure towards policymakers. The external factors selected for environment, public opinion, GHGs and air pollutants are commonly used in the EPI literature and feature prominently in the environment legislation, being specifically monitored and capped; they are clearly relevant.

3.5. Policymakers' sensitivity to internal energy market

The internal energy market pillar is a new pillar suggested for analysis, alongside the three traditional energy pillars proposed by the World Energy Council. The introduction of this pillar was underpinned by the fact that some European policy targets and objectives do not fit any of the three energy policy priorities, such targets and objectives are only to enhance the European Union and the internal energy market. As such, the indicators selected have a more salient European dimension. The external factors selected are: public opinion; intra-EU electricity trade; and market coupling.

3.5.1. Public opinion

Unlike public opinion sections of other pillars, the public is not asked for their opinion by ranking internal energy market alongside affordability, security of supply and environment in their preference. However, the public is expressly asked if energy policy (environment in earlier years) should be at national or European level, which provides a good indicator for an external factor pressure. The question is followed by the Eurobarometer since 1989 until recent times, with gaps in only a few years.

3.5.2. Intra-EU electricity trade

One external factor that measures the pressure for creating policy is the internal electricity trade. As no infrastructure or networks codes existed at the beginning of our timeline of research, little trade could happen. However, a desire to trade existed, for arbitrage and hedging opportunities. The more infrastructure and rules aimed to increase the flow of trade appeared, the more electricity trading increased; hence relieving pressure from regulators to create trading opportunities. Eurostat is monitoring internal EU electricity trade value and the figures are gross and seasonally adjusted, making this indicator an excellent candidate as a main external factor for EU internal energy market development.

3.5.3. Market coupling

Market coupling means coupling EU member states in a common market for electricity. Market coupling does not necessarily refer to physical interconnections, although they are a *sine qua non* condition, but to the possibility to trade easily across borders. The project that started such endeavour was the Price Coupling of Regions (PCR), designed by European power exchanges, and aiming to create a single price coupling solution for day-ahead electricity prices in participating regions (Europex 2016, 2019; EPEX SPOT 2021). The empirical research tracked historically when one EU member state got connected to at least one another member and a price coupling was available.

As in previous sections, the aggregated factors in ordinal values and legislation importance are displayed in the chart below (figure 7). The chart presents data since 1988, the year when at least two external factors come into play.

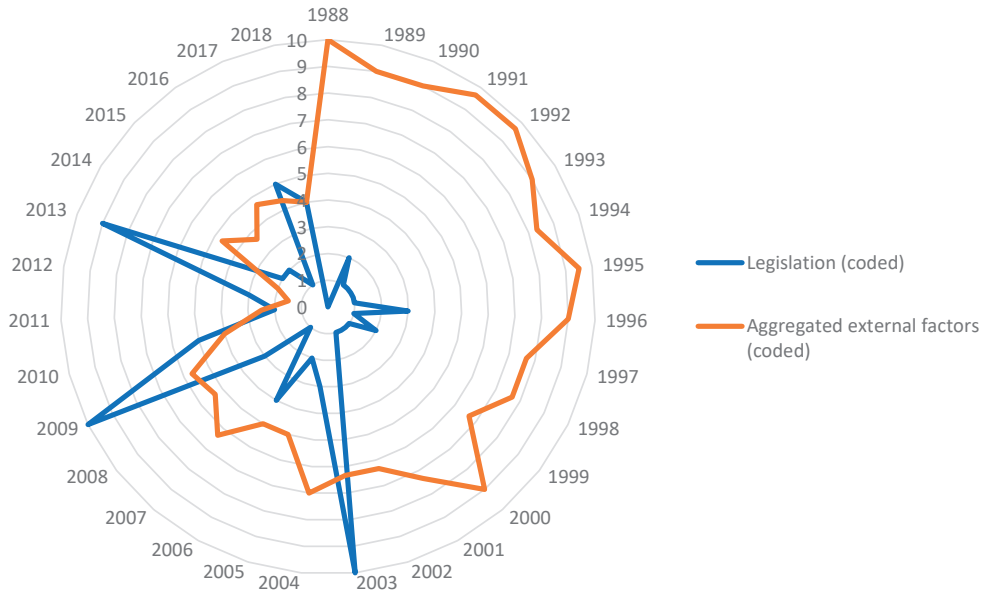


Figure 7. Policymakers' sensitivity to internal electricity market external factors
Source: author's elaboration

3.5.4. Analysis

The legislation importance appears either with low numbers or in large spikes, in 1996, 2003, 2006, 2009 and 2013. Those years coincide indeed with major energy packages adopted by the European institutions. The 1980s are barren in terms of legislation promoting internal energy market; however, every decade since sees a major spike, driven by pioneering legislation. Directive 96/92/EC concerning common rules for the internal market in electricity is the first piece of legislation that brings major, specific EU-market dedicated rules.

2003 is a foremost year of European market development, as the Directive 2003/54/EC concerning common rules for the internal market in electricity and Directive 2003/55/EC concerning common rules for the internal market in natural gas are adopted, alongside Regulation (EC) No 1228/2003 on conditions for access to the network for cross-border exchanges in electricity. Decision No 1364/2006/EC laying down guidelines for trans-European energy networks is a major piece of legislation enhancing the internal market. In 2009, a new energy package including Directives concerning common rules for the internal market in electricity and gas, but also Regulation (EC) No 714/2009 on conditions for access to the network for cross-border exchanges in electricity and Regulation (EC) No 715/2009

on conditions for access to the natural gas transmission networks expand significantly the incipient European electricity market.

The aggregated external factors put huge pressure for regulation to appear, but gradually become subsided by consecutive legislative packages and pressure decreases. After the legislative spike in 1996 and particularly after 2003, the external factors push declines to half the previous levels. The additional expansion of the internal market in 2009 further reduces the pressure, which reaches bottom following the 2013 legislation spike. However, since the middle of 2010s, the external factors start to pressure again, mainly driven by public opinion, which considers that the energy policy must be more in European hands.

Visualizing the evolution of legislation importance and external factors over 30 years of research, it appears to have a weak connection between external pressure and legislation adoption. After every major energy package, and implicit legislation importance spike, the pressure for new targets and instruments generally drops, but not always. The major legislative spike in 2013 is followed by an increase in public pressure, rather than a decrease. Overall, it appears that the European policymakers respond to external factors for the pillar of internal energy market and they calibrate, albeit rather poorly, their sensitivity to the most relevant external factors.

3.6. Policymakers' sensitivity to affordability

Affordability is the third pillar of the classical energy trilemma, alongside security of supply and environmental protection. It looks at the costs to purchase energy, in our case electricity. According to a legislative investigation (Bostan 2019), it appears to be the most neglected political priority. In this section, the main indicators measuring affordability are tested in order to find why the lack of political attention. The selected external factors are: public opinion; the electricity price; and energy expenses, all detailed below.

3.6.1. Public opinion

Looking at the Eurobarometer surveys and investigations of public opinion regarding energy policies, affordability was never at the top. While definitely a contender, sometimes placed close to environment and, in some years, above security of supply as political priority, it is often at the bottom of priorities according to EEC/EU citizens. As such, this external factor supports the findings that affordability should not be at the top of EU policymakers' priorities. However, a larger external factors sample could prove further insights, which is why the electricity price for households and household energy expenses are included in the analysis.

3.6.2. Electricity price

One clear indicator for affordability is electricity price for households. Eurostat has an indicator tracking electricity price since 1976, but figures (even incomplete ones) for the entire European community exists only since 1991. Another constraint is the bandwidth of electricity for measurement of an average household. In 30 years, the consumption of an average household increased, hence the need to modify the bandwidth upwards.

Luckily, Eurostat modifies the methodology from 2007 and allows a higher bandwidth. In accordance, the average household bandwidth, DC, is measured for a consumption between 2 500 kWh and 5 000 kWh per year until 2007 and, subsequently, around 3 500 kWh per year, all taxes and levies included. A third constraint is that the figures presented are not seasonally adjusted: the value of 12 eurocents in 1990 significantly differed from that of 12 eurocents in 2018. In order to have comparable data, all figures were seasonally adjusted, according to European Central Bank inflation statistics.

3.6.3. Energy expenses

A close proxy, but relevant and accurate indicator, is the final consumption expenditure of households by consumption purpose (Classification of Individual Consumption by Purpose - COICOP). For this research, I selected the percentage of a household total revenues used for the purpose of acquiring electricity, gas and other fuels (energy expenses). This indicator has EEC/EU-wide figures, starting from 1995. As the indicator is conveniently measured as percentage of household budget for energy expenses there was no need for further adjustments.

The data coding and aggregation are presented in the chart below (figure 8), which displays in a radar plan the affordability external aggregated factors and the legislation importance. The chart presents data since 1991, the year when at least two external factors come into play, as in the previous section.

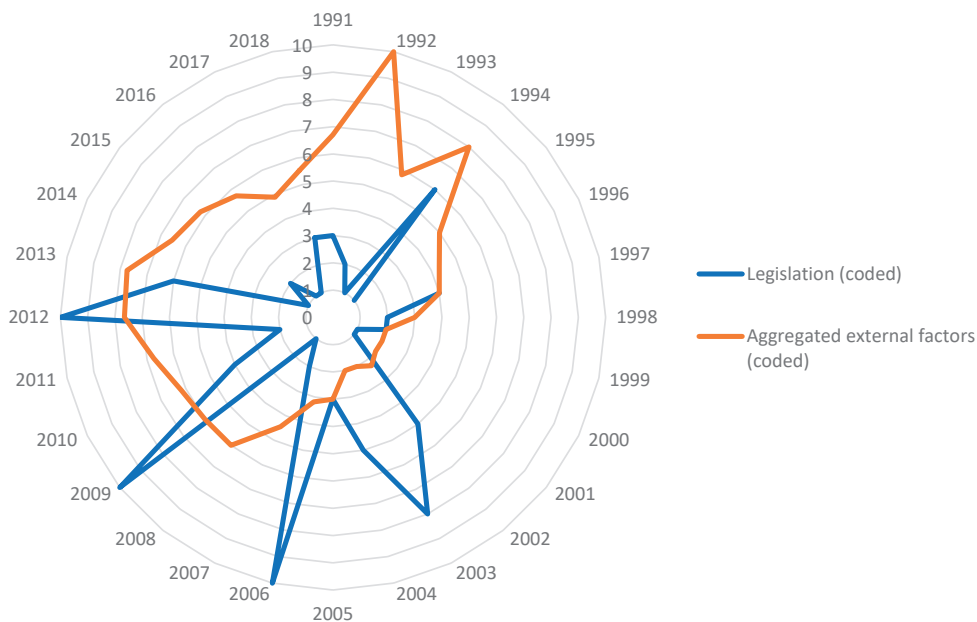


Figure 8. Policymakers' sensitivity to affordability external factors
Source: author's elaboration

3.6.4. Analysis

To conclude, the pressure from external factors is rather high in the beginning of the 1990s, gradually declining until 2007, when the effects of the economic crisis push up the external pressure. The pressure continues until 2013, after which it steadily declines again. Legislation's importance has an oscillating evolution, with highs in 1994, 2003, 2006, 2009 and 2012 and values close to zero in other years. Particularly in the 2010s, legislation output spikes in one year only, while it was simply not in the policymakers' attention in the other years.

In 1994, the reason for such highs in terms of affordability is a series of Council decisions financing nuclear research, aiming mainly for cheap electricity from nuclear development. The twin Directives 54/EC and 55/EC from 2003 concerning common rules for the internal market in electricity and gas have several important objectives aiming for more affordable energy. In 2006, there are several programmes providing financing for nuclear research, but also the Directive 2006/32/EC on energy end-use efficiency and energy services, seeking to increase energy efficiency. Again, the recast twin Directives 72/EC and 73/EC concerning common rules for the internal market in electricity and gas have many and important objectives regarding affordability. Finally, 2012 is marked by the Directive 2012/27/EU on energy efficiency, a continuation of the 2006 Directive.

While legislation has a cyclical evolution, the pressure from external factors is rather tidal, with gradual increases or decreases. Legislation follows the external factors: increasing external factor pressure is usually followed by several legislative initiatives. This connection is best seen in 1994, in 1997 and in 2012. The legislative highs of 2003 and 2006 do not reduce significantly the external factors' pressure; however, such force is low during the early 2000s. The economic crisis starting in 2007-2008 and its aftermath are clearly seen in external factors' pressure, from 2007 to 2013; and no further political response is sought by the external factors afterwards, with external factors' pressure progressively dropping.

To sum up, rather few anomalies can be identified regarding this pillar. The legislative response seems, in general, to be calibrated and timed to respond to external factors' pressure. The exception is the legislative output from 2003 and 2006, which appears to not be enough to quell the increasing burden. Looking at the aggregated factors, the reason is an increase of average household's energy costs: swelling from 3.2% in 2002 to 4.2% in 2008, a $\pm 30\%$ increase. 2007 sees also a large increase in electricity prices, in contrast with continuous price decreases in the 10 years before, since 1997.

3.7. Policymakers' sensitivity to security of supply

The concept of security of energy supply has evolved and it encompasses two meanings: uninterrupted supply of energy, in our case electricity, and a nation's capacity to meet energy demand reliably, resisting to external shocks. Both meanings are reflected in the definition for security of supply of the World Energy Council (World Energy Council 2020). The selected factors are: public opinion of security of supply; the amount of time electricity

was not delivered, per customer (loss minutes per customer, or CML); and, finally, energy dependency.

3.7.1. Public Opinion

Security of supply was rarely seen as a problem by the EEC/EU public in the last 30 years. Even more, the trend is a decreasing one, with less respondents mentioning security of supply as important. There are some years marked by raised interest for energy security, but it almost never tops the attention of the public. Nevertheless, security of supply remains a key part in the balance of energy priorities.

3.7.2. Uninterrupted security of supply

Uninterrupted security of supply can be expressed quantitatively as the number of minutes when electricity is not supplied to customers. While Eurostat holds no data on such indicator, CEER (Council of European Energy Regulators) publishes reports with quality of electricity supply from 1996 to – latest – 2016. The figures are per country and include the great majority of EU members at different stages in the 20 years reported so far. Full details of reports are in the indicators technical note – the exact indicator employed was customer minutes lost per year (CML), unplanned interruptions, including all (exceptional) events.

3.7.3. Energy dependency

Energy dependency is an indicator monitored by Eurostat and easy to employ, with records available since 1990. Energy dependency is imports divided by the gross available energy, with the formula = (imports – exports) / gross available energy (Eurostat 2021a). However, the scope of this research is electricity, not energy, so the search had to be further refined. Only EU energy dependency of natural gas and solid fuels was employed and coded, presented as an average of the two, as those have a large contribution to electricity generation and are mainly imported for this purpose. Testing EU electricity dependency, by calculating the net EU imports, provided no useful results, as the net imports are too small compared with the EU electricity consumption, being at their highest under 2% and averaging around 0.5%.

The conclusions can be visualized in the chart below (figure 9), which displays in a radar chart the external aggregated factors and the legislation importance, both coded in an ordinal decimal scale to allow comparisons.

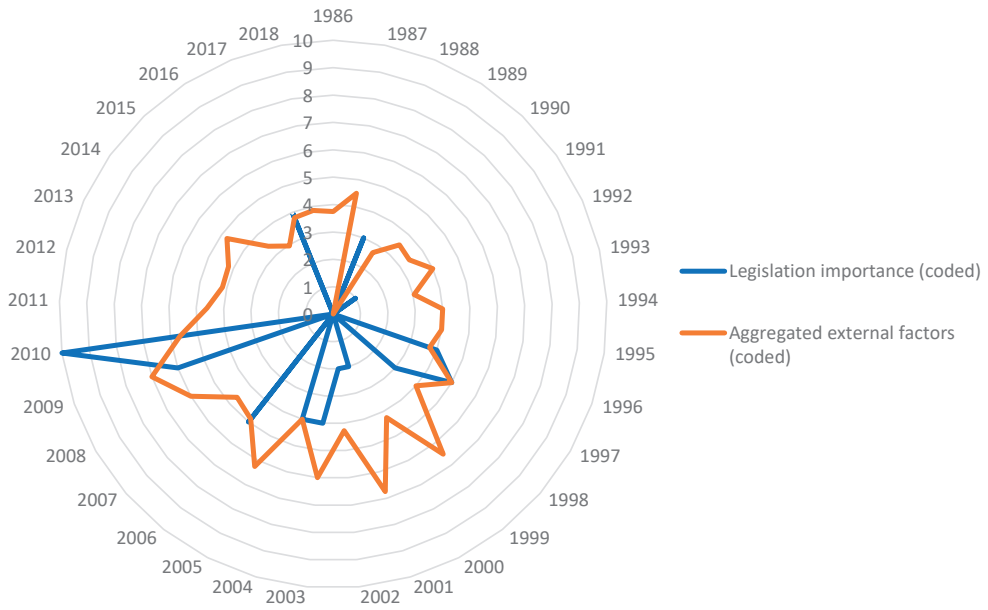


Figure 9. Policymakers' sensitivity to security of supply
Source: author's elaboration

3.7.4. Analysis

In terms of scale, external factors put constant pressure on policymakers, increasingly at the end of the 1990s and beginning of the 2000s. After a slow start in late 1980s and early 1990s, pressure picks up towards the late 1990s and stays high, with a relative decline in the middle 2000s. The late 2000s see the most pressure towards policymakers for more security of supply legislation. This pressure drops to lowest on record in the 2010s. Legislation importance for security of supply appears infrequently, in waves, with appearances in the early 1990s, the middle 1990s, the early 2000s, one year in the mid-2000s, a major surge in the early 2010s and one more appearance towards the end of the 2010s.

Legislation importance seems to match external factors' pressure in most instances, except in the early 2010s, when legislation skyrockets (e.g., Directive 2009/72/EC concerning common rules for the internal market in electricity; Regulation (EU) No 994/2010 concerning measures to safeguard security of gas supply). It is not an unusual result, as we can see factors building pressure in earlier years and pressure dropping after the legislative surge. What looks abnormal is the importance of security of supply legislation in the early 2000s: pressure is building in the previous years, but legislative output does not match the pressure. This is reflected in continued external factors' pressure after the legislative output, which was not solved until the major surge in the early 2010s. Overall, a connection between external factors' pressure and legislative importance output seems to exist for the security of supply pillar. External factors' pressure appears to drop after legislative importance output and increase without it.

Possible explanations for the increase in the external factors' pressure for more EU energy security in the mid and late 2000s are linked to the Russia-Ukraine gas transit disputes. Such disputes over the gas prices resulted in the Russian gas being cut off to Ukraine, affecting not only the transit country, but also several EU member states in the winter of 2005-2006 and in early 2009 (Natorski and Surrallés 2008; Kirby 2014). The picture is not complete however, as concerns over security of supply appear in other years as well, and these were clearly unrelated to the Ukraine-Russia gas disputes. Those years of surging energy supply concerns seem to coincide with years with relatively longer electricity supply interruptions (such as in 1999 and 2001). In conclusion, both electricity supply and energy dependence seem to create security of supply concerns.

3.8. Discussion and conclusions

The chapter investigated why environmental priorities were favoured compared with other energy priorities from the classical energy trilemma. The hypothesis proposed was that EU policymakers have a different perspective to environmental external factors driving the energy policy compared with any other factors. The premise was tested by selecting and comparing external factors to evolution of legislation, for each pillar of the energy trilemma, plus the additional internal electricity market pillar.

The results of the empirical research showed a relatively close legislation response to external factors for security of supply and affordability; to give an example, external factors pressure decreases after legislation adoption. For environment and, moderately, internal electricity market, the legislative response is rather weak; for instance, a decrease in external factors pressure does not mean a decrease in legislative response. In other words, external factors have a high influence over security of supply and affordability policies and a much weaker one for environment and internal market legislation.

Responding to the article's research question, the findings display that EU policymakers are far *less* sensitive in their policy response to changes in environmental factors, contrary to affordability or security of supply pillars' situation. There is a strong legislative output, despite declining pressure from external factors: GHG/capita decreased and air quality significantly improved, but that did not cause environmental policies to be adopted at a reduced speed. Furthermore, there are significant spikes of environmental legislation adopted despite major progress in environmental protection, a clear example of moving policy targets. On the contrary, more ambitious climate action targets were proposed and new areas of environmental protection were found.

What is driving such ambition, one which ignores major indicators? When looking at external factors and in keeping with the policy dynamics theoretical framework perspective, one possible explanation is that the targets themselves are not well calibrated and therefore constantly shift. The purpose of decarbonization is not just less GHGs emitted in the air, but almost no net GHGs emissions. The increasing urgency perceived by the public to arrive at those targets (which can be seen in the figures from the tables technical notes) pushes the EU policymakers constantly to advance the decarbonization targets. Hence this paradox of

successful environmental policies, if measured by targeted indicators, on the one hand, and increasingly pressurizing external factors on the other.

In the same vein of policy dynamics, one person can argue that policymakers are oversensitive to public opinion in regard to climate issues. Indeed, public opinion is at record highs in terms of pressure, particularly on climate legislation, in the last years of the empirical database, 2017 and 2018, while the role of other factors is at their lowest. However, the number of variables is not enough to determine whether or not this is true. If further insights may be generated through extending the research and gathering data for more years, currently it is impossible to give a definite answer.

Another explanation pertains to the premise that perhaps internal factors are faulty, and that the discussion moves to the rational-choice institutionalism realm. For instance, the European Commission could use its extended environmental legitimacy to create legislation and give itself competences. Or maybe member states use the prerogatives of the Commission to better protect the environment in order to avoid internal struggles with groups of interest.

What are the consequences in real life of this outcome? A weak sensitivity of EU policymakers to major environmental indicators variations, such as GHG/capita or air quality, means, for instance, that a fast-decarbonizing European Union will likely not taper the environmental protection. It testifies to the strength of the EU ardour, driven possibly by the EU public or the EU institutions – if not both – and their rational choice for environmental protection and climate action, adopting ambitious legislation despite respectable environmental protection progress.

These findings also show where the balance of power within the Commission resides, where units tasked with environmental protection and climate action hold more independence, being less dependent on indicators than units tasked with social protection, such as energy poverty, or security of supply. Paradoxically, the indicators for environment are more developed than for affordability (Poggi and Florio 2010; Thomson, Snell, and Liddell 2016; Deller 2018) and security of supply (Chester 2010; Ang, Choong, and Ng 2015).

How do the findings contribute to the Environmental Policy Integration (EPI) debate and historical institutionalism in energy policies? One of the gaps mentioned in the EPI discussion was the missing comparative assessments (Runhaar, Driessen, and Uittenbroek 2014). A possible reason for this problem could be the increase of the Climate Policy Integration (CPI) discussions to the detriment of deeper EPI research. This chapter endeavoured to provide such comparative assessment, and the results for EPI are rather satisfactory, with environment policies dominating the energy field. Furthermore, this study's findings contribute to Knill and colleagues (Knill, Schulze, and Tosun 2012) conclusions (that no determination was found for air emissions) in that environmental legislation is weakly influenced by external factors. Little use was found for comparing environmental indicators with related policies, as the relationship is weak, but it could be useful for sectoral analyses (Knill, Heichel, and Arndt 2012; Schaffrin, Sewerin, and Seubert 2015).

The juxtaposing of the chronological evolution of legislation and external factors may expose critical junctures from a quantitative perspective, a novel perspective for historical institutionalism in energy policies. For example, the security of supply external factors increased pressure could be due, arguably, to the Russia-Ukraine gas transit disputes (Natorski and Surrallés 2008). The economic crisis starting in 2007-2008 and its aftermath are clearly seen in affordability external factors. For the internal market, every energy package comes with a significant boost that increases market coupling and intra-EU electricity trade. No critical junctures can be identified for environmental external factors.

One of the minor objectives of this chapter was testing if one-year and two-year delays of results following legislation adoption would bring any new insights. In this respect, as established by a thorough test for each of the four pillars (security of supply, environment, affordability and internal electricity market), no particular patterns could be identified. It appears that adopted legislation generally has an immediate impact on the external factors' pressure, a rather counterintuitive conclusion.

The scope of this chapter does not cover the degree of correlation between different external factors and the adopted legislation. Such an experiment could give further insights and offer quantitative proof of the determinants of the EU electricity policies. Perhaps it would be possible to demonstrate strong correlations and to reveal undisputable drivers of EU policies.



Chapter 4

Potential drivers of environmental policy in the electricity field:
a quantitative testing of the
Environmental Policy Literature



4.1. Introduction to potential drivers of environmental policy

When the supply of an energy carrier to European markets is suddenly disrupted, people will suffer and this may motivate European Union policymakers to act. As such, a security of energy supply crisis is likely to create security of supply legislation, in an attempt to avoid or alleviate future crises. Theoretically, it is possible for particular legislation to respond consistently to certain external factors. If such factors were identified and monitored for variations and if the policymaking process in that domain follows such rules, it may be possible to roughly predict law adoption. In the EU electricity field, policymakers use directives and regulations to steer the agent, generally market participants, towards agreed political objectives (Pérez-Arriaga 2014).

Following this logic, several studies in the energy sector link legislation output to possibly influencing, empirical factors (Knill, Heichel, and Arndt 2012; Bostan 2021a). The findings show that there are measurable, external factors that carry influence for some legislation. If the electricity field is divided into the pillars of the classical energy trilemma – affordability, security of supply and environment – most of those pillar priorities have empirical factors that measurably influence the legislative output in those fields. However, one energy pillar, environment, does not follow this logic of empirical factors variation influencing legislation. One would expect that major empirical factors, indicators such as greenhouse gas emissions or air quality, would influence environmental policy, but this is not the case (Bostan 2021b). Therefore, if major indicators do not influence the environmental pillar in the electricity field, what are the factors that do influence it?

Such research is explored in the context of the Environmental Policy Integration (EPI), which enquires when, why and to what extent environment is incorporated or acknowledged in other domains, including energy. Several studies have tested empirical factors in search of policy drivers (Knill, Heichel, and Arndt 2012; Adelle and Russel 2013; Runhaar, Driessen, and Uittenbroek 2014); others have endeavoured to map and classify environmental policy drivers (Solorio 2011; Mickwitz and Birnbaum 2009; Persson 2004; Lenschow and Zito 1998; Runhaar et al. 2018).

The various existing studies, however, tend to look at one specific sector only, such as air emissions (Knill, Heichel, and Arndt 2012), distinct legislation like the Renewable Energy Directive (Rietig 2019), economic context (Zito, Burns, and Lenschow 2019), climate policy integration (Dupont and Oberthür 2012) and EPI strategies (Vucic and Vucic 2019). What is missing is a multi-decade, comparative and quantitative study of environmental objectives and targets gradually adopted in a specific field, such as electricity. This absence can be explained by the large number of documents required for study, amounting to several hundreds, and the even larger number of policy instruments, including objectives and targets of legislation. Moreover, after their collection they would also need to be categorized and ordered in an empirical database, to make data readable and comparable. Because of the highly time-consuming nature of this task, the existing studies probably narrowed their focus to specific sectors.

This chapter endeavours to investigate the relevant theories from the most detailed and recent classification of concepts found in the EPI literature (Runhaar et al. 2018). The study is based on an elaborate database gathering electricity legislation between 1986 and 2018. This database covers almost 300 pieces of binding EU legislation in the electricity sector, including approximately 700 obligations and targets in about 30 years of data, and over 8,000 tags. Proxy indicators are assigned to different theoretical concepts and deployed as independent variables against the empirical data from the database. In this way it becomes possible to identify which of the factors devised in EPI approaches best explain the conduct of EU policymakers in the electricity field, while this may in turn help us to predict future EU policy development more accurately.

Furthermore, as part of this exploratory exercise, the present chapter will also examine the overall pattern of environmental legislation. Specifically, it proposes looking at the policy dynamics of environmental policy in the electricity field from the viewpoint of two contradicting theories: neofunctionalism and punctuated equilibrium. These two theories were selected for study because they provide opposite reasonings to account for policy evolution. Neofunctionalism considers policy growth and development as a gradual, evolving process, while punctuated equilibrium highlights the role of strong forces as drivers of policy development at identifiable, sometimes hardly anticipated moments. This theoretical approach is adopted to fill a gap in our understanding of EPI and help researchers better understand the success of environmental policy integration, in the sectoral electricity field.

This chapter has four major parts: a literature review, an analytical framework, empirical testing, and discussion and conclusions. The literature review examines the European institutions mandate to regulate energy and presents theoretical approaches which explain the success of environmental policies in the energy sector as found in the EPI literature. The analytical framework lays the ground for the empirical testing factors based on the two theoretical approaches (neofunctionalism and punctuated equilibrium). The empirical testing takes each factor separately for analysis, in addition to a section on the theoretical approaches. Finally, the discussion addresses the various implications of those findings for the electricity field and the theories proposed. In the conclusion I return to the research question and also consider the practical implications of the findings.

4.2. Literature review

The section briefly presents the mandate of the European institutions, as this is the basis of EU legislation, and clarifies the layer of legislation explored in this chapter. Below I provide an overview of the literature on the cross-sectoral deployment of the environmental policies, to survey the driving factors of successful deployment of environmental policy as identified so far. The section concludes with the two opposing theories explaining the development of policymaking and discusses how these can be tested.

The interest of member states in the electricity field is as old as the European treaties themselves, starting with the European Coal and Steel Community, founded in 1951 by the Paris Treaty, followed by EURATOM, aimed to develop nuclear energy, created in

1957 by the Rome Treaty. The current main binding agreements of the European Union, the fundament of primary legislation, are the *Treaty of the European Union* and the *Treaty on the Functioning of the European Union* (EUR-Lex 2017). The directions set by primary regulation in these treaties are put in practice by secondary legislation, created by European institutions and comprising several types of legal acts, including regulations, directives, decisions, recommendations and opinions. A third level pertains to technical standards and delegated acts to the European institutions. The argument in this chapter will focus on the second level, the secondary legislation.

In general, European legislation is reflective of a strongly felt need among member states for cooperation and common law, granting a powerful legal mandate to the European institutions. Given the robust role of European law, what does actually shape the formulation of specific policies? What are the main drivers influencing the European policymakers?

4.2.1. Categorisation of factors influencing environmental policy

One of the strands of scholarly research aiming to determine the drivers of environmental policy is the so-called Environmental Policy Integration. The EPI literature enquires when and why environmental policies are incorporated or acknowledged as priority into other sectoral policy areas (Jordan and Lenschow 2010; Eckerberg and Nilsson 2013), including energy and electricity (Persson et al. 2018; Tosun and Solorio 2011). This scholarly domain is relevant here, as the focus of the present chapter is not so much on environmental policy, but on the environmental objectives of the EU electricity policy.

If the rich and growing literature covers many EPI aspects, such as process (how the policy process was modified to integrate environmental policies), output (mandatory legislation), policy outcomes or impact (changes in observable environmental impact or public behaviour) (Persson et al. 2018; Runhaar et al. 2020, 190), this chapter concentrates on policy output, and, primarily, policy instruments. One classification of main drivers proposes a division into four factors: normative factors, organisational factors, governance and procedural factors (Persson 2004; Lenschow and Zito 1998; Mickwitz and Birnbaum 2009; Solorio 2011). Earlier studies focused on external empirical factors identified in the literature, such as political changes and EU CO₂ emissions (Persson 2004; Adelle and Russel 2013; Runhaar, Driessen, and Uittenbroek 2014), and they did not find a strong connection between changes in policy intensity and factors variation (Bostan 2021a). A similar, sectoral research on clean air policy found no correlations with air emissions either (Knill, Schulze, and Tosun 2012). Another theoretical approach (Runhaar et al. 2018) identifies six categories of policy drivers, summed up in the table below (table 2).

Table 2. Categorisation of factors influencing policy according to Runhaar et al. 2018

Factors	Description
Political	largely looking at the public or governmental support, including political stability and policy context;
Organisational	such as the legal mandate of the organisation, existing supportive legislation, internal coordination between organisation's departments, leadership;
Cognitive	such as awareness of the problem, sense of urgency, expertise, and, generally, a desire to act;
Resources	availability of financial and human resources;
Characteristics of the adaptation problem at issue	framing of the problem, and level of detail for implementing solution;
Timing	finding good opportunities to act and keeping momentum.

Source: author's own summary

A study from the energy sector on policymaking dynamics during the Renewable Energy Directive and the Multiannual Financial Framework (MFF) discussions around 2010 found that several factors identifiable in the list above were employed for a successful outcome (Rietig 2019). Based on Runhaar's classification, key officials from the Directorate-General Climate Action and Commissioner's Cabinet first deployed timing factors to keep the momentum, and to act while the economic situation was seen as favourable; and, secondly, they capitalized on political factors to align central actors with the goals. Additionally, institutional fragmentation was employed to the full extent, ensuring that climate change enters into the political agenda and is added into the MFF.

Another theoretical exploration in the energy sector focuses on the methodologies associated with evaluating EPI strategies (Vucic and Vucic 2019). It finds that the more successful initiatives are sector specific, such as climate change or renewable energy, in opposition with cross-sectoral EPI strategies, such as the European Commission's Sustainable Development Strategy and the European Council's Cardiff Process. The study recommends using physical indicators to evaluate the EPI strategies. Yet another explanation found in the literature is that EU policymakers are using environmental policy for the European integration project (Lenschow and Sprungk 2010), a political factor identified by other scholars as well (Zito, Burns, and Lenschow 2019). These last scholars also address additional factors linked to timing, or using the benefits of a prosperous economic period with no energy crises (Zito, Burns, and Lenschow 2019).

4.2.2. Neofunctionalism versus punctuated equilibrium

A further theoretical investigative dimension, apart from the influencing factors, involves the study of the evolution of legislative activity: neofunctionalism versus punctuated equilibrium. Neofunctionalism argues that states are not the only actors and draws attention to the role of supranational institutions and non-state entities, such as political parties and interest groups (Jensen 2013). With respect to Europe, neofunctionalism theorizes that European integration is a gradual, evolving process, with self-reinforcing forces. Instead of grand designs, the focus is on incremental decision-making. Moreover, successful policy achievements in one area are used as springboard for another area, in a spill-over process (Haas 2004; Kuhn 2019; Hooghe and Marks 2019; Niemann and Ioannou 2015).

The punctuated equilibrium theory argues that policies tend to be sustained in periods of long stasis, due to ossification of institutional cultures, vested interests and limited attention allocation from policymakers. Disruptive changes of any of these conditions create rapid policy change (Flink 2017; Kuhlmann and van der Heijden 2018; Fernández-i-Marín et al. 2020), particularly at the level of government, described as policy monopoly, and public opinion, expressed as policy image, (Baumgartner and Jones 2010; Czapiewski 2015). In a study on the UK civil service using the punctuated equilibrium framework, policy modifications appear either when the political leadership changes or due to public opinion pressure (Hallsworth, Parker, and Rutter 2011), findings important for this research. The framework is employed for energy regime analyses (Colgan, Keohane, and Van de Graaf 2012), Europe included (Herranz-Surrallés 2015). One study draws a similar comparison between theoretical models using EU energy legislative output, but employing punctuated equilibrium and incrementalism, to argue that neither model is able to explain the EU policymaking process (Benson and Russel 2015).

The authors of one article looking at the EU energy policy from the two perspectives develop the argument that EU environmental policy evolved gradually since 1986, despite major EU changes and crises (Zito, Burns, and Lenschow 2019). Their study highlights the importance of what would be organisational factors, such as the Commission's relevant departments' leadership, and timing, finding the right opportunity to transmute a policy initiative to law. While the range of possible factors mentioned so far is extensive, other drivers can still be added, such as national and European interests in a tug-of-war (Zapletalová and Komínková 2020) or transnational lobbies.

Explanations for the integration of environmental policies in the energy sector abound, but sector-wide, multidecade, quantitative testing proved to be difficult, due to the complexity of the task (Vucic and Vucic 2019; Persson et al. 2018; Persson and Runhaar 2018). Furthermore, there are different levels where testing can be conducted: sector (multiple, specific), geographical (national, EU, international), dynamic (national to EU, international to local), form of integration (harmonisation, coordination, integration) (Persson and Runhaar 2018). The focus of this thesis is on the electricity sector, in the European Union, where most scholarly testing relies on case studies, often focusing on a narrow sector (e.g., pollutant emissions or climate legislation). In contrast with previous research, this thesis pursues a holistic approach, using all policy instruments in the electricity sector from 1986 to 2018.

4.3. Analytical framework

Perusal of the literature reveals a vast array of possible explanations, concentrated in the EPI domain. Nevertheless, testing efforts involving the EU energy sector have mainly deployed sectoral and case studies, while no large, quantitative and multidecade studies have so far been undertaken. It is possible, however, to use multi-decade policy instruments and policy importance analysis (a refinement of policy instruments, which are graded accorded to an importance rulebook) in the EU electricity field as comparative variable to investigate if any connections can be found between proposed theories and environmental

policy development. Such examination will also contribute to the neofunctionalism versus punctuated equilibrium debate by establishing if self-reinforcing forces or moments of pressure are creating a punctuated equilibrium.

This section is divided into three parts: after explaining the EPI testing factors, I look at the two selected theoretical approaches (neofunctionalism versus punctuated equilibrium), and, finally, I present the empirical database of policy instruments and policy importance in the EU electricity field.

4.3.1. Explaining environmental policy integration driving factors

As discussed, the literature on EPI driving factors included two classifications. The first one separates them into normative, organisational, governance and procedural factors. It has a large scope, including changes in process, policy output and policy outcome (Persson 2004; Lenschow and Zito 1998; Mickwitz and Birnbaum 2009; Solorio 2011). The second one (Runhaar et al. 2018) is similar, but more detailed, more recent and providing a better fit with the policy outcome angle embraced in this thesis. It comprises six different categories: political factors, organisational factors, cognitive factors, resources factors, characteristics of the problem, and timing.

In this study, several relevant, obtainable and measurable indicators are assigned for each factor type, followed by a comparison with the evolution of the environmental legislation in the electricity field. I selected the following indicators:

- **Political factors:** largely looking at public or governmental support, including political stability and policy context;

Public support may be best represented by EU public opinion on environmental concerns measured by Eurobarometer results. Governmental support variation can be evaluated by a change in the political composition of some of the main elected forces in the European Union. Such change can be most easily represented by the timing of elections. The main elected political forces selected for this study are the European Parliament (it being the only elected EU institution) and the German federal parliament and the French presidential elections (as the two largest EU countries, with the highest number of representatives in the European Parliament).

- **Organisational factors:** the legal mandate of the organisation, existing supportive legislation, internal coordination between organisation's departments, leadership;

The willingness to lead in the environmental field, reflected in changes to the legal mandate of the organisation, in this case the European Commission, is also signalled in the literature as a possible influencing factor (Gravey and Jordan 2020; Selin and VanDeveer 2015; Oberthür and Groen 2017; Lenschow, Burns, and Zito 2020). For this factor, the indicator is the time needed for adoption of new European treaties.

- **Cognitive factors:** such as awareness of the problem, sense of urgency, expertise, and generally, a desire to act;

It was possible to measure awareness of the problem and sense of urgency based on the key reports of IPCC (Intergovernmental Panel on Climate Change 2021), due to the high influence of climate issues in the EPI debate.

- **Resources:** availability of financial and human resources;

As some of the most influential policymakers for environmental legislation in the electricity field are the European Commission's Directorate-General Environment and Directorate-General Climate Action, the number of staff from those Directorates and their evolution in time could serve as a reasonable proxy indicator.

- **Characteristics of the adaptation problem at issue:** framing of the problem, and level of detail for the implementing solution;

The framing of the problem is recognized as a driving factor (Hoppe and Wesselink 2014; Ekstrom and Moser 2014; Biesbroek et al. 2013; Stecula and Merkley 2019), and this factor can be empirically measured by key identifiable moments that change the framing of the problem. However, few studies distinguish key moments and these are mainly in the climate change area. Nevertheless, testing those key moments against environmental legislation outcome in the electricity sector is a worthwhile endeavour for the comprehensiveness of this study.

- **Timing:** finding good opportunities to act and keeping momentum.

One indicator repeatedly mentioned in the literature is favourable economic situation (Zito, Burns, and Lenschow 2019; Kahn and Kotchen 2010), as governments of EU member states are less willing to accept costly, binding environmental regulation when budgets are tight and austerity measures may be necessary. Furthermore, public support for environment and climate change policies will decrease in an economic downturn (Elliott, Seldon, and Regens 1997), while higher levels of employment and revenue will allow climate change to climb on the public agenda (Scruggs and Benegal 2012; Carmichael, Brulle, and Huxster 2017).

Taken together, these indicators still provide an incomplete picture, but at least they offer a glimpse of the degree of validity in the EU electricity field for several theories offering explanations of EPI success.

4.3.2. Patterns of policy change in the electricity field

Another area that this research intends to examine is the nature of environmental policy evolution in the electricity field. On the one hand, this regulatory evolution, in a neofunctionalist vein, can be driven by self-reinforcing internal forces, gradually intensifying and using their success in an area to expand in another, employing a spill-over effect. On the other hand, strong forces can break the ossification of the regulatory realm and force a regulatory evolution, a punctuated equilibrium.

Some studies point to the neofunctionalist direction, noting the lack of effect of crises on environmental policy evolution (Zito, Burns, and Lenschow 2019). However, using the novel empirical database of policy instruments and policy importance, this research seeks to evaluate in a fresh way the strings of environmental legislation in the electricity field, in order to establish if there is a spill-over effect indeed. If neofunctionalism is in play, an observer will notice inverse tree-like structures, where one piece of legislation gradually evolves into more complex and more numerous rules. Furthermore, on the punctuated equilibrium side, finding links between identified factors and massive changes in environmental legislation may be interpreted as evidence of punctuated equilibrium.

4.3.3. Empirical database of policy intensity and policy importance

In order to have a comparison equivalent, a database was employed, quantifying all distinct targets and objectives of EU binding legislation applying strictly to the electricity sector (and disregarding, for example, legislation referring to vehicle fuels). “Binding” denotes EU documents with legal effects (Regulations, Directives and Decisions), and this does not include opinions or staff working documents. The latter also applies to Commission delegated acts or regulatory technical standards, as they do not present major targets or objectives.

The database covers the years between 1986 and 2018, encompassing 11 dimensions. This implies that the empirical exploration covered about 300 pieces of binding EU legislation in the electricity sector, revealing approximately 700 obligations/targets in around 30 years of data, and over 8,000 tags. The database is divided along the main pillars of the energy policy trilemma, as defined by the World Energy Council (World Energy Council 2020): environment, security of supply, affordability, to which internal market pillar was added due to its vital importance in the European context. The data was refined by a cataloguing system into a policy importance framework, grading each target and objective, according to a predefined rulebook.

The section below discusses the two dimensions open for investigation: the various factors and the neofunctionalism versus punctuated equilibrium. Full analytical details, investigating charts and methodology are found in the separate technical papers, in the annex.

4.4. Empirical results

Environmental policies in the electricity field are not determined by external, physical drivers, such as air quality indicators or GHGs emissions, and this is in contrast with other energy priorities (affordability and security of supply). This section aims to fill this empirical gap by assessing proxies representing the theories found in EPI literature against a database of policy targets and objectives, also known as policy intensity. Furthermore, policy importance, established on the basis of a refinement of policy instruments, graded according to an importance rulebook, is used as a standard to assess with more precision the theories proposed to explain the EPI development in the EU electricity field. As the policy intensity and policy importance charts resemble each other, only the more refined policy importance charts are displayed.

The section is divided in three parts: the first part addresses the testing of the factors, sometimes proxies, representing the possible explanations proposed. The second part provides a qualitative analysis of the binominal theoretical approaches proposed for study, neofunctionalism and punctuated equilibrium. Finally, the third part summarizes the empirical testing, leaving the discussion for the final section of the article. The literature includes a few classifications of EPI factors, the most detailed and recent one of which was employed to assess the existing explanations (Runhaar et al. 2018). It encompasses six categories: political factors, organisational factors, cognitive factors, resources factors, characteristics of the problem, and timing. Below, I briefly discuss them in separate sections.

4.4.1. Political factors: Eurobarometer results and timing of selected European and national elections

Political factors largely concern public or governmental support, but they comprise political stability and policy context as well. Public support is best represented by the Eurobarometer results. In order to establish the public opinion on energy policies in the European Union and its precedents, I examined the standard surveys of the Eurobarometer through GESIS - Leibniz Institute for the Social Sciences, which gathers detailed statistical databases in refined form (full details are in the annex). The empirical research followed “environmental” concerns since their inclusion in the Eurobarometer, in 2002.

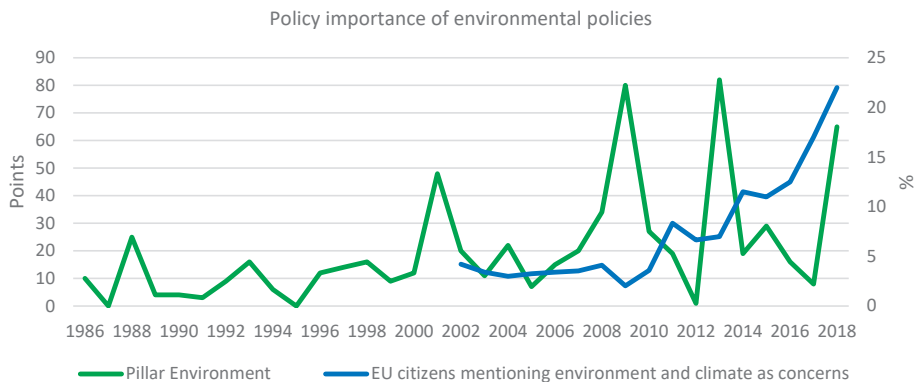


Figure 10. Policy importance of environmental policies against Eurobarometer environmental concerns
Source: author's elaboration

The findings (figure 10) show no links between EU environmental concerns mentioned by the public and policy importance (importance of policy instruments). Such environmental concerns include “climate change”, after it was included by the Eurobarometer in the surveys. The only link is the general increasing trend of policy importance and EU public environmental concerns.

Political stability and context can be appraised by the timing of European Parliament elections (in 1989, 1994, 1999, 2004, 2009 and 2014), and major elections in the two

largest EU member states in terms of European Parliament members: the German federal parliament (in 1987, 1990, 1994, 1998, 2002, 2005, 2009, 2013 and 2017) and French presidential elections (in 1988, 1995, 2002, 2007, 2012 and 2017).

Looking at policy importance, findings show little connection between elections and environmental policy variation (figure 11). A trend started to appear, with highs of environmental policy just ahead of European elections in 1989, 1994 and 1999, but the trend disappears after 2004, when environmental policy highs fall exactly in the election years, with the exception of 2013. One conclusion is that environmental policy highs generally seem to appear around European Parliament elections indeed.

Political change in the composition of the main elected bodies of the two largest EU member states may give rise to a new impetus for revision in the EU environmental policy in the electricity field. However, national elections do not have any apparent links to the EU environmental policy, even if some delay is added in the test.

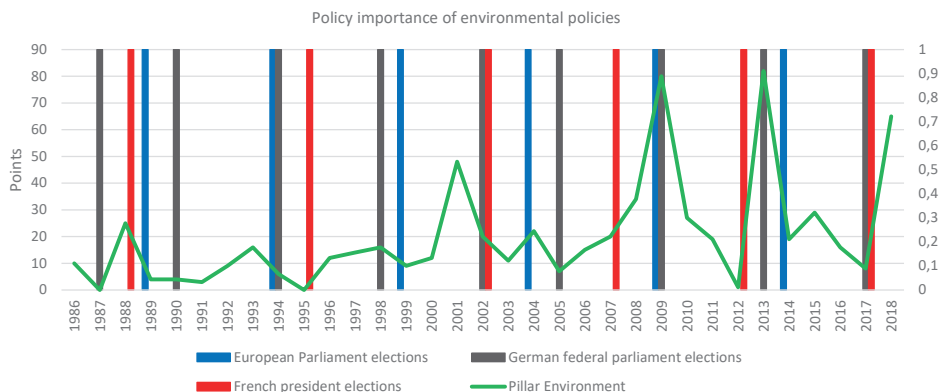


Figure 11. Policy importance of environmental policies against timing of elections
Source: author's elaboration

To conclude, political factors seem to offer some guidance regarding environmental policies in the electricity sector; policy context, EU parliamentary elections in our case, seems to be a driving force. National elections and the EU public opinion have, in our analysis, no visible link to policy outcome.

4.4.2. Organisational factors: the legal mandate of the organisation

The legal mandate of the organisation can be derived from primary regulation. The major change in the electricity market was occasioned by the adoption of the European Single Act in 1986, which specifically states, with the addition of article 8a, that an internal market shall be established by 1992, comprising of an area without internal frontiers for, among other things, goods. The European Commission is tasked with this endeavour in the following added article, 8b. Environmental protection is specifically mentioned in the Act (Article 100a; Sub-section VI), but with the cautioning that the Commission cannot interfere in the

exploitation of energy resources by Member States (in Declaration on Article 130r of the EEC Treaty) (Council of the European Communities 1986).

Subsequent treaties, amending or building on the European Single Act, reinforced the mandate given to Commission to intervene in the electricity sector. *The Treaty of Maastricht in 1992*, formally known as Treaty of the European Union, states in Article 3 that the activities of the Community (what is now the European Commission) shall include measures in the sphere of energy (Council of the European Communities 1992). *The Treaty of Amsterdam in 1997* further reinforced the European Commission mandate in the environment area in Article 2, Article 3c, 100a, 130r(2) and Declaration 12 on environmental impact assessments (Official Journal of European Communities 1997). *The Treaty of Nice in 2001* strengthens the energy independence of Member States in Article 175(2) and recalls the environmental protection in a declaration of the Treaty (Official Journal of European Communities 2001).

Finally, *the Lisbon Treaty in 2009* formulates the shared competence in the environment and energy sectors between the Union and the Member States in its Article 2C, refers to increased solidarity in the energy field in Article 100 and gives clear objectives in the energy area in Section (Title) XX, while keeping the old energy exploitation independence article, as articulated in the European Single Act. The treaty also guarantees that Member States can choose their energy mix. In the environmental area, climate change is given as a competence area for the Union (EUR-Lex 2007).

To sum up, the European Commission enjoys a strong mandate, strengthened with each updating Treaty. Furthermore, both policy intensity and policy importance of environmental policies appear to flourish around the time of treaties (figure 12), particularly in 2001 (Treaty of Nice) and 2009 (Lisbon Treaty). The political mandate, then, appears to be a strong factor for driving the policies focusing on environment in the electricity sector.

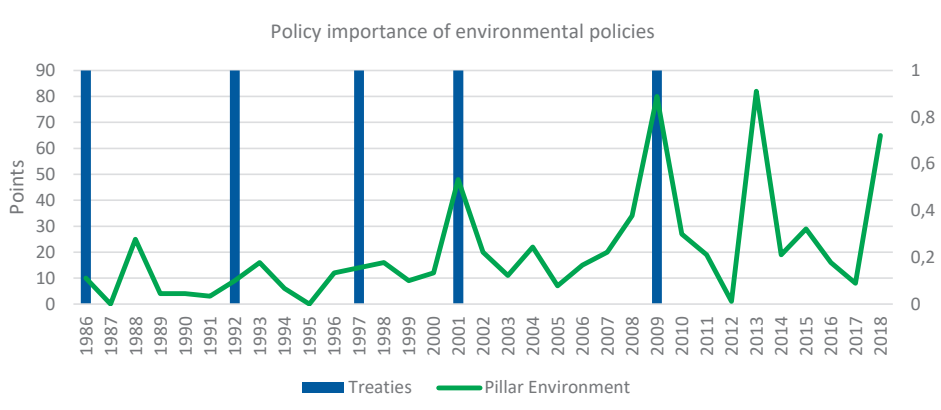


Figure 12. Policy importance of environmental policies against adoption of European treaties
 Source: author's elaboration

4.4.3. Cognitive factors: awareness of the problem and sense of urgency

Awareness of the problem and sense of urgency can be measured by the timing of IPCC major reports. Such reports cover the knowledge at the time of publishing on climate change causes, potential impacts and mitigation and adaptation options. Although such reports encompass only climate change concerns, the overwhelming influence of such issues on environmental policies is a good proxy for cognitive factors driving EPI in the electricity field.

IPCC provides policymakers worldwide regular assessments on climate change causes and implications. The organisation was created by the United Nations Environment Programme (UN Environment) and the World Meteorological Organization (WMO). The assessment reports, starting from 1990, were later used in inter-governmental negotiations under the United Nations umbrella, sometimes concluding important international agreements, such as the well-known Paris Agreement (Intergovernmental Panel on Climate Change 2021).

The IPCC assessment reports were published in 1990, 1995, 2001, 2007, 2014 (and 2021, but this is outside the scope of our research). Comparing against the policy importance targets and objectives, five out of six assessment reports were issued during a lull in environmental policy output, while one (in 2001) was published during a high of policy output. There were no discernible immediate reactions, in one-two years, such as to prepare new legislation.

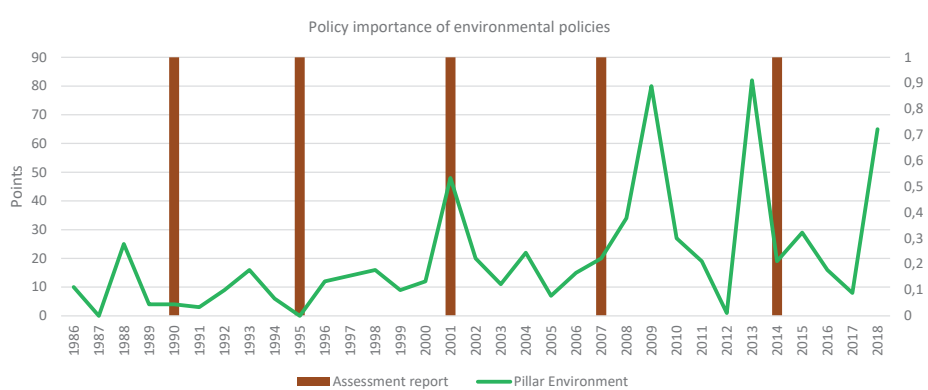


Figure 13. Policy importance of environmental policies against IPCC assessments
Source: author's elaboration

To conclude, the IPCC Assessment Reports have no observed effect on EU environmental policy in the electricity field (figure 13). They appear rather in environmental policy output lulls. Thus, awareness of the problem and sense of urgency, as cognitive factors, are not confirmed, according to the methodology used here, as driving factors of EPI in the EU electricity field.

4.4.4. Resources factors: availability of financial and human resources

The number of staff at the European Commission’s Directorate-General Environment (DG ENV) and the Directorate-General Climate Action (DG CLIMA), including staff developments over time, is a potential indicator for the resources available theory explaining EPI success.

The available data following a request to the European Commission’s Directorate-General for Human Resources and Security (European Commission 2021a) starts from 2003 for DG ENV and 2010 for DG CLIMA, the year the Directorate was established (Table 3). The comparison with both policy intensity and policy importance of environmental policies shows little connections. Although the comparison is only partial, as data on the Commission’s staff are available as of 2003 while policy output started in 1986, it is clear that the highs and lows of the two series (policy output and DG ENV+DG CLIMA staff) do not match in any way.

Table 3. Number of staff of DG Environment and DG Climate Action

Year	DG CLIMA staff	DG ENV staff	DG CLIMA + DG ENV staff
2003		430	430
2004		466	466
2005		485	485
2006		523	523
2007		540	540
2008		579	579
2009		623	623
2010		641	641
2011	89	520	609
2012	123	517	640
2013	145	507	652
2014	150	516	666
2015	154	500	654
2016	159	514	673
2017	159	507	666
2018	159	494	653

Source: European Commission’s Directorate-General for Human Resources and Security

4.4.5. Characteristics of the adaptation problem at issue: framing of the problem

While framing of the problem is a difficult indicator to test, there are a few papers, mainly studying climate change policy, which propose key moments in changing successfully the framing of the policy. One study uses a word analysis of a non-governmental association bulletin providing quotidian coverage of the official UNFCCC negotiations from 2003 to 2013 to identify distinct framings and their evolution (Vanhala and Hestbaek 2016). As observed in the investigation, the overarching “loss and damage” frame started to replace “liability and compensation” and a “risk management and insurance” frame. The authors suggest that the climate change framing transformation to “loss and damage” contributed to the consensus for an international climate treaty starting to develop since 2013.

Another study (Dammann and Gee 2011) highlights the remarkable study published by the European Environmental Agency (EEA), *Late Lessons from Early Warnings: the precautionary principle 1896-2000* (Harremoës et al. 2001). The EEA report is considered a landmark in environment framing, bringing forward the concept of the precautionary principle. Finally, one article focuses on the choice of term, “global warming” or “climate change”, to conclude that the right wording, and subsequent framing, determines the public acceptance of climate change policies (Schuldt, Konrath, and Schwarz 2011).

Indeed, compared with the environmental policy output in the electricity sector, the suggested framing change seems to be a driving force: there are policy output peaks in 2001 (the EEA study on the precautionary principle) and in 2013 (the “loss and damage” frame becoming dominant in diplomatic discussions). Some examples of seminal legislation adopted in 2001 include: *Directive 2001/81/EC on national emission ceilings for certain atmospheric pollutants* and *Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market*. The year of 2013 includes legislation such as: *Regulation (EU) No 1293/2013 on the establishment of a Programme for the Environment and Climate Action (LIFE)*; *Decision No 529/2013/EU on accounting rules on GHG emissions and removals resulting from activities relating to land use, land-use change and forestry (LULUF)* and *Regulation (EU) No 525/2013 on a mechanism for monitoring and reporting GHG emissions*.

One can argue that the EEA study and the “loss and damage” frame would need time to show their effect, hence the invalidity of the argument that framing is a driving factor in these instances. Nevertheless, the EEA study is robust and undoubtedly it was presented in earlier versions to policymakers before 2001. The “loss and damage” frame is a process in itself and the framing effect was already ongoing.

On the terms proposed, an analysis of Google trends from 2004 to 2018 for worldwide search terms “global warming” and “climate change” shows the latter taking the lead from 2015; however, more data precision is needed for conclusive results.

4.4.6. Timing factors: the economic situation

Studies in the literature point towards the economic situation as a driving factor favouring the environmental policy output. Indeed, the annual GDP growth per capita, as presented by the World Bank, matches the environmental policies output for both policy intensity (number of policy instruments) and policy importance (standing of policy instruments). This is the case, however, only until 2007. After that year, the link between policy output and economic situation disappears and almost reverse situations in fact seem to occur, for example in 2009 when, despite an economic recession, there is a high environmental policy output (figure 14).

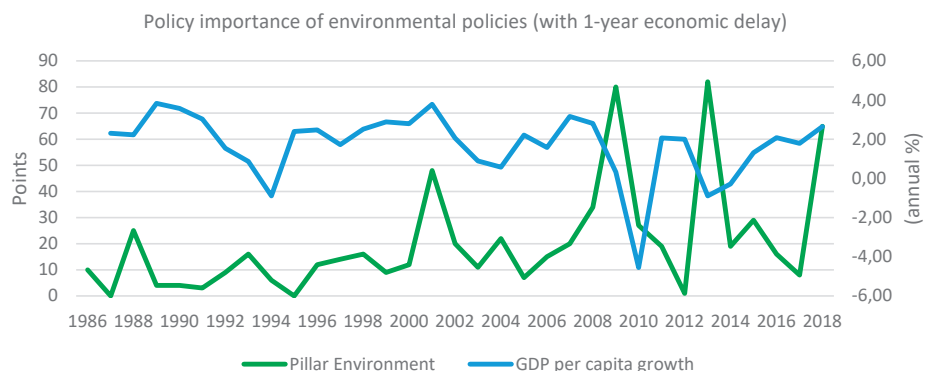


Figure 14. Policy importance of environmental policies against GDP/capita growth
 Source: author's elaboration

The conclusion is that the economic situation was a key driving factor, but totally lost its status after 2007. The reason for this change could be a change of framing, where environmental policies are presented as benefiting the economy, as suggested earlier in the “characteristics of the adaptation problem at issue”. I did not find any scholarly research on this specific topic, however, while the empirical study of it is beyond the scope of this thesis.

4.4.7. Neofunctionalism

A second objective of this chapter is to explore the nature of environmental policy evolution in the electricity field, leaning towards neofunctionalism or punctuated equilibrium. Neofunctionalism would see gradual growth and development, while punctuated equilibrium would be marked by sharp, identifiable moments driving policy dynamics.

If there is the spill-over effect that is key to evolution under this theoretical approach (Haas 2004), inverse tree-like structures, where one piece of legislation gradually evolves into more complex and more numerous rules, should be noticeable in the legislative mapping of the environmental policies in the electricity field. A schematic charting of the entire legislative output was constructed, from 1986 to 2018, and it clearly connected related laws and separated environmental policies from the other electricity priorities. Such legislative mapping is presented in the annex of the article.

Through empirical observation, if the file is magnified (figure 15 and 16), such inverse tree forms appear. For example, *Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control* was referred to directly, in different years, by at least two other pieces of legislation. Additionally, these offspring must have their own descendants for our theory to be valid. Indeed, the abovementioned directive was followed by *Directive 2003/87/EC of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading* and the updated *Directive 2008/1/EC of 15 January 2008 concerning integrated pollution prevention and control*. Furthermore, those two Directives have their own offspring as well, a spill-over effect, from an initial, successful piece of legislation (setting emission limits for environmental permits in order for power plants to operate).

