

Natural gas

-The saviour or bane of EU environmental
policy?

Tim Linder

Abstract

European environmental policy has in the recent years become more and more prominent, and with the European Commission launching the European green deal, environmental policy has become a part of the centre stage of European policy. When looking to decarbonise the economy natural gas becomes a favourable solution. However, natural gas is not without a problem i.e., natural gas is still a fossil fuel and does emit greenhouse gases making it unsustainable in the long run. In other words, new natural gas transitioning infrastructure projects need to be highly cost efficient and effective in order to make them beneficial in the process of decarbonating the EU. Moreover, investing long term into fossil fuel infrastructure goes against not only EU legislation and policy, but also the commitments undertaken by the Paris Agreement. Yet, at the same time EU legislation has classified natural gas as a green investment. The thesis seeks to study policy incoherence caused by favouring natural gas solutions while also moving towards a carbon neutral society. In order to do so the thesis will take on a liberal intergovernmentalist approach, analysing European integration or the lack of it as an explanation for the situation of today's EU environmental and energy policy. Finding the outcome of EU policy to be the result of a compromise between opposing bargaining positions.

Key words: EU, Natural gas, Environmental- and Energy policy, Liberal intergovernmentalism

Wordcount: 17832

Table of Contents

1. Introduction.....	4
2. Literature review.....	6
2.1 Policy incoherence.....	6
2.2 European integration.....	8
2.3 Liberal intergovernmentalism.....	8
3. Theory and method.....	11
3.1 Liberal intergovernmentalism	11
3.2 States acting in anarchy are critical political actors.....	11
3.3 States represent social interests in managing interdependence	12
3.4 States are boundedly rational	12
3.5 The three-stage casual model of international cooperation according to liberal intergovernmentalism	12
3.6 Addressing EU policymaking	16
4. Analytical framework.....	18
4.1 Time framework.....	18
4.2 Ontology and Epistemology.....	19
4.3 Process tracing.....	19
4.4 Analytical model.....	20
4.5 Material.....	23
5. European policy.....	25
5.1 European environmental policy.....	25
5.2 The European green deal.....	26

5.3 Energy policy.....	29
5.4 EU Taxonomy.....	31
6. Policy incoherence	34
7. Analysis	38
8. Conclusion.....	47
9. References.....	48

1. Introduction

Climate change and the challenge to limit global warming is an ongoing fight against the clock. At the current rate global warming is likely to reach 1.5°C above pre-industrial levels between 2030 and 2052 (ipcc 2022). The increase will impact the whole world, effecting both nature and society. Polar ice shield is melting, and the sea is rising. Extreme weather event will become more common, including heat waves, storms, and droughts. Furthermore, challenges for biodiversity, agriculture and forestry, health etc. are to be expected. However, the consequences are expected to be within control if the increase are limited to below 1.5°C pre-industrial levels. An increase of 2°C is associated with serious negative impacts (EC 2022). By limiting global warming to 1.5°C compared to 2°C the IPCC report has found significant differences between the potential harms (IPCC 2022), e.g.,

“Limiting global warming to 1.5°C compared to 2°C is projected to reduce increases in ocean temperature as well as associated increases in ocean acidity and decreases in ocean oxygen levels (high confidence). Consequently, limiting global warming to 1.5°C is projected to reduce risks to marine biodiversity, fisheries, and ecosystems, and their functions and services to humans, as illustrated by recent changes to Arctic Sea ice and warm-water coral reef ecosystems (high confidence). (ibid)”

To tackle global warming the international treaty on climate change i.e., the Paris Agreement was adopted by 196 Parties at Conference of the Parties 21 (COP 21). Implementation of the agreement requires economic and social transformation, and provides a framework for financial, technical, and capacity building support for the needing countries (UNFCCC 2022).

In the light of this background the EUs main response for tackling climate change is the European green deal. The European green deal is a major part of the European Commission’s strategy to integrate and achieve the goals of the Paris Agreement. Furthermore, with the European green deal the EU takes on an ambitious target to become climate neutral by 2050. Integral to the EUs climate policy is EU energy policy, i.e., since the production and use of energy account for more than 75% of the EU’s greenhouse gas emissions. In other words, in order to achieve climate neutrality a decarbonisation of the EU’s energy system is necessary.

When decarbonising, natural gas can serve as a transitional investment, since natural gas produces less CO² than coal i.e., contributing to reducing greenhouse gas emissions (IEA 2019). Natural gas emits between 50-60% less CO² and produces less air pollution than oil or coal (ibid). Furthermore, as of today natural gas currently represents around a quarter of the EU's overall energy consumption. About 26% of that gas is used in the power generation sector (including in combined heat and power plants) and around 23% in industry. The rest is primarily used in the residential and services sectors, mainly for heat in buildings. The EU's gas demand is around 400 billion cubic metres (bcm) and, based on current policies, is projected to remain relatively stable in the coming years. Domestic gas

production is expected to decline, which is likely to have an impact on gas imports. At the same time, however, further policies designed to achieve 2030 energy and climate targets – notably those in the *Clean energy for all Europeans package*, such as energy efficiency improvements in heating and industry – are likely to see a drop in overall gas usage across the EU (EC 2021).

However, natural gas is not without a problem i.e., natural gas is still a fossil fuel and does emit greenhouse gases making it unsustainable in the long run. In other words, new natural gas transitioning infrastructure projects need to be highly cost efficient and effective in order to make them beneficial in the process of decarbonating the EU. Investing long term into fossil fuel infrastructure goes against not only EU legislation and policy, but also the commitments undertaken by the Paris Agreement. Yet, at the same time EU legislation has classified natural gas as a green investment.

Importantly, as each member state is responsible for their own national energy policy there is no harmonised energy framework. Leading to member states having very different compositions of energy production, and long-term goals. As a result, it has come to shed a light at a misalignment between means to secure national energy supply and environmental commitments by the EU.

Based on this background I would argue that the EU is incoherent in its environmental policy. Where one can observe how EU energy policy favours natural gas solutions, while at the same time also seeks to commit to the long-term environmental policy goal of becoming climate neutral. This allows for establishing the following research question:

Why does EU energy policy support natural gas when it also strives to become climate neutral?

Following the research question, the thesis seeks to explain how the current situation of policy incoherence has occurred i.e., favouring natural gas solutions, while at the same time strive for climate neutrality by 2050. In order to do so the thesis will take on a liberal intergovernmentalist approach, analysing European integration or the lack of it as an explanation for the situation of today's EU environmental and energy policy.

2. Literature review

2.1 Policy incoherence

Policy incoherence is an umbrella term to showcase the challenge of integrating interest in the EU. As the policy agenda has expanded over the years, a higher degree of societal interests has become a matter for EU politics and consequently more interests also have a stake in the policy making process (Hodson, Peterson, P.410). Undoubtedly, the EU does a great job when integrating the interest in the policy making process, yet it also displays numerous cases where it fails to do so (ibid). Furthermore, when trying to balance preferences of interests different aspects does not always function together, as displayed in energy policy.

The meaning of the word incoherence according to the Cambridge dictionary are the state of being expressed in a way that is not clear, especially with ideas or words that are not connected in a sensible or clear way. Following the definition of incoherence, Policy incoherence can be defined as incoherent, unclear policy i.e., when policy is unclear and can be seen to drift in different directions, potentially counteracting policy goals. However, politics and policy rarely operate in an isolated environment, meaning that the concept of policy incoherence needs to be put into a greater context. Therefore, one need to consider the incoherence problem as a drift between different policies. In the case analysed in the thesis the concept of policy incoherence will refer to the incoherence between energy and environmental policy. How can the long-term goals of EU environmental policy be to reduce greenhouse gas emissions whilst EU energy policy favours natural-gas solutions and therefore contributing to greenhouse gas emissions at the same time?

Within the realm of EU studies, addressing policy coherence or the lack of it, has become far more common in policy analysis. Traditionally it has most frequently been addressed in EU foreign policy (Hertog, Stroß, 2013). Over time, the study of coherence – or the lack thereof – has further developed to become one of the most commonly cited obstacles hindering the proper functioning of the EU's policies (De Jong, Schunz, 2012). Yet, within an EU context much confusion about the term coherence remains (De Jong, Schunz, 2012, Hertog, Stroß, 2013). A summary of the EU law and foreign policy debate around policy coherence can be found in the works by Hertog and Stroß. Starting with the language of the EU treaties, the lack of harmony between the wording is apparent. Comparing the English language versions where the word “consistency” is used to the German “Kohärenz” and French coherence wording for “coherence”, indicates differentiations on applicably and interpretation (ibid). Furthermore, the Danish, Dutch, and Swedish versions use wording translated to the term connection (Hertog, Stroß, 2013). Some scholars further argues that coherence and consistency do not carry the same meaning, where consistency can be understood as the absence of contradiction and the stronger term coherence as different policy fields actively work together to

achieve common overarching goals (ibid). Thus, implying that coherence indicates a positive relationship.

As literature on policy coherence has seen an increase over the years (Lenschow, Selianko 2015), a complete consensus is still lacking. As policy coherence is closely related to concepts such as: policy integration, policy interaction, and policy consistency, (ibid) all closely connected to policy and institutional analysis (ibid). However, whilst in the field of EU policy coherence studies, academics have identified/indicated different types of coherence, e.g., Horizontal, Vertical, and Internal (Nilsson et al.), a common denominator is the need for a multilevel approach, (most frequently horizontal, vertical). Building on the works by Nilsson et al, defining policy coherence as an attribute of policy that systematically reduces conflicts and promotes synergies between and within different policy areas to achieve the outcomes associated with jointly agreed policy objectives (Nilsson et al, 2012). A multilevel framework for understanding policy coherence is necessary, taking into account both vertical coherence (between EU and Member State policies) and horizontal coherence (between policy areas at one level) (ibid). Thus, strong integration mechanisms in the policy process are expected to help reach more coherent policies, and the degree of coherence between two or more policies will affect outcomes and impacts (ibid).

Moving on, the study of EU energy and environmental policy and its relation often draws on the present literature of policy coherence (Skovgaard 2018, Selianko, Lenschow 2018). The benefit of doing so is the ability to either showcase or identify how policy packages which on the surface might be perceived as successful, instead interact incoherent. Furthermore, as stated by Skovgaard, the interplay between climate and energy policy is characterized by high degrees of interaction and varying degrees of coherence. Climate and energy policy may interact in different ways, inter alia, due to the different ideas inherent within each policy field (Skovgaard 2018). In addition, coherence between energy and environmental policy has also grown on a political level in the EU (Kurze, Lenchow 2018). Yet, it has been shown that those synergies are mostly taken for granted, while at the same time incoherent conflicts of policy with a wider environmental agenda are often marginalized (ibid). Consequentially, painting a picture of an EU desiring to create coherence between EU energy and climate policies whilst at the same time displaying layers of friction within the policies (ibid).

Following previous stated symbiosis, the academic field has shown the importance of policy coherence analysis (Hertog, Stroß, 2013, Skovgaard 2018, Selianko, Lenschow 2018, Kurze, Lenchow 2018). The multilevel approach to policy coherence is also closely connected to the study of EU policy implementation and Europeanisation process, thus contributes to capture the interplay between EU and national policy. As expressed by Nilsson et al. *“The multilevel governance character of the EU to some extent reflects the analytical layers from objectives to instruments to*

implementation practices, where the overarching objectives and overarching types of instruments are set centrally whereas specific instrument design and implementation is defined at the MS or regional level” (Nilsson et al. 2012). EU energy policy is a clear example of this, having the grand framework established at EU level and the instruments established by the MS.

2.2 European integration

When looking at European integration and integration as a concept itself, the first question that one must ask is: why integrate? What is the reason for a state to integrate with another state and why would any state willingly transfer its powers of sovereignty to a supranational institution. The question of state integration can be found as far back as the peace treaties of Westphalia and the birth of the nation state (Saurugger, 2014) and is highly related to the academic field of international relations. Furthermore, understanding the *why*, requires a broader understanding, i.e., how did they integrate, who are the driving actors, etc (ibid).

There are several ways to understand and explain the European integration process, and over the course of time different theories have been brought up. However, two dominating theories of regional/European integration -neo-functionalism and intergovernmentalism have stood in the frontlines, offering distinct and influential theoretical explanations of mechanisms for the role of institutions in the integration process (Tallberg 1999). The differentiation of the theories can be traced to the answering of the questioning on one of the most causal effects for European integration. Is it the Institutions themselves who are the main drivers for integration or is it the Member States? Or better framed by Tallberg: *“Do the supranational institutions of the European Union constitute “engines of integration” capable of independently pushing European integration further and in other directions desired by the member states, or are they simply “obedient servants” passively fulfilling the technical functions delegated to them by EU governments?”*

The powers and functions transferred to the supranational institutions (EU institutions) have been debated by scholars since the 1950s (Pollack 2015, Saurugger 2014, Tallberg, 1999). With early neo-functionalists seeking to explain the integration process as something broad and ambitious in the beginning and early well development of the EU. Institutionalists on the other hand, utilized the empty chair crisis to argue for the opposite (Pollack). The debate itself has moved on and the principal core of whether institutions fulfil essential functions for integration or not, as all agree they do (Tallberg 1999), towards a focus on the causal mechanism for how integration takes place.

2.3 Liberal intergovernmentalism

Still today, the grand theories of integration continue to inform and structure the academic debates about the grand scheme and general development of European integration (Schimmelfennig, Winzen 2019). They offer a complete theory for the process and in contrast to theories of European policy-

making, theories of European integration focus on the institutional change in EU policy, e.g., the integration of new policy areas and member states and shifts in competencies between the state and the union and between institutional actors of the EU (ibid). As the EU has developed so has European integration theories, and as the debate and EU has matured more and more about the integration process now further raises the role of the member states themselves (Ladrech 2014). By questioning the role of the MS, one has to reconsider the role of the national state, how it acts as a recipient of EU norms, policies, and decision-making. Furthermore, with an increase of civil servants, lobbyist, etc., the exchange of information and contacts between borders has increased, integration can be observed in a more horizontal direction (ibid). Yet undeniably the state still remains the central component and key actor of the EU, e.g., no MS no EU.

By acknowledging the importance of the state and the grand theories explanatory power for European integration, this thesis will utilise liberal intergovernmentalism as its theory and method. Liberal intergovernmentalism brings a strong foundation for explaining the development and shaping of EU policy, by attributing the power of the MS and national preferences. The strength of liberal intergovernmentalism comes from it being transparent, its assumptions and predictions are transparent, parsimonious and empirically testable (Naurin 2018). As shown by Naurin many scholars have disputed but few ever refuted Moravcsik's findings about the dominant role of the EU governments and the distributional outcomes among them (ibid). Liberal intergovernmentalism focuses on interdependence-driven interests, influence, and institutions that remains and develop over time. It argues that despite conflicts and crises transnational interdependence and intergovernmental problem-solving will always be an ongoing process in the modern world (Moravcsik 2020). Moreover, liberal intergovernmentalism has the benefit of accepting that in many areas of EU policy that unity is not required to achieve policy coordination and integration favoured by the MS and its citizens (ibid). Thus, it takes on a more pragmatic view rather than a utopic stance.

However, liberal intergovernmentalism is not without criticism. The theory is challenged both by constructivists and postfunctionalists. Constructivists challenges the view where rational domestic actors' forms preferences independently of EU institutions, arguing that European social norms not only affect behaviour, but also shapes interests and preferences. Moreover, postfunctionalists criticises the liberal intergovernmental model of shaping national preferences, focusing on European integration as an issue in domestic mass politics, implicating issues of identity and economics (Kleine, Pollack 2018). Proposing a limit to liberal intergovernmentalism, e.g., arguing that it struggles to explain mass mobilisation around issues of identity (ibid).

While there is some merit to the criticism of liberal intergovernmentalism and the theory was developed for the context of intergovernmental conferences, I would argue for its relevance and how it can be applied in a broader context of daily EU decision-making. As empirically shown, the

important role of EU states and the distributional outcome is strong. Emphasised in the council where majority rule prevails, and supranational actors are involved in the decision-making process (Naurin 2018). The explanatory value thus comes from emphasising the importance of national states and their shaping of European integration, allowing for a bottom-up perspective in how to understand EU policy.

3. Theory and method

The thesis will utilise the theory of liberal intergovernmentalism and its causal three-stage model.

3.1 Liberal intergovernmentalism

Theories are the result of cyclical challenge and reinforcement, empirical events question a theory's main hypotheses. Subsequent empirical events then allow the theory to re-emerge and to be strengthened through new conceptual considerations (Saurugger, 2014). Liberal intergovernmentalism is no exception. By the end of the 1980s intergovernmental theorists were struck with the empirical challenge of how to explain the relaunch of European integration despite the world transitioning away from a bipolar system (ibid). Scholars at the time believed that European integration was fuelled by federal idealism and geopolitical necessity derived from the two world wars (Moravcsik, 1998). According to Moravcsik most advocates of European integration at the time believed in supranational federalism, based on solidarity with the Cold War anti-communist cause, scepticism of a sovereign Germany and suspicion of nationalism (ibid). To allay these concerns, so scholars argued, idealists designed the European Union to replace -or at least, significantly constrain -nation-states (ibid). As all theories of European integration, liberal intergovernmentalism tries to explain this continuity, the relaunch of European integration in a new world system, and it does so by two general factors: intergovernmental bargaining and national interests. With the launch of his work: *The choice for Europe: social purpose and state power from Messina to Maastricht*, Andrew Moravcsik presents the foundation of the theory, where liberal intergovernmentalists consider European integration first and foremost as a collective action seeking to optimize gains for each state. (Saurugger 2014)

The theory of liberal intergovernmentalism understands integration as the cooperation between sovereign states who behaves as rational actors and whose interactions are managed by the principles of authority and hierarchy. Cooperation, or pooled sovereignty, does not reduce the independence of states; on contrary, it strengthens them by helping states adapt to the constraints imposed by the international environment (Saurugger, 2014, P.55). Furthermore, the theory rests on three basic assumptions: States acting in anarchy are critical political actors, States represent social interests in managing interdependence, and States are boundedly rational (Moravcsik 1998). Which in turn generates a three-stage theoretical model of integration.

3.2 States acting in anarchy are critical political actors

The first assumption made by liberal intergovernmentalism is that states make decisions and acts in an anarchical context without a centralized authority to make and enforce political decisions (Moravcsik 1998). States, therefore, needs to accomplish their goals through intergovernmental negotiation and bargaining. As a result, it follows that regional institutions such as the EU are not proto-states as much as international regimes for coordinating nation-state policies (ibid). However, the assumption should

not be viewed in the same light as a classical realist approach, instead it maintains the position that sovereign member states of the EU remain, ultimately, the “masters of treaty” (ibid). Member states simply hold the uttermost power over policy-making and political legitimacy. Consequently, the Member states therefore if a majority wants it, have the power to reform institutions or change the direction of policy to further promote their political will (ibid).

3.3 States represent social interests in managing interdependence

According to the second assumption of liberal intergovernmentalism, states are not the most fundamental actors, instead, as liberal theories do project, the individual is. Individuals and groups both domestically and in transnationally interdependent societies serve as the primary force of politics (Moravcsik 2020). As a result, states serve as representative institutions whose task is to represent the preferences of individuals in the political world. Thus, national preferences are a reflection of underlying sub-national interests. Domestic interest groups and political parties exhort the state to manage and regulate transnational interdependence according to their own political beliefs (Moravcsik & Schimmelfennig, 2009, P.). This underlying function of national interdependence does in turn create the foundation for how states behave internationally.

3.4 States are boundedly rational

The third assumption is that states are (at least boundedly) rational. To the best of their ability national leaders seek to maximize utility, by calculating the utility of different courses of action based on underlying national preferences (Moravcsik 2020). However, while the theory does not deny the possibility for small domestic groups with divergent opinions to affect political belief, it argues that sub-national preferences generally aggregate towards distinct preferences for the state to adopt. In order to do so, states bargain over the substance and scope which tend to result in compromises leaving no group completely satisfied. While the negotiations take place under some degree of uncertainty, subject to the level of information, theories of case and effect, and inherent cognitive and procedural limitations they are at least boundedly rational.

3.5 The three-stage casual model of international cooperation according to liberal intergovernmentalism

The three assumptions do in turn serve as the baseline for the creation of a three-stage model for explaining international cooperation. States first define basic substantive preferences, then bargain among themselves to reach substantive agreements, and finally create (or adjust) regional institutions to implement, enforce, and elaborate those outcomes (Moravcsik 2020).

In the first stage, states form national preferences. The states form and create underlying objectives i.e., political goals to achieve based on social national preferences e.g., to reduce greenhouse gas

emissions. The underlying objectives do in turn, have a direct effect on the produced policy, presented strategy and tactics used by the state e.g., support for creating more strict emission targets within the European green deal. Thus, shaping the dynamic between social interests and policy toolbox to achieve those goals. Importantly, the preference of any political actor is not just a single desired outcome (“ideal point”), instead it is a compromise of the full range of hypothetical outcomes (“ordering”), the strength of support for an outcome (“intensity”), the tolerance of risk and loss (“risk acceptance”), a desired length of time in which they are realized (“time horizon”), and sensitivity to the necessary costs and disadvantages of a specific outcome (“trade-offs”) (Moravcsik, 1998, P.523-524).

According to Moravcsik the most important sources of national preferences are the demands (immediate or anticipated) of domestic groups for state policies to regulate issue-specific transnational societal interdependence (real and potential) in ways advantageous to them (Moravcsik 2020). These demands constitute the backbone of the motive force of the theory. Moreover, as every government seeks to remain in office, and thus are necessary interdependent on social groups, it will also favour parts of issue-specific aggregated opinions from the same social groups. As a result, this structure of social interdependency is neither fixed nor uniform (Moravcsik 2020). Implying, that social and national preferences vary, across borders, time, and issues and therefore consequentially cannot be controlled by a single group or state. Furthermore, the structure of domestic political institutions cannot be ignored as they do contribute as a bridge, conveying demands of social groups to governments (Moravcsik 2020).

Key to the concept of national preferences within the three-stage causal model is that preferences are issue-specific. Utilizing issue-specific preferences in the analytical model means that when applied to an analysis of European integration, one needs to begin with distinguishing issue-specific preferences as well as develop a theory to predict how they vary (Moravcsik 2020). However, it is important to acknowledge that this does not translate to the idea of that sectoral producer interests or economic interests in maximizing national welfare always prevail in the EU or elsewhere (Moravcsik & Schimmelfennig, 2009). Because then the analytical model would only argue for government subsidies. National interests should rather be defined as a compromised balance bargained between sectoral and factor-based producer interests, against the broader interests of other producers, taxpayers and those interested in regulation (Moravcsik 2020).

Following the concept of national preferences, one needs to be aware of the fact that issue-specific social preferences cannot cover the whole picture. Understood as empirical limitations in the first step of the three-step model, one can conclude that whilst important for the analysis, it is possible that federal idealism and geopolitical concerns can take a secondary role (Moravcsik 2020). To illustrate, whilst economic globalisation, geopolitics and ideology do play an important part in shaping the

outcome, they might by themselves not be sufficient to construct the EU as it is today (ibid). As stated by Moravcsik, “naked economic preferences might well have led to a highly institutionalized pan-European free trade area with flanking policies of regulatory harmonization and monetary stabilization,” rather than the EU that emerged” (Moravcsik, 1998, P.6)

The second stage in the three-stage model, covers how states in pursuit of their selected preferences, seek to reach agreement. Firstly, assuming that existing policy and underlying national preferences rarely/never completely align between states, bargaining is a necessity for creating cooperative policy outcomes. As a result, strategic interaction between states with different preferences will come to shape the outcome (Moravcsik 2020). Secondly, assuming the bargaining model suitable for the EU, one can rule out military coercion as well as consider that the national preferences of states are of a positive majority. Consequently, throughout the bargaining process states seek to improve a common situation for mutual benefits by coordination and cooperation, whilst also distributing gains and losses (Moravcsik 2020). During bargaining both collective and individual interests interact, creating a balance where hard bargaining over distributional gains reduces the incentives for cooperation (Moravcsik 2020).