1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007

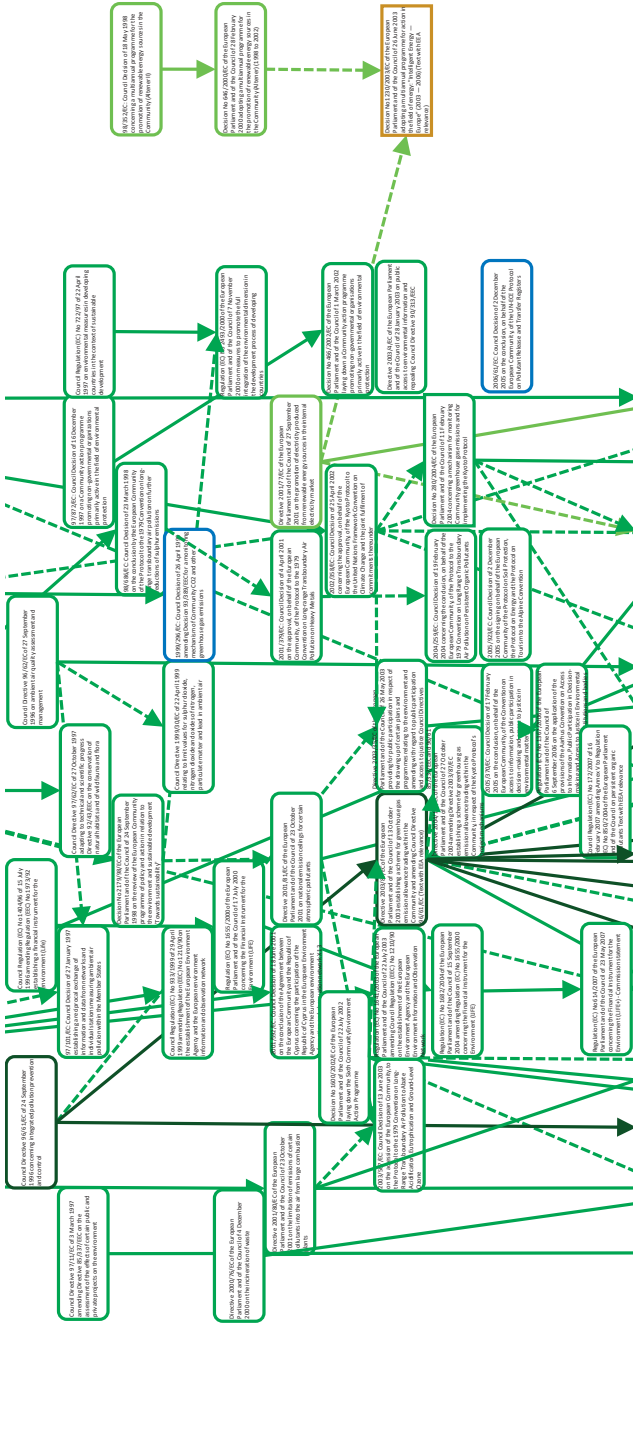


Figure 15. Legislative mapping – step 1: Council Directive 96/61/EC of 24 September 1996 and first-generation offspring (in dark green)

In effect, it is remarkable how few Commission programmes actually close, most being repackaged or transformed into other, revised programmes. There is indeed an existing inertia, a consolidation of the programmes in the environmental sector. Therefore, our empirical results, using this methodology, confirm findings (Zito, Burns, and Lenschow 2019) which establish neofunctionalism as a theoretical framework that could explain how environmental policy evolved in this particular energy sector.

4.4.8. Punctuated equilibrium

The earlier analysis of the six categories of factors (political, organisational, cognitive, resources, characteristics of the problem and timing) may offer clues for identification of such key moments that transmuted the environmental policy output in this field.

The economic situation appeared to be a strong candidate, matching closely the environmental policy output evolution, but for some reason, this parallel vanished around 2007. One explanation is that framing factors were at play, as an investigation of the framing change proved to have a strong impact. Nevertheless, I did not find any study proposing a direct explanation for a framing change of environmental (or climate change) policies in EU regulatory space around 2007.

Another candidate, but weak, to explain such junctures is in the category of political factors: specifically, the European Parliament elections. One reason for such development could be desire of the Members of the European Parliament to complete the ongoing legislation before their term expires (and, thus, show electors their work). However, the connections between policy output and elections are not consistent.

Organisational factors, such as the mandate of the European institutions, is another strong candidate for punctuated equilibrium. Analysis of EU treaties shows an increasing endorsement for the European Union work in the environmental field. Furthermore, the treaties signed in Nice (2001) and Lisbon (2009) fit well with an increase in legislation output, while the treaties of Amsterdam (1997) and Maastricht (1992) were followed by an increase in legislation. The European Single Act (1986) is an outlier, with legislation declining after signing but quickly picking up again in 1988.

In conclusion, despite this extensive range of testing, no clear clues were found to identify these key moments. The closest candidate is the signing of European treaties, matching an increase in environmental electricity legislation output immediately or in the year immediately afterwards. Nevertheless, the matching is not perfect and there are rather few (six) points of data. Another, weak, candidate is the timing of European Parliament elections that appears to influence the increase in legislative output. To sum up, the evidence seems to provide stronger support for the neofunctionalist theory as the theoretical framework explaining the development of environmental legislation in the electricity sector.

4.4.9. Results of empirical research

To recapitulate, the empirical section aimed to assess the theories found in EPI literature regarding the factors driving the success of the EU environmental policies in the narrow field of electricity. Additionally, I tested two theoretical approaches, neofunctionalism

and punctuated equilibrium, which offer competing explanations for the success of environmental policies development. To do so, I grouped the EPI factors into six categories: political, organisational, cognitive, resources, characteristics of the problem and timing (Runhaar et al. 2018).

For *political factors*, the Eurobarometer's surveys about EU public opinion on environmental matters seem to have no influence on legislative output. The elections in the main elected bodies of the two largest EU members by number of MEPs showed no links as well. Only European Parliament elections seem to have an influence on the environmental policy output. For *organisational factors*, the legal mandate of the organisation, research shows a solid mandate, strengthened with each updating Treaty. For *cognitive factors*, awareness of the problem and sense of urgency, measured by the timing of IPCC major reports, I observed no effect on EU environmental policy in the electricity sector.

For *resources factors*, the indicator is the number of staff for the most influential EU policymakers for environmental policy output in the electricity field, DG ENV and DG CLIMA. No connections were identified between policy output and number of staff from those two Directorates. For *characteristics of the problem*, framing seems to have a strong impact, but research is scarce. With respect to *timing factors*, finally, the economic situation was mentioned quite often in the literature. However, measured by the annual GDP growth per capita, the link with environmental policy output lasted only until 2007. To sum up, it was possible to verify only three factors – European Parliament elections (possibly due to pressure to finalise legislation before the end of parliamentary terms, to avoid them being delayed even further), framing and the legal mandate – as influencing the environmental policy output in the EU electricity field.

The investigation of the theoretical approaches showed indications that neofunctionalism is a driving force, patterns specific to this paradigm being recognized in the legislative mapping. Punctuated equilibrium analysis, using the EPI factors testing, did not display any particular impactful factor that “punctuated” the policymaking and change its course. Nevertheless, an interesting phenomenon was noticed when a clear candidate factor, economic situation, decoupled in 2007 without there being explanations of why that happened. We theorize that framing of the concept is at play, but more research is needed. In the next section, the findings are discussed in more detail, including a discussion of the effects of these results for the relevant literature.

4.5. Discussion and conclusions

This chapter investigated the various factors shaping the EU environmental policy in the electricity field and the main drivers which have been influencing European policymakers. The Environmental Policy Integration literature covers this research question and provides various responses. However, while explanations for the integration of the environmental policies in the energy sector abound, little to no testing was conducted, due to the complexity of the task, as recognized by scholars studying this field (Persson et al. 2018; Persson and Runhaar 2018; Vucic and Vucic 2019).

This thesis aimed to fill this gap, by assessing the most detailed and recent theories found in EPI literature (Runhaar et al. 2018) against a self-developed database of EU policy instruments in the electricity field. As such, I developed a qualitative analysis, narrowed down to the relevant EU field, by comparing the policy instruments of the database (dependent variables) with proxy factors derived from the theoretical explanations to EPI success (independent variables).

Apart from addressing the call for testing by EPI scholars, the argument presented in this thesis also attempts to respond to an anomaly in the drivers of the EU electricity field. If separated between the main pillars of the energy trilemma (environment, security of supply and affordability), the literature shows that environment policies are not affected by external, physical factors (such as GHGs emissions or air quality resulted from various polluting emissions), in contrast with the other energy pillars (Bostan 2021a). In other words, the driving factors of policy dynamics are defined at a more refined level, which accounts for the need to cover and test a wide range of explanations put forward by scholars.

The testing took place on two levels. First, a state-of-the-art EPI factors mapping, comprising of six types of factors (political, organisational, cognitive, resources, characteristics of the problem and timing). Second, an investigative dimension encompassing two patterns of policy change in the electricity field, with one contrasting feature (incremental or sudden source of change): neofunctionalism versus punctuated equilibrium.

The outcome of the empirical study of the six factors shows that organisational factors and characteristics of the problem (defined as framing of the problem) seem to influence the legislative output the most. Some guidance regarding environmental policies is given by political factors, specifically, the European Parliament elections. Cognitive factors, as reflected by the IPCC Assessment Reports resources, in terms of the number of staff in DG ENV and DG CLIMA, and timing factors, defined by the economic situation, did not present any influence on the EU environmental legislative output.

The examination of the theoretical approaches exhibited strong signals that neofunctionalism is a major source of evolution, specific patterns to this theory being found in the legislative mapping. From the punctuated equilibrium perspective, an organisational factor, namely the Commission's legal mandate, was found to be changing the course of EU policymaking, as single factor within the wide spectrum of factors tested.

During this investigation into EPI driving factors, I identified several research gaps, which, if responded to, could offer significant assistance as to explaining EPI success in the electricity sector. Framing of the problem was found as a potential major driving factor, as several studies point to changes of framing which influence policy output (Vanhala and Hestbaek 2016; Dammann and Gee 2011; Schuldt, Konrath, and Schwarz 2011). Moreover, a crucial change around 2007 in the economic evolution, previously a close indicator to environmental policy output, remains unaccounted for as of yet. Some modification of framing of the problem, such as de-linking economy from emissions could be a justification, but further research is needed in order to arrive at more definite conclusions.

This research builds on the recent and wide-ranging mapping of the empirical driving factors proposed by EPI researchers (Runhaar et al. 2018) and responds to the call for empirical testing. The article finds that rather few empirical driving factors of those proposed actually apply to EPI in the EU electricity field. To recall, studies on empirical physical factors driving environmental policies show no interrelationship with legislative output (Knill, Heichel, and Arndt 2012; Knill, Schulze, and Tosun 2012; Bostan 2021a).

Eliminating those empirical factors from the major influencing sources of EU environmental policy, the conclusion is that the EU environmental policy could be a political token, used for larger objectives, beyond the simple scope of protecting EU environment. Furthermore, in terms of policy dynamics, neofunctionalism appeared to be most productive, it being a theoretical approach that hypothesizes legislative evolution coming in progressive, slow steps. This result confirms previous studies which argue that EU environmental policy evolved gradually, despite major EU changes and crises (Zito, Burns, and Lenschow 2019), even though these studies used another research methodology. Subsequently, my conclusions support the theory that EU policymakers actively deploy environmental policy for the integration project (Lenschow and Sprungk 2010). Significantly, the only clear empirical factor found to have influence on policymaking is the legal mandate.



Chapter 5

Overall conclusions



5.1. Overview

The main research question of this thesis has been: *what are the external factors to which policymakers in the EU electricity policy domain are most sensitive, from 1986 to 2018, along the lines of the classical energy trilemma?* The response to this question was expected to contribute to a better diagnosis of the challenges of EU electricity regulation, including indicators and policy fields which may be overlooked, and, for advocacy professionals, a better sense of ways of stimulating policymakers' interest. As my preliminary exploration of the literature revealed the absence of quantitative, overarching and multi-decade studies, I decided to undertake a study of this topic.

To move towards an argument in response to my question, I needed to develop an understanding of the policy instruments that had been employed over time and compare these against possible external factors in order to validate selected factors as drivers of the EU electricity policy. Therefore, a quantitative chronological series of such instruments was compiled that would cover a sufficient time span in order to allow for valid comparisons, implying a multi-decade study. To tackle the central concern of the thesis, I developed three analytical steps.

I began by looking at how EU electricity policy evolved over time, through examining the individual targets and instruments proposed by this policy. The main insight of this investigation was that the various drivers of EU electricity policy may depend on its purpose. For this reason, I looked at the policy involved according to the pillars suggested by the classical energy trilemma: affordability, sustainability, security of supply (World Energy Council 2020), to which I added a fourth, the EU's internal market. This categorisation in fact frames these pillars as being in competition with each other, sometimes in a zero-sum game fashion.

Furthermore, I added a second distinction, namely one based on boundaries rather than competing pillars, in order to have an alternative, non-contending lens of analysis. This second division (Kanellakis, Martinopoulos, and Zachariadis 2013) enabled a more detailed categorisation of individual targets and instruments, but featured less prominently in the literature than the classical energy trilemma.

The time period I selected for the analysis in this study covers more than three decades; 1986 to 2018. The starting date marks the first formal articulation of the goal of establishing an internal market in an EU treaty: the Single European Act (Council of the European Communities 1986). Furthermore, several scholars consider 1986 a critical point for EU energy market development in their studies (Black 2013; KU Leuven Energy Institute 2015), when market design started to change from vertically integrated monopolies to unbundling and liberalisation. The final year covered by this study, 2018, is the last full year for which data were available when this empirical study was set up.

This first analytical step resulted in the creation of a large database that compiled all individual targets and instruments, divided along pillars according to the classical energy trilemma and Kanellakis's categories, from 1986 to 2018. The empirical database consists

of around 300 pieces of legislation and over 8,000 tags. This construct was key in the later development of this thesis.

An initial examination of the ranking of energy pillars found that the energy trilemma is largely unbalanced. Environmental concerns rank first among EU energy policy priorities, followed by internal market, affordability and, at the bottom, security of supply. The results are generally consistent across all three lenses of policy analysis employed.

A more detailed analysis of the impact of new legislation revealed that the EU energy policy is certainly becoming more intricate (i.e., we observe an increasing number of targets and objectives per piece of legislation), but the impact is largely the same (i.e., stable policy importance per target and objective). To exemplify this finding: the legislation from the 1990s has the same average importance per target and objective as legislation from the 2010s, even though the European institutions developed more competences, following consecutive EU treaty reforms. The increase in legislative intricacy can be explained by the increasingly complex challenges of the EU electricity sector and by the fact that low-hanging fruit was likely collected already right after the emergence of the European energy policy. However, the flat rate across decades of policy importance per target and objective is surely a puzzling finding.

The second analytical step involved an investigation of the sensitivity of EU policymakers to external factors, postulating that sensitivity or insensitivity of policymakers to certain key external factors may be a cause for environmental priorities being favoured over other energy priorities, as noted in my initial examination. I tested this theory by contrasting sensitivities between a *change in policies* and *variations of external factors*. The methodology was based on the latest methods in the field of security of supply, creating a scoring scale for data and converting it into ordinal values.

Next, the time series of targets and objectives across the four pillars was then compared with selected time series of external factors, the choice of which was either derived from my own observations or from the discussion in the relevant literature. The *environmental* pillar was compared against public opinion on environmental issues, air pollutants and GHGs emissions/capita. The *internal energy market* (IEM) pillar was compared against public opinion about the IEM, intra-EU energy trade and market coupling. The *affordability* pillar was tested against public opinion on affordability, electricity prices and household energy expenses. Finally, the *security of supply* pillar was tested against public opinion for security of supply, minutes per customer of lost electricity in a year and solid fuels / natural gas dependency. Below I discuss the third analytical step, but first I need to explain why it was required.

5.2. Findings

The key findings of this investigation show a close correlation between the legislative response (meaning a significant legislative output reaction following variations of selected external factors) and developments in some pillars, but not for all of them. It was possible

to observe a linkage between legislative responses and the security of supply and the affordability pillars. For the internal electricity market pillar, the legislative response appears to be rather weak. For the environment, external factors seem to have no influence. Apparently, public opinion on affordability, electricity prices and household energy expenses influence the political response for the affordability pillar, while public opinion on security of supply, minutes per customer of lost electricity in a year and solid fuels / natural gas dependency sways the policy direction for security of supply pillar. Yet although the GHG/capita decreased and air quality significantly improved, there seems to be no correlation between such changes and the legislative response.

A puzzling finding was that environmental indicators (measurable, external factors) are much more developed than either affordability indicators (Deller 2018; Poggi and Florio 2010; Thomson, Snell, and Liddell 2016) or security of supply indicators (Ang, Choong, and Ng 2015; Chester 2010). The anomaly is that legislative output is far *less* sensitive to environmental indicators than affordability or security of supply indicators. Thus, it seems reasonable to expect that affordability and security of supply indicators are far more developed, as they matter more for legislative output; however, that is not the case.

Following this investigation, it was possible to identify driving factors for affordability and security of supply pillars of EU electricity policy, and, in part, for the internal energy market. If this served as a partial answer to the main research question, it was also an incomplete answer. To solve this conundrum, a more sustained focus on the drivers of the environmental pillar of EU electricity policy was needed.

The third analytical step was geared, then, to investigating, in a more holistic approach, the environmental pillar's driving factors. If the physical, external factors were not the drivers, a deeper investigation was required. Such research is in fact performed by scholars in the field of Environmental Policy Integration (EPI), which enquires, among other things, why environment is incorporated or acknowledged in other domains, including energy. I therefore explored and tested the theories from the most detailed and recent classification of possible justifications found in the EPI literature for environmental and climate policy development in the energy sector (Runhaar et al. 2018).

Consequently, I selected the following indicators for investigation:

- *political factors* (Eurobarometer results and timing of selected European and national elections)
- *organisational factors* (the legal mandate of the organisation)
- *cognitive factors* (awareness of the problem and sense of urgency)
- *resources factors* (availability of financial and human resources)
- *framing of the problem and timing factors* (the economic situation).

The outcome of this exploration was that organisational factors and framing of the problem seem to influence the environmental legislative output in the EU electricity field the most. The strong mandate given to the Commission by consecutive EU treaties seemed to match an increase in legislative output. Regarding the framing of the problem, a close correlation could be established; moreover, several other studies also suggest that changes of framing influence policy output (Dammann and Gee 2011; Schuldt, Konrath, and Schwarz 2011; Vanhala and Hestbaek 2016).

To conclude, this final step helps to answer the question concerning the factors driving EU electricity policy priorities. During the research, it became evident that the different purposes of legislative output, divided across the classical energy trilemma, also have different drivers. In relation to the affordability and the security of supply pillars and, in part, the internal energy market, the legislative response seems to be well calibrated to variations of certain physical external factors; in relation to the environment pillar, however, a deeper investigation was necessary, suggesting organisational factors and framing of the problem as possible causes for concrete legislative output impact.

5.3. Empirical contribution

The thesis comprises two innovative empirical contributions: a database of all targets and objectives in EU electricity legislation, covering a specific period and including a new policy analysis perspective; and the application of a new quantitative analytical framework in the field of security of supply, which can be used for investigating the policy dynamics of the EU electricity legislation.

First, as my thesis objective was to measure quantitatively the driving factors for the EU electricity legislation, it was crucial to develop a quantitative perspective on chronological series of policy instruments. To this end, I collected and categorized each individual target and objective of EU binding legislation in the electricity sector from 1986 to 2018. The electricity sector pertains to electricity-related pieces of legislation only, eliminating legislation referring to energy carriers in mobility, like ship fuel. Binding refers to the EU documents with legal effects: Regulations, Directives and Decisions. The identified target/objective was coded along 11 dimensions, which resulted in a large empirical database of about 300 pieces of binding EU legislation, bringing together around 700 obligations/targets from about 30 years of data and over 8,000 tags.

Furthermore, I developed a cataloguing system by tagging each piece of legislation, target and objective with a number within the range of one to four, according to its importance, defined in a predefined rulebook. Alongside the existing policy density (number of pieces of legislation) and policy intensity (number of targets and objectives), this resulted in a new policy analysis perspective, labelled as *policy importance*. This made it possible to eliminate the undifferentiated measurement of targets and develop a more detailed or refined perspective on policy targets.

Secondly, I applied a new way to compare the time series of legislative data against quantitative indicators, which, to my knowledge, was done here for the first time in the field of electricity regulation. By converting data from selected indicators into ordinal values, it became possible to create comparable scales. Furthermore, I performed this comparison at a simple and aggregate scale in order for the comparison to be comprehensive. The numerical data that can be extracted from statistical sources, such as the Eurobarometer surveys or the electricity price, feature here as “simple” factors, while “aggregated” factors are composites of the “simple” factors. The insight to use converted ordinal values and aggregated factors comes from methods employed by studies in the security of supply field (Malik et al. 2020; Yamanishi, Takahashi, and Unesaki 2017; Yao and Chang 2014).

5.4. Theoretical contribution

Theoretically, the main contribution of this thesis pertains to the re-assessment, through empirical testing, of different approaches that seek to explain the dynamics of EU energy policy-making. In the process of exploring the three analytical steps necessary, the first step concentrated on benefits and drawbacks of market instruments in current energy policy design. The second and third analytical step contributed to the energy policy dynamics debate in energy policies, and particularly to the EPI debate, providing comparative quantitative assessments. Finally, as part of the third analytical step, I tested two theoretical approaches, neofunctionalism and punctuated equilibrium, which offer contending explanations for the development of environmental policies.

Regarding the benefits and drawbacks of market instruments in current energy policy design, on the one hand, I did not find any evidence in support of the theory that market failures may be due to the intrinsic characteristics of the energy sector (Foley and Lönnroth 1981; Goldthau 2012; Greening and Jefferson 2013). I did find evidence, however, indicating that the energy sector has high externalities, as well as that solutions rooting uniquely from the internal market may not be sufficient, as proposed by some authors (Hammond and Jones 2011).

On the other hand, my research underscored that there is substantial support for liberalisation of the market by way of bringing particular benefits, as suggested in some of the literature (Cambini and Rondi 2010; Domah and Pollitt 2001; Joskow 2008; McGowan 2008; Pollitt 2012). Despite the rather few policy instruments geared towards the affordability pillar, it was possible to observe that the development of the internal market facilitated major funding programs (e.g., the support for renewable energy sources, nuclear research) and higher costs for polluters (e.g., the EU Emissions Trading System for GHGs emissions), without a sharp increase in electricity prices. The sudden surge in energy prices as of autumn 2021 and up to the present (early 2022), could be put forward as a counterargument. However, no major or sustained spike in prices occurred during the period under study, 1986-2018, and, as argued in the future research agenda subchapter, the current energy prices situation is caused by short-term causes.

Furthermore, my trends research attempted to respond to the question of several researchers enquiring about the direction of EU energy policy (Dupont and Oberthür 2012; Szulecki and Westphal 2014). Finally, my findings indicating an imbalance of the energy trilemma agreed with observations from scholars who also identified such disequilibrium (Aalto 2014; Hammond and Jones 2011; Helm 2014).

Regarding the comparative, quantitative assessments in the energy policy dynamics debate, I concur with scholars who suggested that environmental legislation is insignificantly influenced by external factors (Knill, Heichel, and Arndt 2012). Additionally, I confirm the sensitivity of EU policymakers to several indicators, such as household energy expenses (Bogoviz et al. 2019) and import dependency (Yamanishi, Takahashi, and Unesaki 2017; Yao and Chang 2014).

As contribution to the EPI debate, the research presented in this thesis provided comparative assessments between various theories explaining the EPI employment in the EU energy field, compiled by the seminal paper of Runhaar and colleagues (Runhaar et al. 2018). Moreover, this thesis contributed new arguments to several specific debates in the EPI, such as policy framing and economic situation. As such I presented evidence in support of the suggestion that the framing of the problem may factor into the successful integration of environmental policies in the electricity field (Dammann and Gee 2011; Schuldt, Konrath, and Schwarz 2011; Vanhala and Hestbaek 2016).

The influence of the economic situation on whether or not environmental policies are adopted, is a topic repeatedly mentioned in the literature (Kahn and Kotchen 2010; Zito, Burns, and Lenschow 2019; Elliott, Seldon, and Regens 1997; Carmichael, Brulle, and Huxster 2017; Scruggs and Benegal 2012), but I did not find a consistent link, at least for the selected indicator of this thesis, the GDP growth per capita.

Finally, I investigated the evolution of legislative activity: neofunctionalism (Jensen 2013; Hooghe and Marks 2019; Niemann and Ioannou 2015) versus punctuated equilibrium (Fernández-i-Marín et al. 2020; Kuhlmann and van der Heijden 2018; Czapiewski 2015; Hallsworth, Parker, and Rutter 2011), in explaining the trajectory of the EU electricity policy. The examination of these two theoretical approaches offered strong arguments for neofunctionalism to be the root of energy policy evolution, specific patterns to this theory being found in the legislative mapping. On specific drivers to environmental policy, the thesis' findings support the theory proposed by some scholars (Dammann and Gee 2011; Schuldt, Konrath, and Schwarz 2011; Vanhala and Hestbaek 2016) that framing of the problem may be a major driving factor.

5.5. Policy recommendations

The aim of the thesis was to identify the drivers of EU policy-making in the electricity field, but the significance of the findings goes beyond current or past policy shapers. As argued, the four investigated policy pillars have been influenced in different degrees by their specific external factors. Environment is associated with many more targets and objectives than the

other pillars; also, it seems to be uncorrelated to quantitative indicators and influenced by more holistic external factors, such as framing of policy and legal mandate. For affordability and security of supply pillars and, partially, for internal energy market, legislative response seems to be well calibrated to variations of quantitative indicators. What is the explanation for this electricity pillar to behave differently? Although it receives far more attention from policymakers, its policy instruments do not seem to be correlated to quantitative indicators.

First, regarding the issue of policymakers' attention, the simplest explanation is that the European institutions have a clearer and stronger mandate on environmental matters than on the other pillars. This explanation is further supported by the finding of this thesis which suggests that the legal mandate has an influence on the rate of policy adoption. Environment may have a strong European dimension because it is increasingly related to the competitiveness of the market. For a fair level playing field, environmental constraints for industry have to be the same everywhere inside the internal market, and hence a strong mandate at the European level to manage this domain.

An alternative, but not exclusive, explanation could be that the European institutions, aware of past success in the environmental domain (e.g., Industrial Emission Directive), expand into new, related, environmental subdomains; hence, the blooming of legislation. As argued in this thesis, the policy adoption process, leaning towards neofunctionalism, supports this hypothesis. However, I also found that the human resources in DG ENVI and DG CLIMA have not been increasing exponentially (European Commission 2021a), a finding that weakens such argument. If the Commission would follow this neofunctionalism growth path, human resources would be expected to increase exponentially as well, and this has not been the case.

As noted, the environmental pillar has many more policy instruments than the other policy pillars. Is this energy policy imbalance a problem? I contend that it is, which in the thesis introduction I illustrated through the example of gas storage: a too heavy focus on affordability would mean a vulnerability of gas supply, whereas too much focus on security of supply would make the costs of maintaining gas storage unsustainable. It could be argued that the environmental policies, particularly climate policies, contribute to solving more policy goals at once: energy independence, as fewer fossil fuels need to be imported; affordability, as the cost of renewable energy is low; and environment, Europe doing its part to reduce emissions and develop renewable energy production technologies.

Without energy policy balancing, however, this universal solution can become a universal problem. Electricity supply and demand has to be always in equilibrium: all electricity produced needs to be consumed, minus the transmission losses. Traditionally, the electricity supply followed demand and was flexible enough to adapt to changes in demand. Since about a decade, the electricity supply (the power stations) has its flexibility side (coal, oil, gas producers) squeezed out of the market, for good reasons, due to the climate policies to ensure a carbon-neutral European Union. The incoming electricity production (wind and solar) is too inflexible to follow demand. On the demand side, electricity is increasingly used in home allowances, but also envisioned as replacement for energy consumption traditionally carried by fossil fuels, such as mobility (vehicles, airplanes, shipping) and

heating (mainly residential). The demand side has little to offer in terms of flexibility, at the moment, only the manufacturing sector doing electricity system balancing (ENTSO-E 2019).

As a consequence, the key electricity system balancing (ensuring that the electricity generated matches electricity consumed), following the climate measures, is achieved currently mostly by employing gas-fuelled electricity generation and, if needed, manufacturing sector stopping of production. As a collapse of the electricity grid is unthinkable, the energy system becomes vulnerable to disrupted gas imports (the security of supply pillar) and to price volatility, due to limited substitutes (the affordability pillar). This is the exact situation where we are today, looking at current energy prices (February 2022), as confirmed by the European Agency for the Cooperation of Energy Regulators (ACER 2021).

So, what are possible solutions to this conundrum of energy policy balance? I argue that, in essence, the environmental and climate policies are indeed positive in the long term, as they can solve multiple policy goals. The vulnerability rests in the electricity system balancing due to the intrinsically inflexible nature of renewable energy sources (at least at the moment). This vulnerability can be diminished by supporting a balancing, short-time term electricity market.

The discussion presented in the context of the first analytical step on the merits of liberalisation in the energy sector is relevant here. Some have criticized liberalisation for its potential lack of competition due to natural monopolies, high externalities and unequal information, while it is praised for cost reductions and price finding. A balancing market would work well on the strengths of the system: cost reductions and price finding, important to ensure that the most competitive technologies are pursued. It would be less vulnerable on the drawbacks of the system: lack of competition due to natural monopolies (no natural monopolies in such a market, except hydro energy), high externalities (the system itself aims to support renewable energy sources integration) and unequal information (there is open access to system data). Such a balancing market could be the missing link for the current challenges raised by the energy policy imbalance.

Secondly, regarding the disjoint between the environmental pillar and its specific quantitative indicators, one explanation is that the policy instruments are resulting from moving political objectives, hence the indicators are out of sync with the political targets. There are several reasons that may explain why political targets are constantly moving. One reason could be the successive increases in the legal mandate of the European institutions in the field of environment. The European institutions will then try to make use of the new competence with fresh and more ambitious legislation. This hypothesis is supported by one of my findings, the notion that a legal expanse of EU competences coincides with an increase in environmental legislation. Another reason is that there is increasing public pressure, likely reflected by both national government and European institutions, which demands more stringent environmental measures. The research for thesis seems to support such a link: public opinion appearing to influence the adaption of environmental legislation (Bostan 2021b). A third reason could be the increased awareness of the climate problem, such as reflected by the IPCC assessment reports (Intergovernmental Panel on Climate Change 2021), which would create more urgency and, consequently, more stringent climate legislation.

However, my findings did not include evidence that the timing of IPCC assessment reports sways directly environmental policy adoption.

An alternative explanation to the disjoint between the environmental pillar and its specific quantitative indicators is that the European institutions are using the environmental path to increase their power compared with member states. The relatively few external factors influencing policy adoption, even looking holistically, supports such speculation. Furthermore, the bias towards the neofunctionalism policy process, as uncovered in this study, could be brought as a weak argument, as earlier success may be used to snowball legislation in new, related environmental areas. However, the evidence is rather conjectural and the European Commission did allow national measures to overtake European objectives in specific cases, such as capacity mechanisms (Eurelectric 2016). The literature as well is pointing towards security of supply rather than environment as justification for further market integration (Huhta 2020; Judge and Maltby 2017).

Is there a problem if there is a disjoint between the environmental pillar and its specific quantitative indicators? The answer to this question depends on the causes of the desynchronisation. If the reason is simply adaptation to changing society demands, then the disjoint is not an issue. If, however, the cause is the European institutions expanding in the areas where they have competences, it could lead to over-regulation.

As recommended in this thesis, the European institutions ought to focus on better implementation of current legislation, across all member states, rather than adding new legislative threads. The numerous targets and objectives in the environmental domain could weight on other economic sectors, for example in terms of environmental permits complexity. Furthermore, such focus on implementing legislation could also defuse tensions between the European institutions and some Member States, for example in the case of Directive 2008/99/EC on the protection of the environment through criminal law. The critique to this piece of legislation is that it is only a reaction to an implementation deficit, instead of responding to an environmental problem (Faure 2017).

What are the broader implications of the findings of this thesis? I would argue that they are useful for three categories of professionals: policymakers, scholars in academia and advocacy professionals. For policymakers, the empirical construct and theoretical findings put forward in this thesis could be a useful tool to measure the adoption rate of pioneering legislation and highlight which policy goals may be, roughly, under- or over-represented. I need to stress *roughly* here because I did not follow legislation into the implementation phase to verify whether it solved the problem that it was supposed to tackle or whether it increased performance. Regarding the adoption rate of pioneering legislation, which was demonstrated to be flat during the decades under study, I recommend bold future action from EU policymakers, because, as they proved in the past, they can adopt groundbreaking legislation successfully. For academia, putting policy drivers in the limelight would help identify indicators or policy domains that may need to be better studied or developed (for example, affordability indicators). Finally, for advocacy professionals, knowing what external factors trigger the most policymakers' attention could be a beneficial instrument in influencing policy.

5.6. Agenda for future research

The search for suitable policy drivers in the electricity field was to some extent hindered by insufficient data. The time series of some variables were not long enough to have useful comparisons against the legislative database. For example, when investigating, as an external factor, if a new European Commission president has an impact on legislation, the rather limited number of only five Commission Presidents during three decades, from 1986 to 2018, did not provide a solid basis for establishing such impact.

Research was also complicated at times by sufficient, but disorganized data. For example, I intended to test if the rotational presidency of Council of the European Union has any effects on electricity legislative output, by asking, for instance if a socialist Council presidency will impose more affordability legislation. However, the increasing number of EU members and frequent national elections for the main political leadership positions and at parliamentary level would render such analysis too fragmented.

Finally, a type of limitation challenging to overcome is related to the empirical database with legislative output, targets and objectives presented here. The legislation was selected from the EUR-Lex website by directory codes, 1st level, *Energy* and *Environment*, and both directories were fully taken into analysis. However, there is legislation pertinent to the electricity domain in other Regulations or Directives, as chapters or articles. For example, Markets in Financial Instruments Directive (MiFID), a clearly financial domain Directive, has provisions referring to energy derivatives and emission allowances. Such type of provisions, which overlap two or more domains and are not specifically tagged by Eur-Lex as Energy or Environment, are missing from analysis. The reason is that they are almost impossible to identify. Furthermore, making an unbiased judgement on whether or not a provision belongs to the electricity field would be problematic without the imperfect, but neutral, system of reference that Eur-Lex provides. Ultimately, the replicability of the results would be affected without the already-existing Eur-Lex reference system.

Adding further empirical data to the database beyond 2018 would improve the accuracy of the results and allow further insights. Since 2018, the Commission has a new president and a new energy package was released. New hot topics such as sustainable finance and hydrogen markets make their mark in upcoming legislation, items that could change the trends if added in the long-term patterns analysis presented in this thesis.

The 2019 clean energy for all Europeans package (European Commission 2019), which focuses on the internal market, climate and security of supply, and the new legislative proposals – including some already adopted – under the European Green Deal (European Commission 2022) bring a plethora of new legislation relevant to the EU electricity field and, consequently, to the research discussed here. The new energy legislation follows largely along the line of the general trends described in the thesis conclusions, meaning that most new legislation belongs to the environmental and internal market pillars. Nevertheless, it appears that the adopted clean energy package brings some highly impactful targets and objectives, for example related to the obligation of a certain percentage of electricity

transmission to be open for trading. Such impactful policy instruments, translated in targets and objectives with high policy importance, could change the trends going on so far.

More interesting would be to study the approach of European institutions facing the increase in energy prices in late 2021, across all energy commodities (gas, electricity, oil, coal) and energy-related financial products (GHGs emission allowances). As the increase of energy prices is one of the influencing factors, a factor that European institutions are sensitive to, my research predicts that European legislation output is likely to follow. In other words, I expect EU legislation to be adopted in the security of supply and, possibly, the affordability pillar. As discussed, the European Commission and the EU Agency for the Cooperation of Energy Regulators (ACER) proposed a toolbox to deal with the current high prices, dividing it into short and medium policies; and national and EU measures (European Commission 2021b; ACER 2021).

The current debate in the Council of the European Union is between two schools of thoughts. On the one hand, a group of countries led by France and Spain argue for fundamental changes to the energy market design, including joint gas procuring and automatic price stabilizers (Simon 2021; Sgaravatti, Tagliapietra, and Zachmann 2021). On the other hand, nine EU countries – Austria, Germany, Denmark, Estonia, Finland, Ireland, Luxembourg, Latvia and the Netherlands – signed a statement calling for energy efficiency changes and no intervention on the current market design, focusing on short-term measures (Permanent Representation of the Netherlands to the European Union 2021).

Furthermore, several potential factors driving environmental legislation in the EU electricity field have not been sufficiently explored yet. It would have been interesting to investigate to what degree the growth of “green” policy ideas and their adoption in the political mainstream (i.e., European institutions’ leadership) influence the adoption of European environment legislation in the electricity field. As explained, I could not analyse the political leanings of the European Parliament, as the data would not be meaningful due to the longstanding alliance of socialists (Party of European Socialists) and conservatives (European People’s Party), as well as the only recent increase in competences of the European Parliament. Taking into account issues regarding the presidency of the European Council, the many rotating presidencies (every six months), national politics and size of the country would require research for another full-length thesis project. This is also why I limited my focus to the presidency of the European Commission.

As another example, framing of the problem seems to have a strong impact, but research is scarce. There are studies suggesting a link and our empirical findings hint towards such a connection as well, but more research is needed for definitive results. One other area that looks promising is the role of the economic situation in influencing environmental legislation. Measured by the annual GDP growth per capita, the link with environmental policy output was obvious, until 2007, when the evolution of the two became disjointed. It is a puzzle inviting further research what precisely occurred at that time that led to the environmental policy driver to disappear.

Looking to the future, it will be a welcome development if more academic research, at least in policy dynamics, can make more and better use of quantitative methods. Such methods help to build a body of knowledge that facilitate new research and provide fresh insights. Particularly for political science fields bordering on domains such as economics and energy that are reliant on statistical data, the use of quantitative methods could bring additional acumen. With new software applications, large quantities of data can now be presented in comprehensible infographics. In terms of policy developments, there has been increasing scholarly interest in environmental topics. This is important because only rich, developed and well-grounded societies can focus on environment. Less affluent societies are likely to be primarily concerned with affordability issues, while societies under threat will highlight issues associated with security of supply. Let's hope that people in all societies will forever have at least four meals assured ahead of them.

Bibliography

- Aalto, Pami. 2014. "Institutions in European and Asian energy markets: A methodological overview." *Energy Policy* 74:4-15.
- ACER. 2021. "Preliminary Assessment of Europe's High Energy Prices and the Current Wholesale Electricity Market Design." Agency for the Cooperation of Energy Regulators (ACER), accessed 8 January 2022. https://extranet.acer.europa.eu//Official_documents/Acts_of_the_Agency/Publication/ACER's%20Preliminary%20Assessment%20of%20Europe's%20high%20energy%20prices%20and%20the%20current%20wholesale%20electricity%20market%20design.pdf.
- Adelle, Camilla, and Duncan Russel. 2013. "Climate policy integration: a case of déjà vu?" *Environmental Policy and Governance* 23 (1):1-12.
- Aguilar, Francis Joseph. 1967. *Scanning the business environment*: Macmillan.
- Alizadeh, Reza, Peter D Lund, Ali Beynaghi, Mahdi Abolghasemi, and Reza Maknoon. 2016. "An integrated scenario-based robust planning approach for foresight and strategic management with application to energy industry." *Technological Forecasting and Social Change* 104:162-171.
- Allen, Maria L, Matthew MC Allen, Douglas Cumming, and Sofia Johan. 2020. "Comparative capitalisms and energy transitions: Renewable energy in the European union." *British Journal of Management*.
- Ang, Beng Wah, Wei Lim Choong, and Tsan Sheng Ng. 2015. "Energy security: Definitions, dimensions and indexes." *Renewable and sustainable energy reviews* 42:1077-1093.
- Asia Pacific Energy Research Centre (APERC). 2007. *A Quest for Energy Security in the 21st century*. edited by Japan Institute of energy economics. Japan.
- Auverlo, Dominique, Étienne Beeker, Gaëlle Hossie, Louise Oriol, and Aude Rigard-Cerison. 2014. *The Crisis of the European Energy system*. edited by Commissariat général à la stratégie et à la prospective.
- Bardach, Eugene. 2006. "Policy dynamics." *The Oxford handbook of public policy*:336-366.
- Bauer, Michael W, and Christoph Knill. 2014. "A conceptual framework for the comparative analysis of policy change: Measurement, explanation and strategies of policy dismantling." *Journal of Comparative Policy Analysis: Research and Practice* 16 (1):28-44.
- Baumgartner, Frank R, and Bryan D Jones. 2010. *Agendas and instability in American politics*: University of Chicago Press.
- Benson, David, and Duncan Russel. 2015. "Patterns of EU energy policy outputs: Incrementalism or punctuated equilibrium?" *West European Politics* 38 (1):185-205.
- Biesbroek, G Robbert, Judith EM Klostermann, Catrien JAM Termeer, and Pavel Kabat. 2013. "On the nature of barriers to climate change adaptation." *Regional Environmental Change* 13 (5):1119-1129.
- Black, Julia. 2013. "European Union energy regulation." *OECD, International Regulatory Co-operation: Case Studies, Vol. 2: Canada-US Co-operation, EU Energy Regulation, Risk Assessment and Banking Supervision*.
- Bocse, Alexandra-Maria. 2020. "NATO, energy security and institutional change." *European security* 29 (4):436-455.
- Bogoviz, Aleksei V, Yulia V Ragulina, Svetlana V Lobova, and Alexander N Alekseev. 2019. "A quantitative Analysis of Energy Security Performance by Brazil, Russia, India, China, and South Africa in 1990-2015." *International Journal of Energy Economics and Policy* 9 (3):244.

- Bondarouk, Elena, and Ellen Mastenbroek. 2018. "Reconsidering EU Compliance: Implementation performance in the field of environmental policy." *Environmental Policy and Governance* 28 (1):15-27.
- Bostan, Mike. 2019. "Assessing European electricity policy goals and achievement levels." ENERDAY 2019 - 13th International Conference on Energy Economics and Technology, Dresden.
- Bostan, Mike. 2021a. "EU Electricity Policy (Im)balance: A Quantitative Analysis of Policy Priorities Since 1986." *International Journal of Energy Economics and Policy* 11 (5):298-309. doi: <https://doi.org/10.32479/ijeeep.11461>.
- Bostan, Mike. 2021b. "EU Electricity Policymakers' (in) Sensitivity to External Factors: A Multi-decade Quantitative Analysis." *International Journal of Energy Economics and Policy* 11 (6):303-314. doi: <https://doi.org/10.32479/ijeeep.11630>.
- Breeze, Paul. 2021. "Chapter 9 - The cost of electricity." In *The Cost of Electricity*, edited by Paul Breeze, 117-136. Elsevier.
- Brunekreeft, Gert, and Roland Meyer. 2019. "Cross-Border Electricity Interconnectors in the EU: The Status Quo." In *The European Dimension of Germany's Energy Transition*, 433-451. Springer.
- Cadore, Isabelle, and Fabio Padovano. 2016. "The political drivers of renewable energies policies." *Energy Economics* 56:261-269.
- Cambini, Carlo, and Laura Rondi. 2010. "Incentive regulation and investment: evidence from European energy utilities." *Journal of regulatory economics* 38 (1):1-26.
- Capano, Giliberto, and Maria Tullia Galanti. 2018. "Policy dynamics and types of agency: From individual to collective patterns of action." *European Policy Analysis* 4 (1):23-47.
- Capano, Giliberto, and Michael Howlett. 2009. "Introduction: The determinants of policy change: Advancing the debate." *Journal of Comparative Policy Analysis* 11 (1):1-5.
- Carmichael, Jason T, Robert J Brulle, and Joanna K Huxster. 2017. "The great divide: understanding the role of media and other drivers of the partisan divide in public concern over climate change in the USA, 2001-2014." *Climatic Change* 141 (4):599-612.
- Chester, Lynne. 2010. "Conceptualising energy security and making explicit its polysemic nature." *Energy policy* 38 (2):887-895.
- Christiansen, Thomas, and Amy Verdun. 2020. "Historical institutionalism in the study of european integration." In *Oxford Research Encyclopedia of Politics*.
- Colgan, Jeff D, Robert O Keohane, and Thijs Van de Graaf. 2012. "Punctuated equilibrium in the energy regime complex." *The Review of International Organizations* 7 (2):117-143.
- Council of the European Communities. 1986. The Single European Act. In *OJ L 169 of 29.6.1987*, edited by EUR-Lex. Luxembourg: Official Journal of the European Communities.
- Council of the European Communities. 1992. Treaty of the European Union. In *L-2985*, edited by European Union. Luxembourg: Office for Official Publications of the European Communities.
- Czapiewski, Tomasz. 2015. "Reconciling Incrementalism with Policy Change. The Punctuated Equilibrium Theory in Political Science." *Atheneum - Polish Political Science Studies* 48:35-50. doi: 10.15804/athena.2015.48.03.
- Dammann, Sven, and David Gee. 2011. "13 Science into policy: The European Environment Agency." *The Politics of Scientific Advice: Institutional Design for Quality Assurance*:238.
- Deller, David. 2018. "Energy affordability in the EU: The risks of metric driven policies." *Energy policy* 119:168-182.
- Domah, Preetum, and Michael G. Pollitt. 2001. "The restructuring and privatisation of the electricity distribution and supply businesses in England and Wales: a social cost-benefit analysis." *Fiscal Studies* 22 (1):107-146.

- Dupont, Claire, and Sebastian Oberthür. 2012. "Insufficient climate policy integration in EU energy policy: the importance of the long-term perspective." *Journal of Contemporary European Research* 8 (2).
- Eckerberg, K., and M. Nilsson. 2013. *Environmental Policy Integration in Practice: Shaping Institutions for Learning*: Taylor & Francis.
- Ekstrom, Julia A, and Susanne C Moser. 2014. "Identifying and overcoming barriers in urban climate adaptation: case study findings from the San Francisco Bay Area, California, USA." *Urban climate* 9:54-74.
- Elliott, Euel, Barry J Seldon, and James L Regens. 1997. "Political and economic determinants of individuals' support for environmental spending." *Journal of Environmental Management* 51 (1):15-27.
- Eltsberg, Marc. 2017. *Blackout*. Edited by Transworld Publishers. Great Britain: Black Swan.
- Energy Poverty Advisory Hub. 2022. "Indicators." Directorate-General Energy, accessed 27 January 2022. https://energy-poverty.ec.europa.eu/energy-poverty-observatory/indicators_en.
- ENTSO-E. 2019. "ENTSO-E technical report on the January 2019 significant frequency deviations in Continental Europe." European Network of Transmission System Operators for Electricity, accessed 10 January 2022. <https://www.entsoe.eu/news/2019/05/28/entso-e-technical-report-on-the-january-2019-significant-frequency-deviations-in-continental-europe/>.
- EPEX SPOT. 2021. "European market coupling." accessed 10 May 2021. <https://www.epexspot.com/en/marketcoupling>.
- EUR-Lex. 2007. "Treaty of Lisbon: Amending the Treaty on European Union and the Treaty Establishing the European Community." accessed 1 September 2021. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12007L%2FTXT>.
- EUR-Lex. 2017. "Treaties currently in force." European Union, accessed 1 May 2017. <http://eur-lex.europa.eu/collection/eu-law/treaties.html>.
- Eurelectric. 2016. "Capacity Mechanisms." Union of the Electricity Industry - EURELECTRIC, accessed 11 April 2021. http://www.csze-eurelectric.cz/sites/default/files/capacity_mechanisms-final-2016-030-0347-01-e.pdf.
- European Commission. 2019. "Clean energy for all Europeans package completed: good for consumers, good for growth and jobs, and good for the planet." DG ENERGY, Last Modified 22 May 2019, accessed 8 January 2022. https://ec.europa.eu/info/news/clean-energy-all-europeans-package-completed-good-consumers-good-growth-and-jobs-and-good-planet-2019-may-22_en.
- European Commission. 2020a. "A European Green Deal." accessed 26 December 2020. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.
- European Commission. 2020b. "DG ENER Topics." European Commission, accessed 26 December 2020. https://ec.europa.eu/energy/home_en.
- European Commission. 2020c. "Public Opinion." accessed 26 December 2020. <https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm>.
- European Commission. 2021a. "Application for access to documents - GESTDEM 2021/5146 - Ares(2021)5510555 to Directorate-General for Human Resources and Security."
- European Commission. 2021b. "Tackling rising energy prices: a toolbox for action and support." European Commission, accessed 8 January 2022. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2021%3A660%3AFIN&qid=1634215984101>.
- European Commission. 2022. "A European Green Deal." European Commission, accessed 8 January 2022. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en#timeline.

- European Environment Agency. 2019. "Emissions of the main air pollutants in Europe." European Environment Agency,, accessed 13 February 2021. <https://www.eea.europa.eu/data-and-maps/indicators/main-anthropogenic-air-pollutant-emissions/assessment-6>.
- European Union. 2017. "Regulations, Directives and other acts." accessed 1 May 2017. https://europa.eu/european-union/eu-law/legal-acts_en.
- Europex. 2016. "PCR project - main features (presentation 2016)." accessed 10 May 2021. <https://www.epexspot.com/sites/default/files/2019-03/PCR%20Standard%20Presentation%20-%20August%202016.pdf>.
- Europex. 2019. "PCR project - main features." accessed 10 May 2021. http://www.mercatoelettrico.org/en/MenuBiblioteca/Documenti/20190116_PCR_Standard_Presentation_detailed.pdf.
- Eurostat. 2021a. "Energy imports dependency (nrg_ind_id)." accessed 27 January 2021. https://ec.europa.eu/eurostat/cache/metadata/en/nrg_ind_id_esms.htm.
- Eurostat. 2021b. "Market share of the largest generator in the electricity market." accessed 10 April 2021. <https://ec.europa.eu/eurostat/web/products-datasets/-/ten00119>.
- Falkner, Gerda, Miriam Hartlapp, and Oliver Treib. 2007. "Worlds of compliance: why leading approaches to european union implementation are only 'sometimes-true theories'." *European journal of political research* 46 (3):395-416.
- Falkner, Gerda, and Oliver Treib. 2008. "Three worlds of compliance or four? The EU-15 compared to new member states." *JCMS: Journal of Common Market Studies* 46 (2):293-313.
- Farrell, Henry. 2018. "The shared challenges of institutional theories: Rational choice, historical institutionalism, and sociological institutionalism." In *Knowledge and institutions*, 23-44. Springer, Cham.
- Faure, Michael. 2017. "The development of environmental criminal law in the EU and its member states." *Review of European, Comparative & International Environmental Law* 26 (2):139-146.
- Fernández-i-Marín, Xavier, Steffen Hurka, Christoph Knill, and Yves Steinebach. 2020. "Systemic dynamics of policy change: Overcoming some blind spots of punctuated equilibrium theory." *Policy Studies Journal*.
- Flink, Carla M. 2017. "Rethinking punctuated equilibrium theory: A public administration approach to budgetary changes." *Policy Studies Journal* 45 (1):101-120.
- Foley, Gerard, and Måns Lönnroth. 1981. "The European transition from oil: mapping the landscape." In *The European Transition from Oil: Societal Impacts and Constraints on Energy Policy*, edited by Lars A. Kristoferson Gordon T. Goodman, Jack M. Hollander,. London: Academic Press.
- Goldthau, Andreas. 2012. "A public policy perspective on global energy security." *International Studies Perspectives* 13 (1):65-84.
- Goldthau, Andreas. 2016. "Assessing Nord Stream 2: regulation, geopolitics & energy security in the EU, Central Eastern Europe & the UK." *European Center for Energy and Resource Security. Strategy Paper* 10:1-40.
- Goldthau, Andreas, and Nick Sitter. 2014. "A liberal actor in a realist world? The Commission and the external dimension of the single market for energy." *Journal of European Public Policy* (21:10):1452-1472.
- Goldthau, Andreas, and Nick Sitter. 2015. "Soft power with a hard edge: EU policy tools and energy security." *Review of International Political Economy* 22 (5):941-965.
- Gravey, Viviane, and Andrew J Jordan. 2020. "Policy dismantling at EU level: Reaching the limits of 'an ever-closer ecological union'?" *Public Administration* 98 (2):349-362.
- Greening, Lorna A., and Michael Jefferson. 2013. "Energy policy: The flip side." *Energy Policy* 61 (Supplement C):1-2.

- Gullberg, Anne Therese. 2015. "Lobbying in Oslo or in Brussels? The case of a European Economic Area country." *Journal of European Public Policy* 22 (10):1531-1550.
- Gunningham, Neil. 2013. "Managing the energy trilemma: The case of Indonesia." *Energy Policy* 54:184-193.
- Haas, Ernst. 2004. *Uniting of Europe: Political, Social, and Economic Forces, 1950-1957*. Edited by University of Notre Dame Press, *Contemporary European Politics and Society*: University of Notre Dame Press.
- Hallsworth, Michael. 2011. "Policy-making in the real world." *Political Insight* 2 (1):10-12.
- Hallsworth, Michael, Simon Parker, and Jill Rutter. 2011. Policy-making in the real world: Evidence and analysis. In *Political Insight*, edited by Institute for Government. United Kingdom: Institute for Government.
- Hammond, Geoffrey P, and Craig I Jones. 2011. *Sustainability criteria for energy resources and technologies*: Edward Elgar, Cheltenham, UK.
- Harremoës, Poul, David Gee, Malcolm MacGarvin, Andy Stirling, Jane Keys, Brian Wynne, and S Guedes Vaz. 2001. *Late lessons from early warnings: the precautionary principle 1896-2000*: Citeseer.
- Hawker, Graeme, Keith Bell, and Simon Gill. 2017. "Electricity security in the European Union—the conflict between national capacity mechanisms and the single market." *Energy Research & Social Science* 24:51-58.
- Helm, Dieter. 2014. "The European framework for energy and climate policies." *Energy Policy* 64:29-35.
- Hernandez, Ana Gonzalez, Simone Cooper-Searle, Alexandra CH Skelton, and Jonathan M Cullen. 2018. "Leveraging material efficiency as an energy and climate instrument for heavy industries in the EU." *Energy Policy* 120:533-549.
- Herranz-Surrallés, Anna. 2015. "European external energy policy: Governance, diplomacy and sustainability." *Sage handbook of European foreign policy*:911-925.
- Herranz-Surrallés, Anna. 2019. *European Energy Policy: Towards Energy Union or Differentiated Integration?* Forthcoming. doi:Forthcoming.
- Hooghe, Liesbet, and Gary Marks. 2019. "Grand theories of European integration in the twenty-first century." *Journal of European Public Policy* 226 (8):1113-1133. doi: 10.1080/13501763.2019.1569711.
- Hoppe, Robert, and Anna Wesselink. 2014. "Comparing the role of boundary organizations in the governance of climate change in three EU member states." *Environmental science & policy* 44:73-85.
- Howlett, Michael, and Benjamin Cashore. 2009. "The dependent variable problem in the study of policy change: Understanding policy change as a methodological problem." *Journal of Comparative Policy Analysis* 11 (1):33-46.
- Huhta, Kaisa. 2020. "Trust in the invisible hand? The roles of the State and the markets in EU energy law." *The Journal of World Energy Law & Business* 13 (1):1-11.
- Ikenberry, G John. 2019. *After victory*: Princeton University Press.
- Intergovernmental Panel on Climate Change. 2021. "Main Page." Intergovernmental Panel on Climate Change,, accessed 17 August 2021. <https://www.ipcc.ch/>.
- Jamasb, Tooraj, and Michael Pollitt. 2005. "Electricity market reform in the European Union: review of progress toward liberalization & integration." *The Energy Journal*:11-41.
- Jensen, Carsten Stroy. 2013. "Neo-functionalism." *European Union Politics* 4.
- Jevnaker, Torbjørg. 2015. "Pushing administrative EU integration: the path towards European network codes for electricity." *Journal of European Public Policy* 22 (7):927-947.
- Jordan, Andrew, and Andrea Lenschow. 2010. "Environmental policy integration: a state of the art review." *Environmental policy and governance* 20 (3):147-158.

- Joskow, Paul L. 2008. *Lessons Learned from the Electricity Market Liberalization*: Massachusetts Institute of Technology, Center for Energy and Environmental Policy Research.
- Judge, Andrew, and Tomas Maltby. 2017. "European Energy Union? Caught between securitisation and 'riskification'." *European journal of international security* 2 (2):179-202.
- Kahn, Matthew E, and Matthew J Kotchen. 2010. Environmental concern and the business cycle: the chilling effect of recession. National Bureau of Economic Research.
- Kanellakis, Marinos, Georgios Martinopoulos, and Theodoros Zachariadis. 2013. "European energy policy—A review." *Energy Policy* 62:1020-1030.
- Kettner, Claudia, and Daniela Kletzan-Slamanig. 2020. "Is there climate policy integration in European Union energy efficiency and renewable energy policies? Yes, no, maybe." *Environmental Policy and Governance*.
- Kirby, Paul. 2014. "Russia's gas fight with Ukraine." BBC, accessed 30 January 2021. <https://www.bbc.com/news/world-europe-29521564>.
- Knill, Christoph, and Liefferink Duncan. 2007. "Implementation effectiveness of EU environmental policy." In *Environmental politics in the European Union*, edited by Manchester University Press. Manchester University Press.
- Knill, Christoph, Stephan Heichel, and Daniel Arndt. 2012. "Really a front-runner, really a Straggler? Of environmental leaders and laggards in the European Union and beyond—A quantitative policy perspective." *Energy Policy* 48:36-45.
- Knill, Christoph, Kai Schulze, and Jale Tosun. 2012. "Regulatory policy outputs and impacts: Exploring a complex relationship." *Regulation & Governance* 6 (4):427-444.
- Kruyt, Bert, Detlef P van Vuuren, Han JM de Vries, and Heleen Groenenberg. 2009. "Indicators for energy security." *Energy policy* 37 (6):2166-2181.
- KU Leuven Energy Institute. 2015. "The current electricity market design in Europe." KU Leuven, accessed 01 Oct 2017. <https://set.kuleuven.be/ei/factsheets>.
- Kuhlmann, Johanna, and Jeroen van der Heijden. 2018. "What is known about Punctuated Equilibrium Theory? And what does that tell us about the construction, validation, and replication of knowledge in the policy sciences?" *Review of Policy Research* 35 (2):326-347.
- Kuhn, Theresa. 2019. "Grand theories of European integration revisited: does identity politics shape the course of European integration?" *Journal of European Public Policy* 26 (8):1213-1230.
- Lenschow, Andrea, Charlotte Burns, and Anthony Zito. 2020. "Dismantling, disintegration or continuing stealthy integration in European Union environmental policy?" *Public Administration* 98 (2):340-348.
- Lenschow, Andrea, and Carina Sprungk. 2010. "The myth of a green Europe." *JCMS: journal of common market studies* 48 (1):133-154.
- Lenschow, Andrea, and Anthony R Zito. 1998. "Blurring or shifting of policy frames?: Institutionalization of the economic-environmental policy linkage in the European Community." *Governance* 11 (4):415-441.
- Lindberg, Marie Byskov. 2019. "The EU emissions trading system and renewable energy policies: Friends or foes in the European policy mix?" *Politics and Governance* 7 (1):105-123.
- Mahoney, James, and Kathleen Thelen. 2010. "A theory of gradual institutional change." *Explaining institutional change: Ambiguity, agency, and power* 1:1-37.
- Malik, Sadia, Maha Qasim, Hasan Saeed, Youngho Chang, and Farhad Taghizadeh-Hesary. 2020. "Energy security in Pakistan: Perspectives and policy implications from a quantitative analysis." *Energy Policy* 144:111552.

- McCauley, Darren, Antje Brown, Robert Rehner, Raphael Heffron, and Shashi van de Graaff. 2018. "Energy justice and policy change: An historical political analysis of the German nuclear phase-out." *Applied Energy* 228:317-323.
- McGowan, Francis. 2008. "Can the European Union's Market Liberalism Ensure Energy Security in a Time of 'Economic Nationalism'?" *Journal of Contemporary European Research* 4 (2):90-106.
- Mickwitz, Per, and Matthew Birnbaum. 2009. "Key insights for the design of environmental evaluations." *New Directions for Evaluation* 2009 (122):105-112.
- Natorski, Michal, and Anna Herranz Surrallés. 2008. "Securitizing moves to nowhere? The framing of the European Union's energy policy." *Journal of Contemporary European Research* 4 (2):70-89.
- Niemann, Arne, and Demosthenes Ioannou. 2015. "European economic integration in times of crisis: a case of neofunctionalism?" *Journal of European Public Policy* 22 (2):196-218.
- Oberthür, Sebastian, and Lisanne Groen. 2017. "The European Union and the Paris Agreement: leader, mediator, or bystander?" *Wiley Interdisciplinary Reviews: Climate Change* 8 (1):e445.
- Official Journal of European Communities. 1997. "Treaty of Amsterdam amending the treaty on European Union, the treaties establishing the European Communities and certain related acts." accessed 1 September 2021. <http://www.europarl.europa.eu/topics/treaty/pdf/amst-en.pdf>.
- Official Journal of European Communities. 2001. "Treaty of Nice amending the Treaty on European Union, the Treaties establishing the European Communities and certain related acts." accessed 1 September 2021. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12001C/TXT&from=EN>.
- Permanent Representation of the Netherlands to the European Union. 2021. Joint Statement on Energy Prices in the EU. Brussels: Permanent Representation of the Netherlands to the European Union.
- Persson, Åsa. 2004. "Environmental policy integration: an introduction."
- Persson, Åsa, and Hens Runhaar. 2018. "Conclusion: Drawing lessons for Environmental Policy Integration and prospects for future research." *Environ. Sci. Policy* 85:141-145.
- Persson, Åsa, Hens Runhaar, Sylvia Karlsson-Vinkhuyzen, Gerard Mullally, Duncan Russel, and Alexander Widmer. 2018. "Environmental policy integration: Taking stock of policy practice in different contexts." *Environmental Science and Policy* 85:113-115.
- Poggi, Ambra, and Massimo Florio. 2010. "Energy deprivation dynamics and regulatory reforms in Europe: Evidence from household panel data." *Energy Policy* 38 (1):253-264.
- Pollitt, Michael G. 2012. "The role of policy in energy transitions: Lessons from the energy liberalisation era." *Energy Policy* 50:128-137.
- Pérez-Arriaga, Ignacio J. 2014. *Regulation of the power sector*: Springer-Verlag London.
- Quahe, Sasha. 2018. "EU in crisis: what implications for climate and energy policy?" *Asia Europe Journal* 16 (2):169-182.
- Rietig, Katharina. 2019. "The importance of compatible beliefs for effective climate policy integration." *Environmental Politics* 28 (2):228-247.
- Runhaar, Hens, Peter Driessen, and Caroline Uittenbroek. 2014. "Towards a systematic framework for the analysis of environmental policy integration." *Environmental Policy and Governance* 24 (4):233-246.
- Runhaar, Hens, Bettina Wilk, Peter Driessen, Niall Dunphy, Åsa Persson, James Meadowcroft, and Gerard Mullally. 2020. "Policy integration." In *Architectures of earth system governance: Institutional complexity and structural transformation*, edited by Cambridge University Press Archit, 183-206. Cambridge.