To identify the efficiency and distributional gains from the outcome of international bargaining, the model takes advantage of a cooperative Nash bargaining model. A two-player game to model bargaining interactions, where in the game two players demand a portion of a good, and if they both request less than the total pool, the request is obliged. However, if the total request is greater than the pool, neither player gets anything (Nash, 1953, P.128-140). Moving on, in the setting of the liberal intergovernmentalism the key components for explaining interstate bargaining outcomes is relative power derived from the interdependence-driven distribution of social preferences and, in particular, the relative intensity of those preferences (sometimes referred to as importance or salience). (Leuffen et al., 2014).

To further understand bargaining in the model, the two aspects of efficiency, and the distribution of gains from interstate bargaining needs to be covered. In the model, efficiency of bargaining refers to the conditions in which an EU member state can bargain efficiently i.e., exploit opportunities to make beneficial deals (Moravcsik 2020). The basis for efficient bargaining rests on a premise about political leadership, assuming that states generally possess or can induce third-party entrepreneurs to provide sufficient information, expertise, prestige, or trust to assure efficient interstate bargaining (Moravcsik 2020). Meaning that one cannot assume that states and their respective leaders lack the ability to identify issues, develop proposals, locate compromises, and negotiate the details on their own behalf. Which further brings forward the argument of states being more efficient than third parties, and thus when utilizing the Commission and other third parties to provide policy advice and proposals, are not led to be biased and make irrational choices. However, importantly this does not mean that states

cannot be efficient according to the beliefs of NGOs, think tanks, idealists etc. States bargaining efficiently should be interpreted as, given diverse real-world national preferences and uneven power, states have the means—or can induce third parties to provide the means—to exploit opportunities to reap what individual or joint gains exist (Moravcsik 2018, P. 1648–1674).

Moving on, the second aspect to consider, distributions of gains from interstate bargaining. As previously mentioned, the three-step model takes advantage of a cooperative Nash bargaining model, a two-player game to model bargaining interactions, where in the game two players demand a portion of a good, and if they both request less than the total pool, the request is obliged (Nash, 1953, P.128-140). Further interpreted by Moravcsik, to be understood as the relative bargain power of states depends on the distribution of potential gains from agreement, relative to the (unilateral and collective) “outside option” or “Best Alternative to Negotiated Agreement” (Moravcsik, 1998, Moravcsik, 2018). Which when displayed in practise implies that states that gain the least from a basic agreement compared to unilateral and collective alternatives, i.e., higher net adjustment, are more likely to exert power by either stalling or blocking cooperation. Furthermore, states caring about the issue are on the other hand more likely to compromise, and or compensate (Moravcsik 2020). As a result, this kind of bargaining creates an asymmetrical interdependence. Yet, whilst states being interdependent the asymmetry still does tend to benefit larger states (stronger economies with large domestic markets and more prominent labour forces) (Moravcsik 2020).

The third and last stage, how and why states create regional institutions, i.e., states deciding whether and how to pool and delegate power in regional institutions. The underlying foundation for understanding the third stage, rests on regime theory. By adopting this view, the model explains the connection between states and international institutions according to the following: the role of institutions is to serve as instrument for states helping them to implement, elaborate, enforce, and extend incomplete contracts under conditions of uncertainty (Moravcsik 2020). Moving on, the correlation between state and institutions further implies that the states must transfer some of its power into the institution, allowing for the establishment of rules and procedures for coordinating state policies (ibid). Which in turn further help contribute to reduce the transaction costs of cooperation, since pre-existing rules helps to create new areas of cooperation. Resulting in creating a situation where cooperation becomes too advantageous compared to withdrawal for states wishing to fulfil the goals proposed by national preferences. The symbiosis allows states to benefit by reducing uncertainty at the cost of pooling sovereignty into institutions, which promotes norms and rules, and provide more accurate information (Moravcsik 2020).

To further shed light on the underlying reasons for why states would be willing to integrate at the cost of sovereignty, one can deduce three key factors, coordination, collaboration, and ideology. Starting with coordination, coordination problems appear in situations where states would benefit from

aligning their policies, but due to the cost of asymmetrical information chose not to. Due to transactional benefits states are reluctant to defect or cheat once policies converge, resulting in pooling decision making into common forums (Moravcsik 2020). Thus, having states pool resources into institutions solves the issue of asymmetrical information. At the same time, it gives the institution an important role to contribute by coordinating policy and enhance its efficiency of interstate cooperation. Establishing a time, place, and procedures for its members to discuss, align, and reach common ground (ibid).

Moving on the second factor, collaboration. In most policy areas, states do not only seek to coordinate, but also to reassure commitment, enforcement, and efficient revision of agreements. As a result, it put states in a difficult strategic situation comparable to the prisoner's dilemma, where one part may be incentivised to either stall or cheat when implementing, enforcing, and extending agreements (Moravcsik 2020). To counteract/resolve the problem, the gains from cooperation needs to be high enough, resulting in the willingness to pool power into institutions. Which then in turn grants institutions enough power to establish rules, oversight, and enforce policy. In some cases, the pooling of power even allows for institutions to further delegate to third-party adjudicators and implementers (ibid) creating a deeper commitment of collaboration and institutionalisation.

The third and final factor ideology, serve as a compliment to the two other major factors for why states chose to give up sovereignty and pool resources into institutions. In the case of the EU can all delegations of power be understood through coordination and collaboration, or does commitment to ideals contribute to integration? Focusing on the European Parliament (EP) and its legislative powers, it becomes a challenge attribute the loss of power of states to coordination and collaboration.

However, whilst the reasoning for the increase of power in the EP differs within the theory (Moravcsik 2020), the consequences for the state by doing so are small (ibid). Not only because the EP often challenges the Commission, but also because it is less coherent (ibid). The elected members of the parliament thus merely become a further reflection of ideological and national preferences in the state.

3.6 Addressing EU policymaking

With the liberal intergovernmentalism three-stage model in mind, one need to address the point of daily EU policymaking. The third step of the model i.e., creating regional institutions and pooling of sovereignty, does not address the everyday decision making in the EU, which follows after the establishment of the institution. Consequentially, the role of the third step after establishing institutions and how to interpretate daily EU policymaking needs to be addressed. In the view of liberal intergovernmentalism, there is no denial of the already established institutions (Moravcsik 2020), neither does the third step seek to focus on how institutions are established, but rather seek to explain why they keep exist and grow. Pooling sovereignty and delegation of resources into

institutions should therefore not be seen as an endless flow, but instead be understood as a balance of trade where states receive a secure place to coordinate and collaborate at the cost of state sovereignty and resources, with the state having the ability to cancel at any time. Which further means that each new decision made at EU level cannot always be evaluated as more pooling of resources, instead the support to remain must be considered. Following this process, daily decision making e.g., small policy reforms, regulatory implementation etc. taking place both during institutionalized and informal forms are all characterized by core elements of liberal intergovernmentalism (asymmetrical interdependence, social preferences) (Moravcsik 2020). As well as having the legislative process function in a similar way as the anarchical state states acts within (ibid), allows for liberal intergovernmentalism to function as a theoretical understanding of European integration and policymaking in the EU.

4. Analytical framework

This section will bring forward the core of the theoretical framework, the liberal intergovernmentalism three-stage model and the model of process tracing into the analytical framework used in the thesis.

4.1 Time framework

The time framework covering the case will span from year 2010 up until today, as well as consider long-term aspects until year 2050. The reason for this decision is due to the EU's goal of achieving carbon neutrality at the year 2050 (EC 2021) and the endpoint for the long-term strategy.

This in turn generates an end-goal for evaluating over time, creating a clear point for when natural gas combustions need to be shut off in order for the EU to achieve its long-time goal. A second important point in the timeline is the year 2030, as key climate and energy targets are set up in the 2030 climate and energy framework as a milestone for the 2050 long-term strategy (EC 2021). Where the EU has set a binding target to achieve 32% renewable energy sources in the EU's energy mix, and to increase energy efficiency over current levels by at least 32,5% by 2030 (EC 2021, EC 2021).

The two major timestamps (2030/2050) will help to provide benchmark for evaluating the progress over time. Evaluating the environmental effect caused by natural gas emissions in relation to the targets set out by the EU.

EU long term strategies to meet their Paris agreement commitments and the Energy union objectives:

The EU has set out and defined targets to put the on track to achieve its 2050 long-term strategy and on 29 July 2021 the European Climate Law entered into force (EC 2021), introducing a legal objective for the Union to reach climate neutrality by 2050 (ibid). On the road to the 2050 long-term strategy, the EU has also put out a 2030 climate and energy framework to achieve EU-wide targets and policy objectives for the period 2021-2030.

The 2030 climate and energy framework present 3 major key targets to achieve for 2030:

- At least 40% cuts in greenhouse gas emissions (from 1990 levels) (May be changed to 55%)
- At least 32% share for renewable energy
- At least 32,5% improvement in energy efficiency (EC 2021)

The 2050 long-term strategy:

- Climate-neutral
- Net-Zero greenhouse gas emissions

4.2 Ontology and Epistemology

Ontological and epistemological position regarding research and interpretation of the world. Both when conducting research and interpreting the world in general, we all assume an ontological and epistemological way of thinking and understanding. There is no denial that the way we view the world has an effect on how the research is conducted. It is therefore crucial to not only be true to oneself but also self-aware of its effects. Ontology takes on the key question: What is the form and nature of reality and, consequently, what is there that can be known about it (Furlong, Marsh, 2010, P.184-186)? Whereas epistemology instead asks the question of: What is the nature of the relationship between the knower and what can be known (ibid)? Together the two shapes what we study as scientist.

My personal positioning lies in the area known as realism. Furlong and Marsh define realism as “the world is viewed as composed of discrete objects which possess properties that are independent of the observer/researcher. There is a real world which exists independently of our knowledge of it (Furlong, Marsh, 2010, P.190).” However, one crucial part of realism is the assumption of structural connections between non observable social phenomena and the observable world (Furlong, Marsh 2010, P.204-206). Resulting in social structures having casual effects, which allows for both quantitative and qualitative research. On the other hand, it is important to be aware of the difficulties arising from taking a stance in realism. Combining both traditional scientific and interpretivist approaches is not always easy nor favourable in some situations.

4.3 Process tracing

The liberal intergovernmental three-stage model will be complemented by process tracing. The method itself are based on configurational thinking and utilize the fact that causation plays out in time and space as a natural basis for drawing causal inferences (Blatter, Haverland 2012). Emphasising the importance of observations in order to determine how the process progress, i.e., generating comprehensive storylines. Puzzling together empirical observations to determine the storyline, to provide certainty and density for a specific pathway explaining cause and effect (ibid). As well as, linking together the underling action-formation mechanism which further creates a link between causes and effect (ibid). However, it is important to acknowledge that the empirical information does not need to be compiled into any variables fitted into datasets to draw logical conclusions.

As mentioned, with process tracing one aim to recreate a storyline whilst identifying and explaining the development (Blatter, Haverland 2012). When recreating the storyline, it should be as comprehensive as possible, as it will help to differentiate the major sequences of the overall process as well as try to shed light on critical moments which has come to impact the direction of policy (ibid). By doing so the thesis will seek to provide empirical evidence of the occurring process. Blatter and

Haverland describe it as an attempt to identify a smoking gun i.e., observations embedded in a dense net of observations that show the temporal and spatial proximity of causes and effects (ibid). However, observations are not enough, to further build the case a deeper understanding of the perceptions and motives of actors are also needed to account for. In other words, process tracing can be deduced to a three-step process of observation, which together creates the empirical foundation for theoretical reflection.

The first step, creating a storyline serves two main functions: Firstly, presenting structural causal conditions which may have come to play a part in producing the outcome and/or the development of causal chains over time (national preferences). Secondly, identifying the most important steps leading to producing the outcome, i.e., sequencing the steps in the process (intergovernmental bargaining) (Blatter, Haverland 2012).

The second step, discovering “smoking guns”, a “smoking gun” is an observation that presents a central piece of evidence within a cluster of observations (Blatter, Haverland 2012). The observation is in general connected to other observations, and when put together serves to create causal claims. In order to have empirical value, a “smoking gun” needs to be complemented by a temporal and spatial connection (ibid). Consequently, its explanatory power come from temporal and spatial connections rather than theoretical ones. Yet, whilst not theoretically bounded, it will also serve as empirical basis for theoretical application.

The third step, understanding. To fully understand the causal process occurring and occurring during the “smoking gun” moment one need to understand why causality played out the way it did. The moment of understanding help to complement the empirical analysis of causality. In order to complement the structural features of the storyline and “smoking gun” observations one need to introduce explanatory features. This can be done two ways: by complementing the empirical information with theory and/or find explicit statements of why actors acted in a certain way (Blatter, Haverland 2012).

4.4 Analytical model

Figure 1 presents a simplification of the three-stage model of integration by liberal intergovernmentalism, where each box represents one step in the chain. Implying that integration (or the lack of) occurs at the end of the third stage (Moravcsik 2020). Thus, meaning that the thesis will through the method of process tracing follow all three stages to discover the causal elements of each step.

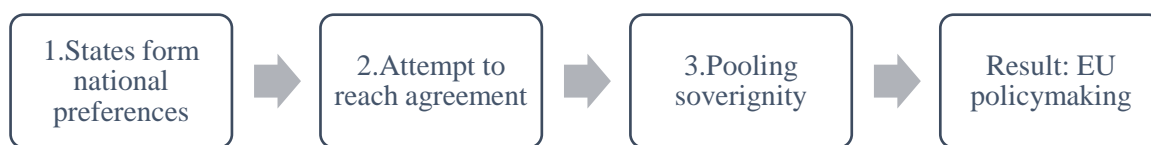


Figure 1: Simplification of Liberal intergovernmentalism three-stage model

Through the theoretical framework of liberal intergovernmentalism, the importance of causal variables in all stages has been highlighted. However, whilst each step depends on the previous one, all stages still behave differently and must therefore be differentiated and explained through different endogeneities (Moravcsik 2020). Combined with the knowledge of integration (or lack of) occurring after the third and final stage (ibid), it brings forward the importance of discovering and distinguish the elements of each stage. By observing each step in isolation, it allows for identifying and connecting empirical findings to the endogenic theoretical causal mechanisms, thus in turn allows for identifying the casual chain of sequence resulting in the current outcome i.e., discover and connect “smoking guns” in order to reach a conclusion (Blatter, Haverland 2012).

Observing and analysing each step in the three-stage causal model (Summarised in figure 2).

Stage 1: States form national preferences: In the first stage, states form national preferences. National preferences do in turn help states form and create underlying objectives, political goals (Moravcsik 2020). The establishment of national preferences serve as the baseline motivation for all further actions in the following stages. Consequently, the first step serves to identify and define the variable of national preferences. The variable is shaped by demands (immediate and anticipated), social preferences (not only economic), and the aggregated opinions of social groups represented of those in office (ibid). The interpretation of the causality caused by the variable need to be observed in the context of contingency and be limited to the specific issue. Furthermore, one needs to be aware of which types of causality can be derived from the condition. In the context of causality national preferences are bound to the definition of social and causal mechanisms, i.e., causal mechanism consisting of configurational entities of social mechanism shaped by theoretical assumptions (Blatter, Haverland 2012). Which categorise the variable as an underlying functional reasoning rather than a specific causal factor (ibid).

Stage 2: Attempt to reach agreement: In the second stage, states based on selected preferences seeks to reach agreements. Assuming that existing policy and underlying national preferences rarely/never completely align between states, bargaining is a necessity for creating cooperative policy outcomes. As a result, strategic interaction between states with different preferences will come to shape the

outcome (Moravcsik 2020). Bargaining is understood as two-player game, evaluated through the elements of efficiency of bargaining and distribution of gains (ibid), which in turn shapes the foundation of the second variable (International bargaining). As previously mentioned, the variable is further dependent on the previously established social mechanisms established in stage 1, and its causality should be interpreted according to the definition of causal chains i.e., a causal configuration where causal factors form the sufficient preconditions to trigger other lines of sufficient causal factors at a later point in time, forming a chain of events of causality leading to producing the outcome (Blatter, Haverland 2012). The variable should thus be considered a causal factor playing a crucial part of the causal chain leading to the end result, meaning that it needs to both be analysed independently and in context of the sequence.

Stage 3: Pooling sovereignty: In the third stage, states decide whether and how to pool or delegate power in regional institutions, moving decision making to an institutional arena. Having institutions serve as instruments for states helping them implement agreements under conditions of uncertainty, at the cost of power (Moravcsik 2020). The third variable will be defined as integration and is established based on three components, coordination, collaboration, and ideology. Together the elements shape the outcome of integration, creating the final variable in a causal chain. Moreover, the variable should be interpreted and analysed in the same way as the second variable, due to both being causal factors of causal chains. Furthermore, the variable is dependent on results of earlier stages and should therefore always be interpreted within the context of previous stages (Blatter, Haverland 2012).

In figure 2 the three steps are summarised to create an overview of each causal variable and its elements, type of causality, and causal limitations.

Liberal intergovernmentalism Three-stage model	Variable	Type of causality	Causal limitations
Stage 1: States form national preferences	National preferences: <ul style="list-style-type: none"> • Demands (immediate or anticipated) • Social preferences (Not only economic) • Aggregated opinions of social groups represented of those in office 	<ul style="list-style-type: none"> • Social and causal mechanisms 	<ul style="list-style-type: none"> • Contingency dependent • Issue dependent
Stage 2: Attempt to reach agreement	International bargaining: <ul style="list-style-type: none"> • Two-player game (Nash bargaining) • Efficiency • Distribution of gains 	<ul style="list-style-type: none"> • Causal chain 	<ul style="list-style-type: none"> • Bound by earlier established national preferences
Stage 3: Pooling sovereignty	Integration: <ul style="list-style-type: none"> • Coordination • Collaboration • Ideology 	<ul style="list-style-type: none"> • Causal chain 	<ul style="list-style-type: none"> • Dependent on results of earlier stages

Figure 2: Summary of analytical framework

4.5 Material

By establishing the goal to reproduce the occurring event, one need to use source material (Teorell, Svensson 2007). In order to review material, one need to define how the material will be reviewed. This is due to the connection between material and interpretation.

When recreating the case, it is important to consider the reliability of the sources. There are four criteria's which should be considered when reviewing the material: authenticity, proximity to time and space, tendency and dependence (Svensson, Teorell 2007). Authenticity serve to reassure the validity of the material, confirming the value of the material. How close to reality is the presented material. Proximity to time and space can be split into two subcategories: Contemporary, which connects to the time gap between the material and the actual event. Centrality of the source is the producer of the material present during the event. Tendency, how truthfully is the material, does it

have any hidden agency. Lastly dependence, does the material depends on other sources for its information (ibid).

The material used in the thesis to recreate the case will be secondary material. However, when using secondary material, one needs to be aware of the benefits and limitations. Firstly, since the material is not directly gathered by the researcher, e.g., interviews, surveys, and field studies it imposes limitations, meaning that one needs to read the sources more critically, since statements and interpretations tend to evolve and or be wrongly understood the further down the line it is told. In other words, the secondary material needs to be reviewed through the previously established criterions of authenticity, independence, relevancy in time, and tendency.

Moving on, the material used for in the thesis to recreate the case are documents from governments and international institutions i.e., the European Commission, European Parliament, European Council, German/Polish/Swedish national governments. Newspaper articles covering the bargaining process (EURACTIV), analytical evaluations, and previous research. By combining the material, the case's storyline can be recreated, understood and explained. The material will be used in its simplicity and evaluated through the analytical framework to contribute to answer the research question. Moreover, the material or more precisely the lack of it possess a limit to how much can be known about the bargaining state. This is due to bargaining in institutions occur behind closed doors meaning that it not possible to know exactly what happened.

5. European policy

5.1 European environmental policy

European environmental policy has in the recent years become more and more prominent, and with the European Commission launching the European green deal, environmental policy has become a part of the centre stage of European policy. The legal basis for EU competence to act in all areas of environmental policy are article 11 and 191 to 193 of the treaty of the functioning of the European Union (TFEU). The legal framework of operation is limited by the principle of subsidiarity and the requirement for unanimity in the Council in the fields of fiscal matters, town and country planning, land use, quantitative water resource management, choice of energy sources and structure of energy supply (EP 2022, TFEU 2022).

In 1993 the Maastricht treaty appointed environmental policy as an official EU policy (Treaty of Maastricht 1993). The treaty of Amsterdam established the duty to integrate environmental protection into all sectoral policies with a view to promoting sustainable development (Treaty of Amsterdam 1999). Furthermore, combating climate change and sustainable development in relations with third countries was introduced in the treaty of Lisbon (Treaty of Lisbon 2009).

European environmental policy rests on the principles of precaution, prevention and rectifying pollution at source, and on the polluter pays principle (European Parliament 2022). All areas of environmental policy are based on the frameworks of multiannual environmental action programmes and is carried out through horizontal strategies (ibid). The polluter pays principles is implemented by the Directive on environmental liability with regard to the prevention and remedying of environmental damage (EC, Directive 2004/35/CE). The directive aims to either prevent or remedy environmental damage. Establishing a common framework for the feature that an operator whose activity has caused the environmental damage, or the imminent threat of such damage is to be held financially liable, in order to induce operators to adopt measures and develop practices to minimise the risks of environmental damage so that their exposure to financial liabilities is reduced (ibid). Combined it gives the EU a multitool framework to present wide horizontal solutions for combating global warming and reducing greenhouse gases.

Moving on, since environmental policy rarely can be implemented in isolation, integrating environmental concerns into other EU policy areas has only increased since it first arose on an initiative of the European Council in 1998 (European Parliament 2022). The launch of the European green deal is an ideal example of environmental policy integration, covering a wide aspect of policy from energy to economy.

However, while EU environmental law and policy are on a continuously growth, with a big portfolio including directives, regulations and decisions, the effectiveness of EU environmental policy is

heavily dependent by national, regional, and local level implementation (European Parliament 2022). As a consequence, monitoring becomes a major aspect, both when it comes to application as well as enforcement. To combat this and the wide disparity between the level of implementation among Member states a recommendation providing for minimum criteria for environmental inspections was adopted (EC, 2001/331/EC). However, as it is only a recommendation the document is non-binding. On the other hand, there are stronger laws in place to enforce EU environmental law and violations on the environment (EC, Directive 2008/99/EC).

5.2 The European green deal

The European green deal is the EU's main response to tackling climate and environmental-related challenges. It is a growth strategy aiming to

“Transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. It also aims to protect, conserve, and enhance the EU's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts. At the same time, this transition must be just and inclusive. It must put people first, and pay attention to the regions, industries and workers who will face the greatest challenges” (European Commission 2019).

The Green deal is an integral part of the European Commission's strategy to integrate and achieve the United Nations' Agenda 2030 and sustainable development goals (European Commission 2019). In order to achieve this the Commission seeks to refocus the European Semester process of macroeconomic coordination to integrate the UN's sustainability goals, put sustainability and the well-being of citizens at the centre of economic policy, as well as shift sustainable development goals to the centre of EU policymaking (ibid).

In order to deliver the European green deal the Commission states the need for a change in policy and the importance of rethinking current policies for clean energy, economic supply, industry, food and agriculture, taxation, etc (European Commission 2019). The Commission further proposes to increase the value given to protect and restore natural ecosystems, sustainable resources, and improve human health. Emphasising the importance and benefits of a transformational change for the EU economy, society, and natural environment (ibid).

Moving on, when integrating the United Nations' Agenda 2030 and sustainable development goals, the Commission has also put out a long-term goal to achieve climate neutrality by 2050. The long-term vision was submitted to the United Nations Framework Convention on Climate Change in 2020 (UNFCCC2020), setting out the conditions for an effective and fair transition, providing predictability for investors, and ensuring that the transition would be irreversible. In addition to this, the first

European Climate Law was launched (EC, COM/2020/80) establishing a framework bound by law to achieve climate neutrality by 2050, I.e., reaffirming the ambition to make Europe the first climate-neutral continent by 2050. The Climate Law will also ensure that all EU policies contribute to the climate neutrality objective and that all sectors play their part.

The regulation further states: “*The European Green Deal*’. *The European Council, in its Conclusions of 12 December 2019, stated that all relevant Union legislation and policies need to be consistent with, and contribute to, the fulfilment of the climate-neutrality objective while respecting a level playing field, and invited the Commission to examine whether this requires an adjustment of the existing rules*” (EC, COM/2020/80). Cementing the importance of consistency in policy to achieve the long-term goal of fulfilling climate-neutrality.