- Runhaar, Hens, Bettina Wilk, Åsa Persson, Caroline Uittenbroek, and Christine Wamsler. 2018. "Mainstreaming climate adaptation: taking stock about "what works" from empirical research worldwide." *Regional environmental change* 18 (4):1201-1210.
- Russel, Duncan, and David Benson. 2014. "Green budgeting in an age of austerity: a transatlantic comparative perspective." *Environmental Politics* 23 (2):243-262.
- Schaffrin, André, Sebastian Sewerin, and Sibylle Seubert. 2015. "Toward a comparative measure of climate policy output." *Policy Studies Journal* 43 (2):257-282.
- Schröder, Andreas, Friedrich Kunz, Jan Meiss, Roman Mendelevitch, and Christian von Hirschhausen. 2013. "Current and Prospective Costs of Electricity Generation until 2050." DIW Berlin, German Institute for Economic Research, accessed 10 Oct 2020. <https://EconPapers.repec.org/RePEc:diw:diwddc:dd68>.
- Schuldt, Jonathon P, Sara H Konrath, and Norbert Schwarz. 2011. "'Global warming" or "climate change"? Whether the planet is warming depends on question wording." *Public opinion quarterly* 75 (1):115-124.
- Scruggs, Lyle, and Salil Benegal. 2012. "Declining public concern about climate change: Can we blame the great recession?" *Global Environmental Change* 22 (2):505-515.
- Selin, Henrik, and Stacy D VanDeveer. 2015. "Broader, deeper and greener: European Union environmental politics, policies, and outcomes." *Annual review of environment and resources* 40:309-335.
- Sgaravatti, Giovanni, Simone Tagliapietra, and Georg Zachmann. 2021. "Rising energy prices: European Union countries' views on medium-term policies." *Bruegel*, 29 November 2021. <https://www.bruegel.org/2021/11/rising-energy-prices-european-union-countries-views-on-medium-term-policies/>.
- Shilei, Lv, and Wu Yong. 2009. "Target-oriented obstacle analysis by PESTEL modeling of energy efficiency retrofit for existing residential buildings in China's northern heating region." *Energy Policy* 37 (6):2098-2101.
- Simon, Frédéric. 2021. "EU countries clash over reforms needed to tackle energy price spike." *EurActiv*.
- Smith, Adrian. 2000. "Policy networks and advocacy coalitions: explaining policy change and stability in UK industrial pollution policy?" *Environment and Planning C: Government and Policy* 18 (1):95-114.
- Solorio, Israel. 2011. "Bridging the gap between environmental policy integration and the EU's energy policy: mapping out the 'green europeanisation' of energy governance." *Journal of Contemporary European Research* 7 (3):396-415.
- Stecula, Dominik A, and Eric Merkley. 2019. "Framing climate change: economics, ideology, and uncertainty in American news media content from 1988 to 2014." *Frontiers in Communication* 4:6.
- Steurer, Reinhard, and Markus Hametner. 2013. "Objectives and indicators in sustainable development strategies: similarities and variances across Europe." *Sustainable Development* 21 (4):224-241.
- Szulecki, Kacper, and Kirsten Westphal. 2014. "The cardinal sins of European Energy Policy: Nongovernance in an uncertain global landscape." *Global Policy* 5 (s1):38-51.
- Taggart, Paul, and Aleks Szczerbiak. 2013. "Coming in from the cold? Euroscepticism, government participation and party positions on Europe." *JCMS: Journal of Common Market Studies* 51 (1):17-37.
- Talus, Kim. 2017. "Decades of EU energy policy: towards politically driven markets." *The Journal of World Energy Law & Business* 10 (5):380-388.
- Thelen, Kathleen. 2004. *How institutions evolve: The political economy of skills in Germany, Britain, the United States, and Japan*: Cambridge University Press.
- Thomson, Harriet, Carolyn Jane Snell, and Christine Liddell. 2016. "Fuel poverty in the European Union: a concept in need of definition?" *People, Place & Policy Online*:5-24.

- Tosun, Jale. 2012. "Environmental monitoring and enforcement in Europe: a review of empirical research." *Environmental policy and governance* 22 (6):437-448.
- Tosun, Jale, and Israel Solorio. 2011. "Exploring the energy-environment relationship in the EU: Perspectives and challenges for theorizing and empirical analysis." *European Integration Online Papers* 15 (1).
- Turnpenny, John, Claudio M Radaelli, Andrew Jordan, and Klaus Jacob. 2009. "The policy and politics of policy appraisal: emerging trends and new directions." *Journal of European Public Policy* 16 (4):640-653.
- Vanhala, Lisa, and Cecilie Hestbaek. 2016. "Framing climate change loss and damage in UNFCCC negotiations." *Global Environmental Politics* 16 (4):111-129.
- Von Hippel, David, Tatsujiro Suzuki, James H Williams, Timothy Savage, and Peter Hayes. 2011. "Energy security and sustainability in Northeast Asia." *Energy policy* 39 (11):6719-6730.
- Vucic, Vlastimir, and Miljana Radovic Vucic. 2019. "METHODOLOGIES ASSOCIATED WITH EVALUATING ENVIRONMENTAL POLICY INTEGRATION (EPI) STRATEGIES—THE CASE OF EUROPEAN UNION (EU) ENERGY POLICY." *Facta Universitatis, Series: Working and Living Environmental Protection*:037-046.
- Wen, F, and AK David. 2001. "Lessons from electricity market failure in California." *Automation of electric power systems* 25 (5):5-.
- World Energy Council. 2020. "World Energy Trilemma Index." accessed 16 Aug 2020. <https://www.worldenergy.org/transition-toolkit/world-energy-trilemma-index>.
- World Energy Council, and OLIVER WYMAN. 2015. "World Energy Trilemma - Priority actions on climate change and how to balance the trilemma." accessed 8 March. <https://www.worldenergy.org/assets/downloads/2015-World-Energy-Trilemma-Priority-actions-on-climate-change-and-how-to-balance-the-trilemma.pdf>.
- Yamanishi, Ryohei, Yoshiyuki Takahashi, and Hironobu Unesaki. 2017. "Quantitative Analysis of Japan's Energy Security Based on Fuzzy Logic: Impact Assessment of Fukushima Accident." *Journal of Energy* 2017.
- Yao, Lixia, and Youngho Chang. 2014. "Energy security in China: a quantitative analysis and policy implications." *Energy Policy* 67:595-604.
- Zapletalová, Veronika, and Magda Komínková. 2020. "Who is fighting against the EU's energy and climate policy in the European Parliament? The contribution of the Visegrad Group." *Energy Policy* 139:111326.
- Zhu, L, E Hiltunen, E Antila, F Huang, and L Song. 2015. "Investigation of China's bio-energy industry development modes based on a SWOT-PEST model." *International Journal of Sustainable Energy* 34 (8):552-559.
- Zito, Anthony R, Charlotte Burns, and Andrea Lenschow. 2019. "Is the trajectory of European Union environmental policy less certain?" *Environmental Politics* 28 (2):187-207. doi: <https://doi.org/10.1080/09644016.2019.1549779>.
- Özdemir, Özge, Benjamin F Hobbs, Marit van Hout, and Paul R Koutstaal. 2020. "Capacity vs energy subsidies for promoting renewable investment: Benefits and costs for the EU power market." *Energy Policy* 137:111166.

Appendix

Supplementary materials overall
thesis

Database of targets and objectives of EU legislation in the electricity field, 1986-2018

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Environmental research funds, including some for solar energy (10,6m ECU, 1988-1991), total 251,7 million ECU	quantifiable	environment	Research and Development	<i>The funds estimated as necessary for the execution of the activities referred to in Article 1 (2) amount to 251,7 million ECU, including expenditure on a staff of 690, reducing to 663 in 1991.</i>	1-finance under 20mEUR/year
Research programme on nuclear waste, ECU 79,6 million, staff of 14.	quantifiable	environment	Nuclear Research	<i>research and technological development programme for the European Atomic Energy Community in the field of management and storage of radioactive waste</i>	1-finance under 20mEUR/year
Research programme on nuclear waste handling, ECU 19 million, staff of 4.	quantifiable	environment	Nuclear Research	<i>research and training programme (TELEMAN) for the European Atomic Energy Community in the field of remote handling in hazardous or disordered nuclear environments</i>	1-finance under 20mEUR/year
Research programme on radiation protection, ECU 21,2 million, staff of 28.	quantifiable	environment	Nuclear Research	<i>research and training programme for the European Atomic Energy Community in the field of radiation protection</i>	1-finance under 20mEUR/year
Research programme on decommissioning of nuclear installations, ECU 31,5 million, staff of 5.	quantifiable	environment	Nuclear Research	<i>research and technological development programme for the European Atomic Energy Community in the field of the decommissioning of nuclear installations</i>	1-finance under 20mEUR/year
Follow-up from THERMIE: Energy efficiency programme (SAVE), ECU 35 million, five years	quantifiable	affordability	Research and Development	<i>The Community shall support a series of energy efficiency actions within the context of this programme, entitled SAVE (Specific Actions for Vigorous Energy Efficiency)</i>	1-finance under 20mEUR/year
Follow-up to supplementary programme on the operation of the high flux reactor (HFR), ECU 75 million, 4 years	quantifiable	affordability	Nuclear Research	<i>supplementary programme on the operation of the high flux reactor (HFR)</i>	1-finance under 20mEUR/year
Follow-up to supplementary programme on the operation of the high flux reactor (HFR), ECU 39.7 million (the Netherlands, Germany and France), 4 years	quantifiable	affordability	Nuclear Research	<i>The supplementary programme on the operation of the high-flux reactor (HFR), hereinafter referred to as 'the programme', the objectives of which are set out in Annex I, is hereby adopted for a period of four years, starting on 1 January 1996.</i>	1-finance under 20mEUR/year

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
88/521/EEC: Council Decision of 14 October 1988 adopting specific research programmes to be implemented by the Joint Research Centre for the European Economic Community (1988 to 1991)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1534684365575&uri=CELEX:31988D0521	1986-1989	1988	No longer in force, Date of end of validity: 31/12/1991	
Council Decision of 15 December 1989 adopting a specific research and technical development programme for the European Atomic Energy Community in the field of management and storage of radioactive waste (1990 to 1994)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31989D0664	1986-1989	1989	No longer in force, Date of end of validity: 31/12/1994	Directive 2008/98/EC
Council Decision of 18 July 1989 adopting a research and training programme for the European Atomic Energy Community in the field of remote handling in hazardous or disordered nuclear environments (1989 to 1993) TELEMAN	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31989D0464	1986-1989	1989	No longer in force, Date of end of validity: 31/12/1993	Continuation not in Energy or Environment Directory
Council Decision of 20 June 1989 adopting a specific research and training programme for the European Atomic Energy Community in the field of radiation protection (1990 to 1991)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31989D0416	1986-1989	1989	No longer in force, Date of end of validity: 01/01/1992	
Council Decision of 14 March 1989 adopting a research and technological development programme for the European Atomic Energy Community in the field of the decommissioning of nuclear installations (1989 to 1993)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31989D0239	1986-1989	1989	No longer in force, Date of end of validity: 31/12/1993	
91/565/EEC: Council Decision of 29 October 1991 concerning the promotion of energy efficiency in the Community (SAVE programme)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31991D0565	1990-1995	1991	No longer in force, Date of end of validity: 31/12/1995	
92/275/Euratom: Council Decision of 29 April 1992 adopting a supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community (1992-1995)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31992D0275	1990-1995	1992	In force [technically 1992-1995]	Directive 2001/80/EC
96/419/Euratom: Council Decision of 27 June 1996 adopting a supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community (1996-1999)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996D0419	1996-2002	1996	No longer in force, Date of end of validity: 31/12/1999	Directive 2001/80/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Follow-up from SAVE: Energy efficiency programme (SAVE II), ECU 45 million, five years (1997-2002)	quantifiable	affordability	Research and Development	<i>The Community shall support a five-year programme for the preparation and implementation of measures and actions in a cost-effective manner in order to promote energy efficiency within the Community.</i>	1-finance under 20mEUR/year
The international energy cooperation programme (Synergy) is extended for the next year, ECU 5 million, 1 year (1998)	quantifiable	security of supply	Security of Energy Supply	<i>Whereas the Commission communication entitled 'An overall view of energy policy and actions' concludes that an effort is needed to improve the transparency of Community energy policy and marks a first step towards a proposal for a framework energy programme;</i>	1-finance under 20mEUR/year
Support for developing countries in environmental issues, including NGO support. Includes energy development and RES encouragement. ECU 45 million, for 1997-1999 (3 years)	quantifiable	environment	Environmental Protection	<i>The activities to be carried out under this Regulation shall centre on: applying and transferring technologies adapted to local environmental constraints and needs, especially in the field of energy and more particularly the field of renewable energies bearing in mind the long-term effects on the environment and adaptation to the traditional life of each region,</i>	1-finance under 20mEUR/year
ALTENER II: multiannual programme to promote the use of renewable energy sources, ECU 22 million, 1998-2002 (5 years)	quantifiable	environment	Renewable Energy	<i>A multiannual programme of measures and actions to promote the use of renewable energy sources in the Community, called Altener II, hereinafter referred to as 'the programme', is hereby established.</i>	1-finance under 20mEUR/year
Continuation to Synergy programme, an international energy cooperation programme, ECU 15 million, for the period 1998-2002 (5 years)	quantifiable	security of supply	Security of Energy Supply	<i>Within the multiannual framework programme for actions in the energy sector, a specific programme for reinforcement of international cooperation in the energy field, hereinafter referred to as 'the Synergy programme', shall be implemented by the Community for the period 1998-2002.</i>	1-finance under 20mEUR/year
Altener programme, 77, EUR, 1998-2002	quantifiable	environment	Renewable Energy	<i>Within the multiannual framework programme for actions in the energy sector, a specific programme for promotion of renewable energy sources and support for the implementation of a Community strategy and action plan for renewable energy sources to the year 2010 (hereinafter referred to as "the Altener programme") shall be implemented by the Community for the period 1998 to 2002.</i>	1-finance under 20mEUR/year

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
96/737/EC: Council Decision of 16 December 1996 concerning a multiannual programme for the promotion of energy efficiency in the Community - SAVE II	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996D0737	1996-2002	1996	No longer in force, Date of end of validity: 18/04/2000; Repealed and replaced by 300D0647 (1998?)	Directive 2001/80/EC
Council Regulation (EC) No 2598/97 of 18 December 1997 extending the programme to promote international cooperation in the energy sector - Synergy programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31997R2598	1996-2002	1997	None (likely end 1997)	Directive 2001/80/EC
Council Regulation (EC) No 722/97 of 22 April 1997 on environmental measures in developing countries in the context of sustainable development	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31997R0722	1996-2002	1997	No longer in force, Date of end of validity: 31/12/1999	Directive 2001/80/EC
98/352/EC: Council Decision of 18 May 1998 concerning a multiannual programme for the promotion of renewable energy sources in the Community (Altener II)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31998D0352	1996-2002	1998	No longer in force, Date of end of validity: 18/04/2000; Repealed and replaced by 300D0646	Directive 2001/80/EC
1999/23/EC: Council Decision of 14 December 1998 adopting a multiannual programme to promote international cooperation in the energy sector (1998-2002)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31999D0023	1996-2002	1998	No longer in force, Date of end of validity: 31/12/2002	Directive 2001/80/EC
Decision No 646/2000/EC of the European Parliament and of the Council of 28 February 2000 adopting a multiannual programme for the promotion of renewable energy sources in the Community (Altener) (1998 to 2002)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32000D0646	1996-2002	2000	No longer in force, Date of end of validity: 31/12/2002	Directive 2001/80/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
SAVE programme, 66m EUR, 1998-2002	quantifiable	affordability	Research and Development	<i>Within the framework programme for actions in the energy sector, a specific programme in support of legislative and non-legislative measures to encourage the rational use of energy resources, (hereinafter referred to as "the SAVE programme") shall be implemented by the Community for the period 1998 to 2002.</i>	1-finance under 20mEUR/year
NGO's finance, 2002- 2006, EUR 32 million	quantifiable	environment	Environmental Protection	<i>A Community action programme promoting non-governmental organisations (NGOs) primarily active in the field of environmental protection is hereby established. This Programme shall start on 1 January 2002 and end on 31 December 2006. The financial framework for the implementation of this Programme for the period 2002 to 2006 is hereby set at EUR 32 million.</i>	1-finance under 20mEUR/year
the supplementary research programme involving the high flux reactor (HFR), EUR 30,6 million, for a period of three years.	quantifiable	affordability	Nuclear Research	<i>The supplementary research programme on the operation of HFR, hereinafter referred to as "the programme", the objectives of which are set out in Annex I, is hereby adopted for a period of three years, starting on 1 January 2004.</i>	1-finance under 20mEUR/year
EU to finance Chernobyl Fund	quantifiable	environment	Nuclear Energy	<i>The Community shall make a contribution of EUR 14,4 million to the European Bank for Reconstruction and Development (EBRD) for the Chernobyl Shelter Fund in 2006.</i>	1-finance under 20mEUR/year
Extend HFR, one year, EUR 8 500 000	quantifiable	affordability	Nuclear Research	<i>The supplementary research programme on the operation of the HFR (the Programme), the objectives of which are set out in Annex I, shall be extended for a period of one year, with effect from 1 January 2007.</i>	1-finance under 20mEUR/year
The supplementary research programme on the operation of the HFR, four years, starting on 1 January 2012, EUR 31 400 000	quantifiable	affordability	Nuclear Research	<i>The supplementary research programme on the operation of the HFR, (hereinafter referred to as 'the programme'), the objectives of which are set out in Annex I, is adopted for a period of four years, starting on 1 January 2012. The costs for the execution of the programme, estimated at EUR 31 400 000, shall be financed entirely out of contributions from the Netherlands, France and Belgium.</i>	1-finance under 20mEUR/year

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 647/2000/EC of the European Parliament and of the Council of 28 February 2000 adopting a multiannual programme for the promotion of energy efficiency (SAVE) (1998 to 2002)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32000D0647	1996-2002	2000	No longer in force, Date of end of validity: 31/12/2002	Directive 2001/80/EC
Decision No 466/2002/EC of the European Parliament and of the Council of 1 March 2002 laying down a Community action programme promoting non-governmental organisations primarily active in the field of environmental protection	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D0466	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2006; Repealed by 32007D0614	92/275/Euratom
2004/185/Euratom: Council Decision of 19 February 2004 concerning the adoption of a supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004D0185	2003-2008	2004	No longer in force, Date of end of validity: 31/12/2007	
2006/908/EC, Euratom: Council Decision of 4 December 2006 on the first instalment of the third Community contribution to the European Bank for Reconstruction and Development for the Chernobyl Shelter Fund	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0908	2003-2008	2006	In force	
2007/773/Euratom: Council Decision of 26 November 2007 on a one year extension of the supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007D0773	2003-2008	2007	No longer in force, Date of end of validity: 31/12/2007	
2012/709/Euratom: Council Decision of 13 November 2012 on the adoption of the 2012-2015 High Flux Reactor supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012D0709	2009-2015	2012	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Implementation for activities on secure management of low enriched uranium shall be EUR 4 362 200.	quantifiable	environment	Nuclear Energy	<i>the Union shall contribute to the establishment and the secure management of a Low-Enriched Uranium (LEU) Bank placed under the control of the International Atomic Energy Agency ('IAEA', or 'the Agency') in order to reduce the growing proliferation risks caused by the spread of sensitive nuclear fuel cycle technologies. The financial reference amount for the implementation of the activities referred to in Article 1(2) shall be EUR 4 362 200.</i>	1-finance under 20mEUR/year
Cooperation with Canada in nuclear fusion research	not quantifiable	affordability	Nuclear Energy	<i>Cooperation in the field of fusion research and development</i>	1-foreign affairs
Expanded the fission research consortium	not quantifiable	affordability	Nuclear Research	<i>The Joint Undertaking shall have the following Members:</i>	1-foreign affairs
equal access for third-party companies to hydrocarbons explorations	not quantifiable	internal energy market	internal Energy Markets	<i>Member States shall ensure that there is no discrimination between entities as regards access to and exercise of these activities.</i>	1-foreign affairs
Increases budget to adapt to the EU expansion	quantifiable	affordability	Nuclear Research	<i>in Article 1 (3): '1 254' shall be replaced by '1 336', '617' shall be replaced by '769', '637' shall be replaced by '567', and '1 359' shall be replaced by '1 441';</i>	1-foreign affairs
Continuation of collaboration on ITER with Japan, Russia and USA	not quantifiable	affordability	Nuclear Research	<i>The extension, by the Commission, for and on behalf of the Community, of the duration of the Agreement among the European Atomic Energy Community, the Government of Japan, the Government of the Russian Federation and the Government of the United States of America on cooperation in the engineering design activities for the international thermonuclear experimental reactor is hereby approved.</i>	1-foreign affairs

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Decision (CFSP) 2016/2001 of 15 November 2016 on a Union contribution to the establishment and the secure management of a Low Enriched Uranium (LEU) Bank under the control of the International Atomic Energy Agency (IAEA) in the framework of the EU Strategy against the Proliferation of Weapons of Mass Destruction	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016D2001	2016-2019	2016	In force	
Euratom: Council Decision of 20 January 1986 approving the conclusion by the Commission of a Memorandum of Understanding between the European Atomic Energy Community and the Government of Canada concerning cooperation in the field of fusion research and development	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31986D0028	1986-1989	1986	In force	
91/677/Euratom: Council Decision of 19 December 1991 approving amendments to the Statutes of the Joint European Torus (JET), Joint Undertaking	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31991D0677	1990-1995	1991	No longer in force, Date of end of validity: 31/12/1999	
Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525635412486&uri=CELEX:31994L0022	1990-1995	1994	In force	
96/253/Euratom: Council Decision of 4 March 1996 adapting Decision 94/268/Euratom concerning a framework programme of Community activities in the field of research and training for the European Atomic Energy Community (1994 to 1998), following the accession of the Republic of Austria, the Republic of Finland and the Kingdom of Sweden to the European Union	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996D0253	1996-2002	1996	No longer in force, Date of end of validity: 31/12/1998	
98/704/Euratom: Council Decision of 22 June 1998 concerning the extension of the duration of the Agreement among the European Atomic Energy Community, the Government of Japan, the Government of the Russian Federation and the Government of the United States of America on cooperation in the engineering design activities (EDA) for the international thermonuclear experimental reactor (ITER)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31998D0704	1996-2002	1998	In force	96/737/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Environmental programme support for developing countries, 93m EUR, 2000-2006	quantifiable	environment	Environmental Protection	<i>The Community shall support developing countries in their efforts to integrate the environmental dimension into their development process.</i>	1-foreign affairs
Cooperation with Russia in nuclear safety and controlled nuclear fusion	not quantifiable	affordability	Nuclear Research	<i>The Commission is hereby authorised to conclude with the Russian Federation the following two agreements: the Agreement for cooperation between the European Atomic Energy Community and the Government of the Russian Federation in the field of nuclear safety and the Agreement for cooperation between the European Atomic Energy Community and the Government of the Russian Federation in the field of controlled nuclear fusion.</i>	1-foreign affairs
Cooperation with USA in fusion energy research and development	not quantifiable	affordability	Nuclear Research	<i>The conclusion, by the Commission, for and on behalf of the Community, of the Agreement for cooperation between the European Atomic Energy Community and the Department of Energy of the United States of America in the field of fusion energy research and development, is hereby approved.</i>	1-foreign affairs
Cooperation in nuclear energy with Uzbekistan	not quantifiable	security of supply	Nuclear Energy	<i>The Commission is hereby authorised to conclude an Agreement for cooperation in the peaceful uses of nuclear energy between the European Atomic Energy Community (Euratom) and the Government of the Republic of Uzbekistan.</i>	1-foreign affairs
Protocol with Russia on nuclear energy	not quantifiable	affordability	Nuclear Energy	<i>The signing of the Framework Agreement and its Protocol on a Multilateral Nuclear Environmental Programme in the Russian Federation and its Protocol on Claims, Legal Proceedings and Indemnification is hereby approved on behalf of the European Community, subject to the Council Decision concerning the conclusion of the said Agreement.</i>	1-foreign affairs

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EC) No 2493/2000 of the European Parliament and of the Council of 7 November 2000 on measures to promote the full integration of the environmental dimension in the development process of developing countries	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32000R2493	1996-2002	2000	No longer in force, Date of end of validity: 31/12/2006	Directive 2003/54/EC
2001/761/Euratom: Council Decision of 27 September 2001 authorising the conclusion by the Commission of two Cooperation Agreements between the European Autonomic Energy Community and the Government of the Russian Federation in the fields of nuclear safety and controlled nuclear fusion	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0761	1996-2002	2001	In force	Directive 2003/54/EC
2001/411/Euratom: Council Decision of 8 March 2001 approving the conclusion, by the Commission, of the Agreement for cooperation between the European Atomic Energy Community represented by the Commission and the Department of Energy of the United States of America in the field of fusion energy research and development	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0411	1996-2002	2001	In force	Directive 2003/54/EC
2003/744/Euratom: Council Decision of 22 September 2003 approving the conclusion by the Commission of an Agreement for cooperation in the peaceful uses of nuclear energy between the European Atomic Energy Community (Euratom) and the Government of the Republic of Uzbekistan	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003D0744	2003-2008	2003	In force	Regulation (EC) No 401/2009
2003/462/EC: Council Decision of 19 May 2003 on the signing on behalf of the European Community and provisional application of a Framework Agreement on a Multilateral Nuclear Environmental Programme in the Russian Federation and its Protocol on Claims, Legal Proceedings and Indemnification and approving the conclusion by the Commission on behalf of the European Atomic Energy Community of the abovementioned Agreement and its Protocol	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003D0462	2003-2008	2003	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
UN-ECE Protocol on Pollutant Release and Transfer Registers is approved by EU	quantifiable	environment	Environmental Protection	<i>The UN-ECE Protocol on Pollutant Release and Transfer Registers is hereby approved on behalf of the Community.</i>	1-foreign affairs
The Protocol on Soil Protection, the Protocol on Energy and the Protocol on Tourism to the Alpine Convention approved by EU	not quantifiable	environment	environmental Protection	<i>The signing of the Protocol on Soil Protection, the Protocol on Energy and the Protocol on Tourism to the Alpine Convention, done at Salzburg on 7 November 1991, is hereby approved on behalf of the Community, subject to the conclusion of the said Protocols.</i>	1-foreign affairs
EU signs the Aarhus Convention	quantifiable	environment	Environmental Protection	<i>The UN/ECE Convention on access to information, public participation in decision-making and access to justice in environmental matters, (Aarhus Convention) is hereby approved on behalf of the Community.</i>	1-foreign affairs
EU signs Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management	quantifiable	environment	Nuclear Energy	<i>The accession of the European Atomic Energy Community to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management is hereby approved.</i>	1-foreign affairs
Cooperation between EU and Korea in the field of fusion energy research	not quantifiable	affordability	Nuclear Research	<i>The conclusion, by the Commission, for and on behalf of the European Atomic Energy Community, of the Agreement for cooperation between the European Atomic Energy Community represented by the Commission of the European Communities and the Government of the Republic of Korea in the field of fusion energy research, is hereby approved.</i>	1-foreign affairs
Fusion Energy Research Agreement between EU and Japan	not quantifiable	affordability	Nuclear Research	<i>The conclusion by the Commission, for and on behalf of the European Atomic Energy Community, of the Agreement between the European Atomic Energy Community and the Government of Japan for the Joint Implementation of the Broader Approach Activities in the Field of Fusion Energy Research is hereby approved.</i>	1-foreign affairs

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2006/61/EC: Council Decision of 2 December 2005 on the conclusion, on behalf of the European Community, of the UNECE Protocol on Pollutant Release and Transfer Registers	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0061	2003-2008	2005	In force	
2005/923/EC: Council Decision of 2 December 2005 on the signing on behalf of the European Community of the Protocol on Soil Protection, the Protocol on Energy and the Protocol on Tourism to the Alpine Convention	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005D0923	2003-2008	2005	In force	Directive 2008/92/EC
2005/370/EC: Council Decision of 17 February 2005 on the conclusion, on behalf of the European Community, of the Convention on access to information, public participation in decision-making and access to justice in environmental matters	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005D0370	2003-2008	2005	In force	
2005/84/Euratom: Council Decision of 24 January 2005 approving the accession of the European Atomic Energy Community to the 'Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management'	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005D0084	2003-2008	2005	In force	
2011/334/Euratom: Council Decision of 21 November 2006 approving the conclusion, by the Commission, of the Agreement for cooperation between the European Atomic Energy Community represented by the Commission of the European Communities and the Government of the Republic of Korea in the field of fusion energy research	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32011D0334	2003-2008	2006	In force	
2007/614/Euratom: Council Decision of 30 January 2007 concerning the conclusion, by the Commission, of the Agreement between the European Atomic Energy Community and the Government of Japan for the Joint Implementation of the Broader Approach Activities in the Field of Fusion Energy Research	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007D0614	2003-2008	2007	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
EU to join Convention on the Physical Protection of Nuclear Material and Nuclear Facilities	not quantifiable	environment	Nuclear Energy	<i>The accession of the European Atomic Energy Community to the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, as amended by the Final Act signed on 8 July 2005, is hereby approved.</i>	1-foreign affairs
EU signs the SEA Protocol	not quantifiable	environment	environmental Protection	<i>The Protocol on Strategic Environmental Assessment to the Espoo Convention on Environmental Impact Assessment in a Transboundary Context (SEA Protocol) is hereby approved on behalf of the European Community.</i>	1-foreign affairs
Agreement with Brazil on fusion	quantifiable	affordability	Nuclear Research	<i>The objective of this Agreement is to intensify cooperation between the Parties in the areas covered by their respective fusion programs, on the basis of mutual benefit and overall reciprocity, in order to develop the scientific understanding and technological capability underlying a fusion energy system.</i>	1-foreign affairs
Agreement with India on fusion	quantifiable	affordability	Nuclear Research	<i>The conclusion, by the Commission, for and on behalf of the European Atomic Energy Community, of the Agreement for cooperation between the European Atomic Energy Community and the Government of the Republic of India in the field of fusion energy research, is hereby approved.</i>	1-foreign affairs
International collaboration on energy	quantifiable	affordability	Energy Efficiency and Savings	<i>The Terms of Reference for the International Partnership for Energy Efficiency Cooperation (IPEEC), annexed to this Decision as Annex I, are hereby approved on behalf of the European Community.</i>	1-foreign affairs
EU signs the statutes of IRENA.	quantifiable	environment	Renewable Energy	<i>The President of the Council is hereby authorised to designate the person(s) empowered to sign on behalf of the European Community, the Statute of the International Renewable Energy Agency founded on 26 January 2009 in Bonn.</i>	1-foreign affairs

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2007/513/Euratom: Council Decision of 10 July 2007 approving the accession of the European Atomic Energy Community to the amended Convention on the Physical Protection of Nuclear Material and Nuclear Facilities - Declaration by the European Atomic Energy Community according to Articles 18(4) and 17(3) of the CPPNM	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007D0513	2003-2008	2007	In force	
2008/871/EC: Council Decision of 20 October 2008 on the approval, on behalf of the European Community, of the Protocol on Strategic Environmental Assessment to the 1991 UN/ECE Espoo Convention on Environmental Impact Assessment in a Transboundary Context	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008D0871	2003-2008	2008	In force	
2010/488/Euratom: Council Decision of 16 November 2009 approving the conclusion, by the Commission, of the Agreement for cooperation between the European Atomic Energy Community and the Government of the Federative Republic of Brazil in the field of fusion energy research	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32010D0488	2009-2015	2009	In force	
2010/487/Euratom: Council Decision of 9 October 2009 on the conclusion, by the Commission, of the Agreement for cooperation between the European Atomic Energy Community and the Government of the Republic of India in the field of fusion energy research	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32010D0487	2009-2015	2009	In force	
2009/954/EC: Council Decision of 30 November 2009 on the signing and conclusion of the Terms of Reference for the International Partnership for Energy Efficiency Cooperation (IPEEC) and the Memorandum concerning the hosting by the International Energy Agency of the Secretariat to the International Partnership for Energy Efficiency Cooperation by the European Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0954	2009-2015	2009	In force	
2009/806/EC: Council Decision of 19 October 2009 on the signing of the Statute of the International Renewable Energy Agency (IRENA) by the European Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0806	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Trade on energy matters	not quantifiable	affordability	Security of Energy Supply	<i>amending the Interim Agreement on trade and trade-related matters between the European Community, the European Coal and Steel Community and the European Atomic Energy Community, of the one part, and Turkmenistan, of the other part</i>	1-foreign affairs
Approved IRENA statues	not quantifiable	environment	Renewable Energy	<i>The Statute of the International Renewable Energy Agency (IRENA) (hereinafter referred to as 'the Statute'), is hereby approved on behalf of the Union and the text thereof is attached to this Decision.</i>	1-foreign affairs
EU agreement with Swiss Confederation on nuclear research, 2012-2013.	not quantifiable	affordability	Nuclear Research	<i>The conclusion by the European Commission of the Agreement on scientific and technological cooperation between the European Atomic Energy Community, of the one part, and the Swiss Confederation, of the other part, associating the Swiss Confederation to the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012-2013) is hereby approved.</i>	1-foreign affairs
EU approves accession to Protocol for the Protection of the Mediterranean Sea	not quantifiable	environment	environmental Protection	<i>The accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil is hereby approved on behalf of the Union.</i>	1-foreign affairs
MS may accede to an international protocol on nuclear liabilities.	not quantifiable	environment	Nuclear Energy	<i>The Council hereby authorises Bulgaria, the Czech Republic, Estonia, Lithuania, Hungary, Poland and Slovakia to ratify, or to accede to, the Protocol of 12 September 1997 amending the Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963, in the interest of the Union.</i>	1-foreign affairs

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2011/186/Euratom: Council Decision of 14 June 2010 approving the conclusion, by the European Commission on behalf of the European Atomic Energy Community, of the Interim Agreement on trade and trade-related matters between the European Community, the European Coal and Steel Community and the European Atomic Energy Community, of the one part, and Turkmenistan, of the other part, and the Exchange of Letters amending the Interim Agreement as regards the authentic language versions	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011D0186	2009-2015	2010	In force	
2010/385/: Council Decision of 24 June 2010 on the conclusion of the Statute of the International Renewable Energy Agency (IRENA) by the European Union	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010D0385	2009-2015	2010	In force	
2013/4/Euratom: Council Decision of 11 December 2012 approving the conclusion, by the European Commission, of the Agreement on scientific and technological cooperation between the European Atomic Energy Community, of the one part, and the Swiss Confederation, of the other part, associating the Swiss Confederation to the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012-2013)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32013D0004	2009-2015	2012	In force	
2013/5/EU: Council Decision of 17 December 2012 on the accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32013D0005	2009-2015	2012	In force	
2013/434/EU: Council Decision of 15 July 2013 authorising certain Member States to ratify, or to accede to, the Protocol amending the Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963, in the interest of the European Union, and to make a declaration on the application of the relevant internal rules of Union law	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013D0434	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
EU to represent Iceland in UNFCCC reporting - agreement	not quantifiable	environment	environmental Protection	<i>The Agreement between the European Union and its Member States, of the one part, and Iceland, of the other part, concerning Iceland's participation in the joint fulfilment of commitments by the European Union, its Member States and Iceland for the second commitment period of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (hereafter referred to as 'the Agreement') is hereby approved on behalf of the Union.</i>	1-foreign affairs
EU to represent Iceland in UNFCCC reporting - signing	not quantifiable	environment	environmental Protection	<i>The signing on behalf of the Union of the Agreement between the European Union and its Member States, of the one part, and Iceland, of the other part, concerning Iceland's participation in the joint fulfilment of commitments of the European Union, its Member States and Iceland for the second commitment period of the Kyoto Protocol to the United Nations Framework Convention on Climate Change is hereby authorised, subject to the conclusion of the said Agreement</i>	1-foreign affairs
Nuclear research	not quantifiable	affordability	Nuclear Research	<i>The conclusion by the Commission, on behalf of the European Atomic Energy Community, of the Agreement extending the Framework Agreement for International Collaboration on Research and Development of Generation IV nuclear energy systems, is hereby approved.</i>	1-foreign affairs
Decision 2012/2/EC approved	not quantifiable	environment	environmental Protection	<i>The Amendment to the 1999 Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone, set out in Decision 2012/2/EC of the Executive Body of the Convention, is hereby approved on behalf of the European Union.</i>	1-foreign affairs

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Decision (EU) 2015/1340 of 13 July 2015 on the conclusion, on behalf of the European Union, of the Agreement between the European Union and its Member States, of the one part, and Iceland, of the other part, concerning Iceland's participation in the joint fulfilment of commitments of the European Union, its Member States and Iceland for the second commitment period of the Kyoto Protocol to the United Nations Framework Convention on Climate Change	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D1340	2009-2015	2015	In force	
Council Decision (EU) 2015/146 of 26 January 2015 on the signing, on behalf of the European Union, of the agreement between the European Union and its Member States, of the one part, and Iceland, of the other part, concerning Iceland's participation in the joint fulfilment of commitments of the European Union, its Member States and Iceland for the second commitment period of the Kyoto Protocol to the United Nations Framework Convention on Climate Change	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D0146	2009-2015	2015	In force	
Council Decision (Euratom) 2016/2116 of 12 February 2016 approving the conclusion by the European Commission, on behalf of the European Atomic Energy Community, of the Agreement extending the Framework Agreement for International Collaboration on Research and Development of Generation IV nuclear energy systems	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016D2116	2016-2019	2016	In force	
Council Decision (EU) 2017/1757 of 17 July 2017 on the acceptance on behalf of the European Union of an Amendment to the 1999 Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017D1757	2016-2019	2017	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Support the adoption of the required content of the certification	not quantifiable	environment	environmental Protection	<i>The position to be taken on behalf of the European Union at the first meeting of the Conference of the Parties to the Minamata Convention on Mercury (the 'Convention'), shall be to support the adoption of the required content of the certification referred to in Article 3(12) and of the guidance referred to in Article 8(8) and (9) of the Convention.</i>	1-foreign affairs
Updates the Swiss link to EU ETS	not quantifiable	environment	environmental Protection	<i>Minor changes to the draft Decision may be agreed to by the representatives of the Union within the Joint Committee without a further decision of the Council.</i>	1-foreign affairs
Swiss EU nuclear energy ETS	not quantifiable	environment	environmental Protection	<i>The Agreement between the European Union and the Swiss Confederation on the linking of their greenhouse gas emissions trading systems is hereby approved on behalf of the Union</i>	1-foreign affairs
Higher costs for oil burning, due to better disposal	not quantifiable	environment	Environmental Protection	<i>Member States shall take the necessary measures to ensure that waste oils are collected and disposed of without causing any avoidable damage to man and the environment.</i>	1-minor development
Adds PT and ES to JET	not quantifiable	affordability	Nuclear Research	<i>THE AMENDMENTS TO THE STATUTES OF THE 'JOINT EUROPEAN TORUS (JET)', JOINT UNDERTAKING', ANNEXED TO THIS DECISION, ARE HEREBY APPROVED .</i>	1-minor development
Additional equipment is necessary, annex (not available) approved.	not quantifiable	affordability	Nuclear Research	<i>Article 1 The amendment to the statutes of the 'Joint European Torus (JET), Joint Undertaking', annexed to this Decision, is hereby approved.</i>	1-minor development
encourage improvements in the efficiency of electrical appliances and equipment and of electricity-based processes	not quantifiable	affordability	Energy Efficiency and Savings	<i>A Community action programme, hereinafter called 'Programme', for improving the efficiency of electricity use shall be instituted.</i>	1-minor development
relaxes restrictions to natural gas burning in power plants, existing after the Oil Crisis	quantifiable	security of supply	Security of Energy Supply	<i>Repeals Directive 75/404/EEC which restricted use of gas in power plants</i>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Decision (EU) 2017/1138 of 19 June 2017 on the position to be taken on behalf of the European Union at the first meeting of the Conference of the Parties of the Minamata Convention on Mercury as regards the adoption of the required content of the certification referred to in Article 3(12) of the Convention and of the guidance referred to in Article 8(8) and (9) of the Convention	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017D1138	2016-2019	2017	In force	
Council Decision (EU) 2018/1279 of 18 September 2018 on the position to be taken on behalf of the European Union within the Joint Committee established by the Agreement between the European Union and the Swiss Confederation on the linking of their greenhouse gas emissions trading systems regarding the adoption of its Rules of Procedure	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018D1279	2016-2019	2018	In force	
Council Decision (EU) 2018/219 of 23 January 2018 on the conclusion of the Agreement between the European Union and the Swiss Confederation on the linking of their greenhouse gas emissions trading systems	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018D0219	2016-2019	2018	In force	
Council Directive 87/101/EEC of 22 December 1986 amending Directive 75/439/EEC on the disposal of waste oils	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31987L0101	1986-1989	1986	No longer in force, Date of end of validity: 11/12/2010; Implicitly repealed by 32008L0098	
87/289/Euratom: Council Decision of 2 June 1987 approving amendments to the Statutes of the Joint European Torus (JET), Joint Undertaking	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1546273144683&uri=CELEX:31987D0289	1986-1989	1987	No longer in force, Date of end of validity: 31/12/1999	
88/447/Euratom: Council Decision of 25 July 1988 approving an amendment to the statutes of the Joint European Torus (JET), Joint Undertaking	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1546273144683&uri=CELEX:31988D0447	1986-1989	1988	No longer in force, Date of end of validity: 01/02/1992; Implicitly repealed by 391D0677	
Council Decision of 5 June 1989 on a Community action programme for improving the efficiency of electricity use	http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:31989D0364	1986-1989	1989	No longer in force, Date of end of validity: 31/12/1995; Repealed by 396D0737	
Council Directive 91/148/EEC of 18 March 1991 revoking Directive 75/404/EEC on the restriction of the use of natural gas in power stations	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31991L0148	1990-1995	1991	No longer in force, Date of end of validity: 25/03/1991	Decision No 1364/2006/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
limits of carbon dioxide emissions	not quantifiable	environment	Renewable Energy	<i>Member States shall endeavour to contribute in their energy policies to the limitation of carbon dioxide emissions by taking account of the Community's indicative objectives relating to the renewable energy sources which are set out in Annex I.</i>	1-minor development
Minor changes in statutes	not quantifiable	affordability	Nuclear Energy	<i>the Commission may, in accordance with the provisions of Article 12 of the Euratom Treaty and subject to the conditions contained therein, grant on request non-exclusive licences to the Member States of Euratom, to persons and undertakings (as defined in Article 196 of that Treaty), as well as to the Government of Switzerland</i>	1-minor development
No need to inform Commission on imports of crude oil and gas because it is done through Eurostat	not quantifiable	internal energy market	Internal Energy Markets	<i>Whereas more detailed monthly information on crude oil and natural gas is now obtained via the Statistical Office of the European Communities, notably on the basis of the available customs data;</i>	1-minor development
No need to inform Commission on exports of crude oil and gas because it is done through Eurostat	not quantifiable	internal energy market	Internal Energy Markets	<i>Whereas more detailed monthly information on crude oil and natural gas is now obtained via the Statistical Office of the European Communities, notably on the basis of the available customs data;</i>	1-minor development
access to tendering for electricity generators for any company in EU	not quantifiable	affordability	internal Energy Markets	<i>Details of the tendering procedure for means of production shall be published in the Official Journal of the European Communities at least six months prior to the closing date for tenders. [...] The tender specifications shall be made available to any interested undertaking established in the territory of a Member State so that it has sufficient time in which to submit a tender.</i>	1-minor development
transmission tariffs are made public	not quantifiable	internal energy market	internal Energy Markets	<i>Member States shall take the necessary measures for:</i> <i>(i) the publication of a non-discriminatory tariff for the use of the transmission and distribution system;</i>	1-minor development
Reduces security of supply provisions	not quantifiable	security of supply	Security of Energy Supply	<i>Whereas Directive 75/339/EEC (4) was adopted in the wake of the oil crisis in the 1970s in order to help to improve the Community's security of supply;</i>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Decision of 13 September 1993 concerning the promotion of renewable energy sources in the Community (Altener)	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31993D0500	1990-1995	1993	No longer in force, Date of end of validity: 31/12/1997	Decision No 1229/2003/EC
96/305/Euratom: Council Decision of 7 May 1996 approving amendments to the Statutes of the Joint European Torus (JET), Joint Undertaking	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996D0305	1996-2002	1996	No longer in force, Date of end of validity: 31/12/1999	Directive 2008/1/EC
Council Regulation (EC) No 546/96 of 28 March 1996 repealing Regulation (EEC) No 1055/72 on notifying the Commission of imports of crude oil and natural gas	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996R0546	1996-2002	1996	No longer in force, Date of end of validity: 30/03/1996	
Council Regulation (EC) No 545/96 of 28 March 1996 repealing Regulation (EEC) No 388/75 on notifying the Commission of exports of crude oil and natural gas to third countries	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996R0545	1996-2002	1996	No longer in force, Date of end of validity: 30/03/1996	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996L0092	1996-2002	1996	Repealed by 32003L0054	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996L0092	1996-2002	1996	Repealed by 32003L0054	Directive 2008/50/EC
97/7/EC: Council Decision of 20 December 1996 repealing Directive 75/339/EEC obliging the Member States to maintain minimum stocks of fossil fuel at thermal power stations	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31997D0007	1996-2002	1996	No longer in force, Date of end of validity: 07/12/1997	Decision No 647/2000/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Reduces security of supply provisions	not quantifiable	security of supply	Security of Energy Supply	<i>Whereas the said Directive was adopted in the wake of the oil crisis in the 1970s to contribute towards the Community's central objective of limiting oil imports and improving security of supply;</i>	1-minor development
Project was not exploited commercially	not quantifiable	security of supply	Security of Energy Supply	<i>Whereas Regulation (EEC) No 1038/79 (3) was adopted to implement a specific hydrocarbon exploration project in Greenland;</i> <i>Whereas the project was completed in the time planned;</i> <i>Whereas, in view of the results obtained on completion of the project, it was not exploited commercially;</i>	1-minor development
Reduce capital from BA due to complete dismantling by KRB of its nuclear power station by 2020	not quantifiable	security of supply	Nuclear Energy	<i>Whereas by Decision 88/446/Euratom (2), the Council amended Decision 63/27/Euratom to extend the period of validity of the joint undertaking status for a further 12 years ending in the year 2000 with a view to complete dismantling by KRB of its nuclear power station;</i> <i>Whereas the decision taken at the general meeting of the members of KRB on 11 November 1994 to reduce the capital of the joint undertaking from 100 million German marks to 40 million German marks constitutes an amendment to the statutes of the joint undertaking;</i>	1-minor development
Updates list of projects of common interest from Decision No 1254/96/EC	not quantifiable	internal energy market	internal Energy Markets	<i>The projects listed in the Annex to this Decision shall added to the indicative list of projects of common interest contained in the Annex to Decision No 1254/96/EC of the European Parliament and of the Council of 5 June 1996 laying down a series of guidelines for trans-European energy networks (5).</i>	1-minor development
Minor changes in statutes	not quantifiable	affordability	Nuclear Research		1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
97/8/EC: Council Decision of 20 December 1996 repealing Directive 75/405/EEC concerning the restriction of the use of petroleum products in power stations	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31997D0008	1996-2002	1996	No longer in force, Date of end of validity: 21/01/1997	
Council Regulation (EC) No 547/96 of 28 March 1996 repealing Regulation (EEC) No 1038/79 on Community support for a hydrocarbon exploration project in Greenland	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996R0547	1996-2002	1996	No longer in force, Date of end of validity: 30/03/1996	
96/243/ECSC: Council Decision of 25 March 1996 approving amendments to the statutes of the Kernkraftwerk RWE-Bayernwerk GmbH (KRB) joint undertaking	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996D0243	1996-2002	1996	None	
Decision No 1047/97/EC of the European Parliament and of the Council of 29 May 1997 amending Decision No 1254/96/EC laying down a series of guidelines for trans-European energy networks	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31997D1047	1996-2002	1997	None	
98/585/Euratom: Council Decision of 13 October 1998 approving amendments to the Statutes of the Joint European Torus (JET), Joint Undertaking	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31998D0585	1996-2002	1998	No longer in force, Date of end of validity: 31/12/1999	Directive 2003/54/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
EU signs trade-related provisions of the Energy Charter Treaty	not quantifiable	security of supply	Security of Energy Supply		1-minor development
Updates the indicative list of projects of common interest, for trans-European energy networks	not quantifiable	internal energy market	Internal Energy Markets	<i>The indicative list of projects of common interest set out in the Annex to Decision No 1254/96/EC shall be amended as follows:</i>	1-minor development
Cyprus joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Cyprus concerning the participation of the Republic of Cyprus in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Latvia joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Latvia concerning the participation of the Republic of Latvia in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Poland joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Poland concerning the participation of the Republic of Poland in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Romania joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Romania concerning the participation of the Republic of Poland in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
98/537/EC: Council Decision of 13 July 1998 approving the text of the amendment to the trade-related provisions of the Energy Charter Treaty and its provisional application agreed by the Energy Charter Conference and the International Conference of the Signatories of the Energy Charter Treaty	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31998D0537	1996-2002	1998	In force	Directive 2003/54/EC
Decision No 1741/1999/EC of the European Parliament and OF THE Council of 29 July 1999 amending Decision No 1254/96/EC laying down a series of guidelines for trans-European energy networks	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:31999D1741	1996-2002	1999	No longer in force, Date of end of validity: 17/07/2003	Directive 2003/54/EC
2001/592/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Cyprus concerning the participation of the Republic of Cyprus in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0592	1996-2002	2001	In force	Directive 2003/54/EC
2001/587/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Latvia concerning the participation of the Republic of Latvia in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0587	1996-2002	2001	In force	Directive 2003/54/EC
2001/583/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Poland concerning the participation of the Republic of Poland in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0583	1996-2002	2001	In force	Directive 2003/54/EC
2001/584/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and Romania concerning the participation of Romania in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0584	1996-2002	2001	In force	Directive 2003/54/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Slovakia joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Slovak Republic concerning the participation of the Slovak Republic in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Turkey joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Turkey concerning the participation of the Republic of Turkey in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Czech Republic joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Czech Republic concerning the Czech Republic's participation in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Lithuania joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Lithuania concerning the participation of the Republic of Lithuania in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Hungary joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Hungary concerning the participation of the Republic of Hungary in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Slovenia joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Slovenia concerning the participation of the Republic of Slovenia in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2001/590/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Slovak Republic concerning the participation of the Slovak Republic in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0590	1996-2002	2001	In force	
2001/594/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Turkey concerning the participation of the Republic of Turkey in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0594	1996-2002	2001	In force	
2001/582/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Czech Republic concerning the Czech Republic's participation in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0582	1996-2002	2001	In force	
2001/588/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Lithuania concerning the participation of the Republic of Lithuania in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0588	1996-2002	2001	In force	
2001/586/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Hungary concerning the participation of the Republic of Hungary in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0586	1996-2002	2001	In force	
2001/585/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Slovenia concerning the participation of the Republic of Slovenia in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0585	1996-2002	2001	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Malta joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Malta concerning the participation of the Republic of Malta in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Estonia joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Estonia concerning the participation of the Republic of Estonia in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Bulgaria joins EEA	not quantifiable	environment	Environmental Protection	<i>The Agreement between the European Community and the Republic of Bulgaria concerning the participation of the Republic of Bulgaria in the European Environment Agency and the European environment information and observation network is approved on behalf of the Community.</i>	1-minor development
Update referring to new GATT provisions (WTO)	not quantifiable	security of supply	Security of Energy Supply	<i>The introduction in the Energy Charter Treaty of the relevant WTO provisions by reference instead to the GATT 1947 provisions contained therein, as well as the inclusion of a list of energy-related equipment in the trade provisions, are in the interest of the Community.</i>	1-minor development
Rules for research projects in nuclear energy	not quantifiable	affordability	Nuclear Energy	<i>establishes rules for the participation of enterprises, research centres and universities in research carried out under the sixth framework programme of the European Atomic Energy Community for research and training activities</i>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2001/593/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Malta concerning the participation of the Republic of Malta in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0593	1996-2002	2001	In force	
2001/591/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Estonia concerning the participation of the Republic of Estonia in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0591	1996-2002	2001	In force	
2001/589/EC: Council Decision of 18 June 2001 on the conclusion of the Agreement between the European Community and the Republic of Bulgaria concerning the participation of the Republic of Bulgaria in the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0589	1996-2002	2001	In force	
2001/595/EC: Council Decision of 13 July 2001 on the conclusion by the European Community of the Amendment to the trade-related provisions of the Energy Charter Treaty	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0595	1996-2002	2001	In force	1999/23/EC
Council Regulation No 2322/2002 (Euratom) of 5 November 2002 concerning the rules for the participation of undertakings, research centres and universities in the implementation of the sixth framework programme of the European Atomic Energy Community (2002 to 2006)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002R2322	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2006	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Reduction of taxes for some nuclear plant decommissioning	not quantifiable	affordability	Nuclear Energy	<p><i>Member States hereby extend for eleven years with effect from 1 January 1999 the following advantages listed in Annex III to the Treaty conferred on the Joint Undertaking Hochttemperatur-Kernkraftwerk GmbH (HKG):</i></p> <p><i>1. under paragraph 4 of the said Annex, the exemption from the Grunderwerbsteuer (tax on the acquisition of immovable property);</i></p> <p><i>2. under paragraph 5 of the said Annex:</i></p> <p><i>- the exemption from Grundsteuer (land tax),</i></p> <p><i>- the exemption from that part of the profits tax which is levied, pursuant to Article 8, point 1 of the Gewerbesteuergesetz (trade tax law), on the interest due on long-term debt.</i></p>	1-minor development
Reduction of taxes for some nuclear plant decommissioning	not quantifiable	affordability	Nuclear Energy	<p><i>The objective of HKG shall be to implement a programme for decommissioning the nuclear power station located at Uentrop (Unna district) in the Federal Republic of Germany, up to the safe enclosure stage and, thereafter, to carry out a programme of surveillance of the enclosed nuclear installations.</i></p>	1-minor development
Universal access to electricity	not quantifiable	internal energy market	Internal Energy Markets	<p><i>Member States shall ensure that all household customers, and, where Member States deem it appropriate, small enterprises, (namely enterprises with fewer than 50 occupied persons and an annual turnover or balance sheet not exceeding EUR 10 million), enjoy universal service,</i></p>	1-minor development
NGOs have to be more involved in the environmental decisions	not quantifiable	environment	Environmental Protection	<p><i>The objective of this Directive is to contribute to the implementation of the obligations arising under the Århus Convention</i></p>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2002/356/Euratom: Council Decision of 7 May 2002 on the extension of the advantages conferred on the Joint Undertaking Hochtemperatur-Kernkraftwerk GmbH (HKG)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D0356	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2009	
2002/355/Euratom: Council Decision of 7 May 2002 on extension of the joint-undertaking status of Hochtemperatur-Kernkraftwerk GmbH (HKG)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D0355	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2009	
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	Directive 2011/92/EU
Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC - Statement by the Commission	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0035	2003-2008	2003	In force	2000/646/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS have to publish environmental information	not quantifiable	environment	Internal Energy Markets	<p><i>The objectives of this Directive are:</i></p> <p><i>(a) to guarantee the right of access to environmental information held by or for public authorities and to set out the basic terms and conditions of, and practical arrangements for, its exercise; and</i></p> <p><i>(b) to ensure that, as a matter of course, environmental information is progressively made available and disseminated to the public in order to achieve the widest possible systematic availability and dissemination to the public of environmental information. To this end the use, in particular, of computer telecommunication and/or electronic technology, where available, shall be promoted.</i></p>	1-minor development
Updates the rules governing EEA	not quantifiable	environment	environmental Protection	<p><i>Appropriate provisions should therefore be included in Regulation (EEC) No 1210/90 to make Regulation (EC) No 1049/2001 applicable to the European Environment Agency, as should a provision for appeals against a refusal of access to documents.</i></p>	1-minor development
EU accedes to the Convention	not quantifiable	environment	Environmental Protection	<p><i>The accession of the Community to the Protocol to the 1979 Convention on Long-range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-level Ozone is hereby approved on behalf of the Community.</i></p>	1-minor development
New members added to Euratom Supply Agency after EU 2004 expansion	not quantifiable	internal energy market	Nuclear Energy	<p><i>The following persons are hereby appointed members of the Advisory Committee of the Euratom Supply Agency</i></p>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0004	2003-2008	2003	In force	
Regulation (EC) No 1641/2003 of the European Parliament and of the Council of 22 July 2003 amending Council Regulation (EEC) No 1210/90 on the establishment of the European Environment Agency and the European Environment Information and Observation Network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003R1641	2003-2008	2003	No longer in force, Date of end of validity: 10/06/2009	
2003/507/EC: Council Decision of 13 June 2003 on the accession of the European Community, to the Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003D0507	2003-2008	2003	In force	
Council Decision of 13 December 2004 appointing the members of the Advisory Committee of the Euratom Supply Agency	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005D0422(01)	2003-2008	2004	No longer in force, Date of end of validity: 28/03/2005	Directive 2003/55/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Estonia opening of the electricity market delayed; 35% by 2009, 100% by 2013	quantifiable	internal energy market	Security of Energy Supply	<i>Estonia shall be granted a temporary derogation from the application of Article 21(1)(b) and (c) until 31 December 2012. Estonia shall take the measures necessary to ensure the opening of its electricity market. This shall be carried out gradually over the reference period with the aim of complete opening of the market by 1 January 2013. On 1 January 2009, the opening of the market must represent at least 35 % of consumption. Estonia shall communicate annually to the Commission the consumption thresholds extending eligibility to final customers.'</i>	1-minor development
Slovenia exempted by the 2003 Regulation until 2007 due to expected too sudden electricity prices hike	quantifiable	internal energy market	Security of Energy Supply	<i>As regards interconnections between Slovenia and neighboring Member States, Article 6(1), as well as rules 1 to 4 contained in the chapter entitled "General" of the Annex, shall apply from 1 July 2007. This paragraph shall apply only to the interconnection capacity which is allocated by the Slovenian transmission system operator and only insofar as such capacity does not exceed half of the total available interconnection capacity.</i>	1-minor development
A new group to be established	quantifiable	internal energy market	Security of Energy Supply	<i>A Gas Coordination Group is hereby established in order to facilitate the coordination of security of supply measure (the Group).</i>	1-minor development
A "Climate Change Committee" is created.	quantifiable	environment	Environmental Protection	<i>The Commission shall be assisted by a "Climate Change Committee".</i>	1-minor development
Sweden may reduce taxation, hence price, for municipalities in the north due to higher heating costs.	not quantifiable	affordability	Internal Energy Markets	<i>Sweden is hereby authorised to apply a reduced rate of taxation to electricity consumed by households and service sector companies situated in the municipalities listed in the Annex. The reduction shall be proportionate to the extra heating costs due to the northern location, in comparison with the rest of Sweden.</i>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Directive 2004/85/EC of 28 June 2004 amending Directive 2003/54/EC of the European Parliament and of the Council as regards the application of certain provisions to Estonia	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0085	2003-2008	2004	No longer in force, Date of end of validity: 02/03/2011	
Council Regulation (EC) No 1223/2004 of 28 June 2004 amending Regulation (EC) No 1228/2003 of the European Parliament and of the Council as regards the date of application of certain provisions to Slovenia	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004R1223	2003-2008	2004	No longer in force, Date of end of validity: 02/03/2011	
Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0067	2003-2008	2004	In force	
Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004D0280	2003-2008	2004	No longer in force, Date of end of validity: 07/07/2013; Repealed by 32013R0525	
2005/231/EC: Council Decision of 7 March 2005 authorising Sweden to apply a reduced rate of taxation to electricity consumed by households and service sector companies situated in certain areas in the north of Sweden in accordance with Article 19 of Directive 2003/96/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005D0231	2003-2008	2005	No data	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Changes in the Consultative Committee for the Fusion Programme due to 2004 EU expansion	quantifiable	internal energy market	Nuclear Energy	<i>Opinions relating to point (g) of paragraph 5 shall be adopted by the following weighted voting system</i>	1-minor development
New member to Euratom Supply Agency	not quantifiable	internal energy market	Nuclear Energy	<i>Ms Maria Jesús ONEGA COLADAS is hereby appointed a member of the Advisory Committee of the Euratom Supply Agency for the remainder of the Committee's term of office, which ends on 28 March 2007.</i>	1-minor development
Extends Sweden derogation to 2011	quantifiable	affordability	Internal Energy Markets	<i>In Article 2 of Decision 2005/231/EC, the date '31 December 2005' shall be replaced by the date '31 December 2011'.</i>	1-minor development
New member of Euratom Supply Agency	quantifiable	internal energy market	Nuclear Energy	<i>Mr Bruno QUAGLIA is hereby appointed a member of the Advisory Committee of the Euratom Supply Agency for the remainder of the Committee's term of office, which ends on 28 March 2009.</i>	1-minor development
New member of Euratom Supply Agency	quantifiable	internal energy market	Nuclear Energy	<i>The following persons are hereby appointed members of the Advisory Committee of the Euratom Supply Agency:</i>	1-minor development
Slovenia to ratify the Paris Convention	not quantifiable	affordability	Nuclear Energy	<i>Without prejudice to the Community's powers, the Republic of Slovenia shall ratify, in the interest of the Community, the Protocol amending the Paris Convention.</i>	1-minor development
Weighted voting system changed	not quantifiable	internal energy market	Nuclear Energy	<i>Opinions relating to paragraph 5(g) shall be adopted by the following weighted voting system:</i>	1-minor development
Statutes of the Euratom Supply Agency changed	not quantifiable	internal energy market	Nuclear Energy	<i>The Statutes of the Euratom Supply Agency, as set out in the Annex, shall be adopted.</i>	1-minor development
Estonia 2004 demand for derogation fell at the Court and this new Directive is issued.	not quantifiable	internal energy market	Security of Energy Supply	<i>Estonia shall be granted a temporary derogation from the application of Article 21(1)(b) and (c) until 31 December 2012. Estonia shall take the measures necessary to ensure the opening of its electricity market.</i>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2005/336/: Council Decision of 18 April 2005 amending the Council Decision of 16 December 1980 setting up the Consultative Committee for the Fusion Programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005D0336	2003-2008	2005	In force	
Council Decision of 18 September 2006 appointing a member of the Advisory Committee of the Euratom Supply Agency	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D1006(05)	2003-2008	2006	No longer in force, Date of end of validity: 28/03/2007	
2006/503/EC: Council Decision of 11 July 2006 amending Decision 2005/231/EC authorising Sweden to apply a reduced rate of taxation to electricity consumed by certain households and service sector companies in accordance with Article 19 of Directive 2003/96/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0503	2003-2008	2006	No data	
Council Decision of 19 November 2007 appointing a member of the Advisory Committee of the Euratom Supply Agency	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007D1124(02)	2003-2008	2007	No longer in force, Date of end of validity: 28/03/2009	
2007/514/Euratom: Council Decision of 10 July 2007 appointing members of the Advisory Committee of the Euratom Supply Agency	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007D0514	2003-2008	2007	No longer in force, Date of end of validity: 28/03/2009	
2007/727/EC: Council Decision of 8 November 2007 authorising the Republic of Slovenia to ratify, in the interest of the European Community, the Protocol of 12 February 2004 amending the Paris Convention of 29 July 1960 on Third-Party Liability in the Field of Nuclear Energy	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007D0727	2003-2008	2007	Date of entry into force unknown (pending notification) or not yet in force., Date of effect: 01/01/1001	
2008/182/Euratom: Council Decision of 25 February 2008 amending Council Decision of 16 December 1980 setting up the Consultative Committee for the Fusion Programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008D0182	2003-2008	2008	In force	
2008/114/EC,Euratom: Council Decision of 12 February 2008 establishing Statutes for the Euratom Supply Agency	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008D0114	2003-2008	2008	In force	
Directive 2008/3/EC of the European Parliament and of the Council of 15 January 2008 amending Directive 2003/54/EC as regards the application of certain provisions to Estonia	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0003	2003-2008	2008	No longer in force, Date of end of validity: 02/03/2011	Directive 2008/50/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Details how money for JRC are spent	quantifiable	affordability	Nuclear Research	<i>The specific programme, to be carried out by means of direct actions by the Joint Research Centre (JRC), implementing the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012-2013) (hereinafter the 'specific programme'), is adopted for the period from 1 January 2012 to 31 December 2013.</i>	1-minor development
Details how money for fusion research are spent	quantifiable	affordability	Nuclear Research	<i>This Regulation lays down the rules for the participation of undertakings, research centres and universities and other legal entities in actions undertaken by one or more participants under funding schemes identified in the Annex II to Decision 2012/93/Euratom (hereinafter 'indirect actions').</i>	1-minor development
Details how money for special programme are spent	quantifiable	affordability	Nuclear Research	<i>The specific programme, to be carried out by means of indirect actions, implementing the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012-2013) (hereinafter the 'specific programme') is adopted for the period from 1 January 2012 to 31 December 2013.</i>	1-minor development
Clarifies some matters on EEA Agreement	not quantifiable	internal energy market	Internal Energy Markets	<i>The position to be taken by the Union in the EEA Joint Committee concerning an amendment to Annex IV (Energy) to the EEA Agreement shall be based on the draft Decision of the EEA Joint Committee attached to this Decision.</i>	1-minor development
A nuclear facility continues to receive several tax exemptions for 8 years.	quantifiable	internal energy market	Nuclear Energy	<i>The Member States hereby extend for 8 years with effect from 1 January 2010 the following advantages listed in Annex III to the Treaty establishing the European Atomic Energy Community, conferred on the Joint Undertaking Hochttemperatur-Kernkraftwerk GmbH (HKG):</i>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2012/95/Euratom: Council Decision of 19 December 2011 concerning the specific programme, to be carried out by means of direct actions by the Joint Research Centre, implementing the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012-2013)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32012D0095	2009-2015	2011	No longer in force, Date of end of validity: 31/12/2013; Repealed by 32013R1314	
Council Regulation (Euratom) No 139/2012 of 19 December 2011 laying down the rules for the participation of undertakings, research centres and universities in indirect actions under the Framework Programme of the European Atomic Energy Community and for the dissemination of research results (2012-2013)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32012R0139	2009-2015	2011	No longer in force, Date of end of validity: 31/12/2013; Repealed by 32013R1314	
2012/94/Euratom: Council Decision of 19 December 2011 concerning the specific programme, to be carried out by means of indirect actions, implementing the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012-2013)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32012D0094	2009-2015	2011	No longer in force, Date of end of validity: 31/12/2013; Repealed by 32013R1314	
2011/886/EU: Council Decision of 12 December 2011 on the position to be taken by the European Union in the EEA Joint Committee concerning an amendment to Annex IV (Energy) to the EEA Agreement	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011D0886	2009-2015	2011	In force	Directive 2010/75/EU
2011/374/Euratom: Council Decision of 17 June 2011 on extension of the advantages conferred on the joint undertaking Hochtemperatur-Kernkraftwerk GmbH (HKG)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011D0374	2009-2015	2011	In force	Directive 2010/75/EU

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
The joint-undertaking status granted for a decommissioning operation extended for 8 years	not quantifiable	internal energy market	Nuclear Energy	<i>The objective of HKG shall be to implement a programme for decommissioning the nuclear power station located at Uentrop (Unna district) in the Federal Republic of Germany, up to the safe enclosure stage and, thereafter, to carry out a programme of surveillance of the enclosed nuclear installations.</i>	1-minor development
MS to set up national policies on spent fuel and radioactive waste management	not quantifiable	environment	Nuclear Energy	<i>Member States shall establish and maintain national policies on spent fuel and radioactive waste management. Without prejudice to Article 2(3), each Member State shall have ultimate responsibility for management of the spent fuel and radioactive waste generated in it.</i>	1-minor development
MS to set up an authority in the area of spent fuel and radioactive waste management	not quantifiable	environment	Nuclear Energy	<i>Each Member State shall establish and maintain a competent regulatory authority in the field of safety of spent fuel and radioactive waste management.</i>	1-minor development
MS to encourage SMEs to increase energy efficiency.	not quantifiable	affordability	Energy Efficiency and Savings	<i>Member States shall develop programmes to encourage SMEs to undergo energy audits and the subsequent implementation of the recommendations from these audits.</i>	1-minor development
MS to ensure billing is free of charge.	not quantifiable	affordability	Internal Energy Markets	<i>Member States shall ensure that final customers receive all their bills and billing information for energy consumption free of charge and that final customers also have access to their consumption data in an appropriate way and free of charge.</i>	1-minor development
Sweden may have a reduced rate of taxation to electricity in certain areas, until 2017.	not quantifiable	affordability	Energy Efficiency and Savings	<i>Sweden is hereby authorised to apply a reduced rate of taxation to electricity consumed by households and service sector companies situated in the municipalities listed in the Annex.</i>	1-minor development
Croatia targets for RES, after accession.	quantifiable	environment	Renewable Energy	<i>In part A of Annex I to Directive 2009/28/EC, the following is inserted in the table after the entry for France: 'Croatia 12,6 % 20 %'</i>	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2011/362/Euratom: Council Decision of 17 June 2011 on extension of the joint-undertaking status of Hochtemperatur-Kernkraftwerk GmbH (HKG)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011D0362	2009-2015	2011	In force	
Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011L0070	2009-2015	2011	In force	Regulation (EC) No 614/2007
Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011L0070	2009-2015	2011	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	Directive 2010/75/EU
2012/47/EU: Council Implementing Decision of 24 January 2012 authorising Sweden to apply a reduced rate of taxation to electricity consumed by households and service sector companies situated in certain areas in the north of Sweden in accordance with Article 19 of Directive 2003/96/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012D0047	2009-2015	2012	No longer in force, Date of end of validity: 31/12/2017	Directive 2010/75/EU
Council Directive 2013/18/EU of 13 May 2013 adapting Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, by reason of the accession of the Republic of Croatia	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013L0018	2009-2015	2013	In force	Directive 2010/75/EU

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Croatia targets for energy efficiency, after accession.	quantifiable	internal energy market	Energy Efficiency and Savings	Article 3 of Directive 2012/27/EU is amended as follows: (a) point (a) of the second subparagraph of paragraph 1 is replaced by the following: '(a) that the Union's 2020 energy consumption has to be no more than 1 483 Mtoe of primary energy or no more than 1 086 Mtoe of final energy;'; (b) paragraph 2 is replaced by the following: '2. By 30 June 2014, the Commission shall assess progress achieved and whether the Union is likely to achieve energy consumption of no more than 1 483 Mtoe of primary energy and/or no more than 1 086 Mtoe of final energy in 2020.'; (c) point (d) of paragraph 3 is replaced by the following: '(d) compare the results under points (a) to (c) with the quantity of energy consumption that would be needed to achieve energy consumption of no more than 1 483 Mtoe of primary energy and/or no more than 1 086 Mtoe of final energy in 2020.'	1-minor development
Commission to report on the programmes	quantifiable	environment	Internal Energy Markets	The Commission shall examine the progress achieved in implementing the measures undertaken pursuant to this Regulation and shall submit to the European Parliament and the Council an annual report on the implementation of the cooperation referred to in this Regulation. The report shall contain information relating to the previous year on the measures financed, information on the results of monitoring and evaluation exercises and the implementation of budget commitments and payments, broken down by country, region and type of cooperation.	2-Commission reporting
Lichtenstein and Iceland to be exempted from some data collection	not quantifiable	internal energy market	Internal Energy Markets	The position to be adopted, on behalf of the Union, within the EEA Joint Committee on the proposed amendment to Annex XXI (Statistics) to the EEA Agreement shall be based on the draft Decision of the EEA Joint Committee attached to this Decision.	1-minor development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Directive 2013/12/EU of 13 May 2013 adapting Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency, by reason of the accession of the Republic of Croatia	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013L0012	2009-2015	2013	In force	
Council Regulation (Euratom) No 237/2014 of 13 December 2013 establishing an Instrument for Nuclear Safety Cooperation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32014R0237	2009-2015	2013	In force	
Council Decision (EU) 2015/1773 of 1 October 2015 on the position to be adopted, on behalf of the European Union, within the EEA Joint Committee concerning an amendment to Annex XXI (Statistics) to the EEA Agreement (Energy Statistics)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D1773	2009-2015	2015	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
ITER may award financial prizes.	not quantifiable	affordability	Nuclear Research	<i>The Joint Undertaking may award grants and prizes in accordance with the rules of its financial regulation.</i>	1-minor development
Commission to organize an exchange of information.	quantifiable	environment	environmental Protection	<i>The Commission shall organize an exchange of information with Member States, the industries concerned and non-governmental organisations on the emission levels achievable with best available and emerging technologies and the related costs.</i>	1-minor development
Common framework for energy statistics	not quantifiable	internal energy market	Internal Energy Markets	<i>This Regulation establishes a common framework for the development, production and dissemination of comparable European statistics on natural gas and electricity prices for household and final non-household customers in the Union.</i>	1-minor development
Sweden allowed lower taxes	quantifiable	affordability	Internal Energy Markets	<i>Sweden is hereby authorised to apply a reduced rate of excise duty to electricity consumed by households and service sector companies situated in the municipalities listed in the Annex.</i>	1-minor development
Regulation (EU) No 256/2014 is repealed.	not quantifiable	internal energy market	Internal Energy Markets	<i>there were significant overlaps between Member States' reporting obligations under Regulation (EU) No 256/2014 and Member States' obligations to report to the European network of transmission system operators for electricity ('ENTSO-E') and the European network for transmission system operators for gas ('ENTSOG').</i>	1-minor development
Commission to report on the NEC Directive	not quantifiable	environment	Internal Energy Markets	<i>the Commission shall report to the European Parliament and the Council on progress on the implementation of the national emission ceilings</i>	2-Commission reporting
Commission shall report on the application and effectiveness of this Directive to the European Parliament and to the Council.	not quantifiable	environment	Internal Energy Markets	<i>an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Decision (Euratom) 2015/224 of 10 February 2015 amending Decision 2007/198/ Euratom establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D0224	2009-2015	2015	In force	
Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015L2193	2009-2015	2015	Not specified	
Regulation (EU) 2016/1952 of the European Parliament and of the Council of 26 October 2016 on European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016R1952	2016-2019	2016	In force	
Council Implementing Decision (EU) 2017/2409 of 18 December 2017 authorising Sweden to apply a reduced rate of excise duty on electricity consumed by households and service sector companies situated in certain areas in the North of Sweden in accordance with Article 19 of Directive 2003/96/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017D2409	2016-2019	2017	In force	
Regulation (EU) 2018/1504 of the European Parliament and of the Council of 2 October 2018 repealing Regulation (EU) No 256/2014 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1504	2016-2019	2018	In force	
Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0081	1996-2002	2001	In force	
Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0042	1996-2002	2001	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report on the coal state aid	not quantifiable	affordability	Internal Energy Markets	<i>By 31 December 2006, the Commission shall report to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, covering in particular its experience and any problems encountered in the application of this Regulation since its entry into force. It shall evaluate in the light of the measures taken by the Member States the results of the restructuring of the coal industry and the effects on the internal market.</i>	2-Commission reporting
Commission to provide a report in 5 years and another annually.	quantifiable	internal energy market	Internal Energy Markets	<i>1. The Commission shall, within five years of the entry into force of this Directive, submit a review report on the experience gained from the application of this Article, so as to allow the European Parliament and the Council to consider, in due course, the need to adjust it. 2. The Commission shall monitor and review the application of this Directive and submit an overall progress report to the European Parliament and the Council before the end of the first year following the entry into force of this Directive, and thereafter on an annual basis. The report shall cover at least:</i>	2-Commission reporting
Commission write a report annually and another in 3 years	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall monitor and review the application of this Directive and submit an overall progress report to the European Parliament and the Council before the end of the first year following the entry into force of this Directive, and thereafter on an annual basis.</i>	2-Commission reporting
Commission report on PCIs	quantifiable	internal energy market	Internal Energy Markets	<i>Every two years the Commission shall draw up a report on the implementation of this Decision, which it shall submit to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Regulation (EC) No 1407/2002 of 23 July 2002 on State aid to the coal industry	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002R1407	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2010	
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	
Decision No 1229/2003/EC of the European Parliament and of the Council of 26 June 2003 laying down a series of guidelines for trans-European energy networks and repealing Decision No 1254/96/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003D1229	2003-2008	2003		

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to consider MS reporting in their own report	quantifiable	internal energy market	Internal Energy Markets	<i>This information shall be considered by the Commission in the reports that it issues pursuant to Article 31 of Directive 2003/55/EC in the light of the consequences of that Directive for the Community as a whole and the overall efficient and secure operation of the internal gas market.</i>	2-Commission reporting
Commission to report on the EU gas security of supply	quantifiable	security of supply	Internal Energy Markets	<i>By 19 May 2008 the Commission shall submit a review report to the European Parliament and the Council on the experience gained from the application of this Article.</i>	2-Commission reporting
Commission to report on the supplementary research programme involving the high flux reactor (HFR)	quantifiable	affordability	Internal Energy Markets	<i>The Commission shall each year, before 15 June, submit to the European Parliament, to the Council and to the European Economic and Social Committee a report on the implementation of this Decision.</i>	2-Commission reporting
Commission to report on the progress in 2008 and every four years thereafter	quantifiable	affordability	Internal Energy Markets	<i>The Commission shall in the report referred to in Article 11 present a well-documented analysis on experience gained with the application and coexistence of the different support mechanisms referred to in paragraph 2 of this Article. The report shall assess the success, including cost-effectiveness, of the support systems in promoting the use of high-efficiency cogeneration in conformity with the national potentials referred to in Article 6. The report shall further review to what extent the support schemes have contributed to the creation of stable conditions for investments in cogeneration.</i>	2-Commission reporting
Commission to publish the projects and funding of them	quantifiable	environment	Internal Energy Markets	<i>The Commission shall publish annually a complete list of projects financed including a short description and a summary of funds expended in each case.'</i>	2-Commission reporting
Commission to report on the LIFE programme and evaluate it	quantifiable	environment	Internal Energy Markets	<i>a report updating the mid-term review submitted in November 2003 and evaluating the implementation of this Regulation, its contribution to the development of Community environmental policy, and the use made of the appropriations</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0067	2003-2008	2004	In force	
Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0067	2003-2008	2004	In force	
2004/185/Euratom: Council Decision of 19 February 2004 concerning the adoption of a supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004D0185	2003-2008	2004	No longer in force, Date of end of validity: 31/12/2007	
Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0008	2003-2008	2004	No longer in force, Date of end of validity: 04/06/2014; Repealed by 32012L0027	
Regulation (EC) No 1682/2004 of the European Parliament and of the Council of 15 September 2004 amending Regulation (EC) No 1655/2000 concerning the Financial Instrument for the Environment (LIFE)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004R1682	2003-2008	2004	No longer in force, Date of end of validity: 11/06/2007	
Regulation (EC) No 1682/2004 of the European Parliament and of the Council of 15 September 2004 amending Regulation (EC) No 1655/2000 concerning the Financial Instrument for the Environment (LIFE)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004R1682	2003-2008	2004	No longer in force, Date of end of validity: 11/06/2007	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report the annual EU GHG inventory	quantifiable	environment	Internal Energy Markets	<i>The Commission shall, in cooperation with the Member States, annually compile a Community greenhouse gas inventory and a Community greenhouse gas inventory report,</i>	2-Commission reporting
Commission reports on the GHG inventory	quantifiable	environment	Internal Energy Markets	<i>On the basis of the assessment referred to in paragraph 1, the Commission shall submit annually a report to the European Parliament and the Council.</i>	2-Commission reporting
Commission to report the issue under the 2003/55/EC Directive report	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall monitor the implementation of this Regulation. In its report under Article 31(3) of Directive 2003/55/EC, the Commission shall also report on the experience gained in the application of this Regulation.</i>	2-Commission reporting
Commission to report on the adequacy investments	quantifiable	security of supply	Internal Energy Markets	<i>the Commission shall report to the Member States, the competent authorities and the European Regulators Group on Electricity and Gas established by Commission Decision 2003/796/EC (8) on the investments planned and their contribution to the objectives set out in Article 1(1).</i> <i>This report may be combined with the reporting provided for in point (c) of Article 28(1) of Directive 2003/54/EC and shall be published.</i>	2-Commission reporting
Commission to report on the Directive by 2010	quantifiable	security of supply	Internal Energy Markets	<i>The Commission shall monitor and review the application of this Directive and submit a progress report to the European Parliament and the Council by 24 February 2010.</i>	2-Commission reporting
Commission to report on the programme	quantifiable	internal energy market	Internal Energy Markets	<i>Not later than 2010, the Commission shall carry out, with the assistance of external experts, an evidence-based interim evaluation of the Seventh Framework Programme</i>	2-Commission reporting
Commission to report on the Chernobyl Fund	quantifiable	environment	Internal Energy Markets	<i>The Commission shall submit to the European Parliament and to the Council, on a yearly basis, a progress report on the implementation of the Chernobyl Shelter Fund.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004D0280	2003-2008	2004	No longer in force. Date of end of validity: 07/07/2013; Repealed by 32013R0525	
Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004D0280	2003-2008	2004	No longer in force. Date of end of validity: 07/07/2013; Repealed by 32013R0525	
Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005R1775	2003-2008	2005	No longer in force. Date of end of validity: 02/03/2011; Repealed by 32009R0715	
Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005L0089	2003-2008	2006	In force	Directive 2009/28/EC
Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005L0089	2003-2008	2006	In force	Directive 2009/28/EC
2006/970/Euratom: Council Decision of 18 December 2006 Concerning the Seventh Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0970	2003-2008	2006	No longer in force. Date of end of validity: 31/12/2013; Repealed by 32013R1314	Directive 2009/28/EC
2006/908/EC, Euratom: Council Decision of 4 December 2006 on the first instalment of the third Community contribution to the European Bank for Reconstruction and Development for the Chernobyl Shelter Fund	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0908	2003-2008	2006	In force	Directive 2009/28/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to present the PCIs every two years	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission, in close collaboration with the committee referred to in Article 14(1), shall present a report every two years on the progress of projects referred to in paragraph 1.</i>	2-Commission reporting
Commission to report on the experience gained	quantifiable	affordability	Internal Energy Markets	<i>Three years after the entry into force of this Decision, the Commission shall submit to the European Parliament and to the Council a report on the experiences gained from the implementation of this Decision, accompanied, if appropriate, by a proposal for further measures.</i>	2-Commission reporting
Commission to ensure exchange of best practices	quantifiable	affordability	Internal Energy Markets	<i>The Commission shall ensure that information on best energy-saving practices in Member States is exchanged and widely disseminated.</i>	2-Commission reporting
Commission to report on the plans	quantifiable	affordability	Internal Energy Markets	<i>Not later than 17 May 2008, the Commission shall publish a cost/benefit impact assessment examining the linkages between EU standards, regulations, policies and measures on end-use energy efficiency</i>	2-Commission reporting
Commission to report on environmental information	quantifiable	environment	Internal Energy Markets	<i>The Commission shall ensure that, at regular intervals not exceeding four years, a report on the state of the environment, including information on the quality of, and pressures on, the environment is published and disseminated.</i>	2-Commission reporting
Commission to make midterm review	quantifiable	environment	Internal Energy Markets	<i>No later than 30 September 2010, the Commission shall submit a mid-term review of LIFE+</i>	2-Commission reporting
Commission to assess at the end of the programme	quantifiable	environment	Internal Energy Markets	<i>The Commission shall arrange for a final evaluation of the implementation of this Regulation assessing the contribution, both specifically and in general, that actions and projects financed under this Regulation</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks and repealing Decision 96/391/EC and Decision No 1229/2003/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D1364	2003-2008	2006	No data	
2006/500/EC: Council Decision of 29 May 2006 on the conclusion by the European Community of the Energy Community Treaty	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0500	2003-2008	2006	In force	
Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006L0032	2003-2008	2006	No longer in force, Date of end of validity: 04/06/2014; Repealed by 32012L0027	
Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006L0032	2003-2008	2006	No longer in force, Date of end of validity: 04/06/2014; Repealed by 32012L0027	
Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006R1367	2003-2008	2006	In force	
Regulation (EC) No 614/2007 of the European Parliament and of the Council of 23 May 2007 concerning the Financial Instrument for the Environment (LIFE+) - Commission statement	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007R0614	2003-2008	2007	No longer in force, Date of end of validity: 31/12/2013; Repealed by 32013R1293	
Regulation (EC) No 614/2007 of the European Parliament and of the Council of 23 May 2007 concerning the Financial Instrument for the Environment (LIFE+) - Commission statement	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007R0614	2003-2008	2007	No longer in force, Date of end of validity: 31/12/2013; Repealed by 32013R1293	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report to annually	quantifiable	environment	Internal Energy Markets	<i>The Commission shall examine progress achieved in implementing the measures undertaken pursuant to this Regulation and shall submit to the European Parliament and the Council an annual report on the implementation of the assistance.</i>	2-Commission reporting
Commission to report and review the legislation	quantifiable	environment	Energy Efficiency and Savings	<i>In the first report that intervenes by 12 December 2014, the Commission shall review the implementation of this Directive, including the energy efficiency provisions, and will present a proposal for revision if appropriate. The report shall also assess the existing Member State waste prevention programmes,</i>	2-Commission reporting
Commission to publish yearly statistics	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission (Eurostat) shall disseminate yearly energy statistics by 31 January of the second year following the reported period.</i>	2-Commission reporting
Commission to report yearly on the issue	quantifiable	internal energy market	Internal Energy Markets	<i>Once a year the Commission shall present a summary report on the operation of this Directive to the European Parliament, the Council and the European Economic and Social Committee.</i>	2-Commission reporting
Commission to make a report on the Directive	quantifiable	environment	Internal Energy Markets	<i>The Commission shall publish a Community report on the implementation of the Directive within nine months of receiving the reports from the Member States.</i>	2-Commission reporting
Commission to report on the Directive	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall monitor and review the application of this Directive and submit an overall progress report to the European Parliament and the Council for the first time by 4 August 2004, and thereafter on an annual basis.</i>	2-Commission reporting
Commission to report on cross-border flows compensation and network codes	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall monitor the implementation of this Regulation. In its report under Article 47(6) of Directive 2009/72/EC, the Commission shall also report on the experience gained in the application of this Regulation.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Regulation (Euratom) No 300/2007 of 19 February 2007 establishing an Instrument for Nuclear Safety Cooperation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007R0300	2003-2008	2007	No longer in force, Date of end of validity: 31/12/2013	
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1545829289619&uri=CELEX:32008L0098	2003-2008	2008	In force	
Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008R1099	2003-2008	2008	In force	
Directive 2008/92/EC of the European Parliament and of the Council of 22 October 2008 concerning a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users (recast) (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0092	2003-2008	2008	No longer in force, Date of end of validity: 28/02/2017; Repealed by 32016R1952	
Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control (Codified version) (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0001	2003-2008	2008	No longer in force, Date of end of validity: 06/01/2014; Repealed by 32010L0075	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force (repeals Regulation (EC) No 1228/2003)	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report on cross-border gas flows and network codes	quantifiable	internal energy market	Internal Energy Markets	<i>Commission shall also report on the experience gained in the application of this Regulation</i>	2-Commission reporting
Commission to report on the programme	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall each year, before 15 September, submit to the European Parliament and to the Council, a report on the implementation of this Decision.</i>	2-Commission reporting
Commission to report on derogations in relation to take-or-pay commitments	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall, within 4 August 2008, submit a review report on the experience gained from the application of this Article, so as to allow the European Parliament and the Council to consider, in due course, the need to adjust it.</i>	2-Commission reporting
Commission to report on the Directive	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall monitor and review the application of this Directive and submit an overall progress report to the European Parliament and the Council for the first time by 31 December 2004, and thereafter on an annual basis. The progress report shall cover at least:</i>	2-Commission reporting
Commission to report on developing energy efficiency targets	quantifiable	environment	Internal Energy Markets	<i>By 2012, the Commission shall assess and report on the progress of the Community and its Member States towards the objective to reduce energy consumption by 20 % by 2020 compared to projections for 2020, as outlined in the Action Plan for Energy Efficiency which was set out in the Commission Communication of 19 October 2006.</i>	2-Commission reporting
Commission to report on MS progress to targets	quantifiable	environment	Internal Energy Markets	<i>In the report referred to in paragraph 3, the Commission shall assess the overall implementation of this Decision, including the use and quality of CDM credits and the need for further common and coordinated policies and measures at Community level in the sectors covered by this Decision in order to assist Member States in meeting their commitments under this Decision, and shall make proposals as appropriate.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force (repeals Regulation (EC) No 1775/2005)	
2009/410/Euratom: Council Decision of 25 May 2009 on the adoption of a supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0410	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force (repeal Directive 2003/55/EC)	2007/614/Euratom - this must be a mistake; has no reference to 466/2002/EC
Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0406	2009-2015	2009	N/A	
Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0406	2009-2015	2009	N/A	Directive 2009/73/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report on effects of the GHGs reduction measures	quantifiable	environment	Internal Energy Markets	<i>Within three months of the signature by the Community of an international agreement on climate change leading, by 2020, to mandatory reductions of greenhouse gas emissions exceeding 20 % compared to 1990 levels, as reflected in the 30 % reduction commitment as endorsed by the European Council of March 2007, the Commission shall submit a report assessing, in particular, the following elements:</i>	2-Commission reporting
Commission to report on GHG emissions Decision	quantifiable	environment	Internal Energy Markets	<i>The Commission shall draw up a report evaluating the implementation of this Decision.</i>	2-Commission reporting
Commission to report on biofuels	quantifiable	environment	Internal Energy Markets	<i>The Commission shall, every two years, report to the European Parliament and the Council, in respect of both third countries and Member States that are a significant source of biofuels or of raw material for biofuels consumed within the Community, on national measures taken to respect the sustainability criteria set out in paragraphs 2 to 5 and for soil, water and air protection. The first report shall be submitted in 2012.</i>	2-Commission reporting
Commission to report on LULUCF potential	quantifiable	environment	Internal Energy Markets	<i>By 31 March 2010, the Commission shall submit a report to the European Parliament and to the Council on the feasibility of drawing up lists of areas in third countries where the typical greenhouse gas emissions from cultivation of agricultural raw materials can be expected to be lower than or equal to the emissions reported under the heading 'cultivation' in part D of Annex V, accompanied if possible by such lists and a description of the method and data used to establish them. The report shall, if appropriate, be accompanied by relevant proposals.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0406	2009-2015	2009	N/A	Directive 2009/73/EC
Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0406	2009-2015	2009	N/A	Directive 2009/73/EC
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	Directive 2009/73/EC
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	Directive 2009/73/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to create a plan for post-2020 period	quantifiable	environment	Internal Energy Markets	<i>In 2018, the Commission shall present a Renewable Energy Roadmap for the post-2020 period.</i>	2-Commission reporting
Commission to set an online public transparency platform	quantifiable	environment	Internal Energy Markets	<i>The Commission shall establish an online public transparency platform. That platform shall serve to increase transparency, and facilitate and promote cooperation between Member States, in particular concerning statistical transfers referred to in Article 6 and joint projects referred to in Articles 7 and 9. In addition, the platform may be used to make public relevant information which the Commission or a Member State deems to be of key importance to this Directive and to the achievement of its objectives.</i>	2-Commission reporting
Commission to report on the CCS development	quantifiable	environment	Internal Energy Markets	<i>The Commission shall transmit to the European Parliament and to the Council a report on the implementation of this Directive within nine months of receiving the reports referred to in Article 27.</i>	2-Commission reporting
Commission to report on projects	quantifiable	affordability	Internal Energy Markets	<i>By 30 June 2013 the Commission shall submit to the European Parliament and the Council a mid-term evaluation report on the measures taken under Chapter IIa</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	Directive 2009/73/EC
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	Directive 2009/73/EC
Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/aTXT/?qid=1540057743188&uri=CELEX:32009L0031	2009-2015	2009	In force	Directive 2009/73/EC
Regulation (EU) No 1233/2010 of the European Parliament and of the Council of 15 December 2010 amending Regulation (EC) No 663/2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R1233	2009-2015	2010	In force	Directive 2009/73/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report on the issue	quantifiable	security of supply	Internal Energy Markets	<p><i>By 3 December 2014 at the latest, the Commission, on the basis of the report referred to in Article 4(6) and after consulting the Gas Coordination Group shall:</i></p> <p><i>(a)</i></p> <p><i>draw conclusions as to possible means to enhance security of supply at Union level, assess the feasibility of carrying out risk assessments and establishing Preventive Action Plans and Emergency Plans at Union level and report to the European Parliament and the Council on the implementation of this Regulation, including, inter alia, the progress made on market interconnectivity; and</i></p> <p><i>(b)</i></p> <p><i>report to the European Parliament and the Council on the overall consistency of Member States' Preventive Action Plans and Emergency Plans as well as their contribution to solidarity and preparedness from a Union perspective.</i></p>	2-Commission reporting
Commission to report on the Directive	quantifiable	environment	Internal Energy Markets	<p><i>By 7 January 2016, and every 3 years thereafter, the Commission shall submit to the European Parliament and to the Council a report reviewing the implementation of this Directive on the basis of the information referred to in Article 72.</i></p>	2-Commission reporting
Commission to report the exemptions from environmental impact assessment	not quantifiable	environment	Internal Energy Markets	<p><i>The Commission shall report annually to the European Parliament and to the Council on the application of this paragraph.</i></p>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	Directive 2009/73/EC
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	Directive 2009/73/EC
Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/aTXT/?qid=1540637909558&uri=CELEX:32011L0092	2009-2015	2011	In force	Directive 2009/73/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report on environmental accounting	quantifiable	environment	Internal Energy Markets	<i>By 31 December 2013 and every 3 years thereafter, the Commission shall submit a report on the implementation of this Regulation to the European Parliament and the Council. That report shall evaluate in particular the quality of the data transmitted, the data collection methods, the administrative burden on the Member States and on the respondent units, as well as the feasibility and effectiveness of those statistics.</i>	2-Commission reporting
Commission to report on the issue of spent fuel and radioactive waste management	quantifiable	environment	Internal Energy Markets	<i>On the basis of the Member States' reports, the Commission shall submit to the European Parliament and the Council the following: (a) a report on progress made with the implementation of this Directive; and (b) an inventory of radioactive waste and spent fuel present in the Community's territory and the future prospects.</i>	2-Commission reporting
Commission to make publicly available the progress achieved towards national energy efficiency targets	not quantifiable	affordability	Internal Energy Markets	<i>The Commission shall make the reports referred to in paragraphs 1 and 2 publicly available.</i>	2-Commission reporting
Commission to report on the Decision.	not quantifiable	internal energy market	Internal Energy Markets	<i>By 1 January 2016, the Commission shall submit a report on the application of this Decision to the European Parliament, the Council and the European Economic and Social Committee.</i>	2-Commission reporting
Commission to report on the methodology for cost-benefit analysis.	not quantifiable	internal energy market	Internal Energy Markets	<i>By 16 November 2013, the European Network of Transmission System Operators (ENTSO) for Electricity and the ENTSO for Gas shall publish and submit to Member States, the Commission and the Agency their respective methodologies, including on network and market modelling, for a harmonised energy system-wide cost-benefit analysis at Union level for projects of common interest falling under the categories set out in Annex II.1(a) to (d) and Annex II.2.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 691/2011 of the European Parliament and of the Council of 6 July 2011 on European environmental economic accounts Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011R0691	2009-2015	2011	In force	Directive 2009/72/EC
Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011L0070	2009-2015	2011	In force	Directive 2009/72/EC
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	Directive 2009/72/EC
Decision No 994/2012/EU of the European Parliament and of the Council of 25 October 2012 establishing an information exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012D0994	2009-2015	2012	No longer in force, Date of end of validity: 01/05/2017; Repealed by 32017D0684	Directive 2009/72/EC
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	Directive 2009/72/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report on the programme.	quantifiable	internal energy market	Internal Energy Markets	<i>Not later than 2017, the Commission shall publish a report on the implementation of projects of common interest and submit it to the European Parliament and the Council.</i>	2-Commission reporting
Commission to inform Committee with MS on development of the programme.	not quantifiable	affordability	Internal Energy Markets	<i>The Commission shall regularly inform the Committee referred to in Article 12 of overall progress in implementing the Euratom Programme, and shall provide it with timely information on all indirect actions proposed or funded under the Euratom Programme.</i>	2-Commission reporting
Commission to inform public on development of the programme.	quantifiable	affordability	Internal Energy Markets	<i>The Commission shall annually monitor the implementation, including progress and achievements, of the Euratom Programme. The Commission shall provide the Committee, referred to in Article 12, with information in this regard. 2. The Commission shall report and make publicly available the results of the monitoring referred to in paragraph 1.</i>	2-Commission reporting
Commission to evaluate the programme.	quantifiable	affordability	Internal Energy Markets	<i>By 31 December 2022, the Commission shall carry out, with the assistance of independent experts selected on the basis of a transparent process, an ex-post evaluation of the Euratom Programme.</i>	2-Commission reporting
Commission to report on ITER	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall submit to the European Parliament and to the Council, by 31 December 2017, at the latest, a progress report on the implementation of this Decision on the basis of information provided by the Joint Undertaking. That report shall set out the results of the use of the Euratom contribution referred to in Article 4(3) as regards commitments and expenditure.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	Directive 2009/72/EC
Council Regulation (Euratom) No 1314/2013 of 16 December 2013 on the Research and Training Programme of the European Atomic Energy Community (2014-2018) complementing the Horizon 2020 Framework Programme for Research and Innovation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R1314	2009-2015	2013	In force	Directive 2009/72/EC
Council Regulation (Euratom) No 1314/2013 of 16 December 2013 on the Research and Training Programme of the European Atomic Energy Community (2014-2018) complementing the Horizon 2020 Framework Programme for Research and Innovation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R1314	2009-2015	2013	In force	Directive 2009/72/EC
Council Regulation (Euratom) No 1314/2013 of 16 December 2013 on the Research and Training Programme of the European Atomic Energy Community (2014-2018) complementing the Horizon 2020 Framework Programme for Research and Innovation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R1314	2009-2015	2013	In force	Directive 2009/72/EC
2013/791/Euratom: Council Decision of 13 December 2013 amending Decision 2007/198/Euratom establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013D0791	2009-2015	2013	In force	Directive 2009/72/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Promotion of a high level of nuclear safety, radiation protection, and safeguards of nuclear material in third countries programme, over the period 2014 to 2020, EUR 225 321 000.	not quantifiable	environment	Nuclear Energy	<i>The Union shall finance measures to support the promotion of a high level of nuclear safety, radiation protection, and the application of efficient and effective safeguards of nuclear material in third countries, in line with the provisions of this Regulation and the Annex thereto. [...] The financial reference amount for the implementation of this Regulation over the period 2014 to 2020 shall be EUR 225 321 000.</i>	2-finance under 50mEUR/year
Commission to develop action programmes	not quantifiable	environment	Nuclear Energy	<i>The Commission shall adopt the action programmes, individual measures and special measures in accordance with the examination procedure referred to in Article 11(2). The Commission may revise and extend the action programmes and the measures following the same procedure.</i>	3-expansion of duties
Nuclear de-commissioning programme for Kozloduy and Bohunice nuclear power plants, for the period from 2014 to 2020, EUR 323 318 000	quantifiable	environment	Nuclear Energy	<i>The financial envelope for the implementation of the Kozloduy and Bohunice programmes for the period from 2014 to 2020 shall be EUR 323 318 000 in current prices.</i>	3-finance under 100mEUR/year
Nuclear de-commissioning programme for Ignalina nuclear power plant, for the period from 2014 to 2020, EUR 229 629 000	quantifiable	environment	Nuclear Energy	<i>The financial envelope for the implementation of the Ignalina programme for the period from 2014 to 2020 shall be EUR 229 629 000 in current prices. This Regulation does not prejudice in any way financial commitments under future multi-annual financial frameworks.</i>	3-finance under 100mEUR/year
Commission to report on the programme	quantifiable	environment	environmental Protection	<i>The Commission shall also carry out an evaluation of the 7th EAP. That evaluation shall be based, inter alia, on the European Environment Agency's report on the state of the environment and on a consultation with interested stakeholders. The Commission shall submit a report based on this evaluation to the European Parliament and to the Council in due course before the end of the 7th EAP.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Regulation (Euratom) No 237/2014 of 13 December 2013 establishing an Instrument for Nuclear Safety Cooperation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32014R0237	2009-2015	2013	In force	Directive 2009/72/EC
Council Regulation (Euratom) No 237/2014 of 13 December 2013 establishing an Instrument for Nuclear Safety Cooperation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32014R0237	2009-2015	2013	In force	Directive 2009/72/EC
Council Regulation (Euratom) No 1368/2013 of 13 December 2013 on Union support for the nuclear decommissioning assistance programmes in Bulgaria and Slovakia, and repealing Regulations (Euratom) No 549/2007 and (Euratom) No 647/2010	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R1368	2009-2015	2013	In force	Directive 2009/72/EC
Council Regulation (Euratom) No 1369/2013 of 13 December 2013 on Union support for the nuclear decommissioning assistance programme in Lithuania, and repealing Regulation (EC) No 1990/2006	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R1369	2009-2015	2013	In force	Directive 2009/72/EC
Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet' Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013D1386	2009-2015	2013	In force	Directive 2009/72/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
EU ETS Directive amended on the annual distribution of allowances.	not quantifiable	environment	environmental Protection	<i>Where an assessment shows for the individual industrial sectors that no significant impact on sectors or subsectors exposed to a significant risk of carbon leakage is to be expected, the Commission may, in exceptional circumstances, adapt the timetable for the period referred to in Article 13(1) beginning on 1 January 2013 so as to ensure the orderly functioning of the market. The Commission shall make no more than one such adaptation for a maximum number of 900 million allowances.'</i>	1-minor development
Commission to report on the ICAO negotiations.	quantifiable	environment	Internal Energy Markets	<i>The Commission shall regularly inform the European Parliament and the Council on the progress of ICAO negotiations and shall provide a full report to them on the results achieved at the 38th session of the ICAO Assembly.</i>	2-Commission reporting
Commission may issue guidelines	quantifiable	environment	environmental Protection	<i>The Commission shall issue the guidance necessary for the implementation of this Decision.</i>	2-guidelines
Targets from aviation delayed	not quantifiable	environment	environmental Protection	<i>By way of derogation from Article 16 of Directive 2003/87/EC, Member States shall take no action against aircraft operators in respect of the requirements set out in Article 12(2a) and Article 14(3) of that Directive for the calendar years 2010, 2011 and 2012 in respect of activity to and from aerodromes in countries outside the Union that are not members of EFTA, dependencies and territories of States in the EEA or countries having signed a Treaty of Accession with the Union,</i>	3-targets diluted

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 1359/2013/EU of the European Parliament and of the Council of 17 December 2013 amending Directive 2003/87/EC clarifying provisions on the timing of auctions of greenhouse gas allowances Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013D1359	2009-2015	2013	In force	Directive 2009/72/EC
Decision No 377/2013/EU of the European Parliament and of the Council of 24 April 2013 derogating temporarily from Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013D0377	2009-2015	2013	In force	Regulation (EC) No 714/2009
Decision No 377/2013/EU of the European Parliament and of the Council of 24 April 2013 derogating temporarily from Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013D0377	2009-2015	2013	In force	Regulation (EC) No 714/2009
Decision No 377/2013/EU of the European Parliament and of the Council of 24 April 2013 derogating temporarily from Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013D0377	2009-2015	2013	In force	Regulation (EC) No 714/2009

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report infrastructure projects reported by MS	quantifiable	internal energy market	Internal Energy Markets	<i>On the basis of data and information forwarded and, if appropriate, of any other data sources including data purchased by the Commission, and taking into account relevant analyses such as the multi-annual network development plans for gas and for electricity, the Commission shall forward to the European Parliament, to the Council and to the European Economic and Social Committee and shall publish every two years a cross-sector analysis of the structural evolution and perspectives of the Union's energy system.</i>	2-Commission reporting
Commission to review the regulation	quantifiable	internal energy market	Internal Energy Markets	<i>By 31 December 2016, the Commission shall review the implementation of this Regulation, and present a report on the results of that review to the European Parliament and to the Council.</i>	2-Commission reporting
Commission to report on ICAO negotiations	quantifiable	environment	Internal Energy Markets	<i>The Commission shall regularly, and at least once a year, inform the European Parliament and the Council of the progress of the International Civil Aviation Organization (ICAO) negotiations as well as of its efforts to promote the international acceptance of market-based mechanisms among third countries.</i>	2-Commission reporting
Commission to report on emissions.	quantifiable	environment	Internal Energy Markets	<i>The Commission shall, within twelve months of the receipt of the reports from Member States in accordance with paragraph 1 of this Article, and taking into account information made available in accordance with Article 6(11) and Article 6(12), submit a summary report to the European Parliament and to the Council.</i>	2-Commission reporting
Commission to report on industrial and GH gases.	quantifiable	environment	Internal Energy Markets	<i>The Commission may establish guidance on the elaboration and implementation of national air pollution control programmes.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 256/2014 of the European Parliament and of the Council of 26 February 2014 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union, replacing Council Regulation (EU, Euratom) No 617/2010 and repealing Council Regulation (EC) No 736/96	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014R0256	2009-2015	2014	No longer in force, Date of end of validity: 03/11/2018; Repealed by 32018R1504	Regulation (EC) No 714/2009
Regulation (EU) No 256/2014 of the European Parliament and of the Council of 26 February 2014 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union, replacing Council Regulation (EU, Euratom) No 617/2010 and repealing Council Regulation (EC) No 736/96	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014R0256	2009-2015	2014	No longer in force, Date of end of validity: 03/11/2018; Repealed by 32018R1504	Regulation (EC) No 714/2009
Regulation (EU) No 421/2014 of the European Parliament and of the Council of 16 April 2014 amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in view of the implementation by 2020 of an international agreement applying a single global market-based measure to international aviation emissions Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014R0421	2009-2015	2014	In force	Regulation (EC) No 714/2009
Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015L2193	2009-2015	2015	Not specified	Regulation (EC) No 714/2009
Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016L2284	2016-2019	2016	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report on ICAO negotiations	not quantifiable	environment	environmental Protection	<i>The Commission shall keep the relevant Council bodies fully informed of the ongoing discussions on the single global MBM.</i>	2-Commission reporting
Commission shall report on security gas plans.	quantifiable	internal energy market	Security of Energy Supply	<i>The Commission shall inform the GCG about the notification of the plans and publish them on the Commission's website.</i>	2-Commission reporting
Commission to report on the Decision application	quantifiable	internal energy market	Internal Energy Markets	<i>By 1 January 2020, the Commission shall submit a report on the application of this Decision to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions.</i>	2-Commission reporting
Commission to report a State of the Energy Union.	quantifiable	environment	Internal Energy Markets	<i>By 31 October of every year, the Commission shall submit to the European Parliament and to the Council a State of the Energy Union report.</i>	2-Commission reporting
Commission to report on RES	quantifiable	environment	Renewable Energy	<i>By 31 December 2021 and every three years thereafter, the Commission shall report to the European Parliament and to the Council on the performance of support for electricity from renewable sources granted by means of tendering procedures in the Union</i>	2-Commission reporting
Commission reporting	quantifiable	environment	Renewable Energy	<i>The Commission shall make the reports drawn up by the voluntary schemes available, in an aggregated form or in full if appropriate, on the e-reporting platform referred to in Article 28 of Regulation (EU) 2018/1999.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Decision (EU) 2016/915 of 30 May 2016 on the position to be taken on behalf of the European Union with regard to the international instrument to be drawn up within the ICAO bodies and intended to lead to the implementation from 2020 of a single global market-based measure for international aviation emissions	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016D0915	2016-2019	2016	In force	
Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017R1938	2016-2019	2017	In force	
Decision (EU) 2017/684 of the European Parliament and of the Council of 5 April 2017 on establishing an information exchange mechanism with regard to intergovernmental agreements and non-binding instruments between Member States and third countries in the field of energy, and repealing Decision No 994/2012/EU	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017D0684	2016-2019	2017	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2001	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2001	2016-2019	2018	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission reporting on adjustments	quantifiable	internal energy market	environmental Protection	<i>The Commission shall publish the figures resulting from such adjustments.</i>	2-Commission reporting
Commission reporting on LULUCF	quantifiable	environment	environmental Protection	<i>The Commission shall prepare a report in 2027, for the period from 2021 to 2025, and in 2032, for the period from 2026 to 2030</i>	2-Commission reporting
Research programme, 71.5 million ECU, staff of 86, 3 years	quantifiable	affordability	Nuclear Research	<i>Joint Research Centre for the European Atomic Energy Community. The funds estimated as necessary for the execution of the programme amount to 71,5 million ECU, including expenditure on a staff of 86.</i>	2-finance under 50mEUR/year
A research and education programme in the field of nuclear fission safety, 160 ECU, including a maximum of 12,5 % for staff and administrative expenditure. (1994 to 1998)	quantifiable	affordability	Nuclear Research		2-finance under 50mEUR/year
Supplementary research programme for high flux reactor at Petten (HFR), EUR 34,992 million, one year	quantifiable	affordability	Nuclear Research	<i>The financial contribution estimated as necessary for the execution of the programme amounts to EUR 34,992 million.</i>	2-finance under 50mEUR/year
Commission may publish a synthesis report	quantifiable	environment	Internal Energy Markets	<i>The Commission may publish a synthesis report on the basis of the reports referred to in the first subparagraph.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R0842	2016-2019	2018	In force	
Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R0841	2016-2019	2018	In force	
88/523/Euratom: Council Decision of 14 October 1988 adopting a supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31988D0523	1986-1989	1988	No longer in force, Date of end of validity: 31/12/1991	
94/920/Euratom: Council Decision of 15 December 1994 adopting a specific programme of research and training in the field of nuclear fission safety (reactor safety, waste management and radiation protection) (1994 to 1998)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525635412486&uri=CELEX:31994D0920	1990-1995	1994	No longer in force, Date of end of validity: 31/12/1998	
2009/410/Euratom: Council Decision of 25 May 2009 on the adoption of a supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0410	2009-2015	2009	In force	
Decision No 529/2013/EU of the European Parliament and of the Council of 21 May 2013 on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013D0529	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
programme, estimated at EUR 30,2 million, shall be financed entirely out of contributions from France and the Netherlands.	quantifiable	affordability	Nuclear Research	<i>The supplementary research programme on the operation of the HFR, the objectives of which are set out in Annex I, shall be adopted for a period of 4 years, starting on 1 January 2016. The costs for the execution of the programme, estimated at EUR 30,2 million, shall be financed entirely out of contributions from France and the Netherlands, through the CEA and NRG, respectively.</i>	2-finance under 50mEUR/year
priority may be given to RES	not quantifiable	environment	Renewable Energy	<i>A Member State may require the system operator, when dispatching generating installations, to give priority to generating installations using renewable energy sources or waste or producing combined heat and power.</i>	2-guidelines
priority may be given to indigenous resources	not quantifiable	security of supply	Security of Energy Supply	<i>A Member State may, for reasons of security of supply, direct that priority be given to the dispatch of generating installations using indigenous primary energy fuel sources, to an extent not exceeding in any calendar year 15 % of the overall primary energy necessary to produce the electricity consumed in the Member State concerned.</i>	2-guidelines
Integration of environment policies in other areas. Promote energy efficiency and the rational use of energy	not quantifiable	environment	Environmental Protection	<i>The Community will develop improved and more consistent approaches to the integration of environmental protection requirements into other policy areas, with a view to facilitating the process of moving towards sustainable development. [...] to promote energy efficiency and the rational use of energy and to support the development and application of energy-saving technologies and practices, including renewable energy sources and combined heat and power</i>	2-guidelines
Details programme specifics of 1999/64/ Euratom: Council Decision of 22 December 1998	quantifiable	affordability	Nuclear Research	<i>In accordance with Article 2 of the fifth framework programme, the amount deemed necessary for carrying out the specific programme is EUR 979 million, including a maximum of 13,5 % for the Commission's administrative expenditure.</i>	2-guidelines

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Decision (Euratom) 2017/956 of 29 May 2017 on the adoption of the 2016-2019 high flux reactor supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017D0956	2016-2019	2017	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996L0092	1996-2002	1996	Repealed by 32003L0054	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996L0092	1996-2002	1996	Repealed by 32003L0054	
Decision No 2179/98/EC of the European Parliament and of the Council of 24 September 1998 on the review of the European Community programme of policy and action in relation to the environment and sustainable development 'Towards sustainability'	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31998D2179	1996-2002	1998	In force	
1999/175/Euratom: Council Decision of 25 January 1999 adopting a research and training programme (Euratom) in the field of nuclear energy (1998 to 2002)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:31999D0175	1996-2002	1999	In force (likely ended in 2002)	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Details programme specifics of 1999/64/ Euratom: Council Decision of 22 December 1998	quantifiable	affordability	Nuclear Research	<i>Whereas Article 3 of the fifth framework programme stipulates that it shall be implemented through specific programmes drawn up in accordance with Article 7 of the Treaty, one programme of which concerning in particular the JRC; The amount deemed necessary for the execution of direct actions by the JRC under this programme is EUR 281 million.</i>	2-guidelines
Refocus on activities towards security of supply and contributing to the implementation of the Kyoto Protocol	not quantifiable	security of supply	Security of Energy Supply	<i>The Council hereby approves the new guidelines for the Synergy programme annexed to this Decision, which shall prevail without prejudice to the action programme referred to in Article 5 of Decision 1999/23/EC and the indicative programme set out in the Annex thereto.</i>	2-guidelines
Sets indicative targets (12 % of gross national energy consumption by 2010; 22,1 % indicative share of electricity produced from RES in electricity consumption by 2010.),	quantifiable	environment	Renewable Energy	<i>Member States shall take appropriate steps to encourage greater consumption of electricity produced from renewable energy sources in conformity with the national indicative targets referred to in paragraph 2. These steps must be in proportion to the objective to be attained.</i>	2-guidelines
Commission may adopt guidelines on interconnectors	not quantifiable	internal energy market	Internal Energy Markets	<i>Where appropriate, the Commission shall, acting in accordance with the procedure referred to in Article 13(2), adopt and amend guidelines on the issues listed under paragraph 2 and 3 and relating to the inter-transmission system operator compensation mechanism, in accordance with the principles set out in Articles 3 and 4.</i>	2-guidelines
Defines rules for projects of common interest	not quantifiable	internal energy market	Internal Energy Markets	<i>The Community shall promote the interconnection, interoperability and development of trans-European energy networks and access to such networks in accordance with current Community law</i>	2-guidelines
Commission may amend national guidelines on access to gas networks	not quantifiable	affordability	Internal Energy Markets	<i>Guidelines on the issues listed in paragraph 1 are laid down in the Annex. They may be amended by the Commission; this shall be done in accordance with the procedure referred to in Article 14(2).</i>	2-guidelines

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
1999/176/Euratom: Council Decision of 25 January 1999 adopting a specific programme for research and training to be carried out by the Joint Research Centre by means of direct actions for the European Atomic Energy Community (1998 to 2002)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:31999D0176	1996-2002	1999	In force (likely ended in 2002)	
2001/353/EC: Council Decision of 9 April 2001 laying down the new guidelines applicable to actions and measures to be taken under the multiannual programme to promote international cooperation in the energy sector (1998 to 2002) under the multiannual framework programme for actions in the energy sector and connected measures	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0353	1996-2002	2001	No longer in force, Date of end of validity: 31/12/2002	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0077	1996-2002	2001	No longer in force, Date of end of validity: 31/12/2011; Repealed by 32009L0028	
Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003R1228	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009R0714	Directive 2012/27/EU
Decision No 1229/2003/EC of the European Parliament and of the Council of 26 June 2003 laying down a series of guidelines for trans-European energy networks and repealing Decision No 1254/96/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003D1229	2003-2008	2003		Directive 2012/27/EU
Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005R1775	2003-2008	2005	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009R0715	Directive 2012/27/EU

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS have to present project of interest in energy networks	not quantifiable	internal energy market	Internal Energy Markets	<i>This Decision defines the nature and scope of Community action to establish guidelines for trans-European energy networks. No later than 12 April 2007, Member States shall, using as a basis a draft timetable provided to that effect by the Commission, submit to the Commission an updated and indicative timetable for the completion of those projects including, as far as available, details of:</i>	2-guidelines
Commission may develop guidelines for the interpretation of the definitions of recovery and disposal.	quantifiable	environment	Energy Efficiency and Savings	<i>The Commission may develop guidelines for the interpretation of the definitions of recovery and disposal.</i>	2-guidelines
Commission to publish guidelines on pollutants' plans	quantifiable	environment	environmental Protection	<i>The Commission shall by 11 June 2010 publish guidelines for demonstration and subtraction of exceedances attributable to natural sources.</i>	2-guidelines
Commission may adopt guidelines on certification in relation to third countries	quantifiable	internal energy market	Security of Energy Supply	<i>The Commission may adopt Guidelines setting out the details of the procedure to be followed for the application of this Article.</i>	2-guidelines
Commission may adopt guidelines on national authorities' organisation.	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt Guidelines on the extent of the duties of the regulatory authorities to cooperate with each other and with the Agency</i>	2-guidelines
Commission may adopt guidelines on arbitering national authorities	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt Guidelines setting out the details of the procedure to be followed for the application of this Article.</i>	2-guidelines
Commission may adopt guidelines in how undertakings keep data	quantifiable	internal energy market	Internal Energy Markets	<i>To ensure the uniform application of this Article, the Commission may adopt Guidelines which define the methods and arrangements for record keeping as well as the form and content of the data that shall be kept.</i>	2-guidelines
Commission may write guidelines on cross-border flows compensation	quantifiable	internal energy market	Internal Energy Markets	<i>Where appropriate, Guidelines relating to the inter-transmission system operator compensation mechanism shall specify, in accordance with the principles set out in Articles 13 and 14:</i>	2-guidelines
Commission may adopt guidelines	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt Guidelines on the issues listed in paragraph 1 of this Article and amend the Guidelines referred to in points (a), (b) and (c) thereof.</i>	2-guidelines

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks and repealing Decision 96/391/EC and Decision No 1229/2003/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D1364	2003-2008	2006	No data	Directive 2012/27/EU
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1545829289619&uri=CELEX:32008L0098	2003-2008	2008	In force	Directive 2012/27/EU
Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0050	2003-2008	2008	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	Regulation (EU) No 525/2013
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force	Regulation (EU) No 525/2013

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission may issue Guidelines for regional gas cooperation.	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt Guidelines for regional cooperation in a spirit of solidarity. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 51(3).</i>	2-guidelines
Commission may adopt guidelines on certification in relation to third countries	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt Guidelines setting out the details of the procedure to be followed for the application of this Article. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 51(3).</i>	2-guidelines
Commission may adopt guidelines on unbundling of storage system operators	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt Guidelines to ensure full and effective compliance of the transmission system owner and of the storage system operator with paragraph 2 of this Article.</i>	2-guidelines
Commission may adopt guidelines on new gas infrastructure decisions	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt Guidelines for the application of the conditions laid down in paragraph 1 of this Article and to set out the procedure to be followed for the application of paragraphs 3, 6, 8 and 9 of this Article. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 51(3).</i>	2-guidelines
Commission may adopt guidelines on national authorities' organisation.	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt Guidelines on the extent of the duties of the regulatory authorities to cooperate with each other and with the Agency.</i>	2-guidelines
Commission may adopt guidelines on arbitrating national authorities	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt Guidelines setting out the details of the procedure to be followed by the regulatory authorities, the Agency and the Commission as regards the compliance of decisions taken by regulatory authorities with the Guidelines referred to in this Article.</i>	2-guidelines

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Regulation (EU) No 525/2013
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Regulation (EU) No 525/2013
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Regulation (EU) No 525/2013
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Regulation (EC) No 715/2009