Following the communication on the launch of the European green deal, the Commission has cemented that in order to overcome the challenges of climate change and environmental degradation the European green deal will transform the EU into a modern, resource-efficient and competitive economy, ensuring no net emissions of greenhouse gases by 2050, economic growth decoupled from resource use, and no person and no place behind (European Commission 2022).

Combining both ambition and legally binding commitments, the EU is now on a long-time journey to reach its ultimate climate goal of achieving climate neutrality by 2050. However, on its way to achieve its long-time goal of climate neutrality, the EU has adopted three major milestones.

The first milestone is the 2020 climate and energy package. The package sets out three key targets:

- 20% cut in greenhouse gas emissions (from 1990 levels)
- 20% of energy from renewables
- 20% improvement in energy efficiency

Which according to the Trends and Projections in Europe report by the European Environmental Agency (EEA) was achieved (EEA 2021). According to the estimates of EEA the greenhouse gas emissions were 31% lower than in 1990 (ibid). On the other hand, not every Member State managed to reach their national targets. According to the report Bulgaria, Cyprus, Finland, Germany, Ireland, and Malta all failed to reach their respective goals (ibid). Meaning that they all had to use flexibilities and buy emission quotas from other EU countries.

Moving on, the report also presents the results of renewables, indicating how the EU achieved a 21,3% share of renewables. Most of the increase came from electricity, heating, and cooling. In the area of transport, the EU barely achieved an 10% increase (EEA 2021). The third area, energy efficiency was also achieved, but according to the report this success is attributed to the widespread of lockdowns in 2020 (ibid). However, while the pandemic seems to have pushed energy consumption below target levels, it remains unclear whether it remains below or not.

The second milestone is the 2030 climate and energy framework, further raising the ambition by:

- Cutting the greenhouse gas emissions by 40% (from 1990 levels)
- Increase the share of renewable energy to 32%
- Have at least 32,5% improvement in energy efficiency

However, in September 2020 the Commission presented a proposal to step up Europe's 2030 climate ambition (COM(2020) 562 final). The new proposal proposed to further step up the goal of cutting greenhouse gas emissions moving the target to a 55% cut (from 1990 levels) (ibid). In the presented proposal the Commission highlighted three main considerations for raising the target: emission reduction from closing coal power stations and cleaning up of energy-intensive industry, risks of carbon lock-in in the coming decade, and IPCC reports indicating that climate risks are firmly on the downside (ibid). Focusing on the first consideration, the Commission acknowledged the challenges to reduce emissions from transportation, agriculture, and buildings (ibid). Acknowledging that the most efficient way to quickly reduce greenhouse gas emissions is to phase out fossil fuels in the energy sector.

However, according to the EEA and the Trends and Projections in Europe report, for the EU and the Member States to meet the requirements it is necessary to see a continued introduction of renewable sources for electric generation. Furthermore, renewables need to cover a much larger share of energy used and energy consumption needs to decrease (EEA 2021).

The third and final milestone/end goal is the 2050 long-term strategy, i.e., the heart of the European green deal. The long-term strategy aims to transform the EU to a climate-neutral society, an economy with net-zero greenhouse gas emissions. Through the vision of the European Commission, seven main strategic building blocks are put into place to achieve the long-term goal:

- Maximise the benefits of energy efficiency, including zero emission buildings
- Maximise the deployment of renewables and the use of electricity to fully decarbonise Europe's energy supply
- Embrace clean, safe, and connected mobility
- A competitive EU industry and the circular economy as a key enabler to reduce greenhouse gas emissions
- Develop an adequate smart network infrastructure and interconnections
- Reap the full benefits of bioeconomy and create essential carbon sinks
- Tackle remaining CO₂ emissions with carbon capture and storage (CCS) (EC 2019)

The seven presented building blocks are meant to build on the implementation of the 2030 climate and energy framework, pushing the EU into a traced-out course to achieve its ambitions (ibid). The

idea is to have the building blocks co-exist with the Paris Agreement and its persuasion to keep the global warming levels well below 2°C compared to pre-industrial levels.

Furthermore, the Commission has presented an analysis of eight pathways for a possible future, the pathways themselves serve to indicate the potential outcomes of the EU's climate policy ambitions. The first five pathways achieve more than 80% reduction of green house gases compared to 1990, the sixth pathway utilises a combination of the first five to a 90% reduction. The seventh and eighth on the other hand presents two different roads to achieve climate neutrality, i.e., net-zero emissions. However, the way to do so differ, the seventh highlights zero-carbon carriers and CO₂ removal technologies, whereas the eight focuses on the impact of circular economy, thus creating a less CO₂ dependent society (EC 2019). The Commission further states that achieving climate neutrality will have to take advantage of a combination of pathways, utilising all options to achieve its goal (ibid).

5.3 Energy policy

Energy policy has always been an important part of the EU. Stemming from the early European Coal and Steel community and the European Atomic Energy Community all up until today. Reforms of the energy market has been an ongoing process since the late 1980s (Buchan, 2017, P. 344). However, energy policy operates at a different level compared to most other EU policies. Since the introduction of the Lisbon treaty in 2007, article 194(1) of the Treaty on the Functioning of the European Union establishes the following legal basis:

In the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between Member States, to:

- ensure the functioning of the energy market;
- ensure security of energy supply in the Union;
- promote energy efficiency and energy saving and the development of new and renewable forms of energy; and
- promote the interconnection of energy networks. (TFEU, 2022)

Secondly, the aims stipulated in article 194(1) are bound by the spirit of solidarity and thus limited in the context of article 122(1) TFEU stating that “*without prejudice to any other procedure provided for in the Treaties, the Council, on a proposal from the Commission, may decide, in a spirit of solidarity between the Member States, upon measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products, notably in the area of energy*” (TFEU 2022).

However, on the other hand article 194(2) preserves the competence of the Member States, establishing a legal framework for reassuring that the presented measures shall not affect a MS right

to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply (TFEU 2022), i.e., giving each MS the control of its energy production and energy mix. Furthermore, the term “spirit of solidarity” remains from a legal perspective weak and does not create any legally obligations on the MS (Braun, 2011). Thus, essentially makes energy policy a shared competence.

In 2015 the Commission launched the strategy for an energy union, laying out the aim of the EU’s energy policy. The energy union seeks to respond to three key challenges in the energy sector: climate change, energy dependence, and ageing infrastructure (Com (2015)080 final). The strategy is built on five key points:

- Diversify Europe’s sources of energy, ensuring energy security through solidarity and cooperation between MS
- Ensure the functioning of a fully integrated energy market, enabling the free flow of energy through the EU through adequate infrastructure and without technical or regulatory barriers
- Improve energy efficiency and reduce dependence on energy imports, cut emissions, and drive jobs and growth
- Decarbonise the economy and move towards a low-carbon economy in line with the Paris Agreement
- Promote research in low-carbon and clean energy technologies and prioritise research and innovation to drive the energy transition and improve competitiveness (EP, 2022).

The general energy policy framework and policy agenda of today is highly impacted by the integrated climate and energy policy adopted by the European Council in 2014 and later updated at the end of 2018. The general framework seeks to achieve four major targets by 2030:

- A reduction of at least 40% in greenhouse gas emissions compared to 1990 levels;
- An increase to 32% of the share of renewable energies in energy consumption;
- An improvement of 32.5% in energy efficiency;
- The interconnection of at least 15% of the EU’s electricity systems (EP 2022).

As previously mentioned during 2015 the energy union was launched, seeking to establish an energy union which provides secure, competitive, and affordable energy supply for businesses and households. To further expand the project, the clean energy for all Europeans package was launched. The package is highly integrated with the environmental goals of the EU, and its long-term carbon neutrality strategy. The package seeks to pursue three main goals, putting energy efficiency first, achieving global leadership in renewable energies, and to provide a fair deal for consumers (COM (2015)0080). However, in order to achieve those goals, the package introduced eight legislative proposals, where the last one was adopted at the end of 2019. The package includes the electricity

market design (Directive (EU) 2019/944), the electricity regulation (Regulation (EU) 2019/943), the risk-preparedness regulation (Regulation (EU) 2019/941), energy efficiency directive (Directive (EU) 2018/2002), energy performance of buildings directive (Directive (EU) 2018/844), renewable energy directive (Directive (EU) 2018/2001), the governance of the Energy Union (Regulation (EU) 2018/1990), and the regulation for establishing the EU Agency for the Cooperation of Energy Regulators (ACER) (Regulation (EU) 2019/942). The adoption of the eight legal acts has contributed to cement the four major energy targets to achieve by 2030, thus making the targets legally binding.

Furthermore, governance of the energy union regulation binds the MS to create and notify the Commission an integrated energy and climate plan on a continuous ten-year period (Union (Regulation (EU) 2018/1990). MS are also bound to submit a biannual progress report as well as develop long-term strategies consistent with the EU's and MS commitments under the UNFCCC and the Paris Agreement (ibid). In other words, energy policy and environmental policy has become more and more integrated as time has developed. By the launch of the delivering the European green deal package energy and environmental policy has become further integrated, having both policy objectives revolve around cutting emissions. The package brought a revision of all existing EU acts on climate and energy, thus further sharpened the objectives of the renewable energy directive as well as the energy efficiency directive (European Commission 2021). Pushing the bind target of renewable energy sources in the EU's energy mix to 40% by 2030 and promote the uptake of renewable fuels (Amendment (EU) COM/2021/557). In connection with the ambitions of the European green deal, the Commission proposed amendments to the energy efficiency directive as well. Which consequentially, following negotiations between the council and parliament the two institutions, resulted increasing the commission proposal from 30% energy efficiency target up to 32,5% by 2030 (European Parliament). The negotiations also contributed to establish a binding target for the MS to put in place measures to reduce an average of 4,4% of their annual energy consumption by 2030 (ibid). Indicating a clear ambition from all three major EU institutions to contribute to the long-term energy and environmental goals of the union.

5.4 EU Taxonomy

Due to the legislative measures put in place by article 194(2) TFEU, establishing the competence for controlling the national energy system and mix at MS level the toolbox of the Commission is somewhat limited in what it can propose. However, one of the tools available is the establishment of a common classification system for sustainable economic activities, i.e., the EU taxonomy. The classification system is meant to provide companies, investors, and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable (European Commission 2022). The taxonomy can be considered a blueprint for the EU in its journey to scale up sustainable investment and to implement the European green deal. Thus, contributing to prevent

greenwashing as well as to create a security system for European investors, guiding them to become more climate-friendly and shift investment into more “green” sources (ibid).

The taxonomy establishes 4 general conditions that an economic activity must meet in order to be classified as environmentally sustainable. Contribute substantially to one or more of the established environmental objectives, does not significantly harm any of the environmental objectives, is carried out in compliance with the minimum safeguards, and complies with technical screening criteria that have been established by the Commission (Regulation (EU)2020/852). However, while the conditions are further specified in the regulation, they are all designed so that different means can be required and obtained for each activity. Furthermore, the fourth criteria “compliance with technical screening” implies that the Commission must define all the technical screening criteria for each environmental objective, i.e., produce a list which defines which activities are environmentally sustainable or not.