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission may adopt guidelines in how undertakings keep data	quantifiable	internal energy market	Internal Energy Markets	<i>To ensure the uniform application of this Article, the Commission may adopt Guidelines which define the methods and arrangements for record keeping as well as the form and content of the data that shall be kept. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 51(3).</i>	2-guidelines
Commission may write guidelines for environmental risks.	quantifiable	environment	Environmental Protection	<i>The Commission may adopt guidance on the criteria for the appraisal of environmental risks.</i>	2-guidelines
Commission to make guidelines for PCIs.	not quantifiable	internal energy market	Internal Energy Markets	<i>By 16 August 2013, the Commission shall issue non-binding guidance to support Member States in defining adequate legislative and non-legislative measures to streamline the environmental assessment procedures and to ensure the coherent application of environmental assessment procedures required under Union law for projects of common interest.</i>	2-guidelines
Commission to publish guidelines to provide incentives for PCIs development.	quantifiable	internal energy market	Internal Energy Markets	<i>Where the measures referred to in paragraphs 5 and 6 are not sufficient to ensure the timely implementation of projects of common interest, the Commission may issue guidelines regarding the incentives laid down in this Article.</i>	2-guidelines
Commission allowed to adopt delegated acts to ensure consistency of definitions with UNFCCC	not quantifiable	environment	environmental Protection	<i>The Commission shall be empowered to adopt delegated acts in accordance with Article 12 to amend the definitions in paragraph 1 of this Article to ensure consistency between those definitions and any changes to relevant definitions adopted by the bodies of the UNFCCC or the Kyoto Protocol or of agreements deriving from or succeeding them.</i>	3-expansion of duties
MS to form a gas independent authority	not quantifiable	affordability	Energy Efficiency and Savings	<i>Member States shall designate one or more competent bodies with the function of regulatory authorities. These authorities shall be wholly independent of the interests of the gas industry.</i>	2-medium development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Regulation (EC) No 715/2009
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	Regulation (EC) No 715/2009
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	Regulation (EC) No 715/2009
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	Regulation (EC) No 715/2009
Decision No 529/2013/EU of the European Parliament and of the Council of 21 May 2013 on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013D0529	2009-2015	2013	In force	Regulation (EC) No 715/2009
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force. Date of end of validity: 02/03/2011; Repealed by 32009L0073	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS obliged to ensure competition	not quantifiable	affordability	Internal Energy Markets	<i>Member States shall ensure that the eligible customer is in fact able to switch to a new supplier. As regards at least household customers, these measures shall include those set out in Annex A.</i>	2-medium development
MS to form TSOs	not quantifiable	affordability	Internal Energy Markets	<i>Member States shall designate, or shall require undertakings which own transmission systems to designate, for a period of time to be determined by Member States having regard to considerations of efficiency and economic balance, one or more transmission system operators.</i>	2-medium development
MS to create an independent electricity authority	not quantifiable	affordability	Energy Efficiency and Savings	<i>Member States shall designate one or more competent bodies with the function of regulatory authorities. These authorities shall be wholly independent from the interests of the electricity industry. They shall, through the application of this Article, at least be responsible for ensuring non-discrimination, effective competition and the efficient functioning of the market, monitoring in particular:</i>	2-medium development
Details JRC attributes in the new nuclear 7th framework	quantifiable	affordability	Nuclear Research	<i>The Specific Programme related to the direct actions in research and training activities to be carried out by the Joint Research Centre, herein after the "specific programme" is hereby adopted for the period from 1 January 2007 to 31 December 2011</i>	2-medium development
MS shall not discriminate between national and EU undertakings	not quantifiable	affordability	Internal Energy Markets	<i>MS shall not discriminate between those undertakings as regards either rights or obligations.</i>	2-medium development
All MS have a national ombudsman	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall, upon implementation of this Directive, inform the Commission of all measures adopted to fulfil universal service and public service obligations, including consumer protection and environmental protection</i>	2-medium development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	
2006/977/Euratom: Council Decision of 19 December 2006 concerning the Specific Programme to be carried out by means of direct actions by the Joint Research Centre implementing the Seventh Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0977	2003-2008	2006	No data	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Each Member State shall designate a single national regulatory authority at national level.	not quantifiable	internal energy market	Internal Energy Markets	<i>Each Member State shall designate a single national regulatory authority at national level.</i>	2-medium development
TSOs to receive compensation for cross-border flows	not quantifiable	internal energy market	Internal Energy Markets	<i>Transmission system operators shall receive compensation for costs incurred as a result of hosting cross-border flows of electricity on their networks.</i>	2-medium development
MS shall not discriminate between national and EU undertakings	not quantifiable	affordability	Internal Energy Markets	<i>shall not discriminate between those undertakings as regards their rights or obligations.</i>	2-medium development
All MS have a national ombudsman	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall ensure that an independent mechanism such as an energy ombudsman or a consumer body is in place in order to ensure efficient treatment of complaints and out-of-court dispute settlements.</i>	2-medium development
Each Member State shall designate a single national regulatory authority at national level.	not quantifiable	internal energy market	Internal Energy Markets	<i>Each Member State shall designate a single national regulatory authority at national level.</i>	2-medium development
Creates an environmental audit scheme.	not quantifiable	internal energy market	Environmental Protection	<i>A Community eco-management and audit scheme, hereinafter referred to as 'EMAS', is hereby established, allowing voluntary participation by organisations located inside or outside the Community.</i>	2-medium development
All MS have a national authority on gas security of supply	not quantifiable	internal energy market	Security of Energy Supply	<i>As soon as possible and no later than 3 December 2011, each Member State shall designate a Competent Authority that ensures the implementation of the measures provided for in this Regulation.</i>	2-medium development
All MS to make a gas risk assessment	not quantifiable	security of supply	Security of Energy Supply	<i>By 3 December 2011, each Competent Authority shall make a full assessment, on the basis of the following common elements, of the risks affecting the security of gas supply in its Member State by:</i>	2-medium development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), repealing Regulation (EC) No 761/2001 and Commission Decisions 2001/681/EC and 2006/193/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R1221	2009-2015	2009	In force	
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	Council Regulation (Euratom) No 1314/2013
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	Council Regulation (Euratom) No 1314/2013

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS able to have motivated exemptions	not quantifiable	environment	Environmental Protection	<i>Without prejudice to Article 7, Member States may, in exceptional cases, exempt a specific project in whole or in part from the provisions laid down in this Directive.</i>	2-medium development
PCIs eligibility may be RES development	not quantifiable	internal energy market	Renewable Energy	<i>sustainability, inter alia through the integration of renewable energy into the grid and the transmission of renewable generation to major consumption centres and storage sites;</i>	2-medium development
PCIs eligibility may be security of supply.	not quantifiable	internal energy market	Security of Energy Supply	<i>security of supply, inter alia through interoperability, appropriate connections and secure and reliable system operation;</i>	2-medium development
PCIs eligibility may be increase of competition for gas projects.	not quantifiable	internal energy market	Internal Energy Markets	<i>competition, inter alia through diversification of supply sources, supplying counterparts and routes;</i>	2-medium development
MS to select a national authority on PCIs.	not quantifiable	internal energy market	Internal Energy Markets	<i>By 16 November 2013, each Member State shall designate one national competent authority which shall be responsible for facilitating and coordinating the permit granting process for projects of common interest.</i>	2-medium development
Commission allowed to adopt delegated acts to ensure consistency of accounting periods with UNFCCC	not quantifiable	environment	environmental Protection	<i>The Commission shall be empowered to adopt delegated acts in accordance with Article 12 to amend Annex I in order to add or amend accounting periods so as to ensure that they correspond to the relevant periods adopted by the bodies of the UNFCCC or the Kyoto Protocol or of agreements deriving from or succeeding them, and are consistent with the accounting periods adopted by the bodies of the UNFCCC or the Kyoto Protocol or of agreements deriving from or succeeding them which are applicable to Union emission reduction commitments in other sectors.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011L0092	2009-2015	2011	In force	
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	Continuation 2013/743/ EU not in the Energy or Environment folder (in Industrial policy)
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	Council Regulation (Euratom) No 1369/2013
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	
Decision No 529/2013/EU of the European Parliament and of the Council of 21 May 2013 on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities	https://eur-lex.europa.eu/legal-content/EN/aTXT/?qid=1541450980141&uri=CELEX:32013D0529	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to create LULUCF inventories	not quantifiable	environment	environmental Protection	<i>Obligation to prepare and maintain LULUCF accounts</i>	3-important development
Commission to report on the Directive	quantifiable	environment	Internal Energy Markets	<i>The Commission shall publish an annual report based on the information reported to it by Member States pursuant to paragraph 1.</i>	2-Commission reporting
MS must have a national framework for the nuclear safety of nuclear installations.	not quantifiable	environment	Nuclear Energy	<i>Member States shall establish and maintain a national legislative, regulatory and organisational framework ("national framework") for the nuclear safety of nuclear installations.</i>	2-medium development
MS must have a national authority on gas security	not quantifiable	security of supply	Security of Energy Supply	<i>Each Member State shall designate a competent authority.</i>	2-medium development
MS must have national risk plans	quantifiable	security of supply	Security of Energy Supply	<i>Establishment of preventive action plans and emergency plans</i>	2-medium development
Each MS must publish annually energy efficiency savings	quantifiable	affordability	Energy Efficiency and Savings	<i>Member States shall, on an annual basis, publish the energy savings achieved by each obligated party, or each sub-category of obligated party, and in total under the scheme.</i>	2-medium development
MS to inform the Commission of transnational electricity contracts	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall notify the Commission and the national authorities concerned of any request for transit in connection with contracts for the sale of electricity of a minimum of one year's duration</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 529/2013/EU of the European Parliament and of the Council of 21 May 2013 on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013D0529	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	
Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014L0087	2009-2015	2014	In force	
Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017R1938	2016-2019	2017	In force	
Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017R1938	2016-2019	2017	In force	
Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2002	2016-2019	2018	In force	
Council Directive 90/547/EEC of 29 October 1990 on the transit of electricity through transmission grids	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497198990867&uri=CELEX:31990L0547	1990-1995	1990	No longer in force, Date of end of validity: 30/06/2004; Repealed by 32003L0054	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Transmit electricity/ gas prices to the Commission, which publishes a bi-annual report.	quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall take the steps necessary to ensure that undertakings which supply gas or electricity to industrial end-users [...] communicate to the SOEC [...]:</i> <i>1. the prices and terms of sale of gas and electricity to industrial end-users;</i> <i>2. the price systems in use; [...] the SOEC shall publish each May and each November, in an appropriate form, the prices of gas and electricity for industrial users in the Member States and the pricing systems used to that end.</i> <i>3. the breakdown of consumers and the corresponding volumes by category of consumption to ensure the representativeness of these categories at national level.</i>	2-MS to inform Commission
Commission has to be informed of gas transactions	not quantifiable	internal energy market	Internal Energy Markets	<i>inform the Commission and the national authorities concerned of the conclusion of a transit contract;</i>	2-MS to inform Commission
Commission has to be informed of projects in the production, transport, storage and distribution of petroleum, natural gas or electric power	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall, before 15 April of each year, communicate to the Commission the information they have obtained on the basis of the provisions of paragraph 2 concerning investment projects listed in the Annex which relate to the production, transport, storage and distribution of petroleum, natural gas or electric power and on which work is scheduled to start within three years, in the case of projects in the petroleum and natural gas sectors, or within five years, in the case of projects in the electricity sector; such communication must take account of the latest developments in the situation.</i>	2-MS to inform Commission
Updated way to gather information from MS	not quantifiable	security of supply	Internal Energy Markets	<i>Regulation (EEC) No 1729/76 is hereby repealed.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Directive 90/377/EEC of 29 June 1990 concerning a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1524407544592&uri=CELEX:31990L0377	1990-1995	1990	No longer in force, Date of end of validity: 26/11/2008; Repealed by 32008L0092	
Council Directive 91/296/EEC of 31 May 1991 on the transit of natural gas through grids	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31991L0296	1990-1995	1991	Repealed by Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003	
Council Regulation (EC) No 736/96 of 22 April 1996 on notifying the Commission of investment projects of interest to the Community in the petroleum, natural gas and electricity sectors	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996R0736	1996-2002	1996	No longer in force Date of end of validity: 03/08/2010	
Council Regulation (EC) No 24/97 of 20 December 1996 repealing Regulation (EEC) No 1729/76 concerning the communication of information on the state of the Community's energy supplies	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31997R0024	1996-2002	1996		Directive 2012/27/EU

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Member States to report to the Commission their anthropogenic CO2 emissions and CO2 removal by sinks.	not quantifiable	internal energy market	Environmental Protection	<i>The Member States shall devise, publish and implement national programmes for limiting and/or reducing their anthropogenic emissions by sources and enhancing removals by sinks of all greenhouse gases not controlled by the Montreal Protocol in order to contribute to:</i>	2-MS to inform Commission
MS have to inform Commission on new developments in nuclear installations	not quantifiable	internal energy market	Nuclear Energy	<i>Persons or undertakings engaged in the industrial activities listed in Annex II to the Treaty shall communicate to the Commission, within the time limits laid down in Article 42 of the Treaty, their investment projects aimed at:</i> <i>(a) creating a production capacity;</i> <i>(b) maintaining quantitative and qualitative production capacity;</i> <i>(c) directly increasing production capacity;</i> <i>(d) directly increasing productivity;</i> <i>(e) improving the quality of production;</i> <i>(f) creating facilities for the management of spent fuel or radioactive waste, including treatment, interim or final storage and/or disposal;</i>	2-MS to inform Commission
MS to report to the Commission their programmes	not quantifiable	internal energy market	Environmental Protection	<i>Member States shall, by 31 December 2002 at the latest, inform the Commission of the programmes drawn up</i>	2-MS to inform Commission
MS to report to the Commission their emissions	not quantifiable	internal energy market	Environmental Protection	<i>Member States shall each year, by 31 December at the latest, report their national emission inventories and their emission projections for 2010 established in accordance with Article 7 to the Commission and the European Environment Agency.</i>	2-MS to inform Commission
MS to communicate to the Commission any measures they take concerning the quality of these reports	not quantifiable	internal energy market	Environmental Protection	<i>Member States shall ensure that environmental reports are of a sufficient quality to meet the requirements of this Directive and shall communicate to the Commission any measures they take concerning the quality of these reports.</i>	2-MS to inform Commission
Member States which grant aid to the coal industry shall provide the Commission with all the information needed	not quantifiable	internal energy market	Security of Energy Supply	<i>Member States which grant aid to the coal industry shall provide the Commission with all the information needed</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
1999/296/EC: Council Decision of 26 April 1999 amending Decision 93/389/EEC for a monitoring mechanism of Community CO2 and other greenhouse gas emissions	https://eur-lex.europa.eu/legal-content/EN/aTXT/?qid=1535289976329&uri=CELEX:31999D0296	1996-2002	1999	In force	Directive 2012/27/EU
Council Regulation (Euratom) No 2587/1999 of 2 December 1999 defining the investment projects to be communicated to the Commission in accordance with Article 41 of the Treaty establishing the European Atomic Energy Community	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:31999R2587	1996-2002	1999	In force	Directive 2012/27/EU
Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0081	1996-2002	2001	In force	Directive 2012/27/EU
Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0081	1996-2002	2001	In force	Directive 2012/27/EU
Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0042	1996-2002	2001	In force	Directive 2012/27/EU
Council Regulation (EC) No 1407/2002 of 23 July 2002 on State aid to the coal industry	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002R1407	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2010	Directive 2012/27/EU

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on any measures on gas	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall, upon implementation of this Directive, inform the Commission of all measures adopted to fulfil public service obligations, including consumer and environmental protection, and their possible effect on national and international competition, whether or not such measures require a derogation from the provisions of this Directive. They shall notify the Commission subsequently every two years of any changes to such measures, whether or not they require a derogation from this Directive.</i>	2-MS to inform Commission
MS to inform Commission on gas security of supply	not quantifiable	internal energy market	Security of Energy Supply	<i>The competent authorities shall publish, by 31 July each year at the latest a report outlining the findings resulting from the monitoring of these issues [security of supply], as well as any measures taken or envisaged to address them and shall forward this report to the Commission forthwith.</i>	2-MS to inform Commission
MS to inform Commission on technical rules for gas market	not quantifiable	internal energy market	Security of Energy Supply	<i>These technical rules shall ensure the interoperability of systems and shall be objective and non-discriminatory. They shall be notified to the Commission in accordance with Article 8 of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society Services(12).</i>	2-MS to inform Commission
MS to inform Commission in case of measures taken in a crisis.	not quantifiable	internal energy market	Security of Energy Supply	<i>The Member State concerned shall without delay notify these measures to the other Member States, and to the Commission,</i>	2-MS to inform Commission
MS have to report measures in case of gas crisis	not quantifiable	internal energy market	Security of Energy Supply	<i>The Member State concerned shall without delay notify these measures to the other Member States, and to the Commission,</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on any measures on electricity	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall, upon implementation of this Directive, inform the Commission of all measures adopted to fulfil universal service and public service obligations, including consumer protection and environmental protection, and their possible effect on national and international competition, whether or not such measures require a derogation from this Directive. They shall inform the Commission subsequently every two years of any changes to such measures, whether or not they require a derogation from this Directive.</i>	2-MS to inform Commission
MS to inform Commission on electricity security of supply	not quantifiable	internal energy market	Security of Energy Supply	<i>The competent authorities shall publish every two years, by 31 July at the latest, a report outlining the findings resulting from the monitoring of these issues, as well as any measures taken or envisaged to address them and shall forward this report to the Commission forthwith.</i>	2-MS to inform Commission
MS to inform Commission on technical rules for electricity market	not quantifiable	internal energy market	Security of Energy Supply	<i>These technical rules shall ensure the interoperability of systems and shall be objective and non discriminatory. They shall be notified to the Commission in accordance with Article 8 of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society Services(11).</i>	2-MS to inform Commission
MS to inform Commission in case of measures taken in a crisis.	not quantifiable	internal energy market	Security of Energy Supply	<i>The Member State concerned shall without delay notify these measures to the other Member States, and to the Commission, which may decide that the Member State concerned must amend or abolish such measures, insofar as they distort competition and adversely affect trade in a manner which is at variance with the common interest.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	Council Regulation (Euratom) No 1368/2013

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on electricity imports	not quantifiable	internal energy market	Security of Energy Supply	<i>Member States shall inform the Commission every three months of imports of electricity, in terms of physical flows, that have taken place during the previous three months from third countries.</i>	2-MS to inform Commission
MS to inform Commission on new interconnectors exemptions	not quantifiable	internal energy market	Security of Energy Supply	<i>The exemption decision shall be notified, without delay, by the competent authority to the Commission, together with all the information relevant to the decision.</i>	2-MS to inform Commission
MS to inform Commission on physical flows and costs	not quantifiable	internal energy market	Security of Energy Supply	<i>Member States and the regulatory authorities shall, on request, provide to the Commission all information necessary for the purposes of Articles 3(4) and 8.</i> <i>In particular, for the purposes of Article 3(4) and 3(6), regulatory authorities shall provide on a regular basis information on costs actually incurred by national transmission system operators, as well as data and all relevant information relating to the physical flows in transmission system operators' networks and the cost of the network.</i>	2-MS to inform Commission
MS to evaluate progress towards increasing the share of high-efficiency cogeneration and report to Commission	not quantifiable	internal energy market	Energy Efficiency and Savings	<i>Member States shall for the first time not later than 21 February 2007 and thereafter every four years, following a request by the Commission at least six months before the due date, evaluate progress towards increasing the share of high-efficiency cogeneration.</i>	2-MS to inform Commission
MS to inform Commission on GHGs	not quantifiable	internal energy market	environmental Protection	<i>Member States shall, for the assessment of actual progress and to enable the preparation of annual reports by the Community, in accordance with obligations under the UNFCCC and the Kyoto Protocol, determine and report to the Commission by 15 January each year (year X):</i> <i>(a) their anthropogenic emissions of greenhouse gases</i>	2-MS to inform Commission
MS to report to Commission the guidelines	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States and the regulatory authorities shall, on request, provide to the Commission all information necessary for the purposes of Article 9.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	
Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003R1228	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009R0714	Regulation (EU) No 1293/2013
Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003R1228	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009R0714	Regulation (EU) No 1293/2013
Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0008	2003-2008	2004	No longer in force, Date of end of validity: 04/06/2014; Repealed by 32012L0027	Regulation (EU) No 1293/2013
Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004D0280	2003-2008	2004	No longer in force, Date of end of validity: 07/07/2013; Repealed by 32013R0525	
Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005R1775	2003-2008	2005	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009R0715	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to report to the Commission the penalties in case of non-access	not quantifiable	internal energy market	Energy Efficiency and Savings	<i>The Member States shall notify those provisions to the Commission by 1 July 2006 at the latest and shall notify it without delay of any subsequent amendment affecting them.</i>	2-MS to inform Commission
MS to inform Commission on the security of electricity investments	not quantifiable	internal energy market	Security of Energy Supply	<i>By 1 December 2007, Member States shall notify the Commission of the text of the provisions of national law which they adopt in the field covered by this Directive.</i>	2-MS to inform Commission
MS to submit to the Commission national plans on energy efficiency increase	quantifiable	internal energy market	Energy Efficiency and Savings	<i>Member States shall submit to the Commission the following EEAPs:</i>	2-MS to inform Commission
Sets rules for energy statistics	quantifiable	internal energy market	Internal Energy Markets	<i>This Regulation establishes a common framework for the production, transmission, evaluation and dissemination of comparable energy statistics in the Community. The national statistics to be reported shall be as set out in the Annexes. They shall be transmitted with the following frequencies:</i>	2-MS to inform Commission
MS to report every five years on quality of data	quantifiable	internal energy market	Internal Energy Markets	<i>Every five years, Member States shall provide the Commission (Eurostat) with a report on the quality of the data transmitted as well as on any methodological changes that have been made.</i>	2-MS to inform Commission
MS to make sure that industrial suppliers provide energy data to Commission	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall take the steps necessary to ensure that undertakings which supply gas or electricity to industrial end-users, as defined in Annexes I and II, communicate to the Statistical Office of the European Communities (Eurostat) in the form provided for in Article 3:</i>	2-MS to inform Commission
MS to report to Commission implementation of the law	not quantifiable	environment	Environmental Protection	<i>Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive and a table indicating the correlation between those provisions and this Directive.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005R1775	2003-2008	2005	No longer in force. Date of end of validity: 02/03/2011 ; Repealed by 32009R0715	
Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005L0089	2003-2008	2006	In force	
Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006L0032	2003-2008	2006	No longer in force. Date of end of validity: 04/06/2014 ; Repealed by 32012L0027	
Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008R1099	2003-2008	2008		
Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008R1099	2003-2008	2008	In force	
Directive 2008/92/EC of the European Parliament and of the Council of 22 October 2008 concerning a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users (recast) (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0092	2003-2008	2008	No longer in force. Date of end of validity: 28/02/2017 ; Repealed by 32016R1952	
Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0099	2003-2008	2008	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on VOC	quantifiable	internal energy market	environmental Protection	<i>Each Member State shall inform the Commission of the methods it uses to sample and measure VOC, as listed in Annex X. [...] Member States shall transmit to the Commission, for a given year, lists of zones and agglomerations where exceedances of limit values for a given pollutant are attributable to natural sources. Member States shall provide information on concentrations and sources and the evidence demonstrating that the exceedances are attributable to natural sources.</i>	2-MS to inform Commission
MS to report to Commission pollutant limit values	not quantifiable	internal energy market	environmental Protection	<i>Member States shall take the necessary measures to send the Commission every three years, and for the first time before 30 April 2001, the available representative data on the limit values laid down by specific category of activities in accordance with Annex I</i>	2-MS to inform Commission
MS to inform Commission on national energy action plans, social security measures and public service obligations.	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall take appropriate measures, such as formulating national energy action plans, providing benefits in social security systems to ensure the necessary electricity supply to vulnerable customers, or providing for support for energy efficiency improvements, to address energy poverty where identified, including in the broader context of poverty. Such measures shall not impede the effective opening of the market set out in Article 33 or market functioning and shall be notified to the Commission, where relevant, in accordance with the provisions of paragraph 15 of this Article.</i>	2-MS to inform Commission
MS to report to Commission issues regarding monitoring security of energy supply.	not quantifiable	security of supply	Security of Energy Supply	<i>The competent authorities shall publish every two years, by 31 July, a report outlining the findings resulting from the monitoring of those issues, as well as any measures taken or envisaged to address them and shall forward that report to the Commission forthwith.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0050	2003-2008	2008	In force	Regulation (EU) 2016/1952
Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control (Codified version) (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0001	2003-2008	2008	No longer in force, Date of end of validity: 06/01/2014; Repealed by 32010L0075	Regulation (EU) 2016/1952
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Technical rules to be notified to the Commission	not quantifiable	internal energy market	Energy Efficiency and Savings	<i>Those technical rules shall ensure the interoperability of systems and shall be objective and non-discriminatory. The Agency may make appropriate recommendations towards achieving compatibility of those rules, where appropriate. Those rules shall be notified to the Commission in accordance with Article 8 of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services</i>	2-MS to inform Commission
MS to report tendering procedures for new energy capacity	not quantifiable	internal energy market	Security of Energy Supply	<i>Details of the tendering procedure for means of generating capacity and energy efficiency/demand-side management measures shall be published in the Official Journal of the European Union at least six months prior to the closing date for tenders.</i>	2-MS to inform Commission
Commission shall be notified by any request for TSO certification/ acquiring control of an EU TSO from an undertaking outside EU	not quantifiable	internal energy market	Internal Energy Markets	<i>Where certification is requested by a transmission system owner or a transmission system operator which is controlled by a person or persons from a third country or third countries, the regulatory authority shall notify the Commission.</i> <i>The regulatory authority shall also notify to the Commission without delay any circumstances that would result in a person or persons from a third country or third countries acquiring control of a transmission system or a transmission system operator.</i>	2-MS to inform Commission
MS must notify Commission of crisis measures	not quantifiable	internal energy market	Security of Energy Supply	<i>The Member State concerned shall, without delay, notify those measures to the other Member States, and to the Commission, which may decide that the Member State concerned must amend or abolish such measures, insofar as they distort competition and adversely affect trade in a manner which is at variance with the common interest.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on exemptions to interconnectors from cross-border flows compensation	not quantifiable	internal energy market	Internal Energy Markets	<i>A copy of every request for exemption shall be transmitted for information without delay by the regulatory authorities to the Agency and to the Commission on receipt. The decision shall be notified, without delay, by the regulatory authorities concerned or by the Agency (notifying bodies), to the Commission, together with all the relevant information with respect to the decision.</i>	2-MS to inform Commission
TSOs to give data to Commission	not quantifiable	internal energy market	Internal Energy Markets	<i>Transmission system operators, storage system operators and LNG system operators shall keep at the disposal of the national authorities, including the national regulatory authority, the national competition authority and the Commission, all information referred to in Articles 18 and 19, and in Part 3 of Annex I for a period of five years.</i>	2-MS to inform Commission
MS to inform Commission on gas data transport	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States and the regulatory authorities shall, on request, provide to the Commission all information necessary for the purposes of Article 23.</i>	2-MS to inform Commission
MS to inform Commission where authorisation for gas undertakings is refused.	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall ensure that the reasons for any refusal to grant an authorisation are objective and non-discriminatory and that they are given to the applicant. Reasons for such refusals shall be notified to the Commission for information.</i>	2-MS to inform Commission
MS to report to Commission issues regarding monitoring security of energy supply.	not quantifiable	internal energy market	Security of Energy Supply	<i>The competent authorities shall publish, by 31 July each year, a report outlining the findings resulting from the monitoring of those issues, as well as any measures taken or envisaged to address them and shall forward that report to the Commission forthwith.</i>	2-MS to inform Commission
MS to inform Commission on regional cooperation.	not quantifiable	internal energy market	Internal Energy Markets	<i>The Commission and the other Member States shall be kept informed of such cooperation.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force	
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Technical rules to be notified to the Commission	not quantifiable	internal energy market	Internal Energy Markets	<i>Those technical rules shall ensure the interoperability of systems and shall be objective and non-discriminatory. The Agency may make appropriate recommendations towards achieving compatibility of those rules, where appropriate. Those rules shall be notified to the Commission</i>	2-MS to inform Commission
Commission shall be notified by any request for TSO certification/ acquiring control of an EU TSO from an undertaking outside EU	not quantifiable	internal energy market	Security of Energy Supply	<i>Undertakings which own a transmission system and which have been certified by the national regulatory authority as having complied with the requirements of Article 9, pursuant to the certification procedure, shall be approved and designated as transmission system operators by Member States. The designation of transmission system operators shall be notified to the Commission and published in the Official Journal of the European Union. [...]Where certification is requested by a transmission system owner or a transmission system operator which is controlled by a person or persons from a third country or third countries, the regulatory authority shall notify the Commission.</i>	2-MS to inform Commission
MS to inform Commission on upstream gas networks	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall take the necessary measures to ensure that natural gas undertakings and eligible customers, wherever they are located, are able to obtain access to upstream pipeline networks, including facilities supplying technical services incidental to such access, in accordance with this Article, except for the parts of such networks and facilities which are used for local production operations at the site of a field where the gas is produced. The measures shall be notified to the Commission in accordance with the provisions of Article 54.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Directive 2010/75/EU
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Directive 2010/75/EU
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Directive 2010/75/EU

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS must notify Commission of crisis measures	not quantifiable	internal energy market	Security of Energy Supply	<i>The Member State concerned shall, without delay, notify those measures to the other Member States, and to the Commission, which may decide that the Member State concerned must amend or abolish such measures, insofar as they distort competition and adversely affect trade in a manner which is at variance with the common interest.</i>	2-MS to inform Commission
MS to inform Commission on derogations in relation to take-or-pay commitments	not quantifiable	internal energy market	Internal Energy Markets	<i>The Member State, or the designated competent authority, shall notify the Commission without delay of its decision to grant a derogation, together with all the relevant information with respect to the derogation.</i>	2-MS to inform Commission
MS to inform Commission on approval bodies and competences	not quantifiable	internal energy market	Environmental Protection	<i>Member States shall inform the Commission of the structure and procedures relating to the functioning of the Competent Bodies and Accreditation and Licensing Bodies and shall update that information, where appropriate.</i>	2-MS to inform Commission
MS to report on GHGs reduction and CERs and ERUs	not quantifiable	internal energy market	Environmental Protection	<i>Member States shall, in their reports submitted pursuant to Article 3 of Decision No 280/2004/EC, include the following:</i>	2-MS to inform Commission
MS to keep EEA inform on the main component elements of their national environment information networks	not quantifiable	internal energy market	environmental Protection	<i>Member States shall keep the Agency informed of the main component elements of their national environment information networks, especially in the priority areas referred to in Article 3(2), including any institution which in their judgment could contribute to the work of the Agency, taking into account the need to ensure the fullest possible geographical coverage of their territory.</i>	2-MS to inform Commission
MS to inform Commission on their RES plans	not quantifiable	internal energy market	Renewable Energy	<i>Member States shall notify their national renewable energy action plans to the Commission by 30 June 2010.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), repealing Regulation (EC) No 761/2001 and Commission Decisions 2001/681/EC and 2006/193/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R1221	2009-2015	2009	In force	
Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0406	2009-2015	2009	N/A	
Regulation (EC) No 401/2009 of the European Parliament and of the Council of 23 April 2009 on the European Environment Agency and the European Environment Information and Observation Network (Codified version)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0401	2009-2015	2009	In force	
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on all transfers	not quantifiable	internal energy market	Environmental Protection	<i>Transfers shall become effective only after all Member States involved in the transfer have notified the transfer to the Commission.</i>	2-MS to inform Commission
MS to report on LULUCF	not quantifiable	environment	Environmental Protection	<i>By 31 March 2010, Member States shall submit to the Commission a report including a list of those areas on their territory classified as level 2 in the nomenclature of territorial units for statistics (NUTS) or as a more disaggregated NUTS level in accordance with Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS) (23) where the typical greenhouse gas emissions from cultivation of agricultural raw materials can be expected to be lower than or equal to the emissions reported under the heading 'Disaggregated default values for cultivation' in part D of Annex V to this Directive, accompanied by a description of the method and data used to establish that list. That method shall take into account soil characteristics, climate and expected raw material yields.</i>	2-MS to inform Commission
MS to inform Commission on all RES target progress	not quantifiable	internal energy market	Environmental Protection	<i>Each Member State shall submit a report to the Commission on progress in the promotion and use of energy from renewable sources by 31 December 2011, and every two years thereafter. The sixth report, to be submitted by 31 December 2021, shall be the last report required.</i>	2-MS to inform Commission
MS to inform Commission on nuclear safety of nuclear installations	not quantifiable	internal energy market	Nuclear Energy	<i>Member States shall submit a report to the Commission on the implementation of this Directive for the first time by 22 July 2014, and every three years thereafter, taking advantage of the review and reporting cycles under the Convention on Nuclear Safety.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	
Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0071	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission regularly on the main provisions of national law they have on the issue	not quantifiable	internal energy market	Nuclear Energy	<i>Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive and of any subsequent amendments to those provisions.</i>	2-MS to inform Commission
MS to inform Commission on their state aid plan, costs, for uncompetitive mines	not quantifiable	internal energy market	Security of Energy Supply	<i>Member States which intend to grant closure aid as referred to in Article 3 shall notify a closure plan for the coal production units concerned to the Commission.</i>	2-MS to inform Commission
MS to inform Commission on who is the national authority on the matter	not quantifiable	internal energy market	Security of Energy Supply	<i>Each Member State shall notify to the Commission without delay the name of the Competent Authority, once designated, and, where appropriate, the names of the national entities responsible for security of gas supply acting as provisional Competent Authority in accordance with paragraph 2. Each Member State shall make such designations public.</i>	2-MS to inform Commission
MS to report to Commission the gas risk assessment	not quantifiable	internal energy market	Security of Energy Supply	<i>The risk assessment, including updated versions, shall be made available to the Commission without delay.</i>	2-MS to inform Commission
MS to report to Commission in case of gas crisis	not quantifiable	internal energy market	Security of Energy Supply	<i>When the Competent Authority declares any of the crisis levels referred to in paragraph 3, it shall immediately inform the Commission and provide it with all the necessary information, in particular with information on the action it intends to take. In the event of an emergency which may result in a call for assistance from the Union and its Member States, the Competent Authority of the Member State concerned shall without delay notify the Commission's Civil Protection Monitoring and Information Centre.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0071	2009-2015	2009	In force	
2010/787/EU: Council Decision of 10 December 2010 on State aid to facilitate the closure of uncompetitive coal mines	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010D0787	2009-2015	2010	In force	
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Details how MS inform Commission on investment projects in energy infrastructure	not quantifiable	internal energy market	Internal Energy Markets	<i>They shall notify the data and relevant project information specified in this Regulation to the Commission in 2011, that year being the first reporting year, and from then onwards every two years. This notification shall be made in aggregated form, except for data and relevant information relating to crossborder transmission projects.</i>	2-MS to inform Commission
MS to inform Commission on the transposition	not quantifiable	internal energy market	Environmental Protection	<i>Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.</i>	2-MS to inform Commission
MS to report to the Commission on the policies and national authorities	not quantifiable	internal energy market	Nuclear Energy	<i>Member States shall notify to the Commission their national programmes and any subsequent significant changes.</i>	2-MS to inform Commission
MS to report energy efficiency plans to Commission	quantifiable	internal energy market	Energy Efficiency and Savings	<i>A first version of the strategy shall be published by 30 April 2014 and updated every three years thereafter and submitted to the Commission as part of the National Energy Efficiency Action Plans.</i>	2-MS to inform Commission
MS to inform Commission of the targets' progress.	not quantifiable	internal energy market	Energy Efficiency and Savings	<i>Member States shall notify to the Commission, by 5 December 2013, the policy measures that they plan to adopt for the purposes of the first subparagraph and Article 20(6), following the framework provided in point 4 of Annex V, and showing how they would achieve the required amount of savings.</i>	2-MS to inform Commission
MS to inform Commission of the co-generation potential.	not quantifiable	internal energy market	Energy Efficiency and Savings	<i>By 31 December 2015, Member States shall carry out and notify to the Commission a comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling, containing the information set out in Annex VIII. If they have already carried out an equivalent assessment, they shall notify it to the Commission.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Regulation (EU, Euratom) No 617/2010 of 24 June 2010 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union and repealing Regulation (EC) No 736/96	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0617	2009-2015	2010	In force	
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (Integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	
Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011L0070	2009-2015	2011	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on all existing intergovernmental agreements, including annexes and amendments to those agreements.	not quantifiable	internal energy market	Internal Energy Markets	<i>By 17 February 2013 Member States shall submit to the Commission all existing intergovernmental agreements, including annexes and amendments to those agreements. Where those existing intergovernmental agreements refer explicitly to other texts, Member States shall also submit to the Commission those other texts, in so far as they contain elements which have an impact on the functioning of the internal energy market or on the security of energy supply in the Union. However, that obligation shall not apply in respect of agreements between commercial entities.</i>	2-MS to inform Commission
MS to inform Commission on national authority responsible.	not quantifiable	internal energy market	Internal Energy Markets	<i>the competent authority notifies the Commission of that delegation and the information therein is published by either the competent authority or the project promoter on the website referred to in Article 9(7);</i>	2-MS to inform Commission
MS to inform Commission on costs.	not quantifiable	internal energy market	Internal Energy Markets	<i>The cost allocation decision shall be notified, without delay, by the national regulatory authorities to the Agency, together with all the relevant information with respect to the decision.</i>	2-MS to inform Commission
MS to report to Commission any accidents reported obligatory by drilling entities.	not quantifiable	internal energy market	environmental Protection	<i>Offshore oil and gas operations conducted outside the Union: In the request for a report pursuant to paragraph 1 of this Article, the relevant Member State shall specify the details of the information required. Such reports shall be exchanged in accordance with Article 27(1). Member States which have neither a competent authority nor a contact point shall submit the reports received to the Commission.</i>	2-MS to inform Commission
MS to report to Commission national measures they have in place regarding access to knowledge, assets and expert resources, including formal agreements pursuant to Article 8(6).	not quantifiable	internal energy market	environmental Protection	<i>By 19 July 2016, the Member States shall notify the Commission of the national measures they have in place regarding access to knowledge, assets and expert resources, including formal agreements pursuant to Article 8(6).</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 994/2012/EU of the European Parliament and of the Council of 25 October 2012 establishing an information exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012D0994	2009-2015	2012	No longer in force, Date of end of validity: 01/05/2017; Repealed by 32017D0684	
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report on the Directive	quantifiable	environment	Internal Energy Markets	<i>The Commission shall, by 31 December 2014, submit to the European Parliament and to the Council a report on the availability of financial security instruments, and on the handling of compensation claims, where appropriate, accompanied by proposals.</i>	2-Commission reporting
MS to report to Commission their strategies in the context of the UNFCCC process	quantifiable	internal energy market	environmental Protection	<i>Member States shall report to the Commission on the status of implementation of their low-carbon development strategy by 9 January 2015 or in accordance with any timetable agreed internationally in the context of the UNFCCC process.</i>	2-MS to inform Commission
MS to inform Commission annually on their GHGs national inventory systems	not quantifiable	internal energy market	environmental Protection	<i>By 15 January each year (year X), Member States shall determine and report the following to the Commission:</i>	2-MS to inform Commission
MS to inform Commission annually on their GHGs projections	not quantifiable	internal energy market	environmental Protection	<i>By 15 March 2015, and every two years thereafter, Member States shall report to the Commission national projections of anthropogenic greenhouse gas emissions by sinks, organised by gas or group of gases (HFCs and PFCs) listed in Annex I and by sector.</i>	2-MS to inform Commission
MS to inform Commission annually on their LULUCF inventories	not quantifiable	internal energy market	environmental Protection	<i>From 2016 to 2018, Member States shall report to the Commission by 15 March each year on the systems in place and being developed to estimate emissions and removals from cropland management and grazing land management. Member States should report on how these systems are in accordance with IPCC methodologies and UNFCCC reporting requirements on greenhouse gas emissions and removals.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	
Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R0525	2009-2015	2013	In force	
Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R0525	2009-2015	2013	In force	
Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R0525	2009-2015	2013	In force	
Decision No 529/2013/EU of the European Parliament and of the Council of 21 May 2013 on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013D0529	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on investment projects in energy infrastructure in the sectors of oil, natural gas, electricity	not quantifiable	internal energy market	Internal Energy Markets	<i>They shall notify the data and relevant project information specified in this Regulation to the Commission in 2015, that year being the first reporting year, and from then onwards every two years. That notification shall be made in aggregated form, except for data and relevant information relating to cross-border transmission projects.</i>	2-MS to inform Commission
International peer reviews to be report to Commission.	not quantifiable	environment	Nuclear Energy	<i>Member States shall, at least once every 10 years, arrange for periodic self-assessments of their national framework and competent regulatory authorities and invite an international peer review of relevant segments of their national framework and competent regulatory authorities with the aim of continuously improving nuclear safety. Outcomes of such peer reviews shall be reported to the Member States and the Commission, when available.</i>	2-MS to inform Commission
MS to inform Commission on any permitted exemptions.	not quantifiable	internal energy market	environmental Protection	<i>Member States shall inform the Commission, within one month, of any derogation granted under the first subparagraph.</i>	2-MS to inform Commission
MS to inform Commission on the implementation of the Directive.	not quantifiable	internal energy market	environmental Protection	<i>Member States shall, by 1 October 2026 and by 1 October 2031, submit a report to the Commission with qualitative and quantitative information on the implementation of this Directive, on any action taken to verify compliance of the operation of medium combustion plants with this Directive and on any enforcement action for the purposes thereof.</i>	2-MS to inform Commission
MS to inform Commission on CO emissions.	not quantifiable	internal energy market	environmental Protection	<i>Member States shall also submit a report to the Commission, by 1 January 2021, with an estimate of the total annual emissions of CO and any information available on the concentration of emissions of CO from medium combustion plants, grouped by fuel type and capacity class.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 256/2014 of the European Parliament and of the Council of 26 February 2014 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union, replacing Council Regulation (EU, Euratom) No 617/2010 and repealing Council Regulation (EC) No 736/96	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014R0256	2009-2015	2014	No longer in force, Date of end of validity: 03/11/2018; Repealed by 32018R1504	
Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014L0087	2009-2015	2014	In force	
Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015L2193	2009-2015	2015	Not specified	
Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015L2193	2009-2015	2015	Not specified	
Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015L2193	2009-2015	2015	Not specified	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission of their decisions to accept the Doha Amendment	not quantifiable	internal energy market	environmental Protection	<i>Member States shall inform the Commission in advance of the third session of the Ad Hoc Working Group on the Durban Platform for Enhanced Action to be held from 8 to 13 February 2015, of their decisions to accept the Doha Amendment or, according to the circumstances, of the probable date of completion of the necessary procedures for such acceptance.</i>	2-MS to inform Commission
MS to deliver energy statistics	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall provide to the Commission (Eurostat) the data as set out in Annexes I and II.</i>	2-MS to inform Commission
MS to develop gas reduction plans	quantifiable	environment	Internal Energy Markets	<i>requires that national air pollution control programmes be drawn up, adopted and implemented and that emissions of those pollutants and the other pollutants referred to in Annex I, as well as their impacts, be monitored and reported.</i>	2-MS to inform Commission
MS to report entering negotiations on intergovernmental agreements on energy.	quantifiable	internal energy market	Internal Energy Markets	<i>When a Member State intends to enter into negotiations with a third country or an international organisation in order to amend an intergovernmental agreement or to conclude a new intergovernmental agreement, the Member State shall inform the Commission in writing of its intention at the earliest possible moment before the envisaged opening of the negotiations.</i>	2-MS to inform Commission
MS to inform Commission on public consultation for energy and climate plans.	quantifiable	internal energy market	Environmental Protection	<i>Without prejudice to any other Union law requirements, each Member State shall ensure that the public is given early and effective opportunities to participate in the preparation of the draft integrated national energy and climate plan — as regards the plans for the 2021 to 2030 period, in the preparation of the final plan well before its adoption — as well as of the long-term strategies referred to in Article 15. Each Member State shall attach to the submission of such documents to the Commission a summary of the public's views or provisional views.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Decision (EU) 2015/1339 of 13 July 2015 on the conclusion, on behalf of the European Union, of the Doha Amendment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D1339	2009-2015	2015	In force	
Regulation (EU) 2016/1952 of the European Parliament and of the Council of 26 October 2016 on European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016R1952	2016-2019	2016	In force	
Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016L2284	2016-2019	2016	In force	
Decision (EU) 2017/684 of the European Parliament and of the Council of 5 April 2017 on establishing an information exchange mechanism with regard to intergovernmental agreements and non-binding instruments between Member States and third countries in the field of energy, and repealing Decision No 994/2012/EU	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017D0684	2016-2019	2017	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on measures following the Directive	not quantifiable	internal energy market	Energy Efficiency and Savings	<i>Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.</i>	2-MS to inform Commission
MS to inform Commission on compliance	not quantifiable	internal energy market	environmental Protection	<i>By 15 March 2027 for the period from 2021 to 2025, and by 15 March 2032 for the period from 2026 to 2030, Member States shall submit to the Commission a compliance report containing the balance of total emissions and total removals for the relevant period on each of the land accounting categories specified in Article 2, using the accounting rules laid down in this Regulation.</i>	2-MS to inform Commission
MS to inform Commission on national energy action plans, social security measures and public service obligations.	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall take appropriate measures, such as formulating national energy action plans, providing social security benefits to ensure the necessary gas supply to vulnerable customers, or providing for support for energy efficiency improvements, to address energy poverty where identified, including in the broader context of poverty. Such measures shall not impede the effective opening of the market set out in Article 37 and market functioning and shall be notified to the Commission. [...]Member States shall, upon implementation of this Directive, inform the Commission of all measures adopted to fulfil public service obligations, including consumer and environmental protection, and their possible effect on national and international competition, whether or not such measures require a derogation from the provisions of this Directive. They shall notify the Commission subsequently every two years of any changes to such measures, whether or not they require a derogation from this Directive.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2002	2016-2019	2018	In force	
Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R0841	2016-2019	2018	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to inform Commission on environmental data	not quantifiable	environment	environmental Protection	<i>Member States shall transmit to the Commission (Eurostat) the data set out in the Annexes, including the confidential data, within the time limits specified therein.</i>	2-MS to inform Commission
Commission makes an inventory of measures that can be taken in case of oil spills	not quantifiable	environment	Environmental Protection	<i>An information system is hereby established to make available to the competent authorities in the Member States the data required for the control and reduction of pollution caused by the spillage of hydrocarbons and other harmful substances at sea in large quantities.</i>	3-expansion of duties
revision to be proposed by the Commission by July 1995	quantifiable	environment	Environmental Protection	<i>Before 1 July 1995, and in the light of the state of technology and environmental requirements, the Commission shall submit proposals for the revision of the limit values applicable.</i>	3-expansion of duties
Commission may loan nuclear power plants in non-MS, most future MS	not quantifiable	affordability	Nuclear Energy	<i>The Commission shall also be empowered to contract, within the same limits, borrowings, the proceeds of which will be allocated in the form of loans to finance projects to increase the safety and efficiency of the nuclear power stations of the non-member countries listed in the Annex.</i>	3-expansion of duties
Commission may fund trans-European energy networks	not quantifiable	internal energy market	internal Energy Markets	<i>the Community:</i> <i>1. may provide financial support as part of the action on trans-European energy networks.</i>	3-expansion of duties
Commission is tasked to contribute to the electricity network development	not quantifiable	internal energy market	internal Energy Markets	<i>The broad lines of action by the Community on trans-European energy networks shall be:</i> <i>- the identification of projects of common interest,</i> <i>- the creation of a more favourable context for development of these networks</i>	3-expansion of duties
Updates Natura 2000 with new natural habitat types	not quantifiable	environment	Environmental Protection	<i>Whereas the Interpretation Manual of European Union Habitats (EUR 15 version of April 1996) includes the new Natura 2000 codes which identify each natural habitat type; whereas the reference to the Corine code in Annex I to Directive 92/43/EEC should be replaced by a reference to the Natura 2000 code,</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 691/2011 of the European Parliament and of the Council of 6 July 2011 on European environmental economic accounts Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011R0691	2009-2015	2011	In force	
86/85/EEC: Council Decision of 6 March 1986 establishing a Community information system for the control and reduction of pollution caused by the spillage of hydrocarbons and other harmful substances at sea	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1534691796044&uri=CELEX:31986D0085	1986-1989	1986	No longer in force, Date of end of validity: 27/12/2000; Repealed by 32000D2850	
Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31988L0609	1986-1989	1988	No longer in force, Date of end of validity: 26/11/2002; Repealed by 32001L0080	
94/179/Euratom: Council Decision of 21 March 1994 amending Decision 77/270/Euratom, to authorize the Commission to contract Euratom borrowings in order to contribute to the financing required for improving the degree of safety and efficiency of nuclear power stations in certain non- member countries	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525635412486&uri=CELEX:31994D0179	1990-1995	1994		
96/391/EC: Council Decision of 28 March 1996 laying down a series of measures aimed at creating a more favorable context for the development of trans-European networks in the energy sector	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996D0391	1996-2002	1996	No longer in force, Date of end of validity: 11/10/2006; Repealed by 32006D1364	
Decision No 1254/96/EC of the European Parliament and of the Council of 5 June 1996 laying down a series of guidelines for trans-European energy networks	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996D1254	1996-2002	1996	No longer in force, Date of end of validity: 17/07/2003; Repealed by 32003D1229	
Council Directive 97/62/EC of 27 October 1997 adapting to technical and scientific progress Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31997L0062	1996-2002	1997		

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
EEA approved to collect ambient air pollution data.	not quantifiable	environment	Environmental Protection	<i>A reciprocal exchange of information and data from networks and individual stations measuring ambient air pollution, hereinafter referred to as 'reciprocal exchange', is hereby established.</i>	3-expansion of duties
EU signs the Energy Charter rules concerning the conduct of the conciliation of transit disputes	not quantifiable	security of supply	Security of Energy Supply	<i>The rules concerning the conduct of the conciliation of transit disputes, as set out in the Annex, shall be approved on behalf of the Community in the Charter Conference</i>	3-expansion of duties
Expansion of duties for EEA	not quantifiable	environment	Environmental Protection	<i>Whereas the organisation and structure of the Agency need to be improved and clarified, in line with the experience of its first years of operation</i>	3-expansion of duties
The Commission creates inventories of anthropogenic greenhouse gas emissions.	quantifiable	environment	Internal Energy Markets		3-expansion of duties
the Commission shall assess to what extent: - Member States have made progress towards achieving their national indicative targets; the national indicative targets are consistent with the global indicative targets	not quantifiable	environment	Renewable Energy	<i>the Commission shall assess to what extent: - Member States have made progress towards achieving their national indicative targets; the national indicative targets are consistent with the global indicative targets</i>	3-expansion of duties
the Commission shall evaluate the application of mechanisms used in Member States according to which a producer of electricity	not quantifiable	environment	Renewable Energy	<i>the Commission shall evaluate the application of mechanisms used in Member States according to which a producer of electricity</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
97/101/EC: Council Decision of 27 January 1997 establishing a reciprocal exchange of information and data from networks and individual stations measuring ambient air pollution within the Member States	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31997D0101	1996-2002	1997	In force	
1999/37/EC: Council Decision of 26 November 1998 on the position to be taken by the European Community on the rules concerning the conduct of the conciliation of transit disputes to be adopted by the Energy Charter Conference	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31999D0037	1996-2002	1998	In force	
Council Regulation (EC) No 933/1999 of 29 April 1999 amending Regulation (EEC) No 1210/90 on the establishment of the European Environment Agency and the European environment information and observation network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:31999R0933	1996-2002	1999	No longer in force, Date of end of validity: 10/06/2009	
1999/296/EC: Council Decision of 26 April 1999 amending Decision 93/389/EEC for a monitoring mechanism of Community CO2 and other greenhouse gas emissions	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:31999D0296	1996-2002	1999	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0077	1996-2002	2001	No longer in force, Date of end of validity: 31/12/2011; Repealed by 32009L0028	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0077	1996-2002	2001	No longer in force, Date of end of validity: 31/12/2011; Repealed by 32009L0028	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to monitor EU gas security of supply	not quantifiable	internal energy market	Security of Energy Supply	<i>The Commission shall monitor, on the basis of the reports referred to in Article 5(1): (a) the degree of new long-term gas supply import contracts from third countries; (b) the existence of adequate liquidity of gas supplies; (c) the level of working gas and of the withdrawal capacity of gas storage; (d) the level of interconnection of the national gas systems of Member States; (e) the foreseeable gas supply situation in function of demand, supply autonomy and available supply sources at Community level concerning specific geographic areas in the Community.</i>	3-expansion of duties
Commission may assist MS in case of a gas crisis	not quantifiable	security of supply	Security of Energy Supply	<i>the Commission may, in consultation with the Group, provide guidance to Member States regarding further measures to assist those Member States particularly affected by the major supply disruption.</i>	3-expansion of duties
Commission establishes harmonised efficiency reference values for separate production of electricity and heat and review in 2011 and every 4 years after	quantifiable	affordability	Energy Efficiency and Savings	<i>For the purpose of determining the efficiency of cogeneration in accordance with Annex III, the Commission shall, in accordance with the procedure referred to in Article 14(2), not later than 21 February 2006, establish harmonised efficiency reference values for separate production of electricity and heat. Review for the first time on 21 February 2011, and every four years thereafter, to take account of technological developments and changes in the distribution of energy sources.</i>	3-expansion of duties
Commission may impose acceptance of guarantee of origin	not quantifiable	affordability	Energy Efficiency and Savings	<i>In the event of refusal to recognise a guarantee of origin, the Commission may compel the refusing party to recognise it, particularly with regard to objective, transparent and non-discriminatory criteria on which such recognition is based.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0067	2003-2008	2004	In force	
Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0067	2003-2008	2004	In force	
Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0008	2003-2008	2004	No longer in force, Date of end of validity: 04/06/2014; Repealed by 32012L0027	
Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0008	2003-2008	2004	No longer in force, Date of end of validity: 04/06/2014; Repealed by 32012L0027	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Approves the Protocol to the 1979 Convention on Long Range Transboundary Air Pollution on Persistent Organic Pollutants	quantifiable	environment	Environmental Protection	<i>The Protocol to the 1979 Convention on Long Range Transboundary Air Pollution on Persistent Organic Pollutants, is hereby approved on behalf of the Community.</i>	3-expansion of duties
Commission assesses the inventory reports	not quantifiable	environment	Environmental Protection	<i>The Commission shall assess annually, in consultation with Member States, the progress of the Community and its Member States towards fulfilling their commitments under the UNFCCC and the Kyoto Protocol as set out in Decision 2002/358/EC, in order to evaluate whether progress is sufficient to fulfil these commitments.</i>	3-expansion of duties
EU signs the Energy Community Treaty	quantifiable	affordability	Security of Energy Supply	<i>The signing of the Energy Community Treaty is hereby approved on behalf of the Community.</i>	3-expansion of duties
the Commission is authorised to approve on behalf of the Community, amendments to the Annexes to the Protocol	not quantifiable	environment	Internal Energy Markets	<i>As regards matters falling within Community competence, the Commission is authorised to approve on behalf of the Community, amendments to the Annexes to the Protocol, pursuant to Article 20 thereof.</i>	3-expansion of duties
Commission to monitor the Directive	not quantifiable	security of supply	Security of Energy Supply	<i>The Commission shall monitor and review the application of this Directive and submit a progress report to the European Parliament and the Council by 24 February 2010.</i>	3-expansion of duties
Commission to manage the contribution to Chernobyl Fund	quantifiable	environment	Nuclear Energy	<i>The Commission shall administer the contribution to the Chernobyl Shelter Fund</i>	3-expansion of duties
Commission may designate a European coordinator for the project	not quantifiable	internal energy market	Internal Energy Markets	<i>the Commission may designate, in agreement with the Member States concerned, and after having consulted the European Parliament, a European coordinator</i>	3-expansion of duties
Commission to be represented in the Energy Treaty	not quantifiable	internal energy market	Internal Energy Markets	<i>The European Community shall be represented in the Ministerial Council and the Permanent High Level Group set up under the Energy Community Treaty</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2004/259/EC: Council Decision of 19 February 2004 concerning the conclusion, on behalf of the European Community, of the Protocol to the 1979 Convention on Long Range Transboundary Air Pollution on Persistent Organic Pollutants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004D0259	2003-2008	2004	In force	
Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004D0280	2003-2008	2004	No longer in force, Date of end of validity: 07/07/2013; Repealed by 32013R0525	
2005/905/EC: Council Decision of 17 October 2005 on the signing by the European Community of the Energy Community Treaty	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005D0905	2003-2008	2005	In force	
2006/61/EC: Council Decision of 2 December 2005 on the conclusion, on behalf of the European Community, of the UNECE Protocol on Pollutant Release and Transfer Registers	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0061	2003-2008	2005	In force	
Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005L0089	2003-2008	2006	In force	
2006/908/EC, Euratom: Council Decision of 4 December 2006 on the first instalment of the third Community contribution to the European Bank for Reconstruction and Development for the Chernobyl Shelter Fund	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0908	2003-2008	2006	In force	
Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks and repealing Decision 96/391/EC and Decision No 1229/2003/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D1364	2003-2008	2006	No data	
2006/500/EC: Council Decision of 29 May 2006 on the conclusion by the European Community of the Energy Community Treaty	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0500	2003-2008	2006	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to give opinion on MS intermediate targets	quantifiable	affordability	Energy Efficiency and Savings	<i>The Commission shall give an opinion on whether the intermediate national indicative target appears realistic and consistent with the overall target.</i>	3-expansion of duties
Commission to increase targets by 2012	quantifiable	affordability	Energy Efficiency and Savings	<i>Before 1 January 2012, the Commission, in accordance with the procedure referred to in Article 16(2), shall raise the percentage of harmonised bottom-up calculations used in the harmonised calculation model referred to in point 1 of Annex IV, without prejudice to those Member State schemes that already use a higher percentage.</i>	3-expansion of duties
Commission to publish environmental information	not quantifiable	environment	Environmental Protection	<i>Community institutions and bodies shall organise the environmental information which is relevant to their functions and which is held by them, with a view to its active and systematic dissemination to the public,</i>	3-expansion of duties
Commission may block a MS air quality plan	quantifiable	environment	environmental Protection	<i>If objections are raised, the Commission may require Member States to adjust or provide new air quality plans.</i>	3-expansion of duties
EU ETS to expand into aviation	quantifiable	environment	environmental Protection	<i>The provisions of this Chapter shall apply to the allocation and issue of allowances in respect of aviation activities listed in Annex I. [...] By 2 August 2009, the Commission shall, in accordance with the regulatory procedure referred to in Article 23(2), develop guidelines on the detailed interpretation of the aviation activities listed in Annex I. [...] The Commission shall review the total quantity of allowances to be allocated to aircraft operators in accordance with Article 30(4).</i>	3-expansion of duties
Commission to give opinion of TSO control from a non-EU undertaking	not quantifiable	security of supply	Security of Energy Supply	<i>The Commission shall examine the request referred to in paragraph 5 as soon as it is received. Within a period of two months after receiving the request, it shall deliver its opinion to the national regulatory authority or, if the request was made by the designated competent authority, to that authority.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006L0032	2003-2008	2006	No longer in force. Date of end of validity: 04/06/2014; Repealed by 32012L0027	
Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006L0032	2003-2008	2006	No longer in force. Date of end of validity: 04/06/2014; Repealed by 32012L0027	
Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006R1367	2003-2008	2006	In force	
Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0050	2003-2008	2008	In force	
Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0101	2003-2008	2008	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to consult with Commission on 10-year network plans	not quantifiable	security of supply	Security of Energy Supply	<i>If any doubt arises as to the consistency with the Community-wide network development plan, the regulatory authority shall consult the Agency.</i>	3-expansion of duties
Undertakings should keep all data transactions for the Commission	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall require supply undertakings to keep at the disposal of the national authorities, including the national regulatory authority, the national competition authorities and the Commission, for the fulfilment of their tasks, for at least five years, the relevant data relating to all transactions in electricity supply contracts and electricity derivatives with wholesale customers and transmission system operators.</i>	3-expansion of duties
Commission may ask TSOs data.	not quantifiable	internal energy market	Internal Energy Markets	<i>At any time during the procedure, regulatory authorities and/or the Commission may request from a transmission system operator and/or an undertaking performing any of the functions of generation or supply any information relevant to the fulfilment of their tasks under this Article.</i>	3-expansion of duties
Commission to set geographical area for regional cooperation centers	quantifiable	internal energy market	Internal Energy Markets	<i>For the purposes of achieving the goals set in paragraphs 1 and 2 of this Article, the geographical area covered by each regional cooperation structure may be defined by the Commission, taking into account existing regional cooperation structures.</i>	3-expansion of duties
Commission to approve list of statutes	not quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall deliver an opinion on the draft statutes, list of members and draft rules of procedures taking into account the opinion of the Agency provided for in paragraph 2 and within three months of the day of the receipt of the opinion of the Agency.</i>	3-expansion of duties
Commission to set geographical area for regional cooperation centers	not quantifiable	internal energy market	Internal Energy Markets	<i>the geographical area covered by each regional cooperation structure may be defined by the Commission</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force	
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to give opinion of TSO control from a non-EU undertaking	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall provide for the regulatory authority or the designated competent authority referred to in paragraph 3(b), before the regulatory authority adopts a decision on the certification, to request an opinion from the Commission on whether:</i>	3-expansion of duties
Commission allowed to amend the national 10-year gas network plan	not quantifiable	internal energy market	Internal Energy Markets	<i>If any doubt arises as to the consistency with the Community-wide network development plan, the regulatory authority shall consult the Agency. The regulatory authority may require the transmission system operator to amend its ten-year network development plan.</i>	3-expansion of duties
Commission may submit an opinion for gas networks developments in more MS	not quantifiable	internal energy market	Internal Energy Markets	<i>Where the infrastructure in question is located in the territory of more than one Member State, the Agency may submit an advisory opinion to the regulatory authorities of the Member States concerned, which may be used as a basis for their decision, within two months from the date on which the request for exemption was received by the last of those regulatory authorities.</i>	3-expansion of duties
Undertakings should keep all data transactions for the Commission	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States shall require supply undertakings to keep at the disposal of the national authorities, including the regulatory authority, the national competition authorities and the Commission, for the fulfilment of their tasks, for at least five years, the relevant data relating to all transactions in gas supply contracts and gas derivatives with wholesale customers and transmission system operators as well as storage and LNG operators.</i>	3-expansion of duties
Commission to evaluate MS progress to targets	not quantifiable	environment	Environmental Protection	<i>The Commission shall, in its reports submitted pursuant to Article 5(1) and (2) of Decision No 280/2004/EC, evaluate whether the progress made by Member States is sufficient for them to fulfil their obligations under this Decision.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	
Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0406	2009-2015	2009	N/A	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to assess LULUCF potential effects and propose legislation	quantifiable	environment	environmental Protection	<i>Taking into account such specification by Member States, the Commission shall, by 30 June 2011, assess modalities for the inclusion of emissions and removals from activities related to land use, land use change and forestry in the Community reduction commitment, ensuring permanence and the environmental integrity of the contribution of land use, land use change and forestry as well as accurate monitoring and accounting, and make a proposal, as appropriate, with the aim of the proposed act entering into force from 2013 onwards. The Commission's assessment shall consider if the distribution of individual Member States' efforts should be adjusted accordingly.</i>	3-expansion of duties
Commission to be the recorder of the GHG data	quantifiable	environment	Environmental Protection	<i>The Commission shall adopt measures necessary to implement paragraphs 1 and 2. [Registries and Central Administrator] Those measures designed to amend non-essential elements of this Decision by supplementing it shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 13(2).</i>	3-expansion of duties
Expands the role of the EEA	not quantifiable	environment	environmental Protection	<i>This Regulation provides for the European Environment Agency, hereinafter referred to as 'the Agency', and aims at the setting up of a European Environment Information and Observation Network.</i>	3-expansion of duties
Commission to develop a template in national RES plans	quantifiable	environment	Renewable Energy	<i>By 30 June 2009, the Commission shall adopt a template for the national renewable energy action plans.</i>	3-expansion of duties
Commission may allow an MS to not submit an amended national RES plan.	not quantifiable	environment	Environmental Protection	<i>The Commission may, if the Member State has not met the indicative trajectory by a limited margin, and taking due account of the current and future measures taken by the Member State, adopt a decision to release the Member State from the obligation to submit an amended national renewable energy action plan.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0406	2009-2015	2009	N/A	
Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0406	2009-2015	2009	N/A	
Regulation (EC) No 401/2009 of the European Parliament and of the Council of 23 April 2009 on the European Environment Agency and the European Environment Information and Observation Network (Codified version)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0401	2009-2015	2009	In force	
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to decide if an MS had or not a force majeure in not coping with the RES target.	not quantifiable	environment	Environmental Protection	<i>The Commission shall adopt a decision on whether force majeure has been demonstrated.</i>	3-expansion of duties
Commission to search to conclude bilateral or multilateral agreements on biofuels and bioliquids	not quantifiable	environment	Environmental Protection	<i>The Community shall endeavour to conclude bilateral or multilateral agreements with third countries containing provisions on sustainability criteria that correspond to those of this Directive.</i>	3-expansion of duties
Commission may declare Union gas crisis	not quantifiable	security of supply	Security of Energy Supply	<i>the Commission may declare a Union emergency or a regional emergency for a specifically affected geographical region.</i>	3-expansion of duties
Commission may have delegated acts on energy trading	not quantifiable	internal energy market	Internal Energy Markets	<p><i>The Commission shall be empowered to adopt delegated acts in accordance with Article 20 in order to:</i></p> <p>(a)</p> <p><i>align the definitions set out in points (1), (2), (3) and (5) of Article 2 for the purpose of ensuring coherence with other relevant Union legislation in the fields of financial services and energy; and</i></p> <p>(b)</p> <p><i>update those definitions for the sole purpose of taking into account future developments on wholesale energy markets.</i></p> <p><i>2. The delegated acts referred to in paragraph 1 shall take into account at least:</i></p>	3-expansion of duties
Commission to monitor the market	not quantifiable	internal energy market	Internal Energy Markets	<i>The Agency shall monitor trading activity in wholesale energy products to detect and prevent trading based on inside information and market manipulation. It shall collect the data for assessing and monitoring wholesale energy markets as provided for in Article 8.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	
Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011R1227	2009-2015	2011	In force	
Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011R1227	2009-2015	2011	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Common environmental accounting	not quantifiable	environment	Internal Energy Markets	<i>This Regulation establishes a common framework for the collection, compilation, transmission and evaluation of European environmental economic accounts, for the purpose of setting up environmental economic accounts as satellite accounts to ESA 95, by providing methodology, common standards, definitions, classifications and accounting rules intended to be used for compiling environmental economic accounts. The Commission shall be empowered to adopt delegated acts, where necessary to take account of environmental, economic and technical developments, in accordance with Article 9:</i>	3-expansion of duties
Commission may ask updates of the co-generation potential.	not quantifiable	affordability	Energy Efficiency and Savings	<i>At the request of the Commission, the assessment shall be updated and notified to the Commission every five years. The Commission shall make any such request at least one year before the due date.</i>	3-expansion of duties
Commission may review national energy efficiency mechanisms and financial and legal frameworks.	not quantifiable	affordability	Energy Efficiency and Savings	<i>The Commission shall review the impact of its measures to support the development of platforms, involving, inter alia, the European social dialogue bodies in fostering training programmes for energy efficiency, and shall bring forward further measures if appropriate. The Commission shall encourage European social partners in their discussions on energy efficiency.</i>	3-expansion of duties
Commission may assist national energy efficiency mechanisms and financial and legal frameworks.	not quantifiable	affordability	Energy Efficiency and Savings	<i>The Commission shall, where appropriate, directly or via the European financial institutions, assist Member States in setting up financing facilities and technical support schemes with the aim of increasing energy efficiency in different sectors.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 691/2011 of the European Parliament and of the Council of 6 July 2011 on European environmental economic accounts Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011R0691	2009-2015	2011	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS and Commission establish Regional Groups for interconnectivity projects.	quantifiable	internal energy market	Internal Energy Markets	<i>This Regulation establishes twelve Regional Groups ('Groups') as set out in Annex III.1. The membership of each Group shall be based on each priority corridor and area and their respective geographical coverage as set out in Annex I. Decision-making powers in the Groups shall be restricted to Member States and the Commission, who shall, for those purposes, be referred to as the decision-making body of the Groups.</i>	3-expansion of duties
Commission to adopt delegated acts for the Union list of PCIs.	not quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall be empowered to adopt delegated acts in accordance with Article 16 that establish the Union list of projects of common interest ('Union list'), subject to the second paragraph of Article 172 of the TFEU. The Union list shall take the form of an annex to this Regulation.</i>	3-expansion of duties
Commission may be asked to check the information on site.	not quantifiable	internal energy market	Internal Energy Markets	<i>The Groups may request that additional information be provided in accordance with paragraphs 4, 5 and 6, convene meetings with the relevant parties and invite the Commission to verify the information provided on site.</i>	3-expansion of duties
Commission may act as arbiter if a PCI has problems.	not quantifiable	internal energy market	Internal Energy Markets	<i>Where a project of common interest encounters significant implementation difficulties, the Commission may designate, in agreement with the Member States concerned, a European coordinator for a period of up to one year renewable twice.</i>	3-expansion of duties
Commission to create the PCI web platform.	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall establish by six months after the date of adoption of the first Union list an infrastructure transparency platform easily accessible to the general public, including via the internet.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to pay Agency for PCI management and exemptions.	not quantifiable	internal energy market	Internal Energy Markets	<i>Fees shall be due to the Agency for requesting an exemption decision pursuant to Article 9(1) and for decisions on cross border cost allocation provided by the Agency pursuant to Article 12 of Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure</i>	3-expansion of duties
Commission to create the work programmes.	not quantifiable	affordability	Nuclear Energy	<i>The Commission shall adopt, by means of implementing acts, in accordance with the examination procedure referred to in Article 12(3), work programmes for the implementation of the indirect actions. Such work programmes shall allow for bottom-up approaches that address the objectives in innovative ways.</i>	3-expansion of duties
MS to ensure operators take all suitable measures to limit its consequences for accidents	not quantifiable	environment	environmental Protection	<i>In the case of a major accident, Member States shall ensure that operators take all suitable measures to limit its consequences for human health and for the environment.</i>	2-medium development
MS to ensure that operations carried out on the basis of systematic risk management	not quantifiable	environment	environmental Protection	<i>Member States shall require operators to ensure that offshore oil and gas operations are carried out on the basis of systematic risk management so that the residual risks of major accidents to persons, the environment and offshore installations are acceptable.</i>	2-medium development
MS shall appoint a competent authority responsible for regulatory functions.	not quantifiable	environment	environmental Protection	<i>Member States shall appoint a competent authority responsible for the following regulatory functions:</i>	2-medium development
Ms to inform Commission in case of accidents.	not quantifiable	environment	environmental Protection	<i>In the event of a major accident, or of an imminent threat thereof, which has or is capable of having transboundary effects, the Member State under whose jurisdiction the situation occurs shall, without delay, notify the Commission and those Member States or third countries which may be affected by the situation and shall continuously provide information relevant for an effective emergency response.</i>	2-MS to inform Commission

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R0347	2009-2015	2013	In force	
Council Regulation (Euratom) No 1314/2013 of 16 December 2013 on the Research and Training Programme of the European Atomic Energy Community (2014-2018) complementing the Horizon 2020 Framework Programme for Research and Innovation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R1314	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to prepare strategies in the context of the UNFCCC process	quantifiable	internal energy market	environmental Protection	<i>Member States, and the Commission on behalf of the Union, shall prepare their low-carbon development strategies in accordance with any reporting provisions agreed internationally in the context of the UNFCCC process, to contribute to:</i>	3-expansion of duties
Commission allowed to give advice to MS	not quantifiable	environment	environmental Protection	<i>The European Maritime Safety Agency (EMSA, hereinafter 'Agency') shall provide the Member States and Commission with technical and scientific assistance in accordance with its mandate under Regulation (EC) No 1406/2002.</i>	3-expansion of duties
Commission develops the reporting survey	not quantifiable	environment	environmental Protection	<i>The Commission shall by means of an implementing act determine a common data reporting format and the details of information to be shared. That implementing act shall be adopted in accordance with the advisory procedure referred to in Article 37(2).</i>	3-expansion of duties
MS shall require the licensee to maintain sufficient capacity to meet their financial obligations resulting from liabilities for offshore oil and gas operations.	not quantifiable	environment	environmental Protection	<i>The Member States shall require the licensee to maintain sufficient capacity to meet their financial obligations resulting from liabilities for offshore oil and gas operations.</i>	3-important development
Commission to report on the programme	not quantifiable	environment	Internal Energy Markets	<i>The Commission shall submit to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions the following reports:</i>	2-Commission reporting
Commission to adopt delegated acts on LIFE.	not quantifiable	environment	Environmental Protection	<i>The Commission shall be empowered to adopt delegated acts, where necessary, in accordance with Article 29 to add, delete or amend the thematic priorities set out in Annex III based on the following criteria:</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R0525	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	
Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013L0030	2009-2015	2013	In force	
Regulation (EU) No 1293/2013 of the European Parliament and of the Council of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R1293	2009-2015	2013	In force	
Regulation (EU) No 1293/2013 of the European Parliament and of the Council of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R1293	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to implement delegated acts for the implementation of the regulation	not quantifiable	internal energy market	Internal Energy Markets	<i>Within the limits laid down by this Regulation, by 10 June 2014, the Commission shall adopt the provisions necessary for the implementation of this Regulation, concerning the form and other technical details of the notification of data and information referred to in Articles 3 and 5. Until then, Regulation (EU, Euratom) No 833/2010 shall remain applicable.</i>	3-expansion of duties
Commission to have delegated acts to integrated new UNFCCC commitments through the Union GHG registry	not quantifiable	environment	environmental Protection	<i>The Commission shall also be empowered to adopt delegated acts in accordance with Article 25 in order to give effect, by means of the registries of the Union and of the Member States, to the necessary technical implementation of the Kyoto Protocol pursuant to Decision 1/CMP.8 or other relevant decisions of the UNFCCC or Kyoto Protocol bodies and a joint fulfilment agreement, in accordance with paragraph 1.</i>	3-expansion of duties
Commission to have delegated acts to integrated new UNFCCC commitments through the Union GHG registry	not quantifiable	environment	environmental Protection	<i>The Commission shall also be empowered to adopt delegated acts in accordance with Article 25 to ensure that: [...]transfers of annual emission allocations [...]; [...] carry-over of ERUs and CERs [...]</i>	3-expansion of duties
One Board Member of ITER from Commission	not quantifiable	internal energy market	Nuclear Energy	<i>The Governing Board shall appoint members of the Administration and Management Committee from amongst representatives, with relevant professional experience in Administration and Management, nominated by the Members. One member of the Committee shall be Euratom.</i>	3-expansion of duties
Commission to specify the reporting formats.	not quantifiable	environment	environmental Protection	<i>The Commission shall, by way of implementing acts, specify the technical formats for reporting in order to simplify and streamline reporting obligations for the Member States in relation to the information referred to in paragraphs 1 and 2 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 15.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 256/2014 of the European Parliament and of the Council of 26 February 2014 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union, replacing Council Regulation (EU, Euratom) No 617/2010 and repealing Council Regulation (EC) No 736/96	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014R0256	2009-2015	2014	No longer in force, Date of end of validity: 03/11/2018; Repealed by 32018R1504	
Regulation (EU) No 662/2014 of the European Parliament and of the Council of 15 May 2014 amending Regulation (EU) No 525/2013 as regards the technical implementation of the Kyoto Protocol to the United Nations Framework Convention on Climate Change Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014R0662	2009-2015	2014	In force	
Regulation (EU) No 662/2014 of the European Parliament and of the Council of 15 May 2014 amending Regulation (EU) No 525/2013 as regards the technical implementation of the Kyoto Protocol to the United Nations Framework Convention on Climate Change Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014R0662	2009-2015	2014	In force	
Council Decision (Euratom) 2015/224 of 10 February 2015 amending Decision 2007/198/Euratom establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D0224	2009-2015	2015	In force	
Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015L2193	2009-2015	2015	Not specified	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to assess the Directive.	quantifiable	environment	environmental Protection	<p><i>By 1 January 2020, the Commission shall review progress in relation to the energy efficiency of medium combustion plants and assess the benefits of setting minimum energy efficiency standards in line with best available techniques.</i></p> <p><i>2. By 1 January 2023, the Commission shall assess the need to review the provisions concerning plants which are part of SIS or MIS, as well as Part 2 of Annex II, on the basis of state-of-the-art technologies.</i></p>	3-expansion of duties
Commission to review the MSR	quantifiable	environment	environmental Protection	<p><i>The Commission shall monitor the functioning of the reserve in the context of the report provided for in Article 10(5) of Directive 2003/87/EC. That report should consider relevant effects on competitiveness, in particular in the industrial sector, including in relation to GDP, employment and investment indicators. Within three years of the start of the operation of the reserve and at five-year intervals thereafter, the Commission shall, on the basis of an analysis of the orderly functioning of the European carbon market, review the reserve and submit a proposal,</i></p>	3-expansion of duties
Commission to calculate emissions reduction needed for the EU	quantifiable	environment	environmental Protection	<p><i>The Commission shall prepare a report to facilitate the calculation of the assigned amount of the Union, and a report to facilitate the calculation of the joint assigned amount of the Union, its Member States and Iceland ('the joint assigned amount'), in accordance with the requirements of the Kyoto Protocol, the Doha Amendment and decisions adopted thereunder. The Commission shall submit these reports to the Convention Secretariat by 15 April 2015.</i></p>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015L2193	2009-2015	2015	Not specified	
Decision (EU) 2015/1814 of the European Parliament and of the Council of 6 October 2015 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and amending Directive 2003/87/EC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D1814	2009-2015	2015	In force	
Council Decision (EU) 2015/1339 of 13 July 2015 on the conclusion, on behalf of the European Union, of the Doha Amendment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D1339	2009-2015	2015	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to correct MS environmental reports	not quantifiable	environment	Internal Energy Markets	<i>Where the Member State concerned and the Commission are unable to reach an agreement on the necessity or on the content of the technical corrections pursuant to point (c), the Commission shall adopt a decision laying down the technical corrections to be applied by the Member State concerned.</i>	3-expansion of duties
Commission to coordinate gas crises	not quantifiable	security of supply	Internal Energy Markets	<i>The Commission shall coordinate the action of the competent authorities at regional and Union levels, pursuant to this Regulation, inter alia, through the GCG or, in particular, in the event of a regional or Union emergency pursuant to Article 12(1), through the crisis management group referred to in Article 12(4).</i>	3-expansion of duties
Commission may require justification for showing compliance on gas quality	not quantifiable	internal energy market	Security of Energy Supply	<i>The Commission may require a justification showing compliance of any measure referred to in the first subparagraph with the conditions laid down therein. Such a justification shall be made public by the competent authority of the Member State that introduces the measure.</i>	3-expansion of duties
Commission shall facilitate regional chapters for security of supply.	not quantifiable	internal energy market	Security of Energy Supply	<i>The regional chapters shall be developed jointly by all Member States in the risk group before incorporation in the respective national plans. The Commission shall act as a facilitator so as to enable that the regional chapters collectively enhance the security of gas supply in the Union, and, do not give rise to any contradiction, and to overcome any obstacles to cooperation.</i>	3-expansion of duties
Commission may be asked to be part of negotiations.	not quantifiable	internal energy market	Internal Energy Markets	<i>Where a Member State gives the Commission notice of negotiations pursuant to Article 3(1), the Commission services may provide it with advice on how to avoid incompatibility with Union law of the intergovernmental agreement or of the amendment to an intergovernmental agreement under negotiation. Such advice may include relevant optional model clauses and guidance that the Commission develops in consultation with Member States in accordance with Article 9(2).</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016L2284	2016-2019	2016	In force	
Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017R1938	2016-2019	2017	In force	
Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017R1938	2016-2019	2017	In force	
Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017R1938	2016-2019	2017	In force	
Decision (EU) 2017/684 of the European Parliament and of the Council of 5 April 2017 on establishing an information exchange mechanism with regard to intergovernmental agreements and non-binding instruments between Member States and third countries in the field of energy, and repealing Decision No 994/2012/EU	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017D0684	2016-2019	2017	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission creates the plans framework	quantifiable	environment	Internal Energy Markets	<i>The Commission is empowered to adopt delegated acts in accordance with Article 43 in order to amend points 2.1.1 and 3.1.1 of Section A and points 4.1 and 4.2.1 of Section B of Part 1, and point 3 of Part 2 of Annex I, for the purpose of adapting them to amendments to the Union Energy and Climate policy framework that are directly and specifically related to the Union's contributions under the UNFCCC and the Paris Agreement.</i>	3-expansion of duties
Commission to make recommendations on MS published plans.	quantifiable	environment	Internal Energy Markets	<i>Each Member State shall take due account of any recommendations from the Commission in its integrated national energy and climate plan. If the Member State concerned does not address a recommendation or a substantial part thereof, that Member State shall provide and make public its reasons.</i>	3-expansion of duties
Commission to devise a methane strategy	quantifiable	environment	Environmental Protection	<i>Taking into account the circular economy objectives as appropriate, the Commission shall consider policy options for rapidly addressing methane emissions and shall put forward a Union strategic plan for methane as an integral part of the Union's long-term strategy referred to in Article 15.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission may take measures if the targets at EU level are not fulfilled.	quantifiable	environment	Environmental Protection	<i>the Commission concludes that the objectives, targets and contributions of the integrated national energy and climate plans or their updates are insufficient for the collective achievement of the Energy Union objectives and, in particular, for the first ten-year period, for the Union's 2030 targets for renewable energy and energy efficiency, it shall propose measures and exercise its powers at Union level in order to ensure the collective achievement of those objectives and targets</i>	3-expansion of duties
Commission to establish a RES finance mechanism	quantifiable	environment	Environmental Protection	<i>By 1 January 2021, the Commission shall establish the Union renewable energy financing mechanism</i>	3-expansion of duties
Facilitative platform set by Commission	quantifiable	environment	Renewable Energy	<i>The Commission shall establish a facilitative platform in order to support Member States that use cooperation mechanisms to contribute to the binding overall Union target set in paragraph 1.</i>	3-expansion of duties
Commission to establish a methodology for calculating the quantity of renewable energy used for cooling and district cooling	quantifiable	environment	Renewable Energy	<i>By 31 December 2021, the Commission shall adopt delegated acts in accordance with Article 35 to supplement this Directive by establishing a methodology for calculating the quantity of renewable energy used for cooling and district cooling and to amend Annex VII.</i>	3-expansion of duties
Commission sets rules for GHGs reduction	not quantifiable	internal energy market	environmental Protection	<i>The Commission shall adopt implementing acts setting out the annual emission allocations for the years from 2021 to 2030 in terms of tonnes of CO2 equivalent as specified in paragraphs 1 and 2 of this Article.</i>	3-expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2001	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2001	2016-2019	2018	In force	
Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R0842	2016-2019	2018	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission makes the rules on LULUCF accounting	not quantifiable	environment	environmental Protection	<i>The Commission is empowered to adopt delegated acts in accordance with Article 16 to amend Annex I in order to reflect changes in the IPCC Guidelines as adopted by the Conference of the Parties to the UNFCCC or the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement.</i>	3-expansion of duties
Follow-up to JOULE: Research programme in the field of energy, non-nuclear, ECU 155,43 million, 3 years and 3 months (1990 to 1994)	quantifiable	affordability	Research and Development	<i>Research programme in the field of energy, non-nuclear,</i>	3-finance under 100mEUR/year
Joint Research Centre for the European Atomic Energy Community, ECU 202,95 million, 3 years (1992-1994)	quantifiable	environment	Nuclear Research	<i>The specific research and development programmes to be implemented by the Joint Research Centre (JRC) for the European Atomic Energy Community in the fields of research in nuclear fission safety and controlled nuclear fission, especially concerning prenormative aspects, as defined in Annex I, including exploratory research activities, are hereby adopted for a period running from 1 January 1992 to 31 December 1994.</i>	3-finance under 100mEUR/year
Joint Research Centre for the European Atomic Energy Community, ECU 300 million, 4 years (1995 to 1998)	quantifiable	environment	Nuclear Research	<i>A specific programme concerning research and technological development activities to be conducted by the Joint Research Centre is hereby adopted for the period from 1 January 1995 to 31 December 1998.</i>	3-finance under 100mEUR/year
Continuation to LIFE programme, ECU 450, from 1996 to 1999 (5 years)	quantifiable	environment	Environmental Protection	<i>The financial reference amount for the implementation of the second phase for the period 1996 to 1999 shall be ECU 450 million.</i>	3-finance under 100mEUR/year
specific programme for research and training on nuclear energy, executed by JRC, from 30 September 2002 to 31 December 2006, EUR 290 million (2002-2006)	quantifiable	affordability	Nuclear Research	<i>a specific programme related to direct action of research and training activities to be carried out by the JRC (hereinafter referred to as "the specific programme") is hereby adopted for the period from 30 September 2002 to 31 December 2006</i>	3-finance under 100mEUR/year

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R0841	2016-2019	2018	In force	
91/484/EEC: Council Decision of 9 September 1991 adopting a specific research and technological development programme in the field of non-nuclear energy (1990 to 1994)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31991D0484	1990-1995	1991	No longer in force, Date of end of validity: 31/12/1994	
92/274/Euratom: Council Decision of 29 April 1992 adopting specific research programmes to be implemented by the joint research centre for the European Atomic Energy Community (1992-1994)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31992D0274	1990-1995	1992	No longer in force, Date of end of validity: 31/12/1994	
94/919/Euratom: Council Decision of 15 December 1994 adopting a specific programme of research and technological development, including demonstration, to be implemented by the Joint Research Centre for the European Atomic Energy Community (1995 to 1998)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525635412486&uri=CELEX:31994D0919	1990-1995	1994	No longer in force, Date of end of validity: 31/12/1998	
Council Regulation (EC) No 1404/96 of 15 July 1996 amending Regulation (EEC) No 1973/92 establishing a financial instrument for the environment (Life)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996R1404	1996-2002	1996	No longer in force, Date of end of validity: 31/12/1999	
2002/838/Euratom: Council Decision of 30 September 2002 adopting a specific programme for research and training to be carried out by the Joint Research Centre by means of direct actions for the European Atomic Energy Community (2002-2006)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D0838	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2006	Council Regulation (Euratom) No 1368/2013

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Energy programme for the period 2003 to 2006, EUR 200 million.	quantifiable	affordability	Research and Development	<i>A multiannual programme for actions in the field of energy: "Intelligent Energy - Europe", hereinafter referred to as "this programme", is hereby adopted for the period 2003 to 2006. for the period 2003 to 2006 shall be EUR 200 million.</i>	3-finance under 100mEUR/year
Decommissioning of Bohunice V1 nuclear power plant, EUR 423 million, from 1 January 2007 to 31 December 2013	quantifiable	environment	Nuclear Energy	<i>The Community contribution to the programme under this Regulation shall be granted for the purpose of providing financial support for measures connected with the decommissioning of the Bohunice V1 nuclear power plant. [...] The financial reference amount necessary for implementation of the programme provided for in Article 2 for the period from 1 January 2007 to 31 December 2013 shall be EUR 423 million.</i>	3-finance under 100mEUR/year
Instrument for Nuclear Safety Cooperation, over the period 2007 to 2013, EUR 524 000 000.	quantifiable	environment	Nuclear Energy	<i>The financial reference amount for implementation of this Regulation over the period 2007 to 2013 shall be EUR 524 000 000.</i>	3-finance under 100mEUR/year
Add new eligible projects in energy efficiency, 146 344 644,50, unsure duration, "after 2011"	quantifiable	internal energy market	Energy Efficiency and Savings	<i>Funding which according to Article 3(2) cannot be subject to individual legal commitments under Chapter II for an amount of EUR 146 344 644,50 shall be for the facility referred to in the fourth paragraph of Article 1, for the purpose of developing suitable funding instruments in cooperation with financial institutions, so as to give a major stimulus to energy efficiency projects and projects for the exploitation of renewable energy sources.</i>	3-finance under 100mEUR/year
Add new eligible projects in RES, 146 344 644,50, unsure duration, "after 2011"	quantifiable	internal energy market	Renewable Energy	<i>Funding which according to Article 3(2) cannot be subject to individual legal commitments under Chapter II for an amount of EUR 146 344 644,50 shall be for the facility referred to in the fourth paragraph of Article 1, for the purpose of developing suitable funding instruments in cooperation with financial institutions, so as to give a major stimulus to energy efficiency projects and projects for the exploitation of renewable energy sources.</i>	3-finance under 100mEUR/year

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 1230/2003/EC of the European Parliament and of the Council of 26 June 2003 adopting a multiannual programme for action in the field of energy: "Intelligent Energy — Europe" (2003 — 2006) (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003D1230	2003-2008	2003	No longer in force, Date of end of validity: 31/12/2006	
Council Regulation (Euratom) No 549/2007 of 14 May 2007 on the implementation of Protocol No 9 on Unit 1 and Unit 2 of the Bohunice V1 nuclear power plant in Slovakia to the Act concerning the conditions of accession to the European Union of the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007R0549	2003-2008	2007	No longer in force, Date of end of validity: 31/12/2013; Repealed by 32013R1368	
Council Regulation (Euratom) No 300/2007 of 19 February 2007 establishing an Instrument for Nuclear Safety Cooperation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007R0300	2003-2008	2007	No longer in force, Date of end of validity: 31/12/2013	
Regulation (EU) No 1233/2010 of the European Parliament and of the Council of 15 December 2010 amending Regulation (EC) No 663/2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R1233	2009-2015	2010	In force	
Regulation (EU) No 1233/2010 of the European Parliament and of the Council of 15 December 2010 amending Regulation (EC) No 663/2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R1233	2009-2015	2010	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Nuclear decommissioning programme, EUR300m for 2010-2013	quantifiable	environment	Nuclear Energy	<i>The financial reference amount for the implementation of the Kozloduy Programme for the period from 1 January 2010 to 31 December 2013 shall be EUR 300 million.</i>	3-finance under 100mEUR/year
Programme for nuclear research and training activities, from 1 January 2014 to 31 December 2018; 315 535 000 for environment protection	quantifiable	affordability	Nuclear Research	<i>This Regulation establishes the Research and Training Programme of the European Atomic Energy Community for the period from 1 January 2014 to 31 December 2018. 1. The financial envelope for the implementation of the Euratom Programme shall be EUR 1 603 329 000. That amount shall be distributed as follows: (a) indirect actions for the fusion research and development programme, EUR 728 232 000;</i>	3-finance under 100mEUR/year
Commission to revise thematic activities.	not quantifiable	environment	Environmental Protection	<i>The Commission shall review and, if necessary, revise the thematic priorities set out in Annex III at the latest by the mid-term evaluation of the LIFE Programme referred to in point (a) of Article 27(2).</i>	3-expansion of duties
LIFE programme, 2014-2020, EUR 3 456 655 000	quantifiable	environment	Environmental Protection	<i>A Programme for the Environment and Climate Action covering the period from 1 January 2014 to 31 December 2020 (the "LIFE Programme") is hereby established. The financial envelope for the implementation of the LIFE Programme for the period from 2014 to 2020 is set at EUR 3 456 655 000 in current prices, which amounts to 0,318 % of the total amount of commitment appropriations as referred to in Regulation (EU) No 1311/2013.</i>	4-finance over 100mEUR/year
EU signs the protocol on long-range pollution	not quantifiable	environment	Environmental Protection	<i>The Protocol to the 1979 Convention on long-range transboundary air pollution on long-term financing of the cooperative programme for monitoring and evaluation of the long-range transmission of air pollutants in Europe (EMEP) is hereby approved on behalf of the European Economic Community.</i>	3-important development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (Euratom) No 647/2010 of the Council of 13 July 2010 on financial assistance of the Union with respect to the decommissioning of Units 1 to 4 of the Kozloduy Nuclear Power Plant in Bulgaria (Kozloduy Programme)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0647	2009-2015	2010	No longer in force. Date of end of validity: 31/12/2013. Repealed by 32013R1368.	
Council Regulation (Euratom) No 1314/2013 of 16 December 2013 on the Research and Training Programme of the European Atomic Energy Community (2014-2018) complementing the Horizon 2020 Framework Programme for Research and Innovation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R1314	2009-2015	2013	In force	
Regulation (EU) No 1293/2013 of the European Parliament and of the Council of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R1293	2009-2015	2013	In force	
Regulation (EU) No 1293/2013 of the European Parliament and of the Council of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R1293	2009-2015	2013	In force	
86/277/EEC: Council Decision of 12 June 1986 on the conclusion of the Protocol to the 1979 Convention on long-range transboundary air pollution on long-term financing of the cooperative programme for monitoring and evaluation of the long-range transmission of air pollutants in Europe (EMEP)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1534691796044&uri=CELEX:31986D0277	1986-1989	1986	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
increase possible financing of nuclear stations, from 3000 to 4000m ECU	quantifiable	affordability	Nuclear Energy	<i>to raise, by ECU 1 000 million, the total amount of borrowings which the Commission is empowered to contract on behalf of the European Atomic Energy Community</i>	3-important development
Obligation to assess air quality and set limits to pollutants	not quantifiable	environment	Environmental Protection	<i>assess the ambient air quality in Member States on the basis of common methods and criteria, [...] For those pollutants listed in Annex I, the Commission shall submit to the Council proposals for the setting of limit values and, as appropriate, alert thresholds according to the following timetable</i>	3-important development
The Energy Charter Treaty is approved by the European Communities	not quantifiable	security of supply	Security of Energy Supply	<i>The Energy Charter Treaty and the Energy Charter Protocol on energy efficiency and related environmental aspects (hereinafter referred to as the 'Energy Charter Protocol') are hereby approved on behalf of the European Coal and Steel Community, the European Community and the European Atomic Energy Community.</i>	3-important development
no incineration or co-incineration plant shall operate without a permit to carry out these activities.	not quantifiable	environment	Internal Energy Markets	<i>Without prejudice to Article 11 of Directive 75/442/EEC or to Article 3 of Directive 91/689/EEC, no incineration or co-incineration plant shall operate without a permit to carry out these activities.</i>	3-important development
Establishes a programme on the environment, from 22 July 2002.	not quantifiable	environment	Research and Development	<i>establishes a programme of Community action on the environment. The Programme shall cover a period of ten years starting from 22 July 2002.</i>	3-important development
Gas operators are treated equally in the Union	not quantifiable	affordability	Internal Energy Markets	<i>natural gas undertakings are operated in accordance with the principles of this Directive with a view to achieving a competitive, secure and environmentally sustainable market</i>	3-important development
MS obliged to ensure competition	not quantifiable	affordability	Internal Energy Markets	<i>Member States shall ensure that the eligible customer is effectively able to switch to a new supplier.</i>	3-important development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
90/212/Euratom: Council Decision of 23 April 1990 amending Decision 77/271/Euratom on the implementation of Decision 77/270/Euratom empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1524407544592&uri=CELEX:31990D0212	1990-1995	1990	In force	
Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996L0062	1996-2002	1996	No longer in force, Date of end of validity: 10/06/2010; Repealed by 32008L0050	
98/181/EC, ECSC, Euratom: Council and Commission Decision of 23 September 1997 on the conclusion, by the European Communities, of the Energy Charter Treaty and the Energy Charter Protocol on energy efficiency and related environmental aspects	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31998D0181	1996-2002	1997	In force	
Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1545829289619&uri=CELEX:32000L0076	1996-2002	2000	No longer in force, Date of end of validity: 06/01/2014; Repealed by 32010L0075	
Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D1600	1996-2002	2002	No longer in force, Date of end of validity: 21/07/2012	
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	Council Regulation (Euratom) No 1314/2013
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	Council Regulation (Euratom) No 1314/2013

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Gas independent authority has to contribute to development of the internal market	not quantifiable	internal energy market	Internal Energy Markets	<i>National regulatory authorities shall contribute to the development of the internal market and of a level playing field by cooperating with each other and with the Commission in a transparent manner.</i>	3-important development
MS may give priority to RES in the system	not quantifiable	environment	Renewable Energy	<i>A Member State may require the system operator, when dispatching generating installations, to give priority to generating installations using renewable energy sources or waste or producing combined heat and power.</i>	3-important development
MS may give priority to indigenous resources	not quantifiable	security of supply	Security of Energy Supply	<i>A Member State may, for reasons of security of supply, direct that priority be given to the dispatch of generating installations using indigenous primary energy fuel sources, to an extent not exceeding in any calendar year 15 % of the overall primary energy necessary to produce the electricity consumed in the Member State concerned.</i>	3-important development
TSOs to receive compensation for transborder electricity transfers	not quantifiable	internal energy market	Internal Energy Markets	<i>Transmission system operators shall receive compensation for costs incurred as a result of hosting cross-border flows of electricity on their networks.</i>	3-important development
MS have to design security of supply policies	not quantifiable	security of supply	Security of Energy Supply	<i>Member States shall define the roles and responsibilities of the different gas market players in achieving these policies, and specify adequate minimum security of supply standards that must be complied with by the players on the gas market of the Member State in question. The standards shall be implemented in a non-discriminatory and transparent way and shall be published.</i>	3-important development
CERs and ERUs of EU ETS detailed after Kyoto Protocol signing	quantifiable	environment	Environmental Protection	<i>Directive 2003/87/EC is hereby amended: Subject to paragraph 3, during each period referred to in Article 11(2), Member States may allow operators to use CERs and ERUs from project activities in the Community scheme up to a percentage of the allocation of allowances to each installation</i>	3-important development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	Council Regulation (Euratom) No 1314/2013
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	Council Regulation (Euratom) No 1314/2013
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	
Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003R1228	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009R0714	
Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0067	2003-2008	2004	In force	
Directive 2004/101/EC of the European Parliament and of the Council of 27 October 2004 amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0101	2003-2008	2004	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Obliges MS to have high security of supply	not quantifiable	security of supply	Security of Energy Supply	<i>Member States shall ensure a high level of security of electricity supply by taking the necessary measures to facilitate a stable investment climate and by defining the roles and responsibilities of competent authorities, including regulatory authorities where relevant, and all relevant market actors and publishing information thereon.</i>	3-important development
Specific programme within the Nuclear 7th framework	quantifiable	affordability	Nuclear Research	<i>The specific programme for nuclear research and training activities in the fields of Fusion Energy, Nuclear Fission and Radiation Protection under the Seventh Euratom Framework Programme, hereinafter the "Specific Programme", is hereby adopted for the period from 1 January 2007 to 31 December 2011</i>	3-important development
Specific programme within the Nuclear 7th framework	quantifiable	affordability	Research and Development	<i>The Specific Programme "Cooperation" for Community activities in the area of research and technological development, including demonstration activities, hereinafter the "Specific Programme", is hereby adopted for the period from 1 January 2007 to 31 December 2013.</i>	3-important development
EU approves the Energy Community Treaty	quantifiable	affordability	Security of Energy Supply	<i>The Energy Community Treaty is hereby approved on behalf of the European Community.</i>	3-important development
Updated environmental permits	not quantifiable	environment	environmental Protection	<i>Member States shall take the necessary measures to ensure that an application to the competent authority for a permit includes a description of:</i>	3-important development
MS may use limited priority dispatching from indigenous resources	not quantifiable	security of supply	Security of Energy Supply	<i>A Member State may, for reasons of security of supply, direct that priority be given to the dispatch of generating installations using indigenous primary energy fuel sources, to an extent not exceeding, in any calendar year, 15 % of the overall primary energy necessary to produce the electricity consumed in the Member State concerned.</i>	3-important development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005L0089	2003-2008	2006	In force	
2006/976/Euratom: Council Decision of 19 December 2006 concerning the Specific Programme implementing the Seventh Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0976	2003-2008	2006	No data	
2006/971/EC: Council Decision of 19 December 2006 concerning the Specific Programme Cooperation implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013) (Text with EEA relevance).	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0971	2003-2008	2006	No longer in force, Date of end of validity: 31/12/2013; Repealed by 32013D0743	
2006/500/EC: Council Decision of 29 May 2006 on the conclusion by the European Community of the Energy Community Treaty	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0500	2003-2008	2006	In force	
Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control (Codified version) (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0001	2003-2008	2008	No longer in force, Date of end of validity: 06/01/2014; Repealed by 32010L0075	
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS may use limited priority dispatching from CHP	not quantifiable	affordability	Energy Efficiency and Savings	<i>A Member State shall require system operators to act in accordance with Article 16 of Directive 2009/28/EC when dispatching generating installations using renewable energy sources. They also may require the system operator to give priority when dispatching generating installations producing combined heat and power.</i>	3-important development
MS to have a national renewables plan	not quantifiable	environment	Renewable Energy	<i>Each Member State shall adopt a national renewable energy action plan.</i>	3-important development
MS to create a national framework on nuclear safety	not quantifiable	environment	Nuclear Energy	<i>establish a Community framework in order to maintain and promote the continuous improvement of nuclear safety and its regulation; Member States shall establish and maintain a national legislative, regulatory and organisational framework (hereinafter referred to as the 'national framework') for nuclear safety of nuclear installations that allocates responsibilities and provides for coordination between relevant state bodies.</i>	3-important development
All MS have a plan for security of gas supply	not quantifiable	security of supply	Security of Energy Supply	<i>The Competent Authority of each Member State, after consulting the natural gas undertakings, the relevant organisations representing the interests of household and industrial gas customers and the national regulatory authority, where it is not the Competent Authority, shall, without prejudice to paragraph 3, establish at national level:</i> <i>(a)</i> <i>a Preventive Action Plan containing the measures needed to remove or mitigate the risks identified, in accordance with the risk assessment undertaken pursuant to Article 9; and</i> <i>(b)</i> <i>an Emergency Plan containing the measures to be taken to remove or mitigate the impact of a gas supply disruption in accordance with Article 10.</i>	3-important development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	
Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0071	2009-2015	2009	In force	
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS may give exemptions.	not quantifiable	affordability	Environmental Protection	<i>By way of derogation from paragraph 3, and without prejudice to Article 18, the competent authority may, in specific cases, set less strict emission limit values. Such a derogation may apply only where an assessment shows that the achievement of emission levels associated with the best available techniques as described in BAT conclusions would lead to disproportionately higher costs compared to the environmental benefits due to:</i>	3-important development
Coal exempted from Sulphur emissions limits.	quantifiable	security of supply	Security of Energy Supply	<i>For combustion plants firing indigenous solid fuel, which cannot comply with the emission limit values for sulphur dioxide referred to in Article 30(2) and (3) due to the characteristics of this fuel, Member States may apply instead the minimum rates of desulphurisation set out in Part 5 of Annex V, in accordance with the compliance rules set out in Part 6 of that Annex and with prior validation by the competent authority of the technical report referred to in Article 72(4)(a).</i>	3-important development
MS have to carry out a cost-benefit analysis of solutions for co-generation and take measures to promote them.	not quantifiable	affordability	Energy Efficiency and Savings	<i>For the purpose of the assessment referred to in paragraph 1, Member States shall carry out a cost-benefit analysis covering their territory based on climate conditions, economic feasibility and technical suitability in accordance with Part 1 of Annex IX. The cost-benefit analysis shall be capable of facilitating the identification of the most resource-and cost-efficient solutions to meeting heating and cooling needs.</i>	3-important development
Commission to report strategies to public	quantifiable	environment	Internal Energy Markets	<i>The Commission and the Member States shall make available to the public forthwith their respective low-carbon development strategies and any updates thereof.</i>	2-Commission reporting

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (Integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (Integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R0525	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to report on the Regulation	quantifiable	environment	Internal Energy Markets	<i>By 31 October each year, the Commission shall submit a report summarising the conclusions of the assessments provided for in paragraphs 1 and 2 to the European Parliament and to the Council.</i>	2-Commission reporting
Commission to set rules for GHGs national inventory systems	quantifiable	environment	environmental Protection	<i>The Commission shall adopt implementing acts to set out rules on the structure, format and submission process of the information relating to national inventory systems and to requirements on the establishment, operation and functioning of national inventory systems in accordance with relevant decisions adopted by the bodies of the UNFCCC or the Kyoto Protocol or of agreements deriving from them or succeeding them.</i>	3-expansion of duties
Aviation exempted from EU ETS	not quantifiable	environment	environmental Protection	<i>By way of derogation from Articles 12(2a), 14(3) and Article 16, Member States shall consider the requirements set out in those provisions to be satisfied and shall take no action against aircraft operators in respect of:</i>	3-important development
The European Court of Justice has jurisdiction over ITER	not quantifiable	affordability	Nuclear Energy	<i>The Court of Justice of the European Union shall have jurisdiction in actions brought against the Joint Undertaking, including decisions of its Governing Board, under the conditions provided for in Articles 263 and 265 of the Treaty on the Functioning of the European Union</i>	3-important development
In all MS, no medium pp can operate without a permit defined by this Directive.	not quantifiable	environment	environmental Protection	<i>Member States shall take the necessary measures to ensure that no new medium combustion plant is operated without a permit or without being registered.</i>	3-important development
An MSR is established	not quantifiable	environment	environmental Protection	<i>A market stability reserve shall be established in 2018 and the placing of allowances in the reserve shall operate from 1 January 2019.</i>	3-important development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R0525	2009-2015	2013	In force	
Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R0525	2009-2015	2013	In force	
Regulation (EU) No 421/2014 of the European Parliament and of the Council of 16 April 2014 amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in view of the implementation by 2020 of an international agreement applying a single global market-based measure to international aviation emissions Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014R0421	2009-2015	2014	In force	
Council Decision (Euratom) 2015/224 of 10 February 2015 amending Decision 2007/198/Euratom establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D0224	2009-2015	2015	In force	
Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015L2193	2009-2015	2015	Not specified	
Decision (EU) 2015/1814 of the European Parliament and of the Council of 6 October 2015 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and amending Directive 2003/87/EC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D1814	2009-2015	2015	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Doha Amendment is approved by EU	not quantifiable	environment	environmental Protection	<i>The Doha Amendment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change agreed on 8 December 2012 in Doha is hereby approved on behalf of the Union.</i>	3-important development
Derogation from the EU ETS obligations for flights to and from third countries should be extended until 31 December 2023	not quantifiable	environment	environmental Protection	<i>the current derogation from the EU ETS obligations for flights to and from third countries should be extended until 31 December 2023</i>	3-important development
The European Union and the Swiss Confederation on the linking of their greenhouse gas emissions trading systems	not quantifiable	environment	environmental Protection	<i>The signing on behalf of the Union of the Agreement between the European Union and the Swiss Confederation on the linking of their greenhouse gas emissions trading systems is hereby authorised, subject to the conclusion of the said Agreement.</i>	3-important development
Creates climate and energy plans	quantifiable	environment	environmental Protection	<i>By 31 December 2019, and subsequently by 1 January 2029 and every ten years thereafter, each Member State shall notify to the Commission an integrated national energy and climate plan.</i>	3-important development
Climate and energy plans informed to Commission	quantifiable	environment	Internal Energy Markets	<i>By 31 December 2019, and subsequently by 1 January 2029 and every ten years thereafter, each Member State shall notify to the Commission an integrated national energy and climate plan.</i>	3-important development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Decision (EU) 2015/1339 of 13 July 2015 on the conclusion, on behalf of the European Union, of the Doha Amendment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015D1339	2009-2015	2015	In force	
Regulation (EU) 2017/2392 of the European Parliament and of the Council of 13 December 2017 amending Directive 2003/87/EC to continue current limitations of scope for aviation activities and to prepare to implement a global market-based measure from 2021	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017R2392	2016-2019	2017	In force	
Council Decision (EU) 2017/2240 of 10 November 2017 on the signing, on behalf of the Union, and provisional application of the Agreement between the European Union and the Swiss Confederation on the linking of their greenhouse gas emissions trading systems	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017D2240	2016-2019	2017	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Each MS must give energy efficiency targets	quantifiable	affordability	Energy Efficiency and Savings	<i>Each Member State shall set indicative national energy efficiency contributions towards the Union's 2030 targets</i>	3-important development
Support given for RES cannot be retired	not quantifiable	environment	Renewable Energy	<i>Without prejudice to adaptations necessary to comply with Articles 107 and 108 TFEU, Member States shall ensure that the level of, and the conditions attached to, the support granted to renewable energy projects are not revised in a way that negatively affects the rights conferred thereunder and undermines the economic viability of projects that already benefit from support.</i>	3-important development
A RES system of certificates is created.	quantifiable	environment	Renewable Energy	<i>Member States shall ensure that any national rules concerning the authorisation, certification and licensing procedures that are applied to plants and associated transmission and distribution networks for the production of electricity, heating or cooling from renewable sources, to the process of transformation of biomass into biofuels, bioliquids, biomass fuels or other energy products, and to renewable liquid and gaseous transport fuels of non-biological origin are proportionate and necessary and contribute to the implementation of the energy efficiency first principle.</i>	3-important development
A RES system of guarantees of origin is created.	quantifiable	environment	Renewable Energy	<i>To that end, Member States shall ensure that a guarantee of origin is issued in response to a request from a producer of energy from renewable sources</i>	3-important development
MS have individual targets	not quantifiable	environment	environmental Protection	<i>Each Member State shall, in 2030, limit its greenhouse gas emissions at least by the percentage set for that Member State in Annex I in relation to its greenhouse gas emissions in 2005, determined pursuant to paragraph 3 of this Article.</i>	3-important development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2002	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2001	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2001	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2001	2016-2019	2018	In force	
Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R0842	2016-2019	2018	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
LULUCF accounts	not quantifiable	environment	environmental Protection	<i>Each Member State shall prepare and maintain accounts that accurately reflect the emissions and removals resulting from the land accounting categories referred to in Article 2.</i>	3-important development
R & D programmes in the field of the environment, 5 years, 75 million ECU, staff of 19	quantifiable	environment	Research and Development	<i>R & D programmes in the field of the environment (1986 to 1990) The amount estimated as necessary to carry out the programmes shall be 75 million ECU, including expenditure on a staff of 19, subdivided as follows:</i> <i>- Protection of the environment 55 million ECU,</i> <i>- Climatology and natural hazards 17 million ECU,</i> <i>- Pilot projects on major technological hazards 3 million ECU.</i>	3-new EU programme established
Joint Research Centre for the European Atomic Energy Community, 448,3 million ECU, including expenditure on a staff of 1 162, reducing to 905 in 1991, 4 years	quantifiable	environment	Nuclear Research	<i>This Decision, which sets out the research activities of the Joint Research Centre (JRC) for the period 1988 to 1991, is hereby adopted with effect from 1 January 1988. The funds estimated as necessary for the execution of the activities referred to in Article 1 (2) amount to 448,3 million ECU, including expenditure on a staff of 1 162, reducing to 905 in 1991.</i>	3-new EU programme established
ITER, 735 million ECU, 191 staff, 4 years	quantifiable	affordability	Nuclear Research	<i>ITER: A European Atomic Energy Community programme of research and training in the field of controlled thermonuclear fusion, as defined in the Annex, is hereby adopted for the period from 1 January 1988 to 31 March 1992. 735 million ECU</i>	3-new EU programme established
JOULE: Research programme in the field of energy, non-nuclear, ECU 122 million, 3 years, staff of 34	quantifiable	affordability	Research and Development	<i>research and technological development programme for the European Economic Community in the field of energy</i>	3-new EU programme established

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R0841	2016-2019	2018	In force	
86/234/EEC: Council Decision of 10 June 1986 adopting multiannual R & D programmes in the field of the environment (1986 to 1990)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31986D0234	1986-1989	1986	No longer in force, Date of end of validity: 31/12/1990	
86/522/Euratom: Council Decision of 14 October 1988 adopting specific research programmes to be implemented by the Joint Research Centre for the European Atomic Energy Community (1988 to 1991)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31988D0522	1986-1989	1988	No longer in force, Date of end of validity: 31/12/1991	
88/448/Euratom: Council Decision of 25 July 1988 adopting a multiannual research and training programme in the field of controlled thermonuclear fusion	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31988D0448	1986-1989	1988	No longer in force, Date of end of validity: 31/03/1992	
Council Decision of 14 March 1989 on a specific research and technological development programme in the field of energy - non-nuclear energies and rational use of energy - 1989 to 1992 (Joule)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1522685387611&uri=CELEX:31989D0236	1986-1989	1989	No longer in force, Date of end of validity: 31/03/1992	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
A research and education programme in the field of nuclear fission safety, ECU 35,64 million, including expenditure on staff and administration amounting to ECU 6,94 million. (1990 to 1994)	quantifiable	environment	Nuclear Research	<i>A research and education programme in the field of nuclear fission safety [...].</i>	3-new EU programme established
LIFE programme is established, ECU 400 million, from 1991 to 1995 (6 years)	quantifiable	environment	Environmental Protection	<i>The general objective of LIFE shall be to contribute to the development and implementation of Community environmental policy and legislation by financing: (a) priority environmental actions in the Community;</i>	3-new EU programme established
Creates European nature protection areas (potentially affecting hydro, coal, gas pipelines, etc)	not quantifiable	environment	Environmental Protection	<i>Natura 2000: conservation of natural habitats and of wild fauna and flora</i>	3-new EU programme established
ALTENER: research for RES, 40 million ECU, 1993-1997	quantifiable	environment	Renewable Energy	<i>The amount of Community funds estimated as necessary for implementation of the programme shall be ECU 40 million for the period 1993 to 1997, provided that amount is consistent with the Community's medium-term financial perspective in force as from 1 January 1993.</i>	3-new EU programme established
Creation of an international energy cooperation programme (Synergy), ECU 7 million, 1 year (1997)	quantifiable	security of supply	Security of Energy Supply	<i>A programme of cooperation with non-member States in the field of formulation, elaboration and implementation in fields of mutual benefits of energy policy, hereinafter called 'Synergy', shall be implemented by the Community.</i>	3-new EU programme established
Creation of a programme to fund environmental NGOs, ECU 10,6 million, 1998-2001 (4 years)	quantifiable	environment	Environmental Protection	<i>A Community action programme promoting NGOs to protect the environment is hereby established. The general objective of this programme shall be to promote activities of NGOs which are primarily active in the field of environmental protection at a European level by contributing to the development and implementation of Community environmental policy and legislation.</i>	3-new EU programme established

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
91/626/Euratom: Council Decision of 28 November 1991 adopting a research and education programme in the field of nuclear fission safety (1990 to 1994)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31991D0626	1990-1995	1991	No longer in force, Date of end of validity: 31/12/1994	
Council Regulation (EEC) No 1973/92 of 21 May 1992 establishing a financial instrument for the environment (LIFE)	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31992R1973	1990-1995	1992	No longer in force, Date of end of validity: 31/12/1999	
Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31992L0043	1990-1995	1992	In force	
Council Decision of 13 September 1993 concerning the promotion of renewable energy sources in the Community (Altener)	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31993D0500	1990-1995	1993	No longer in force, Date of end of validity: 31/12/1997	
Council Regulation (EC) No 701/97 of 14 April 1997 amending a programme to promote international cooperation in the energy sector - Synergy programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31997R0701	1996-2002	1997	No longer in force, Date of end of validity: 17/12/1998; Repealed and replaced by 399D0023	
97/872/EC: Council Decision of 16 December 1997 on a Community action programme promoting non-governmental organizations primarily active in the field of environmental protection	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31997D0872	1996-2002	1997	No longer in force, Date of end of validity: 01/01/2002	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
CARNOT research programme for coal, ECU 3 million, 1998-2002 (5 years)	quantifiable	environment	Research and Development	<i>Within the multiannual framework programme for actions in the energy sector, a specific programme for the promotion of clean solid fuel technologies, hereinafter referred to as the 'Carnot' programme, shall be implemented by the Community for the period 1998 to 2002.</i>	3-new EU programme established
ETAP: Programme on studies, analyses, forecasts and other related work concerning the future development of energy policy, ECU 5 million, for the period 1998-2002 (5 years)	quantifiable	internal energy market	Research and Development	<i>Within the multiannual framework programme for actions in the energy sector, a specific programme of studies, analyses, forecasts and other related work concerning the future development of energy policy within the Community, hereinafter referred to as 'the ETAP programme', shall be implemented by the Community for the period 1998-2002.</i>	3-new EU programme established
SURE: programme of actions in the nuclear sector, relating to the safe transport of radioactive materials and to safeguards and industrial cooperation to promote certain aspects of the safety of nuclear installations, ECU 9 million, for 1998-2002 (5 years)	quantifiable	environment	Nuclear Research	<i>Within the multiannual framework programme for actions in the energy sector, a specific programme of actions in the nuclear sector, relating to the safe transport of radioactive materials and to safeguards and industrial cooperation to promote certain aspects of the safety of nuclear installations in countries participating in the TACIS programme, hereinafter referred to as 'SURE', shall be implemented by the Community for the period 1998 to 2002.</i>	3-new EU programme established
MS to create an energy efficiency obligation scheme.	not quantifiable	affordability	Energy Efficiency and Savings	<i>Each Member State shall set up an energy efficiency obligation scheme. That scheme shall ensure that energy distributors and/or retail energy sales companies that are designated as obligated parties under paragraph 4 operating in each Member State's territory achieve a cumulative end-use energy savings target by 31 December 2020, without prejudice to paragraph 2.</i>	3-new EU programme established
Economic factors taken into account	not quantifiable	affordability	Environmental Protection	<i>Measures taken pursuant to this Directive shall take account of economic, social and cultural requirements and regional and local characteristics.</i>	3-targets diluted

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
1999/24/EC: Council Decision of 14 December 1998 adopting a multiannual programme of technological actions promoting the clean and efficient use of solid fuels (1998 to 2002)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31999D0024	1996-2002	1998	No longer in force, Date of end of validity: 31/12/2002	
1999/22/EC: Council Decision of 14 December 1998 adopting a multiannual programme of studies, analyses, forecasts and other related work in the energy sector (1998-2002)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31999D0022	1996-2002	1998	No longer in force, Date of end of validity: 31/12/2002	
1999/25/Euratom: Council Decision of 14 December 1998 adopting a multiannual programme (1998 to 2002) of actions in the nuclear sector, relating to the safe transport of radioactive materials and to safeguards and industrial cooperation to promote certain aspects of the safety of nuclear installations in the countries currently participating in the Tacis programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31999D0025	1996-2002	1998	No longer in force, Date of end of validity: 31/12/2002	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31992L0043	1990-1995	1992	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to calculated total emissions from corrected national data.	not quantifiable	environment	environmental Protection	<i>The Commission shall, by means of an implementing act, determine the total sum of emissions for the relevant year arising from the corrected inventory data for each Member State upon completion of the relevant review.</i>	3-expansion of duties
Gas generation excepted from emissions' limits	quantifiable	environment	Environmental Protection	<i>Plants powered by diesel, petrol and gas engines or by gas turbines, irrespective of the fuel used, shall not be covered by this Directive.</i>	3-targets given
limitation of emissions for sulphur dioxide, oxides of nitrogen and for dust for new powerplants, by 1994 reported back by the Commission	quantifiable	environment	Environmental Protection	<i>The programmes shall be drawn up and implemented with the aim of complying, through the appropriate limitation of emissions, at least with the emission ceilings and with the corresponding percentage reductions laid down for sulphur dioxide in Annex I, columns 1 to 6 and for oxides of nitrogen in Annex II, columns 1 to 4 by the dates specified in those Annexes. [...] In 1994 the Commission, on the basis of the summary reports provided by the Member States pursuant to Article 16, shall make a report to the Council on the implementation of the reductions referred to in this Article, accompanied where necessary by proposals for a revision of the phase 3 reduction targets and/or date for sulphur dioxide and the phase 2 reduction targets and/or date for oxides of nitrogen. The Council shall decide upon such proposals by unanimity.</i>	3-targets given
sulphur dioxide emissions limitations by country and 1993, 1995, 2003	quantifiable	environment	Environmental Protection	<i>Annex I</i>	3-targets given
New plants have less stringent Sulphur dioxide emissions limitation if burn indigenous fuel	quantifiable	security of supply	Security of Energy Supply	<i>New plants which burn indigenous solid fuel, where the emission limit value set for sulphur dioxide for such plants cannot be met, owing to the particular nature of the fuel, without using excessively expensive technology, may exceed the limit values laid down in Annex III.</i>	3-targets given

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R0525	2009-2015	2013	In force	
Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31988L0609	1986-1989	1988	No longer in force, Date of end of validity: 26/11/2002; Repealed by 32001L0080	
Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31988L0609	1986-1989	1988	No longer in force, Date of end of validity: 26/11/2002; Repealed by 32001L0080	
Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31988L0609	1986-1989	1988	No longer in force, Date of end of validity: 26/11/2002; Repealed by 32001L0080	
Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31988L0609	1986-1989	1988	No longer in force, Date of end of validity: 26/11/2002; Repealed by 32001L0080	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Lignite excepted from emission limitations	quantifiable	security of supply	Security of Energy Supply	<i>Member States may authorize plants burning indigenous lignite to exceed the emission limit values fixed in accordance with Article 4 if, notwithstanding the application of best available technology not entailing excessive costs, major difficulties connected with the nature of the lignite so require and provided that lignite is an essential source of fuel for the plants.</i>	3-targets given
oxides of nitrogen emissions limitations by country and 1993, 1998	quantifiable	environment	Environmental Protection	<i>Annex II</i>	3-targets given
New plants have less stringent sulphur dioxide and oxides of nitrogen emissions limitation, but equal at all EU-level	quantifiable	environment	Internal Energy Markets	<i>Annex V, VI</i>	3-targets given
dust limitations for new power plants	quantifiable	environment	Environmental Protection	<i>Annex VII</i>	3-targets given
sets limit values for SO ₂ for new plants with a rated thermal input of between 50 and 100 megawatts which use solid fuel	quantifiable	environment	Environmental Protection	<i>Whereas Directive 88/609/EEC (9) did not set limit values for SO₂ for new plants with a rated thermal input of between 50 and 100 megawatts which use solid fuel; whereas, however, Annex III thereof states that the Council, on the basis of a report from the Commission, shall set emission limit values for plants in this category;</i>	3-targets given
EU promises to reduce SO ₂ emissions at the level of EU members ratifying the protocol to the 1979 Convention on long-range transboundary air pollution	quantifiable	environment	Environmental Protection	<i>The European Community states that the ceiling for emissions and the weighted average percentage of the European Community ought not to exceed the sum of the obligations of the Member States of the European Union which have ratified the Protocol, while stressing that all its Member States must reduce their SO₂ emissions in accordance with the emission ceilings set in Annex II to the Protocol and in line with the relevant Community legislation.</i>	3-targets given

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31988L0609	1986-1989	1988	No longer in force, Date of end of validity: 26/11/2002; Repealed by 32001L0080	
Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31988L0609	1986-1989	1988	No longer in force, Date of end of validity: 26/11/2002; Repealed by 32001L0080	
Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31988L0609	1986-1989	1988	No longer in force, Date of end of validity: 26/11/2002; Repealed by 32001L0080	
Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497203252791&uri=CELEX:31988L0609	1986-1989	1988	No longer in force, Date of end of validity: 26/11/2002; Repealed by 32001L0080	
Council Directive 94/66/EC of 15 December 1994 amending Directive 88/609/EEC on the limitation of emissions of certain pollutants into the air from large combustion plants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525635412486&uri=CELEX:31994L0066	1990-1995	1994	No longer in force, Date of end of validity: 26/11/2002	
98/686/EC: Council Decision of 23 March 1998 on the conclusion by the European Community of the Protocol to the 1979 Convention on long-range transboundary air pollution on further reductions of sulphur emissions	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31998D0686	1996-2002	1998	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Establish limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air	quantifiable	environment	Environmental Protection	<i>establish limit values and, as appropriate, alert thresholds for concentrations of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air intended to avoid, prevent or reduce harmful effects on human health and the environment as a whole,</i>	3-targets given
Emission limit values set for incineration plants	quantifiable	environment	Environmental Protection	<i>Cwaste: emission limit values set for incineration plants in Annex V for the relevant pollutants and carbon monoxide.</i>	3-targets given
Updates LCP BREF	quantifiable	environment	Environmental Protection	<i>Member States shall take appropriate measures to ensure that all licences for the construction or, in the absence of such a procedure, for the operation of new plants, other than those covered by paragraph 1, contain conditions relating to compliance with the emission limit values</i>	3-targets given
No indigenous fuel exception	quantifiable	environment	Security of Energy Supply		3-targets given
No lignite exception in the Directive	quantifiable	environment	Security of Energy Supply		3-targets given
Reduction of emissions of cadmium, lead and mercury	quantifiable	environment	Environmental Protection	<i>The Protocol aims at controlling emissions of heavy metals caused by anthropogenic activities that are subject to long-range transboundary atmospheric transport and that are likely to have significant adverse effects on human health or the environment.</i>	3-targets given
By 2010, Member States shall limit sulphur dioxide (SO ₂), nitrogen oxides (NO _x), volatile organic compounds (VOC) and ammonia (NH ₃).	quantifiable	environment	Environmental Protection	<i>By the year 2010 at the latest, Member States shall limit their annual national emissions of the pollutants sulphur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds (VOC) and ammonia (NH₃) to amounts not greater than the emission ceilings laid down in Annex I</i>	3-targets given