As a result of the technical screening criteria delegated acts on sustainable activities has been proposed and adopted. The first and second delegated acts included sustainable activities for climate change adaptation and mitigation objectives, and corporate sustainability reporting, sustainability preferences and fiduciary duties (EC 2022). The third delegated act help specify the content, methodology and presentation of environmentally sustainable economic activities in their business investments or lending activities (ibid). The fourth delegated act i.e., the complementary climate delegated act includes nuclear and gas energy activities in the taxonomy. The act introduces specific criteria for nuclear and gas activities to put them in line with EU climate and environmental objectives. Focusing on the natural gas aspect, the activity needs to either meet the criteria of having the life cycle GHG emissions from the generation of electricity using fossil gaseous fuels are lower than 100 g CO₂e/kWh or for facilities for which the construction permit is granted by 31 December 2030 comply with the following:

- Direct GHG emissions of the activity are lower than 270g CO₂e/kWh of the output energy, or annual direct GHG emissions of the activity does not exceed an average of 550kgCO₂e/kW of the facility’s capacity over 20 years.
- The power to be replaced cannot be generated from renewable energy sources, based on a comparative assessment with the most cost effective and technically feasible renewable alternative for the same capacity identified; the result of this comparative assessment is published and is a subject to a stakeholder consultation.
- The activity replacers an existing high emitting electricity generation activity that uses solid or liquid fossil fuels.
- The newly installed production capacity does not exceed the capacity of the replaced facility by more than 15%

- The facility is designed and constructed to use renewable and/or low-carbon gaseous fuels and the switch to full use of renewable and/or low-carbon gaseous fuels takes place by 31 December 2035, with a commitment and verifiable plan approved by the management body of the undertaking
- The replacement leads to a reduction in emissions of at least 55% GHG over the lifetime of the newly installed production capacity
- Where the activity takes place on the territory of a MS in which coal is used for energy generation, that MS has committed to a phase-out of the energy generation from coal and has reported this in its integrated national energy and climate plan referred to in article 3 of regulation (EU) 2018/1999 or in another instrument. (Regulation (EU)2020/852)

Consequentially, this means that the EU has classified natural gas as a green investment as long as it does meet specific emission thresholds, replaces coal factories, and are able to switch to either renewable or low carbon gases by 2035. However, in contrary to the European green deal and the European climate law, the EU taxonomy is not a legally binding act, i.e., it does not require investments to be in line with its classification. Instead, it is meant to be a transparency tool based on a classification system to guide investments.

6. Policy incoherence

To understand the situation of policy incoherence, and why there is a problem with natural gas as a transitional investment plan, the first thing that must be addressed is natural gas itself, natural gas and/or LNG. As previously mentioned, the “end goal” of the European green deal is to become climate neutral by 2050, yet at the same time investments into natural gas has become classified as green. While Natural gas is a fossil fuel it emits between 50-60% less CO₂ compared to coal or oil (IEA 2019), it also has the benefit of producing less air pollution (ibid), thus making it a better option than other fossil fuels. Consequentially, natural gas has become classified as a green transition investment since gas produces less CO₂ than coal and therefore contributes to reduce greenhouse gases (ibid). The benefits of phasing out other fossil fuels and transition to natural gas cannot be denied, e.g., the switch from coal to gas has saved around 500 million tonnes of CO₂ from 2010-2018 (IEA 2019). In other words, natural gas can serve as a bridge when addressing environmental issues. By replacing oil and coal with natural gas, two out of three objectives of the 2030 climate and energy framework can be achieved, i.e., cutting greenhouse gas emissions and improve energy efficiency (EC 2022).

However, when making the transition one needs to consider the timeframe and the window of opportunity. According to a rapport by the IEA (IEA 2019) replacing a coal plant with gas power plant could provide a higher level of CO₂ savings in the first five years of operation compared to a renewable wind project (IEA 2019). On the other hand, by extending the timeframe to 20 years, the wind project would provide 30% more CO₂ savings than the existing gas plant (ibid). Furthermore, in accordance with EU legislation the wind project would not have to be phased out. Moreover, there is a possibility for swapping natural gas with biomethane in the long run, which would result in the retaining of the established gas networks (ibid). Yet, since natural gas does not provide a long-term solution to European policy objectives, investment into new gas infrastructure becomes far more difficult to justify. New natural gas infrastructure would not only need to be more cost-effective than renewable alternatives but also guarantee the prevention of combustion of more polluting fuels.

Based on the acknowledgement that natural gas can be considered a viable option short-term, a second question occurs, how long is natural gas pipelines and LNG terminals going to operate? To empirically illustrate this, one example is the controversial pipeline Baltic Sea pipeline Nord Stream which is built to reliably supply the EU with natural gas for at least 50 years (Nord Stream 2022). Meaning that Nord Stream have the capacity to operate beyond 2050. In other words, Nord Stream are designed to operate in the long run, meaning that it would not be coherent with the EU’s long term environmental objectives. Furthermore, studies by the German institute for economic research has found that no supply gap for natural gas can be found in the short run, displaying no need for the justification of the development further investment into natural gas infrastructure (DIW 2018, DIW

2021). Moreover, the same applies in the long run as such project would halt European climate commitments (DIW 2021).

By further analysing the rationale of justifying the new gas investments, European Commission assessments has shown that the EU has an infrastructure overcapacity for gas imports (EC 2017) and the same applies for projections covering 2020-2030 (ibid). To further bring to the argument, Nord Stream for example, was constructed with the goals of meeting a rising gas demand, yet it was also overestimated (ibid), further showcasing the already overcapacity of gas import in the EU. Combined with increased of renewable energy sources, both because of lower prices and higher requirements due to EU legislation it becomes hard to justify such projects. However, as previously mentioned gas infrastructure could potentially be transitioning to utilizing renewable gases, yet current estimates of the total potential of renewable gases that could be utilized in a net-zero environment does not represent enough to cover the current fossil gas consumption (E3G). Moreover, in a study by Aune et al they found that in a scenario where the EU reaches its 2030 targets of its climate and energy framework new gas pipelines are not profitable (Aune et al, 2017), which is partially due to the already existing capacity of the European energy market (ibid).

In other words, new developments of natural gas infrastructure would in the long run not be coherent with the EU's environmental and energy policy. Achieving climate neutrality and net-zero emissions by 2050 means that combustion of fossil fuels, including natural gas must end. In accordance with the European climate law MS are legally bound to achieve climate neutrality (COM/2020/80). Combined with the increased requirements of a higher amount of renewables in the energy mix, investing long term into fossil fuel infrastructure goes against not only EU legislation and policy, but also the commitments undertaken by the Paris Agreement.

However, in the short term, natural gas infrastructures are in line with the goals of article 194 TFEU, i.e., ensuring security of supply, ensuring the functioning of the energy market and promote the interconnection of energy networks. The fourth criteria, promote energy efficiency and energy saving and the development of new and renewable forms of energy, is not as clear. But due to the allowance of natural gas as a transitional energy source when it replaces gas it could be seen as coherent. As previously stated, natural gas can provide a short-term benefit by reducing greenhouse gas emissions and help contribute when transitioning (IEA 2019).

Moreover, as showcased further development of the natural gas infrastructure would most likely not yield any profitable results from an environmental perspective, since the necessary capacity for EU gas imports are already met (DIW 2018, 2021). Instead, the development would risk increasing gas dependence, slowing down transition and present a lock-in risk for the future. In other words, while the development of new pipelines and LNG terminals can be considered in line with the legal

framework, the development struggles to contribute to EU environmental and energy policy objectives, both in the long and short term.

Continuing this path, the EU itself has displayed incoherence in its approach to natural gas. On the one hand the EU recognises that natural gas needs to be phased out, yet at the same time it acknowledges that while renewables will play an important role in decarbonising the EU their contribution may not come in time. Thus, accepting the potential need for a faster decarbonisation process. Natural gas could therefore be argued as the most efficient energy source for large-scale decarbonisation of the energy sector. However, at the same time such a commitment would increase the value of gas resources and increase investment in natural gas industry (Mete, 2020).

Consequentially, this thin balance has caused all the current natural gas infrastructure projects selected as Projects of Common Interest (PCI) in the EU to be supported by public funds as they have proven to not be commercially viable (ibid). In other words, the EU is subsidising and supporting fossil fuels and natural gas, i.e., undermining environmental commitments and contributing to a slower development of clean energy sources. Furthermore, a second form of subsidies, consumer subsidies for fossil fuels has yet to be seen any reductions. While executed by the national governments they are justified and legitimised by the EU in order to ensure the fair competition in the internal market.

When the Energy Union launched it had been integrated with the 2030 climate and energy framework, aiming to improve energy efficiency, cut emissions, and diversify Europe's sources of energy. Climate action and Energy Commissioner Miguel Cañete confirmed that it would be partially built through private financing backed by public funding to encourage private investment (Euractive 2015). However, the ambition has yet to be achieved (Mete, 2020) and as previously mentioned the EU has continued to subsidise fossil fuels and natural gas project while at the same time increased its commitments to become a carbon neutral society. EU energy policy and the Energy Union has in turn increased uncertainty over natural gas infrastructure, reaching further into need of bail out technologies such as carbon capture systems and biomethane to become net-zero in the long run.

Furthermore, with the launch of the EU Taxonomy the EU has come to classify natural gas as a green investment (European Commission 2022). While not legally binding the taxonomy it is supposed to bring a more coherent line of green investment in the EU, i.e., not increase incoherence. Yet, by introducing the new framework the taxonomy has classified natural gas as green if it contributes substantially to one or more of the established environmental objectives, does not significantly harm any of the environmental objectives, is carried out in compliance with the minimum safeguards, and complies with technical screening criteria that have been established by the Commission (Regulation (EU)2020/852). According to the criteria of the taxonomy natural gas becomes green if the direct GHG emissions of the activity are lower than 270g CO₂e/kWh of the output energy, or annual direct GHG emissions of the activity does not exceed an average of 550kgCO₂e/kW of the facility's capacity

over 20 years (ibid). Consequentially, this implies two things; the role of natural gas as transitional decarbonisation energy source has been further cemented in EU policy. Secondly, a natural gas infrastructure project with a lower emission level than 550kgCO₂e/kW of the facility's capacity over 20 years could potentially operate from 2030 till 2050 and be considered green. Meaning that natural gas facilities could operate at the same time as the EU should reach carbon neutrality.

7. Analysis

By establishing and identifying a cause policy incoherence caused by the parallel commitments towards achieving the environmental objectives of the European green deal and promoting natural gas, i.e., committing to towards a climate neutral future and supporting more long-term gas infrastructure at the same time, one can begin the main analysis. Going back to the methodological section of the thesis, identifying the incoherence contributes to the establishment of a storyline, presenting the conditions which may have contributed to producing the outcome and/or the development of causal chains over time. Combined with the analytical framework three main steps can be identified as the most important steps leading to producing the outcome. Providing the essential observations to bring the chains together, which then put together contributes to the answering of the research question. In other words, in order to understand the policy incoherence and to answer the research question of *why does EU energy policy support natural gas when it also strives to become climate neutral?*

Following the analytical framework, in the first stage states form national preferences. Forming and creating underlying objectives (Moravcsik 2020). According to liberal intergovernmentalism, the preferences of governments on European integration are national and issue-specific (Schimmelfennig, 2015).

Development of European environmental and energy policy

Stage 1: States form national preferences

Environmental policy and environmental concern have long been important for Europeans (Eurobarometer 1999), in a Eurobarometer report published in 1999 one in two Europeans were concerned about the environment (ibid). Following studies published by the Eurobarometer the trend further continues to stay high, having citizens care about the environment (Eurobarometer 2002, 2002, 2008, 2011, 2014, 2015, 2019, 2020, 2021). Following the latest report, 93% of Europeans believe that climate change is a serious problem, and 63% states that national government are responsible for tackling climate change (Eurobarometer 2021). In other words, there is a clear national demand for environmental policy.

However, in the process of national preference selection states seek to increase (and if possible, maximise) national welfare. Because of this it means that even if there is a cross boarder consensus on environmental challenges, the national approach on how to achieve those goals will differ. This is because the most important sources of national preferences are the demands (immediate or anticipated) of domestic groups for state policies to regulate issue-specific transnational societal interdependence (real and potential) in ways advantageous to them (Moravcsik 2020). The variances

in approaching the challenges will have a direct effect on the produced policy, presented strategy and tactics used by the state.

Furthermore, as previously stated the option to either integrate results from either positive or negative interdependence, i.e., pooling sovereignty or not. Environmental energy policy can thus be both integrated from an environmental perspective, creating common goals, and common frameworks and at the same time remain unintegrated in order to preserve national supremacy depending on the outcome of bargaining and how much resources should be pooled.

By beginning with acknowledging that all MS has agreed to the commitments under the Paris Agreement the analysis can start identifying national preferences. Following, the acknowledgment national preferences can be observed and expressed in the national long-term strategies and their respective climate programmes.