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Directive 1999/30/EC of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:31999L0030	1996-2002	1999	No longer in force, Date of end of validity: 10/06/2010; Repealed by 32008L0050	
Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1545829289619&uri=CELEX:32000L0076	1996-2002	2000	No longer in force, Date of end of validity: 06/01/2014; Repealed by 32010L0075	
Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0080	1996-2002	2001	No longer in force, Date of end of validity: 31/12/2015; Repealed by 32010L0075	
Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0080	1996-2002	2001	No longer in force, Date of end of validity: 31/12/2015; Repealed by 32010L0075	
Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0080	1996-2002	2001	No longer in force, Date of end of validity: 31/12/2015; Repealed by 32010L0075	
2001/379/EC: Council Decision of 4 April 2001 on the approval, on behalf of the European Community, of the Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on Heavy Metals	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001D0379	1996-2002	2001	In force	
Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0081	1996-2002	2001	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
ratification and entering into force of the Kyoto Protocol by 2002 and 8 % reduction in emissions by 2008-12 compared to 1990	quantifiable	environment	Environmental Protection	<i>ratification and entering into force of the Kyoto Protocol to the United Nations framework Convention on climate change by 2002 and fulfilment of its commitment of an 8 % reduction in emissions by 2008-12 compared to 1990</i>	3-targets given
encouraging the use of renewable energy sources for an indicative target of 12 % of total energy use by 2010;	quantifiable	environment	Renewable Energy	<i>encouraging the use of renewable energy sources, including the use of incentives, including at the local level, with a view to meeting the indicative target of 12 % of total energy use by 2010;</i>	3-targets given
22 % of the electricity production from renewable energies by 2010	quantifiable	environment	Renewable Energy	<i>In this context the indicative target to achieve a percentage of 22 % of the electricity production from renewable energies by 2010 in the Community is recalled with a view to increasing drastically resource and energy efficiency;</i>	3-targets given
doubling the overall share of Combined Heat and Power to 18 % of the total gross electricity generation	quantifiable	environment	Energy Efficiency and Savings	<i>introducing incentives to increase Combined Heat and Power and implement measures aiming at doubling the overall share of Combined Heat and Power in the Community as a whole to 18 % of the total gross electricity generation</i>	3-targets given
MS given national targets on energy efficiency increase	quantifiable	affordability	Energy Efficiency and Savings	<i>Member States shall adopt and aim to achieve an overall national indicative energy savings target of 9 % for the ninth year of application of this Directive</i>	3-targets given
New substances added to Regulation (EC) No 850/2004	quantifiable	environment	environmental Protection	<i>Annex V to Regulation (EC) No 850/2004 is amended as set out in the Annex to this Regulation.</i>	3-targets given
Incineration or co-incineration with energy recovery shall be with high efficiency.	not quantifiable	environment	Energy Efficiency and Savings	<i>It shall be a condition of any permit covering incineration or co-incineration with energy recovery that the recovery of energy take place with a high level of energy efficiency.</i>	3-targets given
Upper and lower assessment thresholds to shall apply to sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter (PM10 and PM2,5), lead, benzene and carbon monoxide.	quantifiable	environment	environmental Protection	<i>The upper and lower assessment thresholds specified in Section A of Annex II shall apply to sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter (PM10 and PM2,5), lead, benzene and carbon monoxide.</i>	3-targets given

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D1600	1996-2002	2002	No longer in force, Date of end of validity: 21/07/2012	
Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D1600	1996-2002	2002	No longer in force, Date of end of validity: 21/07/2012	
Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D1600	1996-2002	2002	No longer in force, Date of end of validity: 21/07/2012	
Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D1600	1996-2002	2002	No longer in force, Date of end of validity: 21/07/2012	
Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006L0032	2003-2008	2006	No longer in force, Date of end of validity: 04/06/2014; Repealed by 32012L0027	
Council Regulation (EC) No 172/2007 of 16 February 2007 amending Annex V to Regulation (EC) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007R0172	2003-2008	2007	In force	
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1545829289619&uri=CELEX:32008L0098	2003-2008	2008	In force	
Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0050	2003-2008	2008	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Sets GHGs emission targets	quantifiable	environment	Environmental Protection	<i>Each Member State shall, by 2020, limit its greenhouse gas emissions at least by the percentage set for that Member State in Annex II to this Decision in relation to its emissions in 2005.</i>	3-targets given
MS have RES targets in gross final consumption	quantifiable	environment	Renewable Energy	<i>Each Member State shall ensure that the share of energy from renewable sources, calculated in accordance with Articles 5 to 11, in gross final consumption of energy in 2020 is at least its national overall target for the share of energy from renewable sources in that year, as set out in the third column of the table in part A of Annex I. Such mandatory national overall targets are consistent with a target of at least a 20 % share of energy from renewable sources in the Community's gross final consumption of energy in 2020.</i>	3-targets given
MS have RES targets in transport	quantifiable	environment	Renewable Energy	<i>Each Member State shall ensure that the share of energy from renewable sources in all forms of transport in 2020 is at least 10 % of the final consumption of energy in transport in that Member State.</i>	3-targets given
Targets for SOx	quantifiable	environment	Environmental Protection	<i>Emission limit values (mg/Nm³) for SO₂ for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines</i>	3-targets given
Targets for Nox	quantifiable	environment	Environmental Protection	<i>Emission limit values (mg/Nm³) for NO_x for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines</i>	3-targets given
Targets for Nox and CO for gas power plants	quantifiable	environment	Environmental Protection	<i>Emission limit values (mg/Nm³) for NO_x and CO for gas fired combustion plants</i>	3-targets given
Targets for dust	quantifiable	environment	Environmental Protection	<i>Emission limit values (mg/Nm³) for dust for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines</i>	3-targets given

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009D0406	2009-2015	2009	N/A	
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Energy efficiency target of 20%	quantifiable	affordability	Energy Efficiency and Savings	<i>This Directive establishes a common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the Union's 2020 20 % headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date.</i>	3-targets given
MS to ensure a 3% yearly renovation of governmental buildings.	quantifiable	affordability	Energy Efficiency and Savings	<i>Without prejudice to Article 7 of Directive 2010/31/EU, each Member State shall ensure that, as from 1 January 2014, 3 % of the total floor area of heated and/or cooled buildings owned and occupied by its central government is renovated each year to meet at least the minimum energy performance requirements that it has set in application of Article 4 of Directive 2010/31/EU.</i>	3-targets given
MS to create an energy efficiency obligation scheme which has a 1.5% yearly target of new energy savings.	quantifiable	affordability	Energy Efficiency and Savings	<i>That target shall be at least equivalent to achieving new savings each year from 1 January 2014 to 31 December 2020 of 1,5 % of the annual energy sales to final customers of all energy distributors or all retail energy sales companies by volume, averaged over the most recent three-year period prior to 1 January 2013.</i>	3-targets given
Targets for medium pp given fir So2, Nox and dust.	quantifiable	environment	environmental Protection	<i>Emission limit values (mg/Nm3) for existing medium combustion plants with a rated thermal input equal to or greater than 1 MW and less than or equal to 5 MW, other than engines and gas turbines</i>	3-targets given
More stringent environmental targets for gases	quantifiable	environment	environmental Protection	<i>this Directive establishes the emission reduction commitments for the Member States' anthropogenic atmospheric emissions of sulphur dioxide (SO2), nitrogen oxides (NOx), non-methane volatile organic compounds (NMVOC), ammonia (NH3) and fine particulate matter (PM2,5)</i>	3-targets given

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	
Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32015L2193	2009-2015	2015	Not specified	
Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016L2284	2016-2019	2016	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
More stringent environmental targets for GHGs	quantifiable	environment	environmental Protection	<i>Member States shall, as a minimum, limit their annual anthropogenic emissions of sulphur dioxide, nitrogen oxides, non-methane volatile organic compounds, ammonia and fine particulate matter in accordance with the national emission reduction commitments applicable from 2020 to 2029 and from 2030 onwards, as laid down in Annex II.</i>	3-targets given
New energy efficiency targets	quantifiable	internal energy market	Energy Efficiency and Savings	<i>the Union's 2020 headline targets on energy efficiency of 20 % and its 2030 headline targets on energy efficiency of at least 32,5 %</i>	3-targets given
RES target	quantifiable	environment	Renewable Energy	<i>Member States shall collectively ensure that the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 is at least 32 %.</i>	3-targets given
Binding GHGs targets	quantifiable	internal energy market	environmental Protection	<i>for the period from 2021 to 2030 to fulfilling the Union's target of reducing its greenhouse gas emissions by 30 % below 2005 levels in 2030</i>	3-targets given
LULUCF targets	quantifiable	internal energy market	environmental Protection	<i>each Member State shall ensure that emissions do not exceed removals, calculated as the sum of total emissions and total removals on its territory</i>	3-targets given
Reformed EU ETS linear factor	quantifiable	environment	environmental Protection	<i>Starting in 2021, the linear factor shall be 2,2 %</i>	3-targets given
Commission to set up a conciliation body (ENTSO-E)	quantifiable	internal energy market	Internal Energy Markets	<i>Each the entities concerned may request that the conditions of transit be subject to conciliation by a body set up and chaired by the Commission and on which the entities responsible for transmission grids in the Community are represented.</i>	4-new EU body established

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32016L2284	2016-2019	2016	In force	
Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2002	2016-2019	2018	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L2001	2016-2019	2018	In force	
Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R0842	2016-2019	2018	In force	
Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R0841	2016-2019	2018	In force	
Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L0410	2016-2019	2018	In force	
Council Directive 90/547/EEC of 29 October 1990 on the transit of electricity through transmission grids	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497198990867&uri=CELEX:31990L0547	1990-1995	1990	No longer in force, Date of end of validity: 30/06/2004; Repealed by 32003L0054	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
creates national TSOs	not quantifiable	internal energy market	internal Energy Markets	<i>a system operator to be responsible for operating, ensuring the maintenance of, and, if necessary, developing the transmission system in a given area and its interconnectors with other systems, in order to guarantee security of supply.</i>	4-new EU body established
Thermie: Research projects, 1990-1992, 350m ECU	quantifiable	affordability	Research and Development	<i>The Community may, under the conditions laid down in this Regulation, grant financial support for projects for the promotion of energy technology in Europe (Thermie).The fields of application of this Regulation are as follows: - rational use of energy, - renewable energy sources, - solid fuels, - hydrocarbons.</i>	4-finance over 100mEUR/year
Follow-up to ITER: A research and training programme in the field of controlled thermonuclear fusion, ECU 411,84 million, for about 3 years, (1991 to 1994)	quantifiable	affordability	Nuclear Research	<i>A research and training programme [...] in the field of controlled thermonuclear fusion</i>	4-finance over 100mEUR/year
Follow-up to ITER: A research and training programme in the field of controlled thermonuclear fusion, ECU 794 million, including a maximum of 17 % for staff and administrative expenditure.(1994 to 1998)	quantifiable	affordability	Nuclear Research	<i>A research and training programme [...] in the field of controlled thermonuclear fusion</i>	4-finance over 100mEUR/year
Programme of research and training in the field on controlled thermonuclear fusion, 8 December 1994 to 31 December 1998, ECU 794 million	quantifiable	affordability	Nuclear Research	<i>A specific programme of research and training for the European Atomic Energy Community in the field of controlled thermonuclear fusion, as set out in Annex I, is hereby adopted for the period 8 December 1994 to 31 December 1998.</i>	4-finance over 100mEUR/year
A multiannual framework programme of nuclear research and training for the period 1994 to 1998. 1994 to 1996 shall be ECU 617 million and the indicative amount for the period 1997 to 1998 shall be ECU 637 million.	quantifiable	affordability	Nuclear Research	<i>A multiannual framework programme for Community activities in the field of nuclear research and training</i>	4-finance over 100mEUR/year

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996L0092	1996-2002	1996	Repealed by 32003L0054	
Council Regulation (EEC) No 2008/90 of 29 June 1990 concerning the promotion of energy technology in Europe (THERMIE programme)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1524407544592&uri=CELEX:31990R2008	1990-1995	1990	No longer in force, Date of end of validity: 31/12/1994	
91/678/Euratom: Council Decision of 19 December 1991 adopting a research and training programme in the field of controlled thermonuclear fusion (1991 to 1994)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31991D0678	1990-1995	1991	No longer in force, Date of end of validity: 31/12/1994	
94/806/EC: Council Decision of 23 November 1994 adopting a specific programme for research and technological development, including demonstration, in the field of non-nuclear energy (1994 to 1998)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525635412486&uri=CELEX:31994D0799	1990-1995	1994	No longer in force, Date of end of validity: 31/12/1998	
94/799/Euratom: Council Decision of 8 December 1994 adopting a specific programme of research and training in the field of controlled thermonuclear fusion (1994 to 1998)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1534684365575&uri=CELEX:31994D0799	1990-1995	1994	No longer in force, Date of end of validity: 31/12/1998	
94/268/Euratom: Council Decision of 26 April 1994 concerning a framework programme of Community activities in the field of research and training for the European Atomic Energy Community (1994 to 1998)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525635412486&uri=CELEX:31994D0268	1990-1995	1994	No longer in force, Date of end of validity: 31/12/1998	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Follow-up to JOULE: Research programme in the field of energy, non-nuclear, ECU 967 million, including a maximum of 5,0 % for the Commission's staff and administrative expenditure. (1994 to 1998)	quantifiable	affordability	Research and Development	<i>A specific programme, covering both the research and technological development phase and the demonstration phase in the field of non-nuclear energy, as set out in Annex I, is hereby adopted for the period from the date of adoption of this Decision to 31 December 1998.</i>	4-finance over 100mEUR/year
The multiannual framework programme of nuclear research and training is continued for 1998-2002 (5 years). ECU 1 260: ECU 788 million for controlled thermonuclear fusion and ECU 281 million for the JRC.	quantifiable	affordability	Nuclear Research	<i>A multiannual framework programme for all research activities, including demonstration activities, and training activities in the field of nuclear energy, hereinafter referred to as the 'fifth framework programme', is hereby adopted for the period 1998 to 2002.</i>	4-finance over 100mEUR/year
Continuation to LIFE programme, 640m EUR, from 2000 to 2004 (5 years)	quantifiable	environment	Environmental Protection	<i>The financial framework for the implementation of the third phase for the period 2000 to 2004 is hereby set at EUR 640 million.</i>	4-finance over 100mEUR/year
the sixth framework programme for nuclear energy for the period 2002 to 2006 shall be EUR 1230 million	quantifiable	affordability	Nuclear Research	<i>A multi-annual framework programme for nuclear research and training activities, hereinafter referred to as the "sixth framework programme", is hereby adopted for the period 2002 to 2006.</i>	4-finance over 100mEUR/year
specific programme for research and training on nuclear energy, from 30 September 2002 to 31 December 2006, EUR 940 million (2002-2006)	quantifiable	affordability	Nuclear Research	<i>a specific programme for research and training on nuclear energy (hereinafter referred to as "the specific programme") is hereby adopted for the period from 30 September 2002 to 31 December 2006.</i>	4-finance over 100mEUR/year
Increases funding for nuclear energy following 2004 EU expansion	quantifiable	affordability	Nuclear Research	<i>The financial reference amount for the implementation of the sixth framework programme for the period 2002 to 2006 shall be EUR 1352 million. The proportion assigned to each of the activities is fixed in Annex II.</i>	4-finance over 100mEUR/year
LIFE programme extended by two years until 31 December 2006, EUR 317,2 million	quantifiable	environment	Environmental Protection	<i>The third phase shall be extended by two years until 31 December 2006. The financial framework for the implementation of this Regulation is hereby set at EUR 317,2 million.</i>	4-finance over 100mEUR/year

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
94/806/EC: Council Decision of 23 November 1994 adopting a specific programme for research and technological development, including demonstration, in the field of non-nuclear energy (1994 to 1998)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525635412486&uri=CELEX:31994D0806	1990-1995	1994	[theoretically ending in 1998]	
1999/64/Euratom: Council Decision of 22 December 1998 concerning the Fifth Framework Programme of the European Atomic Energy Community (Euratom) for research and training activities (1998 to 2002)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31999D0064	1996-2002	1998	No longer in force, Date of end of validity: 31/12/2002	
Regulation (EC) No 1655/2000 of the European Parliament and of the Council of 17 July 2000 concerning the Financial Instrument for the Environment (LIFE)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32000R1655	1996-2002	2000	No longer in force, Date of end of validity: 31/12/2006; Repealed by 32007R0614	
2002/668/Euratom: Council Decision of 3 June 2002 concerning the sixth framework programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities, also contributing to the creation of the European Research Area (2002 to 2006)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D0668	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2006	
2002/837/Euratom: Council Decision of 30 September 2002 adopting a specific programme (Euratom) for research and training on nuclear energy (2002–2006)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D0837	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2006	
2004/444/Euratom: Council Decision of 26 April 2004 amending Decision 2002/668/Euratom to adapt the financial reference amount in order to take account of the enlargement of the European Union	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004D0444	2003-2008	2004	No longer in force, Date of end of validity: 31/12/2006	
Regulation (EC) No 1682/2004 of the European Parliament and of the Council of 15 September 2004 amending Regulation (EC) No 1655/2000 concerning the Financial Instrument for the Environment (LIFE)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004R1682	2003-2008	2004	No longer in force, Date of end of validity: 11/06/2007	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
the Seventh Framework Programme, EUR 2751 million, 2007-2011	quantifiable	affordability	Nuclear Research	<i>A multiannual framework programme for nuclear research and training activities, hereinafter referred to as the "Seventh Framework Programme", is hereby adopted for the period from 1 January 2007 to 31 December 2011.</i>	4-finance over 100mEUR/year
Ignalina, Lithuania, decommissioning, 1 January 2007 to 31 December 2013, EUR 837 million	quantifiable	environment	Nuclear Energy	<i>The Ignalina Programme shall cover, inter alia, measures to support the decommissioning of the Ignalina nuclear power plant without deterioration of nuclear safety</i>	4-finance over 100mEUR/year
the Seventh Framework Programme, EUR 2751 million, 2007-2011	quantifiable	affordability	Nuclear Research	<i>A multiannual framework programme for nuclear research and training activities, hereinafter referred to as the 'Seventh Framework Programme', is hereby adopted for the period from 1 January 2007 to 31 December 2011.</i>	4-finance over 100mEUR/year
LIFE+, on 1 January 2007 and ending on 31 December 2013, EUR 2 143 409 000	quantifiable	environment	Environmental Protection	<i>This Regulation establishes a financial instrument for the environment ('LIFE+'). This Regulation shall be implemented during the period beginning on 1 January 2007 and ending on 31 December 2013. The financial envelope for the implementation of LIFE+ shall be set at EUR 2 143 409 000 for the period from 1 January 2007 to 31 December 2013.</i>	4-finance over 100mEUR/year

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2006/970/Euratom: Council Decision of 18 December 2006 Concerning the Seventh Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0970	2003-2008	2006	No longer in force, Date of end of validity: 31/12/2013 ; Repealed by 32013R1314	
Council Regulation (EC) No 1990/2006 of 21 December 2006 on the implementation of Protocol 4 on the Ignalina nuclear power plant in Lithuania to the Act of Accession of the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia Ignalina Programme	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006R1990	2003-2008	2006	No longer in force, Date of end of validity: 31/12/2013 ; Repealed by 32013R1369	
2006/969/EC: Council Decision of 18 December 2006 concerning the Seventh Framework Programme of the European Atomic Energy Community (Euratom) or nuclear research and training activities (2007 to 2011)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006D0969	2003-2008	2006	No longer in force, Date of end of validity: 18/12/2006	
Regulation (EC) No 614/2007 of the European Parliament and of the Council of 23 May 2007 concerning the Financial Instrument for the Environment (LIFE+) - Commission statement	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007R0614	2003-2008	2007	No longer in force, Date of end of validity: 31/12/2013 ; Repealed by 32013R1293	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Nuclear research, EUR 2 560 270 000, 2 years	quantifiable	affordability	Nuclear Research	<p><i>A multiannual framework programme for nuclear research and training activities (hereinafter the 'Framework Programme'), is adopted for the period from 1 January 2012 to 31 December 2013. The maximum amount for the implementation of the Framework Programme shall be EUR 2 560 270 000. This amount shall be distributed as follows:</i></p> <p><i>(a)</i> <i>for the specific programme, referred to in Article 2(3), to be carried out by means of indirect actions:</i></p> <p>— <i>fusion energy research</i> <i>EUR 2 208 809 000 (10),</i></p> <p>— <i>nuclear fission, safety, and radiation protection</i> <i>EUR 118 245 000;</i></p> <p><i>(b)</i> <i>for the specific programme, referred to in Article 2(4), to be carried out by means of direct actions:</i></p> <p>— <i>nuclear activities of the JRC</i></p>	4-finance over 100mEUR/year
Programme for nuclear research and training activities, from 1 January 2014 to 31 December 2018. EUR 1 603 329 000 - 315 535 000 for environment protection	quantifiable	affordability	Nuclear Research	<p><i>This Regulation establishes the Research and Training Programme of the European Atomic Energy Community for the period from 1 January 2014 to 31 December 2018. 1. The financial envelope for the implementation of the Euratom Programme shall be EUR 1 603 329 000. That amount shall be distributed as follows: (a) indirect actions for the fusion research and development programme, EUR 728 232 000;</i></p>	4-finance over 100mEUR/year
ITER and Fusion Energy programme expanded, 2014- 2020, EUR 2 915 015 000	quantifiable	affordability	Nuclear Research	<p><i>The Euratom contribution to the Joint Undertaking for the 2014-2020 period is set at EUR 2 915 015 000 (in current values).</i></p>	4-finance over 100mEUR/year

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
2012/93/Euratom: Council Decision of 19 December 2011 concerning the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012 to 2013)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32012D0093	2009-2015	2011	No longer in force. Date of end of validity: 31/12/2013; Repealed by 32013R1314	
Council Regulation (Euratom) No 1314/2013 of 16 December 2013 on the Research and Training Programme of the European Atomic Energy Community (2014-2018) complementing the Horizon 2020 Framework Programme for Research and Innovation	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013R1314	2009-2015	2013	In force	
2013/791/Euratom: Council Decision of 13 December 2013 amending Decision 2007/198/Euratom establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541339508124&uri=CELEX:32013D0791	2009-2015	2013	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to set GHGs national inventory systems	not quantifiable	environment	environmental Protection	<i>Member States shall establish, operate and seek to continuously improve national inventory systems, in accordance with UNFCCC requirements on national systems, to estimate anthropogenic emissions by sources and removals by sinks of greenhouse gases listed in Annex I to this Regulation and to ensure the timeliness, transparency, accuracy, consistency, comparability and completeness of their greenhouse gas inventories.</i>	3-important development
2019–2020 Programme shall be EUR 770 220 000	quantifiable	affordability	Nuclear Research	<i>The financial envelope for the implementation of the 2019–2020 Programme shall be EUR 770 220 000. That amount shall be distributed as follows:</i>	4-finance over 100mEUR/year
European Energy Programme for Recovery (the EEPR), gas and electricity infrastructure projects: EUR 2 365 000 000, 2009-2010	quantifiable	internal energy market	Internal Energy Markets	<i>This Regulation establishes a financing instrument entitled the European Energy Programme for Recovery (the EEPR) for the development of projects in the field of energy in the Community which, by providing a financial stimulus, contribute to economic recovery, the security of energy supply and the reduction of greenhouse gas emissions.</i>	4-finance over 100mEUR/year
European Energy Programme for Recovery (the EEPR), offshore wind energy projects: EUR 565 000 000, 2009-2010; carbon capture and storage projects: EUR 1 050 000 000.	quantifiable	environment	Renewable Energy	<i>This Regulation establishes a financing instrument entitled the European Energy Programme for Recovery (the EEPR) for the development of projects in the field of energy in the Community which, by providing a financial stimulus, contribute to economic recovery, the security of energy supply and the reduction of greenhouse gas emissions.</i>	4-finance over 100mEUR/year
MS to facilitate transit of electricity	not quantifiable	affordability	Internal Energy Markets	<i>Member States “shall take the measures necessary to facilitate transit of electricity”</i>	4-major development
The UNFCCC is signed, accepting GHGs as pollutants	not quantifiable	environment	Environmental Protection	<i>The United Nations Framework Convention on Climate Change signed in June 1992 in Rio de Janeiro is hereby approved on behalf of the European Community.</i>	4-major development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541450980141&uri=CELEX:32013R0525	2009-2015	2013	In force	
Council Regulation (Euratom) 2018/1563 of 15 October 2018 on the Research and Training Programme of the European Atomic Energy Community (2019–2020) complementing the Horizon 2020 Framework Programme for Research and Innovation, and repealing Regulation (Euratom) No 1314/2013	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1563	2016-2019	2018	In force	
Regulation (EC) No 663/2009 of the European Parliament and of the Council of 13 July 2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0663	2009-2015	2009	In force	
Regulation (EC) No 663/2009 of the European Parliament and of the Council of 13 July 2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0663	2009-2015	2009	In force	
Council Directive 90/547/EEC of 29 October 1990 on the transit of electricity through transmission grids	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1497198990867&uri=CELEX:31990L0547	1990-1995	1990	No longer in force, Date of end of validity: 30/06/2004; Repealed by 32003L0054	
94/69/EC: Council Decision of 15 December 1993 concerning the conclusion of the United Nations Framework Convention on Climate Change	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31994D0069	1990-1995	1993	In force	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
A monitoring mechanism is established for anthropogenic CO ₂ and other greenhouse gas emissions	quantifiable	environment	Environmental Protection	<i>A monitoring mechanism is hereby established for anthropogenic CO₂ and other greenhouse gas emissions not controlled by the Montreal Protocol in the Member States.</i>	4-major development
EEC intends closer control of emissions of nitrogen oxides	not quantifiable	environment	Environmental Protection	<i>The European Economic Community hereby accedes to the Protocol to the 1979 Convention on long-range transboundary air pollution concerning the control of emissions of nitrogen oxides or their transboundary fluxes.</i>	4-major development
unbundling of power companies	not quantifiable	affordability	Energy Efficiency and Savings	<i>Integrated electricity undertakings shall, in their internal accounting, keep separate accounts for their generation, transmission and distribution activities</i>	4-major development
MS obliged to open electricity market to 40 GWh consumers and then smaller and smaller consumers	quantifiable	affordability	Energy Efficiency and Savings	<i>Member States shall take the necessary measures to ensure an opening of their electricity markets. The share of the national market referred to in paragraph 1 will be increased progressively over a period of six years. This increase will be calculated by reducing the Community consumption threshold of 40 GWh, referred to in paragraph 1 from 40 GWh to a level of 20 GWh annual electricity consumption three years after the entry into force of this Directive and to a level of 9 GWh annual electricity consumption six years after the entry into force of this Directive.</i>	4-major development
Unbundling of gas companies; gas power plants have a right of access to the system	not quantifiable	internal energy market	Internal Energy Markets	<i>This Directive establishes common rules for the transmission, distribution, supply and storage of natural gas. [...] Integrated natural gas undertakings shall, in their internal accounting, keep separate accounts for their natural gas transmission, distribution and storage activities, and, where appropriate, consolidated accounts for non-gas activities,</i>	4-major development
Multiannual framework: Six specific programmes of a horizontal or thematic nature, ECU 170 million, for 1998-2002 (5 years)	quantifiable	environment	Research and Development	<i>A multiannual framework programme for Community actions in the field of energy, hereinafter referred to as the 'framework programme', is hereby adopted for the period 1998-2002.</i>	4-major development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
93/389/EEC: Council Decision of 24 June 1993 for a monitoring mechanism of Community CO2 and other greenhouse gas emissions	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31993D0389	1990-1995	1993	Undetermined	
93/361/EEC: Council Decision of 17 May 1993 on the accession of the Community to the Protocol to the 1979 Geneva Convention on long-range transboundary air pollution concerning the control of emissions of nitrogen oxides or their transboundary fluxes	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1525462122903&uri=CELEX:31993D0361	1990-1995	1993	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996L0092	1996-2002	1996	Repealed by 32003L0054	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996L0092	1996-2002	1996	Repealed by 32003L0054	
Directive 98/30/EC of the European Parliament and of the Council of 22 June 1998 concerning common rules for the internal market in natural gas	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31998L0030	1996-2002	1998	No longer in force, Date of end of validity: 30/06/2004; Repealed by 32003L0055	
1999/21/EC, Euratom: Council Decision of 14 December 1998 adopting a multiannual framework programme for actions in the energy sector (1998-2002) and connected measures	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31999D0021	1996-2002	1998	None (likely 2002)	

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
National Emission Ceilings (NEC) Directive	not quantifiable	environment	Environmental Protection	<i>limit emissions of acidifying and eutrophying pollutants and ozone precursors in order to improve the protection in the Community of the environment and human health</i>	4-major development
promote an increase in the contribution of renewable energy sources to electricity production in the internal market for electricity and to create a basis for a future Community framework thereof.	not quantifiable	environment	Renewable Energy	<i>promote an increase in the contribution of renewable energy sources to electricity production in the internal market for electricity and to create a basis for a future Community framework thereof.</i>	4-major development
Aid to the coal industry may be considered compatible with the proper functioning of the common market, under certain conditions.	not quantifiable	security of supply	Security of Energy Supply	<i>lays down rules for the granting of State aid to the coal industry with the aim of contributing to the restructuring of the coal industry</i>	4-major development
EU common rules on the gas market	not quantifiable	internal energy market	Internal Energy Markets	<i>This Directive establishes common rules for the transmission, distribution, supply and storage of natural gas.</i>	4-major development
Unbundling of transmission and distribution from operators	not quantifiable	affordability	Energy Efficiency and Savings	<i>Where the transmission system operator is part of a vertically integrated undertaking, it shall be independent at least in terms of its legal form, organisation and decision making from other activities not relating to transmission.</i>	4-major development
EU common rules on the electricity market	not quantifiable	internal energy market	internal Energy Markets	<i>This Directive establishes common rules for the generation, transmission, distribution and supply of electricity.</i>	4-major development
Unbundling of transmission and distribution from operators	not quantifiable	affordability	Internal Energy Markets	<i>1. Where the transmission system operator is part of a vertically integrated undertaking, it shall be independent at least in terms of its legal form, organisation and decision making from other activities not relating to transmission. 2. Where the distribution system operator is part of a vertically integrated undertaking, it shall be independent at least in terms of its legal form, organisation and decision making from other activities not relating to distribution.</i>	4-major development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535289976329&uri=CELEX:32001L0081	1996-2002	2001	In force	
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0077	1996-2002	2001	No longer in force, Date of end of validity: 31/12/2011; Repealed by 32009L0028	
Council Regulation (EC) No 1407/2002 of 23 July 2002 on State aid to the coal industry	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002R1407	1996-2002	2002	No longer in force, Date of end of validity: 31/12/2010	
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0055	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0073	
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	repealing Directive 2008/92/EC
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	repealing Directive 2008/92/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
EU common regulations on the electricity cross-border transfers	not quantifiable	internal energy market	Internal Energy Markets	<i>This Regulation aims at setting fair rules for cross-border exchanges in electricity, thus enhancing competition within the internal electricity market, taking into account the specificities of national and regional markets.</i>	4-major development
MS have to create and accept high-efficiency cogeneration guarantees of origin	not quantifiable	internal energy market	Energy Efficiency and Savings	<i>Guarantee of origin of electricity from high-efficiency cogeneration</i>	4-major development
Non-discriminatory rules for access conditions to natural gas transmission systems	not quantifiable	affordability	Internal Energy Markets	<i>This Regulation aims at setting non-discriminatory rules for access conditions to natural gas transmission systems taking into account the specificities of national and regional markets with a view to ensuring the proper functioning of the internal gas market.</i>	4-major development
MS shall not discriminate between national and cross-border contracts	not quantifiable	internal energy market	Security of Energy Supply	<i>Member States shall not discriminate between cross-border contracts and national contracts.</i>	4-major development
Environmental penalty is criminal law	not quantifiable	environment	Environmental Protection	<i>This Directive establishes measures relating to criminal law in order to protect the environment more effectively.</i>	4-major development
Unbundling of transmission systems and transmission system operators	not quantifiable	affordability	Energy Efficiency and Savings	<i>Unbundling of transmission systems and transmission system operators</i>	4-major development
Unbundling of distribution system operators	not quantifiable	affordability	Energy Efficiency and Savings	<i>Unbundling of distribution system operators</i>	4-major development
EU network codes established	not quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall request the ENTSO for Electricity to submit a network code which is in line with the relevant framework guideline, to the Agency within a reasonable period of time not exceeding 12 months.</i>	4-major development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003R1228	2003-2008	2003	No longer in force. Date of end of validity: 02/03/2011; Repealed by 32009R0714	
Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32004L0008	2003-2008	2004	No longer in force. Date of end of validity: 04/06/2014; Repealed by 32012L0027	
Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005R1775	2003-2008	2005	No longer in force. Date of end of validity: 02/03/2011; Repealed by 32009R0715	amending Directive 2003/35/EC and repealing Directive 2001/81/EC
Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005L0089	2003-2008	2006	In force	amending Directive 2003/35/EC and repealing Directive 2001/81/EC
Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0099	2003-2008	2008	In force	amending Directive 2003/35/EC and repealing Directive 2001/81/EC
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	amending Directive 2003/35/EC and repealing Directive 2001/81/EC
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	amending Directive 2003/35/EC and repealing Directive 2001/81/EC
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	Amending Regulation (EU) No 421/2014

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Network codes for gas established.	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall request the ENTSO for Gas to submit a network code which is in line with the relevant framework guideline, to the Agency within a reasonable period of time not exceeding 12 months.</i>	4-major development
Unbundling of transmission systems and transmission system operators	not quantifiable	affordability	Energy Efficiency and Savings	<i>Unbundling of transmission systems and transmission system operators</i>	4-major development
Unbundling of transmission system owners and storage system operators	not quantifiable	affordability	Energy Efficiency and Savings	<i>Unbundling of transmission system owners and storage system operators</i>	4-major development
Unbundling of distribution system operators	not quantifiable	affordability	Energy Efficiency and Savings	<i>Unbundling of distribution system operators</i>	4-major development
Guarantees of origin are introduced	not quantifiable	environment	Environmental Protection	<i>To that end, Member States shall ensure that a guarantee of origin is issued in response to a request from a producer of electricity from renewable energy sources.</i>	4-major development
CCS Directive - CCS permits	not quantifiable	environment	Environmental Protection	<i>This Directive shall apply to the geological storage of CO2 in the territory of the Member States, their exclusive economic zones and on their continental shelves within the meaning of the United Nations Convention on the Law of the Sea (Unclos). Member States shall ensure that no storage site is operated without a storage permit, that there shall be only one operator for each storage site, and that no conflicting uses are permitted on the site.</i>	4-major development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force	repealing Regulation (EU) No 994/2010
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	repealing Regulation (EU) No 994/2010
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	repealing Regulation (EU) No 994/2010
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	repealing Regulation (EU) No 994/2010
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 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0028	2009-2015	2009	In force	repealing Regulation (EU) No 994/2010
Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006 (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0031	2009-2015	2009	In force	repealing Regulation (EU) No 994/2010

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Stronger EU ETS commitment	quantifiable	environment	environmental Protection	<i>The Community-wide quantity of allowances issued each year starting in 2013 shall decrease in a linear manner beginning from the mid-point of the period from 2008 to 2012. The quantity shall decrease by a linear factor of 1,74 % compared to the average annual total quantity of allowances issued by Member States in accordance with the Commission Decisions on their national allocation plans for the period from 2008 to 2012.</i>	4-major development
Auctioning of allowances in EU ETS	not quantifiable	environment	environmental Protection	<i>From 2013 onwards, Member States shall auction all allowances which are not allocated free of charge in accordance with Article 10a and 10c. By 31 December 2010, the Commission shall determine and publish the estimated amount of allowances to be auctioned.</i>	4-major development
EU ETS Carbon leakage list	quantifiable	affordability	Environmental Protection	<i>By 30 June 2010, the Commission shall, in the light of the outcome of the international negotiations and the extent to which these lead to global greenhouse gas emission reductions, and after consulting with all relevant social partners, submit to the European Parliament and to the Council an analytical report assessing the situation with regard to energy-intensive sectors or subsectors that have been determined to be exposed to significant risks of carbon leakage. This shall be accompanied by any appropriate proposals, which may include:</i>	4-major development
Coal aid has to be consistent with the decision.	not quantifiable	affordability	Energy Efficiency and Savings	<i>In the context of closure of uncompetitive mines, aid to the coal industry may be considered compatible with the proper functioning of the internal market if it complies with the provisions of this Decision.</i>	4-major development
All coal aid for mines has to end by 2018	quantifiable	affordability	Security of Energy Supply	<i>the operation of the coal production units concerned must form part of a closure plan the deadline of which does not extend beyond 31 December 2018</i>	4-major development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0029	2009-2015	2009	In force	repealing Regulation (EU) No 994/2010
Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0029	2009-2015	2009	In force	repealing Regulation (EU) No 994/2010
Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0029	2009-2015	2009	In force	repealing Decision No 994/2012/EU
2010/787/EU: Council Decision of 10 December 2010 on State aid to facilitate the closure of uncompetitive coal mines	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010D0787	2009-2015	2010	In force	repealing Decision No 994/2012/EU
2010/787/EU: Council Decision of 10 December 2010 on State aid to facilitate the closure of uncompetitive coal mines	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010D0787	2009-2015	2010	In force	repealing Decision No 994/2012/EU

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Gas TSOs to find bi-directional cross-border solutions	not quantifiable	security of supply	Security of Energy Supply	<p><i>For each cross-border interconnection between Member States, except for those exempted under Article 6(5)(a) and except where bi-directional capacity already exists or is under construction and no enhancement has been requested by one or more Member States for security of supply reasons, transmission system operators shall, not later than 3 March 2012, submit to their Member States or, where Member States so provide, their Competent Authorities or their regulatory authorities (together referred to in this Article as the 'authorities concerned'), after consulting with all other transmission system operators concerned:</i></p> <p><i>(a)</i> <i>a proposal for bi-directional capacity concerning the reverse direction (reverse flow capacity); or</i></p> <p><i>(b)</i> <i>a request for an exemption from the obligation to enable bi-directional capacity.</i></p>	4-major development
Industrial installations, including energy, must have a permit for operating under certain pollutants limits, except for GHGs.	quantifiable	environment	Environmental Protection	<p><i>Member States shall take the necessary measures to ensure that no installation or combustion plant, waste incineration plant or waste co-incineration plant is operated without a permit. [...] Where emissions of a greenhouse gas from an installation are specified in Annex I to Directive 2003/87/EC in relation to an activity carried out in that installation, the permit shall not include an emission limit value for direct emissions of that gas, unless necessary to ensure that no significant local pollution is caused.</i></p>	4-major development
MS to have environmental impact assessments	not quantifiable	environment	Environmental Protection	<p><i>The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors:</i></p>	4-major development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	repealing Decision No 994/2012/EU
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	Extension of Council Implementing Decision 2012/47/EU
Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32011L0092	2009-2015	2011	In force	Not mentioned, but direct continuation of 2012/709/Euratom, 2016 missing because of negotiations.

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS to give own energy efficiency targets	quantifiable	internal energy market	Energy Efficiency and Savings	<i>Each Member State shall set an indicative national energy efficiency target, based on either primary or final energy consumption, primary or final energy savings, or energy intensity.</i>	4-major development
No MS may sign an energy agreement without the accord of all other MS.	not quantifiable	internal energy market	Internal Energy Markets	<i>The Member State shall not sign, ratify or agree to the draft intergovernmental agreement or amendment until the Commission has informed the Member State of any doubts, in accordance with paragraph 1, or, where applicable, has issued its opinion in accordance with paragraph 2, or, in the absence of a response or opinion from the Commission, until the period referred to in paragraph 1 or, where applicable, that referred to in paragraph 2, has elapsed.</i>	4-major development
Creates the framework for the Paris Agreement implementation	not quantifiable	internal energy market	environmental Protection	<i>ensures the achievement of the 2030 and long-term objectives and targets of the Energy Union in line with the 2015 Paris Agreement</i>	4-major development
Market Stability Reserve changes	quantifiable	environment	environmental Protection	<i>From 2019 onwards, Member States shall auction all allowances that are not allocated free of charge in accordance with Articles 10a and 10c of this Directive and that are not placed in the market stability reserve established by Decision (EU) 2015/1814 of the European Parliament and of the Council (*2) (the "market stability reserve") or cancelled in accordance with Article 12(4) of this Directive.</i>	4-major development

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	Update of Regulation (EU) No 421/2014
Decision (EU) 2017/684 of the European Parliament and of the Council of 5 April 2017 on establishing an information exchange mechanism with regard to intergovernmental agreements and non-binding instruments between Member States and third countries in the field of energy, and repealing Decision No 994/2012/EU	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017D0684	2016-2019	2017	In force	Linked with Directive 2003/87/EC
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	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018R1999	2016-2019	2018	In force	Linked with Council Decision 2003/507/EC
Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32018L0410	2016-2019	2018	In force	Linked with Council Decision (EU) 2017/939 (not in Energy or Environment)

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Council sets emission limits for environmental permits in order for power plants to operate	not quantifiable	environment	Environmental Protection	<i>Member States shall take the necessary measures to ensure that no new installation is operated without a permit issued in accordance with this Directive. Acting on a proposal from the Commission, the Council will set emission limit values, in accordance with the procedures laid down in the Treaty, for:</i> <i>- the categories of installations listed in Annex I except for the landfills covered by categories 5.1 and 5.4 of that Annex,</i>	4-major expansion of duties
Energy projects need a development consent, including an environmental impact assessment.	not quantifiable	environment	Environmental Protection	<i>Member States shall adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects.</i>	4-major expansion of duties
EU approves the Kyoto Protocol	not quantifiable	environment	Environmental Protection	<i>The Kyoto Protocol to the United Nations Framework Convention on Climate Change ("the Protocol") signed on 29 April 1998 in New York is hereby approved on behalf of the European Community.</i>	4-major expansion of duties
Commission may block the measures.	not quantifiable	security of supply	Internal Energy Markets	<i>The Member State concerned shall without delay notify these measures to the other Member States, and to the Commission,</i>	4-major expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526839033880&uri=CELEX:31996L0061	1996-2002	1996	No longer in force, Date of end of validity: 17/02/2008; Repealed by 32008L0001	Many links
Council Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1526925209782&uri=CELEX:31997L0011	1996-2002	1997	No longer in force, Date of end of validity: 16/02/2012; Repealed by 32011L0092	Many links
2002/358/EC: Council Decision of 25 April 2002 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537714397886&uri=CELEX:32002D0358	1996-2002	2002	In force	Many links
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	Many links

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
MS may ask derogations from Commission for the Directive	not quantifiable	internal energy market	Security of Energy Supply	<i>Member States which can demonstrate, after the Directive has been brought into force, that there are substantial problems for the operation of their small isolated systems, may apply for derogations from the relevant provisions of Chapters IV, V, VI, VII, as well as Chapter III, in the case of micro isolated systems, as far as refurbishing, upgrading and expansion of existing capacity are concerned, which may be granted to them by the Commission; carried out in a Member State - which gives rise to fully effective, non-discriminatory and unhindered network access - the Commission concludes that certain obligations imposed by this Directive on undertakings (including those with respect to legal unbundling for distribution system operators) are not proportionate to the objective pursued, the Member State in question may submit a request to the Commission for exemption from the requirement in question.</i>	4-major expansion of duties
Commission may block exemptions for new interconnectors	not quantifiable	internal energy market	Internal Energy Markets	<i>Within two months after receiving a notification, the Commission may request that the regulatory authority or the Member State concerned amend or withdraw the decision to grant an exemption. The two months period may be extended by one additional month where additional information is sought by the Commission.</i>	4-major expansion of duties
Commission may impose duties to undertakings which don't provide information	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may by decision impose on undertakings fines not exceeding 1 % of the total turnover in the preceding business year where, intentionally or negligently, they supply incorrect, incomplete or misleading information in response to a request made pursuant to Article 10(3) or fail to supply information within the time-limit fixed by a decision adopted pursuant to the first subparagraph of Article 10(5).</i>	4-major expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0054	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009L0072	Many links
Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003R1228	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009R0714	Many links
Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003R1228	2003-2008	2003	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009R0714	Many links

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission may allow derogations	not quantifiable	internal energy market	Internal Energy Markets	<i>Member States which have been granted derogations under Article 28 of Directive 2003/55/EC may apply to the Commission for a temporary derogation from the application of this Regulation, for a period of up to two years from the date at which the derogation referred to in this point expires;</i>	4-major expansion of duties
Commission to develop benchmarks by 2008	quantifiable	internal energy market	Energy Efficiency and Savings	<i>Not later than 30 June 2008, the Commission, in accordance with the procedure set out in Article 16(2), shall develop a set of harmonised energy efficiency indicators and benchmarks</i>	4-major expansion of duties
Commission to review pollutant limits	quantifiable	environment	environmental Protection	<i>In 2013 the Commission shall review the provisions related to PM_{2,5} and, as appropriate, other pollutants, and shall present a proposal to the European Parliament and the Council.</i>	4-major expansion of duties
Commission may intervene where a customer is refused contract from another MS	not quantifiable	internal energy market	Internal Energy Markets	<i>where transactions as described in point (a) are refused because the customer is eligible in only one of the two systems, the Commission may, taking into account the situation in the market and the common interest, oblige the refusing party to execute the requested supply at the request of the Member State where the eligible customer is located.</i>	4-major expansion of duties
Commission as arbiter between national authorities	not quantifiable	internal energy market	Internal Energy Markets	<i>Any regulatory authority and the Commission may request the opinion of the Agency on the compliance of a decision taken by a regulatory authority with the Guidelines referred to in this Directive or in Regulation (EC) No 714/2009. The regulatory authority shall comply with the Commission decision to withdraw their decision within a period of two months and shall inform the Commission accordingly.</i>	4-major expansion of duties
Commission may decide that MS concerned must amend or abolish such measures	not quantifiable	internal energy market	Security of Energy Supply	<i>The Member State concerned shall, without delay, notify those measures to the other Member States, and to the Commission, which may decide that the Member State concerned must amend or abolish such measures, insofar as they distort competition and adversely affect trade in a manner which is at variance with the common interest.</i>	4-major expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32005R1775	2003-2008	2005	No longer in force, Date of end of validity: 02/03/2011; Repealed by 32009R0715	Many links
Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538233052726&uri=CELEX:32006L0032	2003-2008	2006	No longer in force, Date of end of validity: 04/06/2014; Repealed by 32012L0027	Many links
Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32008L0050	2003-2008	2008	In force	Many links
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	Amending Directive 2012/27/EU
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0072	2009-2015	2009	In force	Amending Directive 2012/27/EU
Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1370057743188&uri=CELEX:32009L0072	2009-2015	2009	In force (repeals Directive 2003/54/EC)	Amending Directive 2012/27/EU

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to examine certifications of TSOs.	not quantifiable	internal energy market	Internal Energy Markets	<i>The Commission shall examine any notification of a decision on the certification of a transmission system operator as laid down in Article 10(6) of Directive 2009/72/EC as soon as it is received. Within two months of the day of receipt of such notification, the Commission shall deliver its opinion to the relevant national regulatory authority as to its compatibility with Article 10(2) or Article 11, and Article 9 of Directive 2009/72/EC. Within two months of receiving an opinion of the Commission, the national regulatory authority shall adopt its final decision regarding the certification of the transmission system operator, taking the utmost account of that opinion. The regulatory authority's decision and the Commission's opinion shall be published together.</i>	4-major expansion of duties
Commission may amend network codes	not quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt, taking account of the Agency's proposals, amendments to any network code adopted under Article 6.</i>	4-major expansion of duties
Commission to set costs for cross-border flows.	not quantifiable	internal energy market	Internal Energy Markets	<i>Transmission system operators shall receive compensation for costs incurred as a result of hosting cross-border flows of electricity on their networks. The Commission shall decide on the amounts of compensation payments payable.</i>	4-major expansion of duties
Commission to approve exemptions to interconnectors from cross-border flows compensation	not quantifiable	internal energy market	Internal Energy Markets	<i>The notifying bodies shall comply with a Commission decision to amend or withdraw the exemption decision within one month and shall inform the Commission accordingly.</i>	4-major expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	Amending Directive 2012/27/EU
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	Repealing Regulation (Euratom) No 1314/2013
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	Regulation (EU) No 256/2014 is repealed.
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	Updates Directive 2009/28/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission may adopt gas network codes.	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt, on its own initiative where the ENTSO for Gas has failed to develop a network code, or the Agency has failed to develop a draft network code as referred to in paragraph 10 of this Article, or upon recommendation of the Agency under paragraph 9 of this Article, one or more network codes in the areas listed in Article 8(6).</i>	4-major expansion of duties
Commission may amend network codes	not quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may adopt, taking account of the Agency's proposals, amendments to any network code adopted under Article 6. Those measures, designed to amend non-essential elements of this Regulation by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 28(2).</i>	4-major expansion of duties
Commission may amend/withdraw a decision of a national authority to grant an exemption on new gas infrastructure	not quantifiable	internal energy market	Internal Energy Markets	<i>Within a period of two months from the day following the receipt of a notification, the Commission may take a decision requiring the regulatory authority to amend or withdraw the decision to grant an exemption.</i>	4-major expansion of duties
Commission may intervene where a customer is refused contract from another MS	not quantifiable	internal energy market	Internal Energy Markets	<i>where transactions as described in point (a) are refused because the customer is eligible in only one of the two systems, the Commission may, taking into account the situation in the market and the common interest, oblige the refusing party to execute the requested supply, at the request of one of the Member States of the two systems.</i>	4-major expansion of duties
Commission as arbiter between national authorities	not quantifiable	internal energy market	Internal Energy Markets	<i>The regulatory authority shall comply with the Commission decision to withdraw its decision within a period of two months and shall inform the Commission accordingly.</i>	4-major expansion of duties
Commission may decide that MS concerned must amend or abolish such measures	not quantifiable	internal energy market	Security of Energy Supply	<i>The measures referred to in paragraph 1 shall be proportionate, non-discriminatory and transparent. Those measures may be put into effect only following the notification to and approval by the Commission.</i>	4-major expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force	Updates Directive 2009/28/EC
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force	Updates Directive 2009/28/EC
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Updates Directive 2009/28/EC
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Updates Directive 2009/28/EC
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Updates Directive 2009/28/EC
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Updates Directive 2009/28/EC

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission may derogate in case of emergent and isolated markets	quantifiable	internal energy market	Internal Energy Markets	<i>The Commission may grant the derogation referred to in paragraph 4, taking into account, in particular, the following criteria:</i>	4-major expansion of duties
Commission shall assess and amend the plans	not quantifiable	security of supply	Security of Energy Supply	<i>the Commission shall assess those Plans, in accordance with point (b). In order to do so, the Commission shall consult the Gas Coordination Group on those Plans and duly take its opinion into account. The Commission shall report its assessment of the Plans to the Gas Coordination Group; and [...] Within 4 months of notification of the Commission's request referred to in paragraph 6(b) (ii), the Competent Authority concerned shall amend its Preventive Action Plan or Emergency Plan and notify the amended Plan to the Commission, or shall inform the Commission of the reasons for which it does not agree with the request</i>	4-major expansion of duties
Commission may limit the exemptions that national authorities may take on reverse flows	not quantifiable	internal energy market	Security of Energy Supply	<i>The authority concerned shall notify its decision without delay to the Commission, [...] the Commission may require that the authority concerned amend its decision.</i>	4-major expansion of duties
Commission may amend national measures in case of crisis or end the state of emergency	not quantifiable	internal energy market	Security of Energy Supply	<i>The Commission may, at the request of a Competent Authority, natural gas undertakings or on its own initiative, request the Competent Authority to modify the measures where they are contrary to the conditions established in paragraph 7 and in the first sentence of this paragraph. The Commission may also request the Competent Authority to lift the declaration of emergency where it considers that such declaration is not or no longer justified according to point (c) of paragraph 3.</i>	4-major expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009L0073	2009-2015	2009	In force	Updates Directive 2009/28/EC
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	Updates Council Decision (EU) 2017/2240
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	Amending Regulation (EU) No 525/2013
Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010R0994	2009-2015	2010	No longer in force, Date of end of validity: 31/10/2017; Repealed by 32017R1938	Amending Regulation (EU) No 525/2013

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Commission to organize the BAT limits.	not quantifiable	environment	Environmental Protection	<i>In order to draw up, review and, where necessary, update BAT reference documents, the Commission shall organise an exchange of information between Member States, the industries concerned, non-governmental organisations promoting environmental protection and the Commission.</i>	4-major expansion of duties
Commission may have delegated acts on the harmonised efficiency reference values	not quantifiable	affordability	Energy Efficiency and Savings	<i>The Commission shall be empowered to review, by means of delegated acts in accordance with Article 23 of this Directive, the harmonised efficiency reference values laid down in Commission Implementing Decision 2011/877/EU (26) on the basis of Directive 2004/8/EC by 31 December 2014.</i>	4-major expansion of duties
Commission may intervene on behalf of a MS to address a situation.	not quantifiable	environment	environmental Protection	<i>Where a Member State is seriously disadvantaged by a specific and exceptional situation, including accounting inconsistencies in matching the implementation of Union legislation with the rules agreed under the Kyoto Protocol, the Commission may, subject to the availability of units at the end of the second commitment period of the Kyoto Protocol, adopt measures to address that situation.</i>	4-major expansion of duties
Commission jointly responsible for gas security of supply	not quantifiable	internal energy market	Security of Energy Supply	<i>The security of gas supply shall be the shared responsibility of natural gas undertakings, Member States, in particular through their competent authorities, and the Commission, within their respective areas of activity and competence.</i>	4-major expansion of duties
Commission may declare a gas crisis	quantifiable	internal energy market	Security of Energy Supply	<i>The Commission may declare a regional or Union emergency at the request of a competent authority that has declared an emergency and following the verification in accordance with Article 11(8).</i>	4-major expansion of duties

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540637909558&uri=CELEX:32010L0075	2009-2015	2010	In force	Amending Regulation (EU) No 525/2013
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 Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540722091577&uri=CELEX:32012L0027	2009-2015	2012	In force	Amending Regulation (EU) No 525/2013
Regulation (EU) No 662/2014 of the European Parliament and of the Council of 15 May 2014 amending Regulation (EU) No 525/2013 as regards the technical implementation of the Kyoto Protocol to the United Nations Framework Convention on Climate Change Text with EEA relevance	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1541935521127&uri=CELEX:32014R0662	2009-2015	2014	In force	Amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU
Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017R1938	2016-2019	2017	In force	Amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU
Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1552426753923&uri=CELEX:32017R1938	2016-2019	2017	In force	Amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU

Binding obligations/ targets	Quantifiable/ Not quantifiable	Pillar	Category	Provisions	Importance (1min-4max)
Creation of the European Environment Agency, which provides information on environment, such as air quality, water quality, noise emissions, etc.	quantifiable	environment	Environmental Protection	<i>To achieve the aims of environmental protection and improvement laid down by the Treaty and by successive Community action programmes on the environment, the objective shall be to provide the Community and the Member States with:</i> <i>- objective, reliable and comparable information at European level enabling them to take the requisite measures to protect the environment, to assess the results of such measures and to ensure that the public is properly informed about the state of the environment,</i>	4-new EU body established
Sets carbon taxes	quantifiable	environment	Environmental Protection	<i>This Directive establishes a scheme for greenhouse gas emission allowance trading within the Community (hereinafter referred to as the 'Community scheme') in order to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner.</i>	4-new EU body established
A European Joint Undertaking for ITER and the Development of Fusion Energy (Fusion for Energy) is created, EUR 9 653 million, 2007-2041	quantifiable	affordability	Nuclear Research	<i>A European Joint Undertaking for ITER and the Development of Fusion Energy (Fusion for Energy) (the Joint Undertaking) is hereby established for a period of 35 years starting on 19 April 2007.</i>	4-new EU body established
ENTSO-E starts	quantifiable	internal energy market	Internal Energy Markets	<i>By 3 March 2011, the transmission system operators for electricity shall submit to the Commission and to the Agency the draft statutes, a list of members and draft rules of procedure, including the rules of procedures on the consultation of other stakeholders, of the ENTSO for Electricity to be established.</i>	4-new EU body established
ENTSO-G starts	quantifiable	internal energy market	Internal Energy Markets	<i>All transmission system operators shall cooperate at Community level through the ENTSO for Gas</i>	4-new EU body established

Source: author's elaboration

Legislation	Link	Stage	Year	Repealed by (follow up)	Check continuation
Council Regulation (EEC) No 1210/90 of 7 May 1990 on the establishment of the European Environment Agency and the European Environment Information and Observation Network	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1524407544592&uri=CELEX:31990R1210	1990-1995	1990	No longer in force, Date of end of validity: 09/06/2009; Repealed by 32009R0401	Amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU
Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (Text with EEA relevance)	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1537898262029&uri=CELEX:32003L0087	2003-2008	2003	In force	Amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU
2007/198/Euratom: Council Decision of 27 March 2007 establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1538303079559&uri=CELEX:32007D0198	2003-2008	2007	No data	Linked with Council Decision (EU) 2017/2240
Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0714	2009-2015	2009	In force	
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005	https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540057743188&uri=CELEX:32009R0715	2009-2015	2009	In force	

Database of EU electricity legislation – legend and notes

Principle: Follow the obligation, not the legislation

	to follow up as it updates targets/obligations - 2nd stage (1990-1995)
	to follow up as it updates targets/obligations - 3rd stage (1996-2002)
	to follow up as it updates targets/obligations - 4th stage (2003-2008)
	to follow up as it updates targets/obligations - 5th stage (2009-2015)
	to follow up as it updates targets/obligations - 6th stage (2016-)

	follow-up legislation
	starter legislation

	Continuing/repealing legislation in the database
--	--

Rule of thumb

When MS have to create a national authority: medium development.

If framework programmes, development type is chosen; when programmes within frameworks are detailed in separate legislation, finance type is chosen.

Similar obligations, such as unbundling, are given same importance.

Nuclear Energy is on pillar affordability, because is not publicly perceived as environment-friendly; and EU has little Uranium, so no security of supply.

All research programmes classified as Research and Development or Nuclear Research

Energy Efficiency and Savings generally linked with pillar affordability

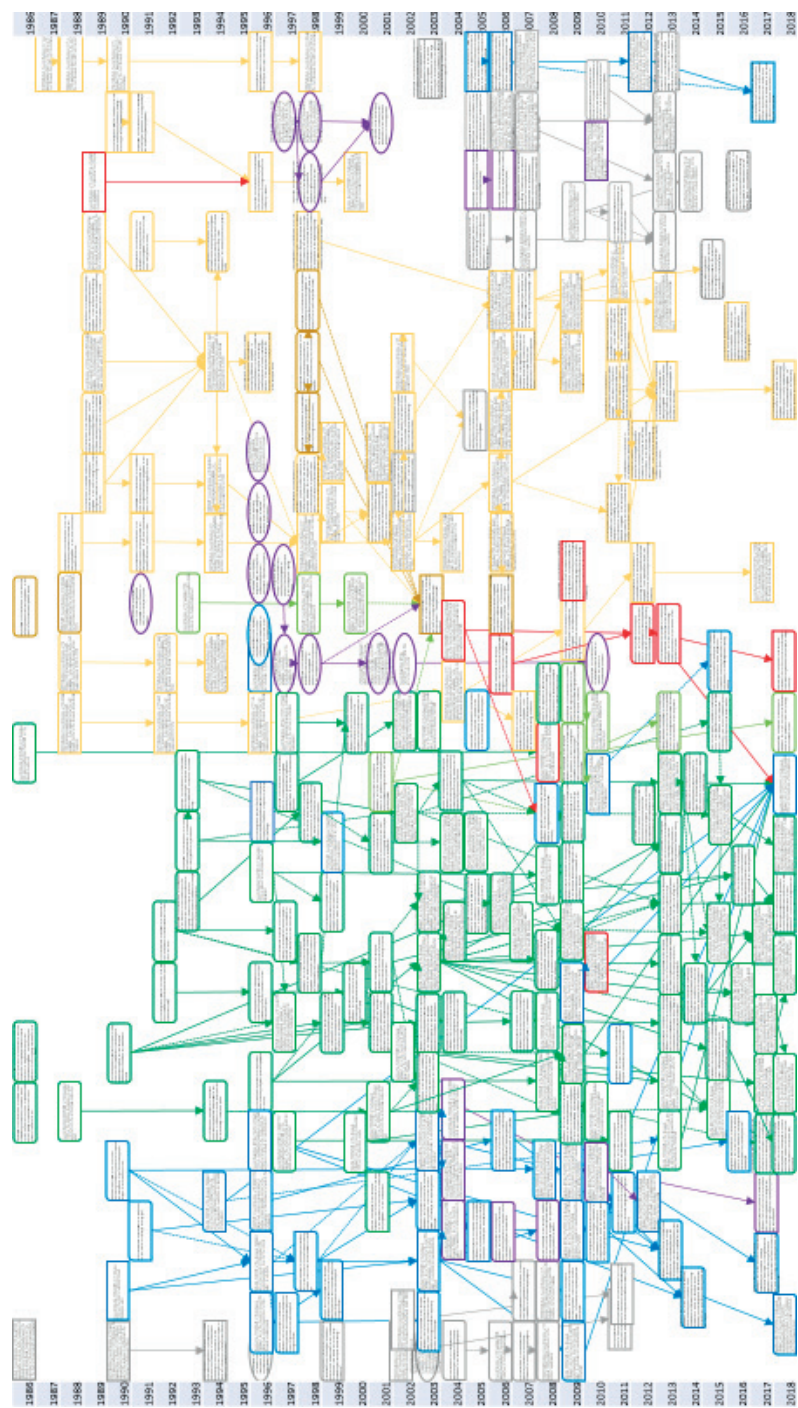
Pillar replies to the question, why do we do this?

When MS inform the Commission, generally is pillar internal energy market

All Commission reporting is category Internal Electricity Market





Source: author's elaboration

Chart 1. Legislative map, EU electricity domain, 1986-2018 and Legend











Legend



Pillar

	Affordability
	Security of supply
	Environment
	Internal market

Category

	Renewable Energy
	Energy Efficiency and Savings
	Internal Energy Markets
	Security of Energy Supply
	Environmental Protection
	Nuclear Energy
	Nuclear Research
	Research and Development

Lines

	Direct reference (repeal, update, part of a framework, etc.)
	Referred (connected to) or related

If more targets in the same legislation, the one with highest importance taken. If two or more with the same importance, then the first taken.

Large pieces of legislation classified as internal market.

Source: author's elaboration

Appendix supplementary materials chapter II

Technical appendix for chapter II: EU electricity policy (im)balance: A quantitative analysis of policy priorities since 1986

There are 291 binding pieces of legislation in the electricity field from 1986 to 2018 published in the Official Journal of the European Union. In Figure 1, a chronologically display of the pieces of legislation under study, from a policy density perspective.