The German state is highly influenced by its domestic energy transformation program *Energiewende*. The national strategy builds on a transitional clear focus of early phaseout of nuclear energy, transitioning away from fossil fuels towards renewables (BMWK 2022). Putting a high emphasis on environmental policy commitments. While in the process of increasing the amount of renewable energy sources in the energy mix, there is a high priority for energy efficiency (BMWK 2022). Prioritising how energy is used and how to make the most out of energy (ibid). Furthermore, the *Energiewende* recognises the importance of conventional energy sources, stating how natural gas will continue to make a major contribution to the energy supply. Indicating that Germany plan to use it as transition tool, when switching away from nuclear (2022) and coal (2038) (BMWK 2022).

Although the *Energiewende* was outlined during 2010, the Fukushima nuclear accident further cemented Germany's position on nuclear power leading to the establishment of a broad consensus of national preferences for the national energy program (Szulecki et al. 2016). To further shed light on the national preferences of Germany, geographical location has played an important role in shaping the outcome. The geographical location of Germany has contributed to the integration of Germany into the EU's internal market for natural gas and electricity (ibid). Having Germany as the largest importer of natural gas in Europe (year 2020) (Statista 2022). Where the imports of oil and natural gas primarily comes from Russia, Norway, and the Netherlands. Moreover, German energy policy stems from a tradition of having low state intervention in energy policy, contributing to de-politicisation and commercialisation of energy relations. Which in turn has played a role in the energy relation with Russia (Szulecki et al. 2016), and thus focusing on supporting EU policy which supports Germany's domestic transformation programme (ibid).

In contrast the Swedish energy politics is meant to be coherent with the European energy policy, seeking to unite sustainability, competitiveness, and security of supply (Regeringen, 2017). The national energy policy shall seek to ensure the security of supply of energy in the short- and long-

term. The energy shall be ensured based on the grounds of conditions of international competitiveness (ibid). Furthermore, the national environmental policy is designed to serve as a basis for the development of energy policy insisting that the national energy policy needs to be coherent with environmental policy. Moreover, since Sweden has a higher amount of renewable energy resources in its energy mix, the state does not seek to use natural gas as a transition tool, but instead push for more renewable energy in the form of solar and wind power (ibid). Furthermore, Sweden has set up three main targets for its energy policy:

- At the latest by 2045 Sweden shall have a net-zero greenhouse gas emissions environment and thereafter transition to a net-negative emission system.
- Achieve 100% renewable energy in 2040.
- Achieve 50% energy efficiency in 2030 compared to 2005

However, unlike Germany looking to phase out nuclear, Sweden has not proposed an end date and considers it an acceptable energy source as long as it does not need to be subsidised (ibid).

Furthermore, the government declared that it would work to ensure that the EU designs an ambitious, long-term climate strategy, enables effective economic instruments to reduce emissions. Have EU legislation ensure that the renewable energy and energy efficiency targets would be achieved (Regeringen 2018).

To further nuance the differences between MS, Poland's energy transition will be based on three main pillars: just transformation, zero-emission energy system, and good air quality (Gov pl 2022). As Poland seeks to reduce its dependency on coal by 2040, the decarbonation process will take advantage of renewable-, nuclear energy, and natural gas (ibid). The state further priorities energy security and pushes the agenda on a difficult starting point in energy transition, thus presenting a need for dedicated national and EU funds in order to successfully transition towards a more environmentally friendly nation (ibid, EC, 2019). The Polish energy supply is dominated by fossil fuels, with the largest share coming from coal (40%), followed by oil (28%), and natural gas (17%) (iea 2022). Coal plays an important role in the Polish energy system and due to its high domestic production has led Poland to become one of the least energy dependent MS (Szulecki et al. 2016). The energy market is still going through liberalisation and state-controlled companies play a dominant role across the domestic energy sector (iea 2022). As Poland looks to transition from coal, natural gas will most likely play an important role. However, the role of natural gas is not clear in the long-term (ibid) and moreover, the national focus on security of supply and higher dependence on Russian gas imports has shaped the Polish debate, challenges the process of phasing out coal (Szulecki et al. 2016).

As one of the largest EU MS France has been an early leader of the global energy transition and supporter of environmental objectives. As the host of the COP 21 meeting and the adoption of the Paris Agreement, France quickly became a frontrunner in energy transition (iea 2021). The energy

system and energy transition program take advantage of nuclear power to decarbonise its electricity. The decarbonisation framework is cemented in the Energy Transition Law of 2015 and builds on the national low-carbon strategy for 2050 (SNBC) (ibid). Actions in the energy sector are implemented by two successive five-year energy investment plans (PPE), which then in turn allow for regions to implement their own environmental and energy goals (ibid). The national preferences on European energy policy are closely connected to four priorities:

- the self-imposed deadline at COP21 for countries to finalize an agreement on the international post-2020 climate regime, making climate and energy policy a priority
- Unresolved debate about the role of nuclear power and the state-owned generator, Electricite´ de France (EDF)
- A strong desire to re-establish a robust industrial base to its economy
- Minimize complicated and politically damaging clashes in the context of the economic crisis (Szulecki et al. 2016).

Stage 2: Attempt to reach agreement

When entering into negotiations, states are bound the causal limitations of earlier established national preferences. Yet, since national preferences rarely/never align between states, bargaining becomes the tool for achieving cooperative policy outcomes. Combined with the fact that states seek to maximise their gains/national welfare the agreement needs to be Pareto-efficient (Schimmelfennig, 2015). In other words, states must gain an increase in welfare (or remain constant) for integration to be successful. Liberal intergovernmentalism thus argue that states throughout the bargaining process seek to improve a common situation for mutual benefits, while at the same time distributing gains and losses (Moravcsik 2020)

In the creation of European green deal, and the energy union, the state of bargaining can be interpreted through the analytical model and more precisely the Nash bargaining model. In this case the states have a strong joint preference for avoiding and avert a catastrophe i.e., failing to achieve the commitments under the Paris agreement, creating an environmental catastrophe. However, due to starting positions with different energy mixes, the cost for an energy transition is asymmetrical. Moreover, national financial situation also contributes to the possibility of investing into new energy infrastructure, further deepening the asymmetry. Yet, in this situation where all states consider the inability to act the worst outcome, a state will receive the maximum gains from not co-operating while the rest does, e.g., free riding. Meaning that states with an already well-established renewable energy infrastructure benefits the most from forcing the more fossil dependent states to adapt the most, reducing asymmetry. States highly dependent on fossil fuels would on the other hand benefit the most from being bailed out and compensated by the greener states.

Furthermore, in a situation where no state wants to fail, hard bargaining can be beneficial. Since, all states count on the rest to act rational and cooperate, it can be beneficial for states to stall cooperation to gain more bargaining advantages. A state which successfully can prove their inability to act can thus in turn gain bargaining power (Schimmelfennig, 2015). Similar to the earlier situation, the greener states are incentivised to force the more fossil dependent to make the majority of changes, referring to the overall end goal and decreased marginal value of transitioning, while the more fossil dependant in turn are incentivised to postpone transitioning, demonstrating their counter the challenge without aid. However, at the same time states are also aware that hard bargaining over distributional gains reducing the incentives for cooperation (Moravcsik 2020), creating a thin balance.

Looking at the shaping of the Energy Union, a week after the European council's summit on the new 2030 framework on Climate and Energy (2030 framework), the outline of an Energy Union and a set of six pillars of policy proposal was presented by then Polish Prime Minister Donald Tusk. The pillars highlighted EU MS joint negotiations of energy (prioritising natural gas), supply contracts with external suppliers, strengthening of solidarity mechanisms in the case of a gas supply interruption, expanding strategic and cross-border energy infrastructure, including pipelines, storage and LNG terminals, making full use of available indigenous European fossil fuel reserves, diversifying oil and gas supplies, and promoting the energy security of the east and south east EU (Szulecki et al. 2016). When presented it was clearly emphasised that the core of the Energy Union and the pillars would be the security of supply in the gas sector, while at the same time having environmental aspects be reduced to greenwashing the rehabilitation of coal through clean coal technologies (ibid). When the Energy Union launched it was still reminiscent of Tusks outline, yet it displayed more diverse priorities. Diversification of supply, prioritising alternative energy sources and only in the lack of alternatives adopting alternative suppliers or supply routes. Integrating the 2030 climate and energy framework into its policy (ibid). While still in line with the 2030 targets, the Council's conclusions for the Energy Union roadmap focused almost entirely on security of gas supply (ibid). Furthermore, the MS highlighted the importance of MS sovereignty over energy policy and the option to prioritise national resources as well as sustainable low carbon technologies (ibid).

Germany and Poland stood at the opposite of interest of MS. Germany has not been an outspoken supporter of the energy union as it advocates for a self-serving energy policy course, announcing the *Energiewende* and developing Nord Stream i.e., supporting domestic transformation. In contrast, Poland stays reluctant to change, slowing down climate policies and development of cross-border electricity market. Having Poland prioritise energy security and Germany climate and economic competitiveness (Gawlikowska-Fyk et al. 2017). The national support for the Energy Union in Poland was strong as it was seen as a "Polish idea" stemming from the Donald Tusk proposal (Szulecki et al. 2016). Throughout the process Poland saw to push security of supply to the top of the union's agenda. Inevitably the main element for the union was joint gas purchasing, which would level the difference

in natural gas prices in Central Eastern European countries (ibid). Concerns about the affordability and competitiveness were also present and contributed to bring the argument for joint purchasing of natural gas further. Moreover, from the Polish bargaining side the role of sustainability was mostly ignored, and the energy union was more often regarded as an alternative to the EUs environmental policies (ibid).

France's position on the other hand could be evaluated as something in between, i.e., favouring a strong governance mechanism will also ensuring a strong national independence in domestic energy policy (Szulecki et al. 2016), catering to its national support of regional stakeholders. A higher interconnectivity would not be nationally supported by its regions. Moreover, France's relatively weak manufacturing competitiveness would increase its support of increasing harmonisation of state aid rules for renewables and energy efficiency (ibid). Thus, values more integration as long as it does not reduce domestic energy competences. However, through the bargaining process the states could reach a consensus and find a common solution in the creation of the energy union, As the result of bargaining has produced key priorities resonating with all states, i.e., "Diversify Europe's sources of energy, ensuring energy security through solidarity and cooperation between MS, Ensure the functioning of a fully integrated energy market, Decarbonise the economy and move towards a low-carbon economy in line with the Paris Agreement (Consilium, 2022).

Following this development, similar bargain dynamics are found in the development of European environmental policy. During the process to establish the 2020, and 2030 EU climate and energy legislation, saw one group of MS (Green Growth Group) asking for binding domestic emissions reduction targets put against (Visegrad Group) asking for a hold back on setting targets, until a global agreement was made (Ydersbond 2017). The Visegrad Group further argued that given their economic situation and capacity for implementation, could lead to carbon leakage, and that there should only be a target at EU level (ibid). As a result of the national bargaining positions the renewable targets would only be binding at an EU level (Bocquilon and Maltby, 2020), meaning that while the targets were increased national authority would remain intact.

As observed by Skjærseth in the development of EU environmental policy (Policies for 2020), most of the central and Eastern European countries that joined the EU between 2004 and 2007 prioritised the secure of supply and energy security far higher than combating climate change and decarbonisation. The EU-15 on the other hand supported more binding EU environmental policy (Skjærseth 2021). The package pushed by Germany, UK, and France was a compromise adopting further environmental commitments will at the same time catering to the more fossil dependent MS. With the help of a Carbon Capture and Storage (CCS) focus a trade-off between emission reduction and security of supply was achieved (ibid), allowing for more ambiguous targets while catering to the

opposition. Furthermore, by linking environmental and energy policies the package through bargaining could promote more distributional fairness between MS (ibid).

A similar trend of bargaining approach appears in the negotiations of the European green deal, where Poland takes a hard opposing stand to the rest of the European Council (Consilium 2019). As stated in the Council conclusion:

“In the light of the latest available science and of the need to step up global climate action, the European Council endorses the objective of achieving a climate-neutral EU by 2050, in line with the objectives of the Paris Agreement. One Member State, at this stage, cannot commit to implement this objective as far as it is concerned, and the European Council will come back to this in June 2020” (ibid).