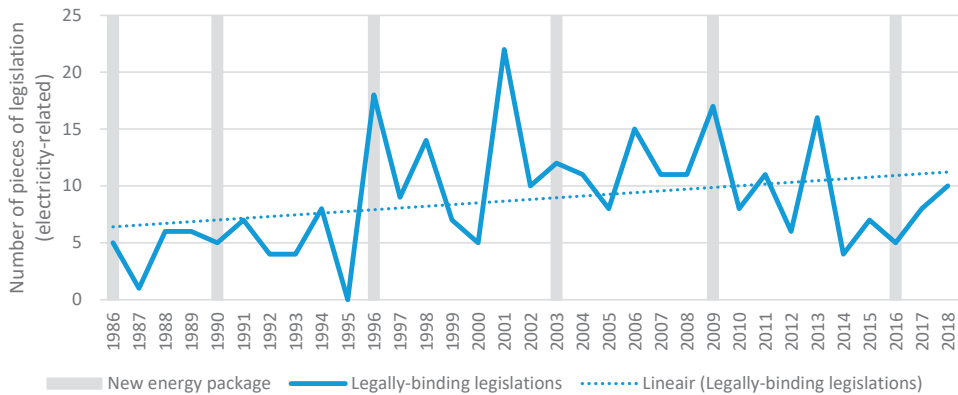


Figure 1. Policy density – chronological, trends

Source: author's elaboration

Figure 2 below presents evolution of each policy priority, at pillars level, from a policy density perspective, including trends.

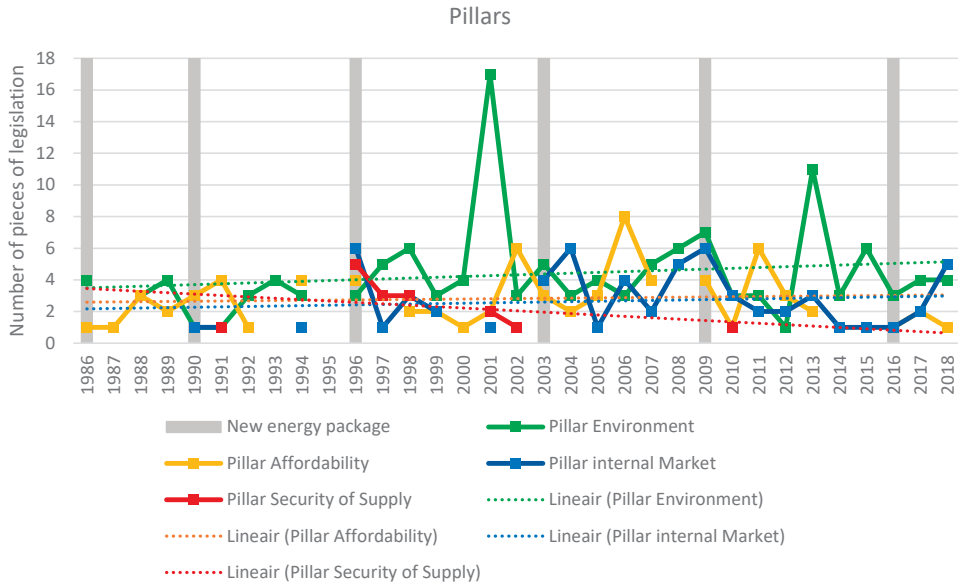


Figure 2. Pillars – policy density – chronological, energy packages, trends
Source: author's elaboration

Figure 3 below presents the evolution of policy instruments (the targets and objectives of legislation) in a chronological order, juxtaposed over the starting year of an energy package and including a trendline. The results are presented in the chapter itself.

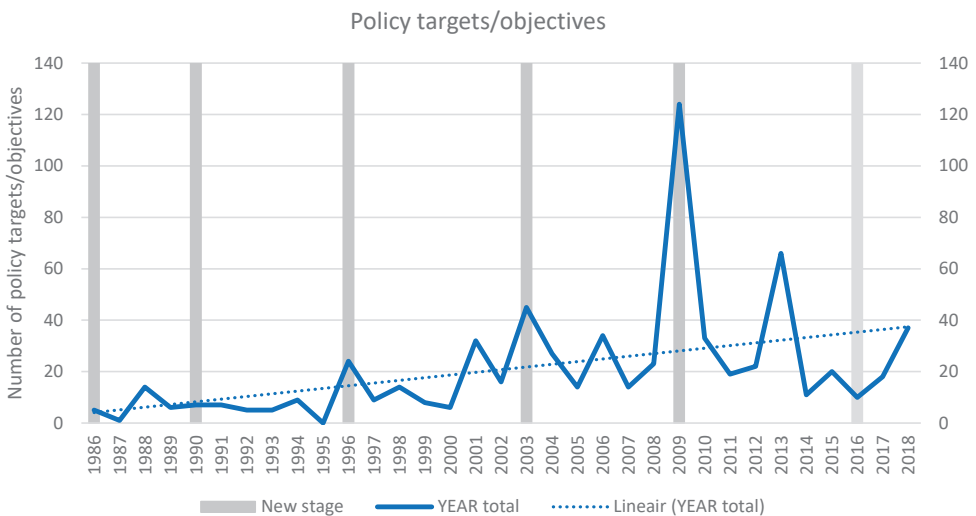


Figure 3. Policy intensity – overall trends and energy packages
Source: author's elaboration

Figure 4 below presents evolution of each policy priority, at pillars level, from a policy intensity perspective, including trends.

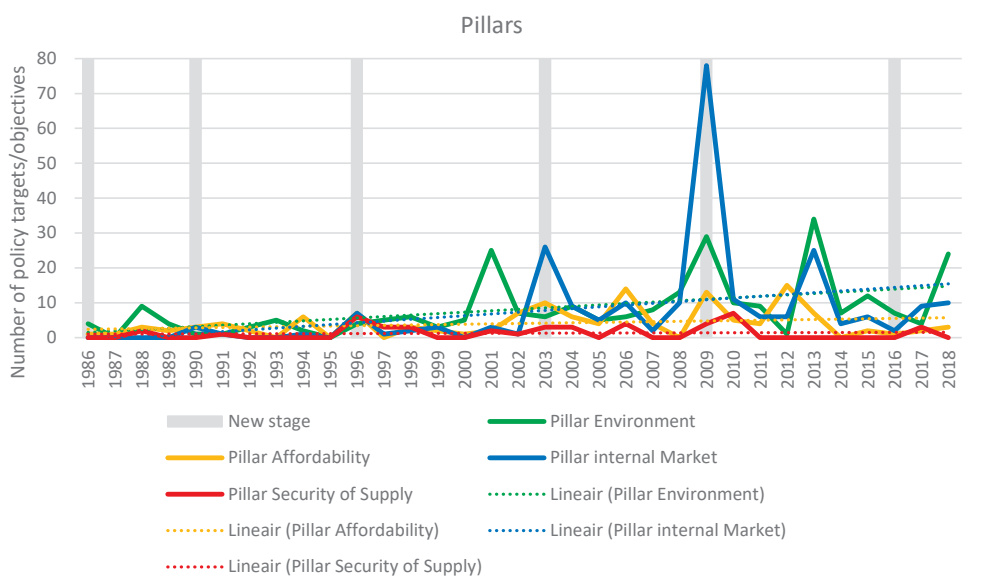


Figure 4. Pillars – policy intensity – chronological, energy package, trends
 Source: author's elaboration

Figure 5 below presents evolution of each policy priority, at categories level, from a policy intensity perspective.

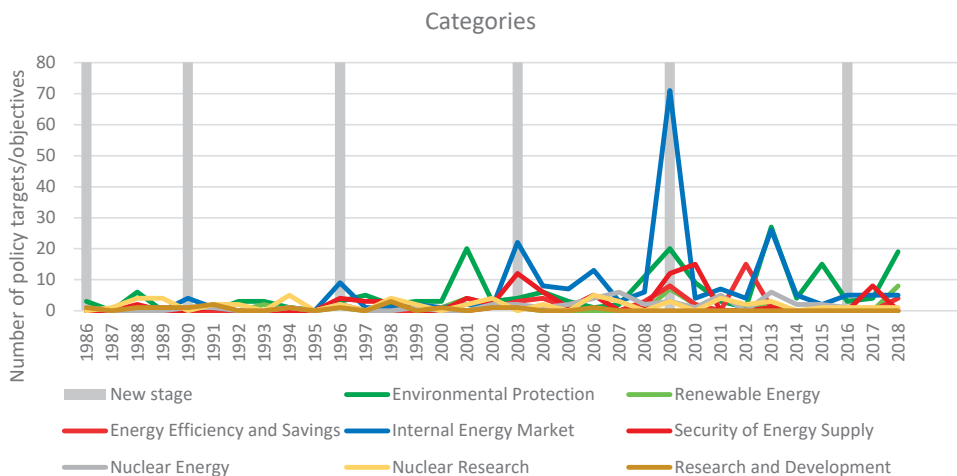


Figure 5. Categories – policy intensity – chronological, energy packages
 Source: author's elaboration

Figure 6 below presents the evolution of each policy priority, at categories level, from a policy importance perspective, including trends.

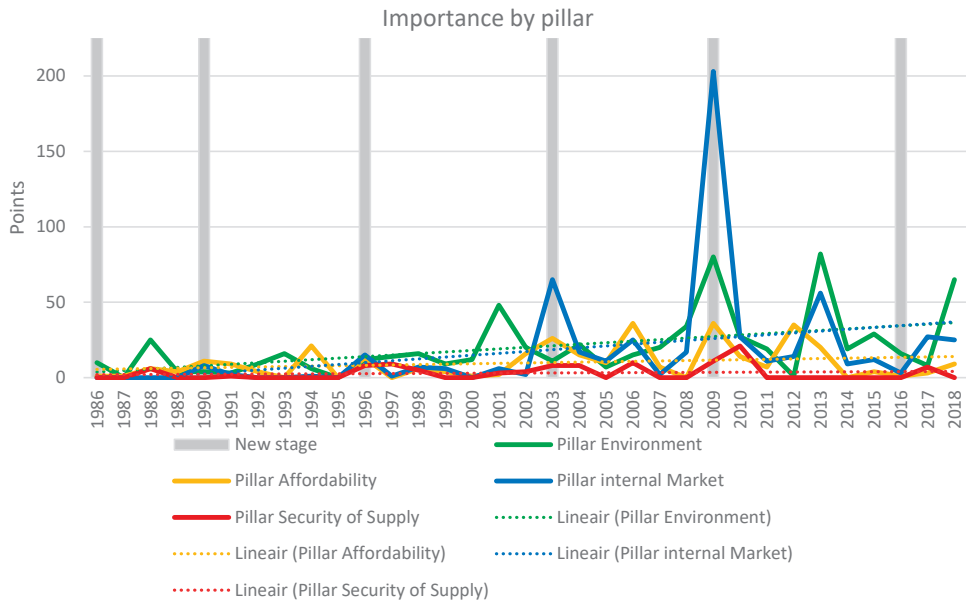


Figure 6. Pillars – policy importance – chronological, energy packages, trends
Source: author's elaboration

Figure 7 below presents in full the evolution of each policy priority, at categories level, from a policy intensity perspective.

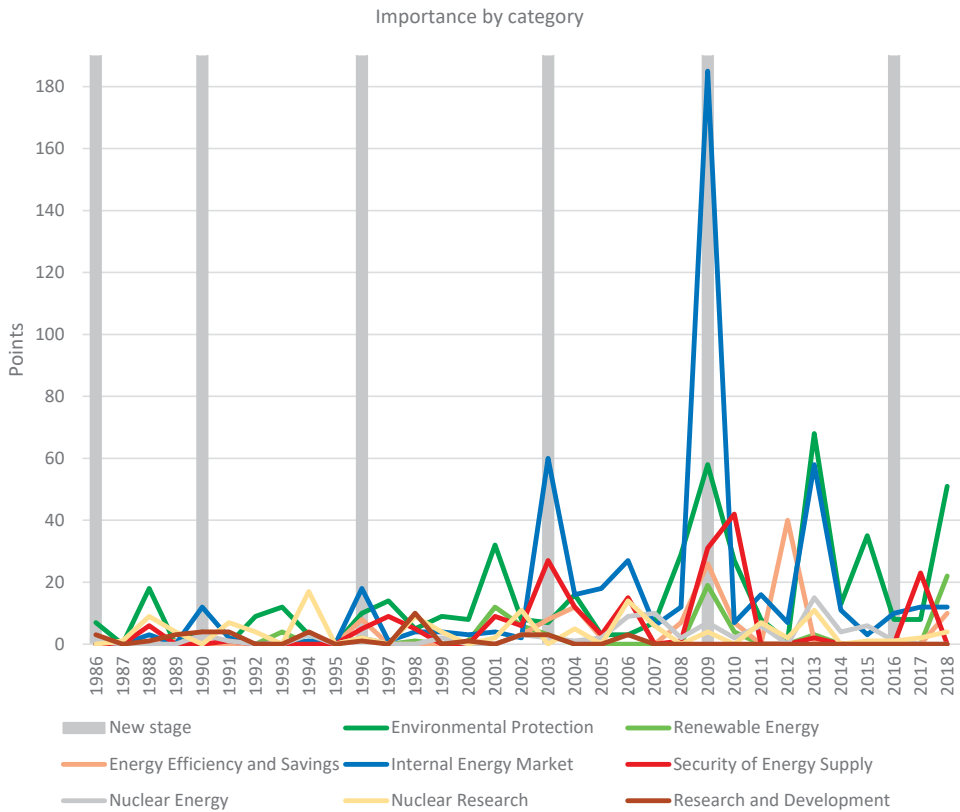


Figure 7. Categories- policy importance – chronological, energy packages, trends
Source: author's elaboration

Appendix supplementary materials

chapter III

Technical appendix for chapter III: EU electricity policymakers' (in)sensitivity to external factors: a multi-decade quantitative analysis

Tables for scoring scale of data, legislation importance and aggregated external factors in ordinal values

Policymakers' sensitivity to security of supply

The scoring scale of data converted into ordinal values for legislation importance and external factors (customer minutes lost and solid fuels / natural gas dependency) is summarized in Table I. Public opinion is missing as the coding was employed against the other two priorities, using ordinal values, but without scoring scales. Ordinal values from 1 to 10 were employed due to ease of use and familiarity.

Table I. Scoring scale of data converted into ordinal values

External factors (coded)	Ordinal value									
	1	2	3	4	5	6	7	8	9	10
Customer minutes lost	96,0-109,7	109,7-123,4	123,4-137,1	137,1-150,8	150,8-164,5	164,5-178,2	178,2-191,9	191,9-205,6	205,6-219,3	219,3-233,0
Solid fuels / natural gas dependency	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Legislation importance	0,0-2,1	2,1-4,2	4,2-6,3	6,3-8,4	8,4-10,5	10,5-12,6	12,6-14,7	14,7-16,8	16,8-18,9	18,9-21,0

Source: author's elaboration

In Table II, the legislation importance in the 1-10 ordinal scale and aggregated external factors are presented. The aggregated factors figures were found by calculating the average number of the three external factors included in the study (EU public opinion; customer minutes lost; and solid fuels/ natural gas dependency).

Table II. Legislation importance and aggregated external factors in ordinal values for security of supply

Years	Legislation importance (coded)	Aggregated external factor (coded)	EU public opinion (coded)	Customer minutes lost (coded)	Solid fuels / natural gas dependency (coded)
1986	0	3,8	3,8		
1987	0	4,5	4,5		
1988	3	0,0		0	
1989	0	2,7	2,7		
1990	0	3,5			3,5
1991	1	3,4	2,8		4
1992	0	4,0			4
1993	0	3,0	2,1		4
1994	0	4,0			4
1995	0	4,0			4
1996	4	3,7	2,2	5	4
1997	5	5,0		6	4
1998	3	4,0		4	4
1999	0	6,5		9	4
2000	0	4,3		4	4,5
2001	2	6,8		9	4,5
2002	2	4,3	1,8	6	5
2003	4	6,0		7	5
2004	4	4,0		3	5
2005	0	6,3		7	5,5
2006	5	4,9	3,6	5	6
2007	0	4,6	1,9	6	6
2008	0	6,0		6	6
2009	6	7,0		8	6
2010	10	5,7	1,5	10	5,5
2011	0	4,6	1,8	6	6
2012	0	4,2	1,5	5	6
2013	0	4,2	1,6	5	6
2014	0	4,8	2,3	6	6
2015	0	3,4	2,3	2	6
2016	0	3,0	1,4	1	6,5
2017	4	3,8	1,1		6,5
2018	0	3,9	1,2		6,5

Source: author's elaboration

Polymakers' sensitivity to environment

As in the previous section, the scoring scale of data for external factors and legislation importance is summarized in Table III below.

Table III. Scoring scale of data converted into ordinal values

External factors (coded)	Ordinal value									
	1	2	3	4	5	6	7	8	9	10
NH3 gigagrams (1000 tonnes)	4569,1-4699,1	4699,1-4829,1	4829,1-4959,1	4959,1-5089,1	5089,1-5219,1	5219,1-5349,1	5349,1-5479,1	5479,1-5609,1	5609,1-5739,1	5739,1-5869,1
NMVOC gigagrams (1000 tonnes)	8178,4-9297,5	9297,5-10416,7	10416,7-11535,9	11535,9-12655,0	12655,0-13774,2	13774,2-14893,3	14893,3-16012,5	16012,5-17131,6	17131,6-18250,8	18250,8-19370,0
NOX gigagrams (1000 tonnes)	8563,2-9570,7	9570,7-10578,2	10578,2-11585,7	11585,7-12593,2	12593,2-13600,8	13600,8-14608,3	14608,3-15615,8	15615,8-16623,3	16623,3-17630,8	17630,8-18638,3
PM2.5 gigagrams (1000 tonnes)	1349,5-1403,3	1403,3-1457,1	1457,1-1510,8	1510,8-1564,6	1564,6-1618,4	1618,4-1672,2	1672,2-1725,9	1725,9-1779,7	1779,7-1833,5	1833,5-1887,3
SOX gigagrams (1000 tonnes)	4675,4-6878,9	6878,9-9082,4	9082,4-11285,9	11285,9-13489,4	13489,4-15692,9	15692,9-17896,4	17896,4-20099,9	20099,9-22303,5	22303,5-24507,0	24507,0-26710,5
GHGs emissions (tonnes) / capita	8,60-8,94	8,94-9,28	9,28-9,62	9,62-9,96	9,96-10,30	10,30-10,64	10,64-10,98	10,98-11,32	11,32-11,66	11,66-12,00
Legislation importance	0,0-8,2	8,2-16,4	16,4-24,6	24,6-32,8	32,8-41,0	41,0-49,2	49,2-57,4	57,4-65,6	65,6-73,8	73,8-82,0

Source: author's elaboration

In Table IV, the legislation importance in the 1-10 ordinal scale and aggregated external factors are presented. The aggregated factors figures were found by calculating the average number of the three external factors included in the study (EU public opinion, air pollutants and GHGs emissions).

Table IV. Legislation importance and aggregated external factors in ordinal values for environment

Years	Legislation importance (coded)	Aggregated external factor (coded)	EU public opinion (coded)	Air pollutants (coded)	GHGs emissions (coded)
1986	2	4,7	4,7		
1987	1	3,8	3,8		
1988	4				
1989	1	4,1	4,1		
1990	1	10,0		10	10
1991	1	7,8	3,8	9,75	10
1992	2	9,3		9,5	9
1993	2	7,1	5,3	8	8
1994	1	7,5		7	8
1995	1	7,3		6,5	8
1996	2	6,8	4,9	6,5	9
1997	2	7,0		6	8
1998	2	6,9		5,75	8
1999	2	6,1		5,25	7
2000	2	6,4		5,8	7
2001	6	6,2		5,4	7
2002	3	5,3	4,4	4,4	7
2003	2	6,3		4,6	8
2004	3	5,6		4,2	7
2005	1	5,6		4,2	7
2006	2	4,6	2,9	4	7
2007	3	5,4	5,7	3,4	7
2008	5	4,5		3	6
2009	10	2,8		2,6	3
2010	4	3,4	4,0	2,2	4
2011	4	2,5	2,9	1,6	3
2012	1	2,1	2,6	1,6	2
2013	10	2,2	3,2	1,4	2
2014	3	2,0	4,1	1	1
2015	4	2,0	4,1	1	1
2016	2	2,6	5,5	1,2	1
2017	1	3,4	6,2	3	1
2018	8	3,6	6,2		1

Source: author's elaboration

Policymakers' sensitivity to affordability

As in the previous section, the scoring scale of data for external factors and legislation importance for affordability pillar is summarized in Table V below.

Table V. Scoring scale of data converted into ordinal values

External factors (coded)	Ordinal value									
	1	2	3	4	5	6	7	8	9	10
Electricity prices for household consumers (DC band) (inflation adjusted to 2018) (c€)	0,1660- 0,1718	0,1718- 0,1775	0,1775- 0,1833	0,1833- 0,1891	0,1891- 0,1949	0,1949- 0,2006	0,2006- 0,2064	0,2064- 0,2122	0,2122- 0,2179	0,2179- 0,2237
Final consumption expenditure of households by consumption purpose (%)	3,10- 3,25	3,25- 3,40	3,40- 3,55	3,55- 3,70	3,70- 3,85	3,85- 3,99	4,00- 4,15	4,15- 4,30	4,30- 4,45	4,45- 4,60
Legislation importance	0,0- 3,6	3,6- 7,2	7,2- 10,8	10,8- 14,4	14,4- 17,99	18,0- 21,6	21,6- 25,2	25,2- 28,8	28,8- 32,4	32,4- 36,0

Source: author's elaboration

In Table VI, the legislation importance in the 1-10 ordinal scale and aggregated external factors are presented. The aggregated factors figures were found by calculating the average number of the three external factors included in the study (EU public opinion, electricity prices for average household and energy expenses in an average household's budget).

Table VI. Legislation importance and aggregated external factors in ordinal values for affordability

Years	Legislation importance (coded)	Aggregated external factor (coded)	EU public opinion (coded)	Electricity prices (coded)	Energy expenses (coded)
1986	1	1,6	1,6		
1987	1	1,7	1,7		
1988	2				
1989	2	3,2	3,2		
1990	4				
1991	3	6,7	3,4	10	
1992	2	10,0		10	
1993	1	5,8	2,6	9	
1994	6	8,0		8	
1995	1	5,0		7	3
1996		4,3	3,0	5	5
1997	4	4,0		5	3
1998	2	3,0		4	2
1999	2	2,0		3	1
2000	1	2,0		3	1
2001	1	2,0		2	2
2002	5	2,3	3,8	2	1
2003	8	2,0		2	2
2004	5	2,0		1	3
2005	3	3,0		1	5
2006	10	3,2	3,5	1	5
2007	2	4,4	2,3	6	5
2008	1	6,0		4	8
2009	10	6,0		4	8
2010	4	6,2	4,5	5	9
2011	2	6,7	5,2	6	9
2012	10	7,7	6,0	7	10
2013	6	7,7	5,2	8	10
2014	1	6,5	3,6	8	8
2015	2	6,2	3,6	9	6
2016	1	5,7	3,1	8	6
2017	1	4,9	2,7	7	5
2018	3	5,5	2,6	8	6

Source: author's elaboration

Policymakers' sensitivity to internal energy market

The scoring scale of data for external factors (market coupling, intra-EU trade) and legislation importance for the internal energy market pillar is summarized in Table VII below.

Table VII. Scoring scale of data converted into ordinal values

External factors (coded)	Ordinal value									
	1	2	3	4	5	6	7	8	9	10
Intra-EU energy trade (bn€)	14,066- 15,530	12,602- 14,066	11,139- 12,602	9,675- 11,139	8,211- 9,675	6,748- 8,211	5,284- 6,748	3,820- 5,284	2,356- 3,820	0,893- 2,356
Market coupling (no. of connected EU member countries)	19,8- 22,0	17,6- 19,8	15,4- 17,6	13,2- 15,4	11,0- 13,2	8,8- 11,0	6,6- 8,8	4,4- 6,6	2,2- 4,4	0,0- 2,2
Legislation importance	0,0- 6,5	6,5- 13,0	13,0- 19,5	19,5- 26,0	26,0- 32,5	32,5- 39,0	39,0- 45,5	45,5- 52,0	52,0- 58,5	58,5- 65,0

Source: author's elaboration

In Table VIII, the aggregated factors figures are presented in ordinal values. As in previous sections, the chart presents data since 1988, the year when at least two external factors come into play.

Table VIII. Legislation importance and aggregated external factors in ordinal values for internal electricity market

Years	Legislation importance (coded)	Aggregated external factor (coded)	EU public opinion (coded)	Intra-EU energy trade (coded)	Market coupling (coded)
1986	0	10,0			10
1987	0	10,0			10
1988	0	10,0		10	10
1989	0	9,0	7	10	10
1990	2	9,0	7	10	10
1991	1	9,7	9	10	10
1992	1	9,7	9	10	10
1993	1	9,0	7	10	10
1994	1	8,3	5	10	10
1995	1	9,5		10	9
1996	3	9,0	8	10	9
1997	1	7,7	4	10	9
1998	2	7,7	4	10	9
1999	1	6,7	1	10	9
2000	1	9,0		9	9
2001	1	7,3	5	8	9
2002	1	6,3	3	7	9
2003	10	6,3	4	6	9
2004	3	7,0	7	5	9
2005	2	5,0	2	4	9
2006	4	5,0	3	4	8
2007	1	6,3	6	6	7
2008	3	5,3	4	5	7
2009	10	5,7	6	5	6
2010	5	4,0	6	2	4
2011	2	2,5		2	3
2012	3	1,5		1	2
2013	9	2,0		2	2
2014	2	4,7	10	2	2
2015	2	3,7	9	1	1
2016	1	4,7	10	3	1
2017	5	4,3	10	2	1
2018	4	4,0	10	1	1

Source: author's elaboration

Technical notes – indicators

Technical note: I. Loss minutes per customer

- QUALITY OF ELECTRICITY SUPPLY: INITIAL BENCHMARKING ON ACTUAL LEVELS, STANDARDS AND REGULATORY STRATEGIES

Source: <https://www.ceer.eu/documents/104400/-/-/fd97ca13-2320-542e-bdf6-1fe35eb742d8>, page 28,

Tables 3.2-A - YEARLY AVERAGE DURATION OF INTERRUPTIONS: COUNTRIES USING CUSTOMER-WEIGHTED INDICATORS; 1996-1999

Tables 3.2-B - YEARLY AVERAGE DURATION OF INTERRUPTIONS: COUNTRIES USING POWER-WEIGHTED INDICATORS; 1996-1999 (*our note: hours converted to minutes*)

- THIRD BENCHMARKING REPORT ON QUALITY OF ELECTRICITY SUPPLY 2005

Source: https://www.arera.it/allegati/pubblicazioni/volume_ceer3.pdf,

page 116, Table 3.2 - UNPLANNED INTERRUPTIONS; 1999-2004 (*our note: numbers rounded to nearest integer*)

- 6TH CEER BENCHMARKING REPORT ON THE QUALITY OF ELECTRICITY AND GAS SUPPLY – 2016 - ANNEX A TO CHAPTER “ELECTRICITY – CONTINUITY OF SUPPLY”

Source: <https://www.ceer.eu/documents/104400/-/-/7b028b43-f188-2b86-a89b-f3de2d7f9356>, page 207, Table A.9- UNPLANNED INTERRUPTIONS INCLUDING ALL EVENTS (MINUTES LOST PER YEAR); 2002-2014 (*our note: numbers rounded to nearest integer*)

- CEER Benchmarking Report 6.1 on the Continuity of Electricity and Gas Supply

Source: <https://www.ceer.eu/documents/104400/-/-/963153e6-2f42-78eb-22a4-06f1552dd34c>, page 59, Table 7- Electricity: unplanned SAIDI, including exceptional events (minutes per customer); 2002-2016 (*our note: numbers rounded to nearest integer*)

Technical note: II. Eurobarometer – public opinion on environment, affordability, security of supply

In order to find the public opinion on energy policies in the European Union and its precedents, we investigated surveys of the Eurobarometer (link): <https://europa.eu/eurobarometer/screen/home#p=1&search=energy>

Between 2010-2018, we have used the “What do you think are the two most important issues facing the EU at the moment?” (MAX 2 ANSWERS), from the Eurobarometer interactive website. The following variables were selected: “climate change”; “the environment”; “energy supply”; “rising prices/inflation/cost of living”. “Climate change” and “the environment”, added up, represented pillar “environment”; “energy supply” represented pillar “security of supply”, while “rising prices/inflation/cost of living” represented, as a proxy, the pillar “affordability”, due to the high part that energy has in the inflation basket and household costs (heating, transport).

Furthermore, we investigated on the search engine of the Eurobarometer the word “energy”. We have found 16 valid items, of which 10 were relevant to our research.

We included data in the empirical database, according to the following surveys, identified by title and fieldwork date.

Public opinion in the European Community on Energy in 1986 (ebs_032_en)

Question: Thinking of (your country’s) future energy needs, there are different ways of handling the problem of getting the fuels we want, and a choice has to be made. Among the following, which is the best policy? (page 20)

	<u>1984</u>	<u>1986</u>
	%	%
The cheapest price even if it makes us more dependent on foreign supplies	17	14
Be as independent as possible of foreign supplies even if it costs more	45	33
Minimize pollution, even if it costs more or makes us more dependent on foreign supplies	29	41
Don't know	9	12
TOTAL	<u>100</u>	<u>100</u>

Public opinion in the European Community on Energy in 1987 (ebs_036_en)

Question: Thinking of (your country’s) future energy needs, there are different ways of handling the problem of getting the fuels we want, and a choice has to be made. Among the following, which is the best policy? (page 45)

	1984	1986	1987
The cheapest price even if it makes us more dependent on foreign supplies	17%	14%	15%
Be as independent as possible of foreign supplies even if it costs more	45	33	40
Minimize pollution, even if it costs more or makes us more dependent on foreign supplies	29	41	34
Don't know	9	12	11
TOTAL	100	100	100

Public opinion in the European Community on Energy in 1989 (ebs_036_en sic)

Question: here is a list of problems.

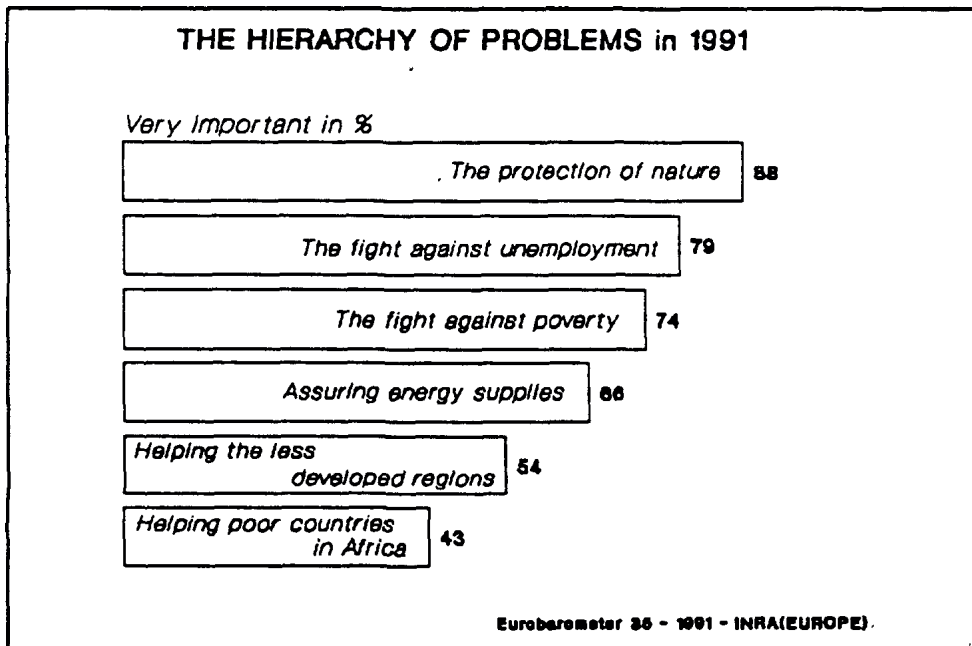
A. I would like you to tell me for each one if you personally consider it very serious, serious, not very serious, not serious at all? (page 2) For affordability we chose *fight poverty*.

Perceived seriousness of different problems:

	Very serious	Serious	Not very serious	Not serious at all	Don't know	Total
Protect nature and fight pollution	78%	20%	1%	-	1%	100%
Ensure energy supplies are maintained	51	41	4	1	3	100
Help the poor countries in Africa, South America, Asia, etc.	32	44	18	5	3	100
Fight unemployment	74	23	2	-	1	100
Fight poverty	62	33	3	-	2	100
Reduce the differences between regions of our country by helping less developed regions or those in most need	40	44	10	2	4	100

Public opinion in the European Community on Energy in 1991 (ebs_057)

The hierarchy of problems in 1991 (page I) For affordability we chose *fight poverty*.



EUROPEAN OPINION AND ENERGY MATTERS 1993 (ebs_079_en)

TABLE 5: OPINION ON THE RELATIVE IMPORTANCE OF VARIOUS ASPECTS OF IMAGE WHICH CHARACTERISE ENERGY SOURCES

QUESTION: And what is the most important aspect for you as regards energy resources over the next 10 years ... (Q.I 5) (page 76 pdf)

- Stable prices – 25%
- Guaranteed availability of supply – 20%
- A low risk of pollution – 51%
- Don't know

STABLE PRICES		RELIABLE SUPPLIES		LOW RISK OF POLLUTION		DK
1993	1996	1993	1996	1993	1996	1996

COUNTRY

B	37	41.4	29	19.3	31	33.9	4.1
DK	15	15.6	32	35.6	51	45.7	3
D WEST	17	25.1	29	30	52	41.4	3.5
D TOTAL		28.4		27.5		40.8	3.1
D OST	36	40.6	18	18.3	44	38.6	1.8
GR	20	30.5	15	5.8	61	57.9	5.8
E	21	22.1	20	21.7	54	44.7	11.5
F	26	32.5	19	14.2	53	52.1	1.2
IRL	42	40.4	25	26	27	26.1	7.5
I	14	20.4	15	16.6	66	57.6	5.4
L	19	16.4	41	25.3	37	53.5	4.8
NL	20	25.7	23	25.1	54	46.7	2.5
A		23.0		30.4		42.5	4.1
P	37	38.9	23	16.5	28	32.7	11.9
FIN		20.6		26.1		48.5	4.8
S		28.0		19.3		50.6	2.1
UK	39	35.0	15	18.6	41	41	5.1
EU	25	28.3	20	20.6	51	46.2	4.8

Energy: Issues, Options and Technologies (ebs_169 from 2002)

Question 16. In respect of energy, what do you think the two first priorities for the (NATIONALITY) government should be? (page 66)

For EU15

Low prices for consumers – 62%

Ensuring uninterrupted supplies of oil, gas, electricity – 30%

Protection of the environment and public health and safety associated with energy supply – 72%

Energy Technologies: Knowledge, Perception, Measures (ebs_262_en from 2006)

QD12 In your opinion, which two of the following should be given top priority in the (NATIONALITY) Government's energy policy? (p. 39)

Guaranteeing low prices for consumers – 45%

Guaranteeing a continuous supply of energy – 35%

Protecting the environment – 29%

Guaranteeing (OUR COUNTRY) independence in the field of energy – 18%

Reducing energy consumption – 15%

Fighting global warming – 13%

Guaranteeing the competitiveness of our industries – 7%

AFFORDABILITY = Guaranteeing low prices for consumers + Guaranteeing the competitiveness of our industries = 45% + 7% = 52%

ENVIRONMENT = Protecting the environment + Fighting global warming = 29% + 13% = 42%

SECURITY OF SUPPLY = Guaranteeing a continuous supply of energy + Guaranteeing (OUR COUNTRY) independence in the field of energy = 35% + 18% = 53%

Attitudes on issues related to the EU energy policy – Analytical report (fl_206a_en from 2007)

QUESTION: Q14. Why do you favour having a choice of energy suppliers? (page 53)

only because of the price = 17.8% (= AFFORDABILITY)

besides the price you also expect to have an option to choose a supplier that provides cleaner energy = 43.8% (= ENVIRONMENT)

besides the price you also expect to have better customer care = 14.6% (= SECURITY OF SUPPLY)

Europeans' attitudes on EU energy policy (ebs_492_en from 2019)

QB2.1 To what extent do you agree or disagree with the following statements? (p. T3)

The EU must secure access to energy to all EU citizens (%) = Totally agree – 61% (= SECURITY OF SUPPLY)

QB2.2 To what extent do you agree or disagree with the following statements? (p. T4)

The EU must ensure access to clean energy, e.g. encourage a move away from fossil fuels towards energy sources with low greenhouse gas emissions (%) = Totally agree – 57% (= ENVIRONMENT)

QB2.3 To what extent do you agree or disagree with the following statements? (p. T5)

The EU must ensure access to affordable energy, e.g. ensure competitive market prices, in particular to reduce the number of people unable to pay their energy bills (%) = Totally agree – 54% (= AFFORDABILITY)

QB2.4 To what extent do you agree or disagree with the following statements? (p. T6)

Cooperation between European Member States should be further strengthened to give all Europeans access to secure, financially affordable and clean energy (%) = Totally agree – 56% (= INTERNAL ENERGY MARKET)

Technical note: III. Eurobarometer – public opinion on a common energy policy

The surveys of the Eurobarometer follow the question should decisions be made by the (NATIONALITY) government, or made jointly within the European Union. In later years, the question of a European policy is directly posed to interviewees.

We used the following questions from the interactive Eurobarometer:

1. For each of the following areas, do you think that decisions should be made by the (NATIONALITY) government, or made jointly within the European Union?
Protection of the environment

Link:<https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Chart/getChart/chartType/gridChart//themeKy/10/groupKy/254/countries/EU/savFiles/1,129,179,703,6,47,194,661,2,112,96,137,143,184,191,193,201,664,8,37,662,33,93,107,3,49,186,192,195,196,660,9,10,103,118,187,197/periodStart/101989/periodEnd/112011>

Available data: 10/1989 to 11/2011

2. For each of the following areas, do you think that decisions should be made by the (NATIONALITY) government, or made jointly within the European Union?

Energy policy

Link: <https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Chart/getChart/chartType/gridChart//themeKy/10/groupKy/32/savFile/47>

Available data: 10/2005 to 11/2010

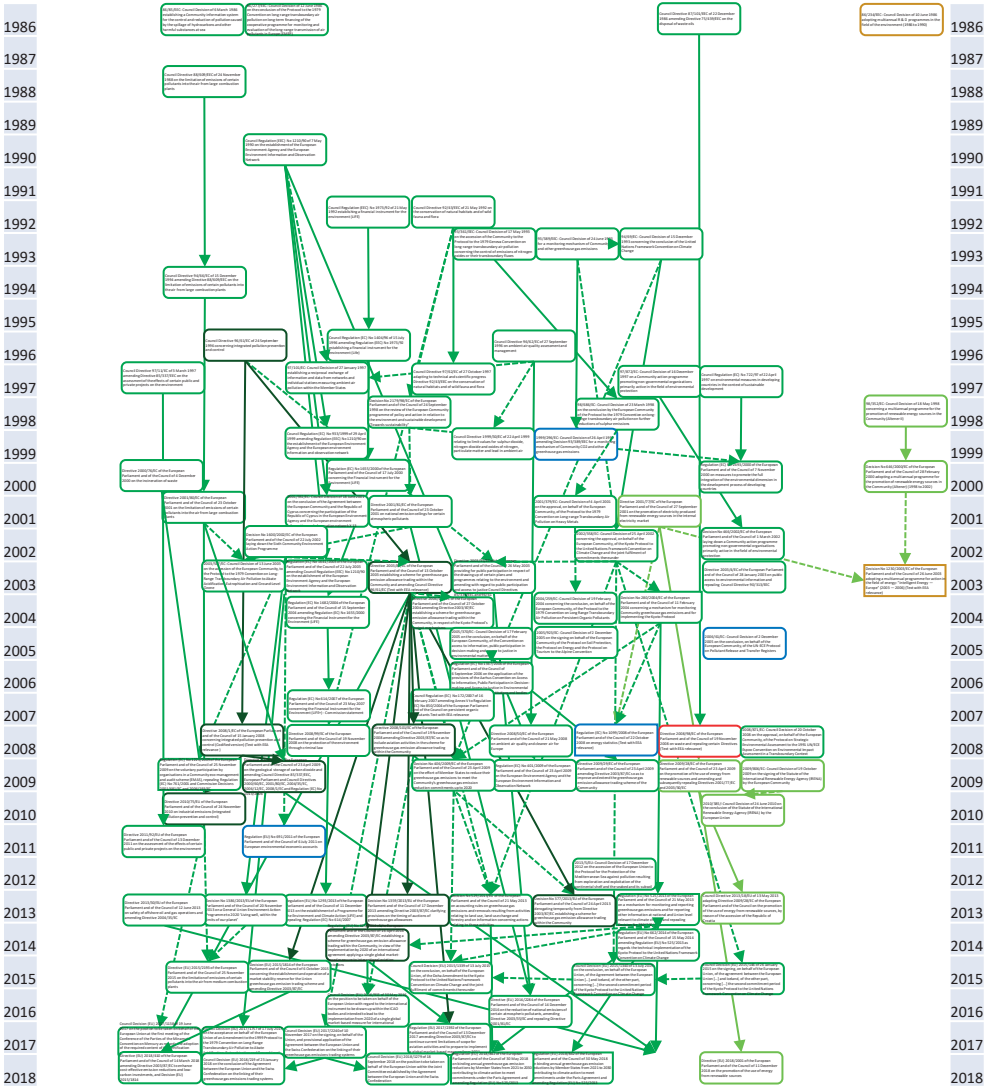
3. What is your opinion on each of the following statements? Please tell me for each statement, whether you are for it or against it.
A common energy policy among EU Member States

Link: <https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Chart/getChart/chartType/gridChart//themeKy/29/groupKy/182/savFile/646>

Available data: 11/2014 to 11/2019





Appendix supplementary materials chapter IV

Legislative map – environmental pillar and legend (available in full in pptx)











Legend

Pillar

	Affordability
	Security of supply
	Environment
	Internal market

Category

	Renewable Energy
	Energy Efficiency and Savings
	Internal Energy Markets
	Security of Energy Supply
	Environmental Protection
	Nuclear Energy
	Nuclear Research
	Research and Development

Lines



Direct reference (repeal, update, part of a framework, etc.)



Referred (connected to) or related

If more targets in the same legislation, the one with highest importance taken. If two or more with the same importance, then the first taken.

Large pieces of legislation classified as internal market.

Source: author's elaboration

Impact paragraph

This subchapter reflects on the potential influence that the research presented in this thesis may have within the academic sphere and for society at large. The thesis aims to find drivers of the electricity policy in the European Union, by looking specifically at adopted legislation for roughly the last three decades and comparing it with possible shaping factors. The main results show that the nature of policy drivers vary, depending on the inner purpose of legislation: environment, affordability, security of supply or internal market. In the conclusions, I discuss the drivers that policymakers prove to be most sensitive to when adopting legislation.

Public opinion, electricity prices and household energy expenses, taken together, influence the political response for EU electricity policy aimed at affordability. Likewise, public opinion, electricity interruptions for households and coal / natural gas imports dependency sway the policy direction for legislation aimed at security of energy supply. Public opinion, electricity trade inside the Union and coupling of energy markets within member states, collectively, have an influence on policy adoption within the EU internal market. Finally, specific policy-framing and a more forceful mandate given to the Commission seem to impact new legislation adoption with respect to regulation aimed at environmental protection.

The main contribution made by this thesis is to add a quantitative angle of research to the EU electricity policy debate on the various influencing factors. The study uses new analytical methods, also known as aggregated factors analysis; it provides a new empirical database, crunching down decades of legislative data; and it proposes a new lens on policy analysis, which further refines existing analytical tools. It uses existing qualitative overviews from the literature on potential factors to test them numerically. Additionally, it reveals gaps in our understanding of energy legislation adoption while also challenging existing explanations for the involved area for study.

From an academic standpoint, two specific groups may consider the research results important in particular: policymakers and researchers or scholars. For policymakers, the results of this study will help diagnose better the challenges of EU electricity regulation by, in effect, offering quantitative support for a balanced energy policy. The study, through its historical analysis of legislation, also provides insights into the pioneering policy objectives adopted by the institutions. For researchers at universities, the gaps and unresolved issues presented in this study, for example regarding the lack of measurable indicators in certain fields, and the questions raised by the findings, for instance the year that disconnected decisively economy and environmental legislation, may provide concrete opportunities for future research.

This study's findings are made available to the projected target groups - such as policymakers, advocacy professionals and researchers - through their presentation at large, joint energy conferences where company representatives, scholars and policymakers meet to share and discuss their output. Examples of such conferences in which I participated are CIRED (International Conference and Exhibition on Electricity Distribution) and EnerDay. This last

conference, where I also presented (Bostan 2019), was attended by researchers from the Swiss Transmission System Operator and from companies (e.g. EnBW, Vattenfall), as well as scholars from across Europe. Speaking more directly to academia, I meanwhile shared (Bostan 2021a, b) and will be sharing the results in articles published in peer-reviewed, open-sourced journals.

From a societal perspective, the findings of this thesis reveal the importance of public opinion in adopting new legislation. For most energy policy priorities, European policymakers are swift to embrace new legislation, in response to new developments or public concerns. Moreover, testing was performed for one-year and two-year delays involving variously combined factors, including public opinion, and legislation adoption. This revealed that combined factors do not necessarily show a better result if a delay is incorporated in the test.

Furthermore, evidence has been found that the way a policy query is presented to the public could change the outcome of legislative adoption. The way a problem is framed or re-framed may well serve as the push needed to catch policymakers' attention and provoke legislative change. While more research is needed to firmly confirm these findings, the results so far have been promising. Advocacy professionals have in fact been identified as the most relevant target group. Knowing what gets the policymakers' attention and to what drivers they react most will be a highly useful tool in influencing policy.

Moreover, I also used my personal website (mikebostan.com), Twitter and Facebook to communicate this research to a larger audience. The website includes, in addition to presentations to academic conferences or the published articles, brief articles explaining the basics for various technologies generating electricity and overall electricity market design in Europe.

Additionally, through my job as public affairs manager for large energy associations, I attended – either as participant, moderator or speaker – hundreds of energy workshops, conferences and seminars and many meetings with policymakers over the last seven years. I used these opportunities to express my views, test my ideas and invite feedback. Finally, as Board member and Director of one of the Programmes for the Scientific Council of the Council of European Energy Regulators, responsible for training European energy regulators, I have the privilege to be able to plant the seeds for future energy policy thinking in Europe.

Propositions

1. The EU energy policy is growing more intricate, but not more revolutionary. Meaningful policy changes occur at a stagnating yearly rate, despite the increasing power of the EU institutions. *(Thesis Chapter 2)*
2. Unlike other energy policy priorities, which display strong connections between external factors and legislative output, environment legislation in the electricity field is rather indifferent to external factors' pressure. *(Thesis Chapter 3)*
3. With respect to the environment pillar of the electricity policy, strengthening of the legal mandate and framing of the problem seem to influence the legislative output most. To a lesser degree, political factors, and specifically the European Parliament elections, may contribute to altering environmental policies as well. *(Thesis Chapter 4)*
4. The examination of neofunctionalism versus punctuated equilibrium in explaining the trajectory of the EU electricity policy offered strong arguments for neofunctionalism to be the root of energy policy evolution, as it was possible to identify specific patterns of this theory in the legislative mapping. *(Thesis Chapter 4)*
5. Reliance on quantitative methods will help to build a body of knowledge that makes it easier to perform this kind of research, while also fuelling the development of new insights. In particular for political science fields that border on more mathematics-heavy domains, such as economics and energy, the use of quantitative methods is likely to foster deeper and more sustained understanding. *(Doctoral discipline)*
6. Measured by the annual GDP growth per capita, the link between the economic situation and environmental policy output was obvious, until 2007, when the evolution of the two became disjointed. It is a puzzle as to what happened around that year that caused the environmental policy driver to disappear. *(Doctoral discipline)*
7. Energy is a heavily regulated domain, with thousands of binding pieces of legislation at the European level requiring compliance, at all levels (production, transmission, trading, distribution, retail), and this creates significant barriers to market entry for new market participants. *(Doctoral discipline)*
8. The thesis' findings reveal the importance of public opinion in adopting new legislation. For most energy policy priorities, European policymakers are swift to embrace new legislation, adapting to new developments and resonating to the public. *(Impact of the results of the research for society)*
9. "Energy and climate change policies need not be complicated." (Helm 2014, p.35) *(Free topic)*
10. *Doctrina perpetua!* (Forever learning) *(Free topic)*

Nederlandse samenvatting (Dutch summary)

De belangrijkste onderzoeksvraag van dit proefschrift was: wat zijn de externe factoren waar beleidsmakers in het EU-electriciteitsdomein het meest gevoelig voor zijn, van 1986 tot 2018, in de lijn van het klassieke energy trilemma? Het antwoord op deze vraag was verwacht bij te dragen aan een betere diagnose van de EU-electriciteitsregelgeving, inclusief indicatoren en beleidsterreinen die over het hoofd gezien kunnen worden, en voor belangenbehartigers een beter gevoel van manieren om de interesse van beleidsmakers te stimuleren. Om dat mijn voorlopige verkenning van de literatuur de afwezigheid van kwantitatieve, overkoepelende en decennialange studies aan het licht bracht, besloot ik een studie te gaan doen naar dit onderwerp.

Om een argument in antwoord op mijn vraag te krijgen, moest ik inzicht krijgen in de beleidsinstrumenten die in de loop van de tijd waren gebruikt en deze vergelijken met mogelijke externe factoren om geselecteerde factoren als aanjagers van het EU-electriciteitsbeleid te valideren. Daarom werd een kwalitatieve chronologische reeks van dergelijke instrumenten samengesteld die voldoende tijd zou beslaan om valide vergelijkingen mogelijk te maken, wat een multi-decennium onderzoek impliceert. Om de centrale zorg van het proefschrift aan te pakken, heb ik drie analytische stappen ontwikkeld

Ik begon met te kijken naar hoe het electriciteitsbeleid van de EU zich in de loop van de tijd heeft ontwikkeld, door de individuele doelstellingen en instrumenten te onderzoeken die door dit beleid worden voorgesteld. Het belangrijkste inzicht van dit onderzoek was dat de verschillende drijfveren van de EU-electriciteitsbeleid kunnen afhangen van het doel ervan. Om deze reden, heb ik het betrokken beleid bekeken volgens de pilaren die worden gesuggereerd door de klassieke energietrilemma: betaalbaarheid, duurzaamheid, voorzieningszekerheid, waaraan ik een vierde toevoeg, de interne markt van de EU. Deze categorisering stelt deze pijlers in feite in op, als zijnde in concurrentie met elkaar, sommige in een zero-sum game-manier.

Deze eerste analytische stap resulteerde in de creatie van een grote database die alle individuele doelen en instrumenten verzamelde, verdeeld over pijlers volgens het klassieke energietrilemma en de categorieën van Kanellakis, van 1986 tot 2018. De empirische database bestaat uit ongeveer 300 wetteksten en meer dan 8000 labels. Deze construct was essentieel in de latere ontwikkeling van dit proefschrift.

Een eerste onderzoek van de rangschikking van de energieprijzen wees uit de energietrilemma's grotendeels uit balans zijn. Bij de prioriteiten van de EU-energiebeleid staat milieuzorgen op de eerste plaats, gevolgd door betaalbaarheid, en onderaan de continuïteit van leveringen. De resultaten zijn over het algemeen consistent voor alle drie objectieven van beleidsanalyses.

De tweede analytische stap betrof een onderzoek naar de gevoeligheid van EU-beleidsmakers voor externe factoren, waarbij werd gesteld dat gevoeligheid of ongevoeligheid van beleidsmakers voor bepaalde belangrijke externe factoren een reden kan zijn dat milieuprioriteiten voorrang krijgen boven andere energieprioriteiten, zoals opgemerkt in mijn eerste onderzoek. Ik heb deze theorie getest door de gevoeligheden tussen een verandering in beleid en variaties in externe factoren te vergelijken. De methodiek is gebaseerd op de nieuwste methodes op het gebied van leveringszekerheid, het creëren van een scoreschaal van data en het omzetten naar ordinale waarden.

De belangrijkste bevindingen van dit onderzoek laten een nauw verband zien tussen de reactie van de wetgevende macht (wat betekent dat er een significante reactie van de wetgevende macht is als gevolg van variaties van geselecteerde externe factoren) en ontwikkelingen in sommige pijlers, maar niet voor alle. Er kon een verband worden waargenomen tussen de wetgevende reacties en de voorzieningszekerheid en de betaalbaarheidspijlers. Voor de pijler interne elektriciteitsmarkt lijkt de wetgevende reactie nogal zwak. Voor het milieu lijken externe factoren geen invloed te hebben. Blijkbaar beïnvloedt de publieke opinie over betaalbaarheid, elektriciteitsprijzen en huishoudelijke energiekosten de politieke reactie op de betaalbaarheidspijler, terwijl de publieke opinie over leveringszekerheid, minuten per klant verloren elektriciteit in een jaar en afhankelijkheid van vaste brandstoffen/aardgas de beleidsrichting bepaalt voor de voorzieningszekerheid. Maar hoewel de uitstoot van broeikasgassen/hoofd van de bevolking is afgenomen en de luchtkwaliteit aanzienlijk is verbeterd, lijkt er geen verband te bestaan tussen dergelijke veranderingen en de reactie van de wetgever.

Een onbegrijpelijker bevinding was dat milieu-indicatoren (meetbare, externe factoren) veel verder ontwikkeld zijn dan indicatoren voor betaalbaarheid of leveringszekerheid. De anomalie is dat de output van wetgeving veel minder gevoelig is voor milieu-indicatoren dan indicatoren voor betaalbaarheid of voorzieningszekerheid. Het lijkt dus redelijk om te verwachten dat indicatoren voor betaalbaarheid en voorzieningszekerheid veel verder ontwikkeld zijn, aangezien ze belangrijker zijn voor de wetgevingsoutput; dat is echter niet het geval.

Na dit onderzoek was het mogelijk om drijvende factoren te identificeren voor de pijlers betaalbaarheid en voorzieningszekerheid van het EU-electriciteitsbeleid, en gedeeltelijk voor de interne energiemarkt. Als dit een gedeeltelijk antwoord was op de hoofdonderzoeksvraag, was het ook een onvolledig antwoord. Om dit raadsel op te lossen, was een meer aanhoudende focus op de drijvende krachten achter de milieupijler van het EU-electriciteitsbeleid nodig.

De derde analytische stap was vervolgens gericht op het onderzoeken, in een meer holistische benadering, van de drijvende factoren van de milieupijler. Als de fysieke, externe factoren niet de drijfveren waren, was een dieper onderzoek nodig. Dergelijk onderzoek wordt namelijk uitgevoerd door wetenschappers op het gebied van Environmental Policy Integration (EPI), waarin onder meer wordt gevraagd waarom milieu wordt opgenomen of erkend in andere domeinen, waaronder energie. Ik heb daarom de theorieën verkend en

getest uit de meest gedetailleerde en recente classificatie van mogelijke rechtvaardigingen in de EPI-literatuur voor de ontwikkeling van milieu- en klimaatbeleid in de energiesector.

Het resultaat van deze verkenning was dat organisatorische factoren en de formulering van het probleem de milieuwetgeving op het gebied van elektriciteit in de EU het meest lijken te beïnvloeden. Het sterke mandaat dat door opeenvolgende EU-verdragen aan de Commissie werd gegeven, leek overeen te komen met een toename van de wetgevingsproductie. Met betrekking tot de framing van het probleem zou een nauwe correlatie kunnen worden vastgesteld; bovendien suggereren verschillende andere studies ook dat veranderingen in de framing de beleidsoutput beïnvloeden.

Kortom, deze laatste stap helpt bij het beantwoorden van de vraag naar de factoren die aan de basis liggen van de prioriteiten van het EU-elektriciteitsbeleid. Tijdens het onderzoek werd duidelijk dat de verschillende doeleinden van de wetgevende output, verdeeld over het klassieke energietrilemma, ook verschillende drijfveren hebben. Met betrekking tot de pijlers betaalbaarheid en voorzieningszekerheid en, gedeeltelijk, de interne energiemarkt, lijkt de wetgevende reactie goed te zijn afgestemd op variaties van bepaalde fysieke externe factoren; met betrekking tot de milieupijler was echter een diepgaander onderzoek nodig, waarbij organisatorische factoren en het formuleren van het probleem werden gesuggereerd als mogelijke oorzaken voor de concrete impact van de wetgevingsoutput.

Acknowledgments

In the “The Leadership Manifesto,”¹ Bill Hicks writes in his acknowledgments, that *“The world is a better place thanks to people who want to develop and lead others.”* While my name is on the cover of this thesis, there are many who contributed to it and, frankly, I could not have done it without their effort, wisdom, patience and skills. This book is dedicated to them – to the amazing people around me that made it possible. I feel that I stand on the shoulders of giants.

First of all, words cannot express my gratitude to my coordinators, Prof. Thomas Christiansen and Dr. Anna Herranz Surralles. We shared a long intellectual journey and I could not have found better guides on this seven-year expedition into the unknown. They were always at my side on this journey: responding to emails, never missing a call, showing patience in their questions, being pro-active, as well as being willing to spend time and energy to provide carefully written comments and bibliography suggestions. The calm and wise demeanour of Thomas, and the energetic and diplomatic manner of Anna will forever be model examples. You are exceptional people.

I am deeply indebted to my mentors, Cristian Pirvulescu and Peter Styles, two of the wisest people I have ever met. They guided me toward the right path and offered me invaluable advice. Cristi gave me a critical piece of advice right when my thesis project seemed headed for a downward curve. His moral values are a beacon of light. Peter helped me navigate treacherous waters and aided me to fend off the allure of life’s distractions. His command of the English language and his clarity of thought are a marvel. Despite our many years together and our countless hours of discussion, I am still impressed by them.

I am extremely grateful to Brian Ricketts, Jan van Aken and Mark Copley, three people I looked up to in my professional life. If it is easy to be autocratic when in charge, they offered great examples of leadership. This thesis exists because of them and their incredible support for my passion for knowledge. Brian’s high and unwavering standards were critical in my formative professional years. Jan remains the best negotiator I have ever met. I am in awe by Mark’s fast mind, as well as his frankness and capacity to fathom political processes.

This book would not have been as it is without the brilliant mind and skill of Ton Brouwers, who edited the manuscript. His patience and reliability made my life so much easier.

Special thanks to Anastasia Mitronatsiou, my fellow PhD candidate and academic journey companion. We both started on this journey back in 2015, and, unlike many others, we managed to go on and stay on track. Your diligence and hard work, while always being in high spirits, were an inspiration for me.

I am grateful that Marianne Alfenaar translated the Dutch summary; she deserves my infinite appreciation for all her calm and patience, as well as her meticulousness.

¹ The Leadership Manifesto: Eight Steps for Professional Development, Bill Hicks, 2007, Lioncrest Publishing, ISBN- 1619617943 (page 179)

I am also grateful to the support provided by the PhD office and Sabine Kuipers, who responded with precision, swiftness and ingenuity to all my questions. Sabine's smooth operation of the office was a bedrock I could always count on.

Thanks should also go to my long-time friends: George, Simi, Calin, Octavian and Daniele. Although we do not meet each other as often anymore, this has hardly affected our friendship. Each time we do meet it is easy to pick up our conversation where we last left off. I am blessed to have friends like you.

Finally, I could not have undertaken this journey without my wife, Inês, and my parents, Gina and Costel. Inês has encouraged me from the beginning and she tirelessly stayed with the babies, while I was working late at night. This journey was a family project and Inês was fully part of it. I wouldn't be where I am now without my parents' unwavering support. I am the luckiest son ever to have you. (Nu as fi unde sunt acum fara suportul neconditionat al parintilor mei. Sunt cel mai norocos fiu.)

About the author

Mircea (Mike) Bostan was born close to the Eastern slopes of the Carpathian Mountains, in the small town of Adjud, in Romania. The energy sector impacted him early in life, the Chernobyl disaster occurring only weeks after Mike's birth on 4 April 1986.

After graduating the high school in his native town, Mike's higher education started in 2005, in Bucharest, Romania, where he studied Political Science at the *National School of Political Science and Administration* (graduated amongst top 10 students), and International Business and Economics at the *Academy of Economic Studies*. During his studies, Mike worked for the Ministry of Foreign Affairs of Romania, and, briefly, at the NATO division. After graduation, Mike was accepted at the *University of Warwick*, in the United Kingdom, where he obtained in 2010 a degree in International Political Economy (grade: 2:1 Merit), with a thesis on non-tariff trade barriers. At every level of education and for each degree, Mike received merit scholarships, tuition fee waivers and the highest scholarship of Romania, the Dinu Patriciu Foundation grant.

After five years in public and private service in the areas of European affairs, trade and energy, for the European External Action Service (public institution), the European Roundtable of Industrialists (private organisation) and the National Foundation of Young Managers (NGO), to name a few, Mike was accepted as PhD candidate at the *Faculty of Arts and Social Sciences, Maastricht University*.

Previous and during his PhD studies, alongside the regular classes, Mike took several energy courses, including: the EU Electricity Network Codes and Regulation of the Power Sector by Florence School of Regulation, the IEA Statistics Summer School by International Energy Agency and Our Energy Future by Coursera and University of California, San Diego. While completing his PhD, Mike published two articles in a peer-reviewed, open access journal (the International Journal of Energy Economics and Policy) and participated in several academic conferences (CIRED - International Conference on Electricity Distribution and EnerDay at the University of Dresden, to name a few). He is also a member of UACES (University Association for Contemporary European Studies), an international organisation for academics, students and practitioners interested in all aspects of Europe and the European Union.

Mike is currently manager of the Market Supervision Committee of the European Federation of Energy Traders (EFET), where he is responsible mainly for financial legislation applicable to transactions in the energy domain. He is also coordinator of the EFET training programmes with the European Investment Bank, the European Commission's Directorate-General Energy, the European Parliament and others. Finally, Mike is Board member for the Scientific Council of the Council of European Energy Regulators (CEER), responsible for training European energy regulators.