Furthermore, as Poland, Hungary, and Czech Republic were reluctant to sign up to the EU’s 2050 climate neutrality goal a transition mechanism worth €1000 billion targeted specifically at the EU’s poorest regions that are highly dependent on fossil-fuels and high carbon infrastructure (EURACTIV 2019). The bargaining process producing the adoption of the European green deal and the 2050 climate neutrality goal, showcases a clear empirical example of bargaining according to liberal intergovernmentalism. Where the states that gain the least from the agreement compared to a unilateral and collective alternative, exerts more power by stalling cooperation and the states caring about the issue are more willing to compromise (Moravcsik 2020). Which in turn creates an asymmetrical independence, resulting in compromises catering to the more carbon friendly states by offering them more support and alternatives in order to have them accept the environmental commitments.

Stage 3: Pooling sovereignty

In the end bargaining between the MS has produced several packages and legal frameworks for environmental and energy policy. International bargaining has shaped and established a framework for the European green deal, European climate law, 2020 climate and energy package, 2030 climate and energy framework, the 2050 long-term strategy, energy union, the clean energy for all Europeans package, and the EU taxonomy. By acknowledging the already established institutions the states decided whether and how to pool and delegate power in regional institutions, in turn the institution serve as instrument for states helping them to implement, elaborate, enforce, and extend incomplete contracts under conditions of uncertainty (Moravcsik 2020). The symbiosis allows states to benefit by reducing uncertainty at the cost of pooling sovereignty into institutions, which promotes norms and rules, and provide more accurate information (ibid). Thus, having states pool resources into institutions solves the issue of asymmetrical information. At the same time, it gives the institution an important role to contribute by coordinating policy and enhance its efficiency of interstate

cooperation. Establishing a time, place, and procedures for its members to discuss, align, and reach common ground (ibid).

Beginning with the energy policy there is a widespread of policy objectives: diversify energy sources, ensuring security, ensuring functioning of a fully integrated market, improve energy efficiency, decarbonise the economy, etc (EP 2022). Furthermore, the major targets presented for the 2030 goals, 40% reduction in greenhouse gas emissions, an increase to 32% of the share of renewable energies in energy consumption, 32.5% energy efficiency (ibid) are all set on EU level, thus are designed to be collectively achieved. Moreover, as displayed in the previous section both the diversified objectives and the final targets are a reflection of national preferences and interstate bargaining. Furthermore, to fully interpret the produced outcome and to better understand it, one needs to remember the development of European energy policy. In the Maastricht Treaty, energy remained a member state prerogative, even as cooperation and integration were a means of achieving energy security, and even though the Lisbon Treaty made energy a joint competence, national control of the energy system still reign supreme (Gawlikowska-Fyk et al. 2017, TFEU, 2022).

Moving on to environmental policy. Earlier development of integration established in the Maastricht Treaty appointed environmental policy as an official EU policy (Treaty of Maastricht 1993). The treaty of Amsterdam established the duty to integrate environmental protection into all sectoral policies with a view to promoting sustainable development (Treaty of Amsterdam 1999). Furthermore, combating climate change and sustainable development in relations with third countries was introduced in the treaty of Lisbon (Treaty of Lisbon 2009). Furthermore, for integration to occur decisions require unanimity (TFEU 2022). As a result, bargaining has led to establishing the European climate law, 2020, 2030, and 2050 targets for emissions, energy efficiency, and renewable energy sources.

In accordance with liberal intergovernmentalism the outcome can be understood from three key underlying reasons, coordination, collaboration, and ideology. Coordination reduces asymmetrical information by coordinating policy, collaboration reassures commitment, and ideology acts as a complement reflecting national ideas (Moravcsik 2020). Looking at the outcome environmental policy is more integrated than energy policy, even though they are closely connected. The difference of the outcome can be traced to efficiency of outcome and the cost of integration. Energy policy is highly dependent on the national situation and internal demands, and vital for national infrastructure. As a result, national supremacy and control for the energy system becomes important, reducing the incentives for cooperation. Yet, policy making occur when the outcome, reduces cost, increases security and supply.

Environmental policy naturally becomes less of a national competence since environmental challenges occur globally. This in turn incentives international bargaining to solve a joint problem.

However, as previously addressed joint problems produces brinkmanship in bargaining behaviour, e.g., fossil dependant states are incentivised to postpone transitioning, and to maximise their gains, the value of pooling. By pooling sovereignty to institutions, the institution in turn provides security reassuring the enforcement of commitments. Which can be observed in producing a stronger European framework fort tackling environmental challenges. However, when combined with energy policy the outcome becomes a mixture of the two, producing strong joint commitments on a supranational level but at the same time give MS a high flexibility.

8. Conclusions

Going back to the research question: *why does EU energy policy support natural gas when it also strives to become climate neutral?*

To answer the question the thesis took advantage of an analytical model based on process tracing and liberal intergovernmentalism. Establishing the “storyline” presenting the structural environment, i.e., the binding political framework for in which the incoherence can occur. Identified and displayed the incoherence and then through the analytical model and the liberal intergovernmentalist three-stage causal model identified the European integration process leading to producing the outcome.

To conclude the policy incoherence caused by the simultaneous support of natural gas support and environmental goals can be understood as mixture of national preferences. By raising the ambition to prohibit climate change states seek to find solutions both on national and supranational levels. The situation shapes national preferences and promotes interstate bargaining to find common solutions to achieve goals and maximise gains. The outcome produces European policy deepening European integration, at the same time states seek to remain sovereign and remain in control over national energy policy. This creates a situation where states commit to national energy and environmental programs and simultaneously further deepens integration at the same time. Combined with different preferences on how to achieve the same goal the possibility for policy incoherence occurs.

The usage of natural gas becomes a favourable short-term solution, reducing greenhouse gas emissions and contributes to energy efficiency but stalls long-term solutions. To further nuance, as the thesis has shown the development of natural gas infrastructure does comply with the legal boundaries of the EU making it coherent with the development of environmental goals, it just does not contribute to fulfil them in the long run, making it an irrational project. Moreover, from the liberal intergovernmental perspective in this situation where all states consider the inability to act the worst outcome, a state will receive the maximum gains from not co-operating while the rest does. Meaning that a state can benefit from betting on future technology or being bailed out by the rest. By subsidising natural gas projects and introducing new frameworks for long-term natural gas infrastructure EU policy caters to the stalling states offering trade-off compromises, either through economical support or by balancing a higher security of supply. Thus, through bargaining and pooling of resources EU energy and environmental policy deepens European integration while also becomes further integrated in itself. Resulting in the creation of an incoherent policy environment supporting both national gas and renewables.

9. References

- Aune, et al, 2017, The future of Russian gas exports, *Economics of energy and environmental policy*, Volume 6, Issue 2, P.111-136
- Blatter, Joachim – Haverland, Markus, 2012 “Designing Case Studies: Explanatory Approaches in Small-N Research” 1st edition, Palgrave Macmillan
- Bocquillon, Pierre – Maltby, Tomas, (2020) EU energy policy integration as embedded intergovernmentalism: the case of Energy Union governance, *Journal of European Integration*, 42:1, 39-57
- Braun, Jan Frederik, 2011, EU energy Policy under the treaty of Lisbon Rules Between a new policy and business as usual
- Bundesministerium für Wirtschaft und Klimaschutz, 2022, Federal cabinet adopts tool to help formulate LNG acceleration act [Online] <https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/05/20220510-federal-cabinet-adopts-tool-to-help-formulate-lng-acceleration-act.html> Accessed: 2022-08-15
- Bundesministerium für Wirtschaft und Klimaschutz, 2022, Our energy transition for an energy supply that is secure, clean, and affordable [Online] <https://www.bmwk.de/Redaktion/EN/Dossier/energy-transition.html> Accessed:2022-08-15
- Bundesministerium für Wirtschaft und Klimaschutz, 2022, Germany makes it efficient [Online] <https://www.bmwk.de/Redaktion/EN/Dossier/energy-efficiency.html> Accessed: 2022-08-15
- Bundesministerium für Wirtschaft und Klimaschutz, 2022, Still indispensable for a reliable energy supply [Online] <https://www.bmwk.de/Redaktion/EN/Dossier/conventional-energy-sources.html> Accessed: 2022-08-15
- Concilium, 2019, European Council Conclusions, [Online] <https://www.consilium.europa.eu/media/41768/12-euco-final-conclusions-en.pdf> Accessed: 2022-09-07
- Crisp, James, 2015, “Energy Union will be built on public guarantees for private investment, says Cañete” EURACTIV, News article. 2015-02-17
- De Jong, Sijbren – Schunz, Simon, 2012, Coherence in European Union External Policy before and after the Lisbon Treaty: The Cases of Energy Security and Climate Change, *European Foreign Affairs Review*, Volume 17, Issue 2, P.165-187
- Den Hertog, Leonhard – Strob, Simon, 2013, Coherence in EU External Relations: Concepts and Legal Rooting of an Ambiguous Term, *European Foreign Affairs Review*, Volume 18, Issue 2, P.373-388
- European Commission, 2010 A positive step towards the security of gas supply, [Online] https://ec.europa.eu/commission/presscorner/detail/en/ces_10_7 Accessed: 2022-08-15
- European Commission, 2021, Special Eurobarometer 513, Climate Change (Report)

European Commission, 2021, Clean energy for all Europeans package [Online]
https://energy.ec.europa.eu/topics/energy-strategy/clean-energy-all-europeans-package_en Accessed:
2022-08-14

European Commission, 2021, A European Green Deal [Online]
https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en Accessed: 2022-08-14

European Commission, 2021, 2050 long-term strategy [Online] https://ec.europa.eu/clima/eu-action/climate-strategies-targets/2050-long-term-strategy_en Accessed: 2022-08-14

European Commission, 2021, 2030 climate & energy framework [Online]
https://ec.europa.eu/clima/eu-action/climate-strategies-targets/2030-climate-energy-framework_en
Accessed: 2022-08-14

European Commission, 2021, European Climate Law [Online] https://ec.europa.eu/clima/eu-action/european-green-deal/european-climate-law_en Accessed: 2022-08-14

European Commission, 2022, Causes of climate change, [Online] https://ec.europa.eu/clima/climate-change/causes-climate-change_en Accessed: 2022-09-07

European Commission, 2022, Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage [Online] <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32004L0035> Accessed: 2022-08-15

European Commission, 2022, Recommendation of the European Parliament and of the Council of 4 April 2001 providing for minimum criteria for environmental inspections in the Member States, [online] <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32001H0331> Accessed: 2022-08-15

European Commission, 2022, 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) [Online] <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0099>, Accessed: 2022-08-15

European Commission, 2019, The European Green Deal, [online]
https://ec.europa.eu/info/sites/default/files/european-green-deal-communication_en.pdf Accessed:
2022-08-15

European Commission, 2020, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law), [Online] <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2020:80:FIN>, Accessed: 2022-08-15

European Commission, 2022, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Stepping up Europe's 2030 climate ambition Investing in a climate-neutral future for the benefit of our people [Online] <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0562> Accessed: 2022-08-15

European Commission, 2019, Going climate-neutral by 2050 (EU publication)

European Commission, 2022, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN INVESTMENT BANK A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, [Online] <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015DC0080> Accessed: 2022-08-15

European Commission 2022, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN INVESTMENT BANK A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, [Online] <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=COM%3A2015%3A80%3AFIN> Accessed: 2022-08-15

European Commission 2022, Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (Text with EEA relevance.) [Online] <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019L0944> Accessed: 2022-08-15

European Commission, 2022, Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (Text with EEA relevance.) [Online] <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R0943> Accessed: 2022-08-15

European Commission, 2022, Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC (Text with EEA relevance.) [Online] <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R0941> Accessed: 2022-08-15

European Commission, 2022, Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency (Text with EEA relevance.), [Online] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2018.328.01.0210.01.ENG Accessed: 2022-08-15

European Commission, 2022, Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency (Text with EEA relevance), [Online] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2018.156.01.0075.01.ENG Accessed: 2022-08-15

European Commission, 2022, 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 (Text with EEA relevance.) [Online] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.328.01.0082.01.ENG Accessed: 2022-08-15

European Commission, 2022, Commission Implementing Regulation (EU) 2018/1990 of 11 December 2018 establishing the forms referred to in Council Regulation (EU) 2016/1104 implementing enhanced cooperation in the area of jurisdiction, applicable law and the recognition and enforcement of decisions in matters of the property consequences of registered partnerships [Online] <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32018R1990> Accessed: 2022-08-15

European Commission, 2022, Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy

Regulators (Text with EEA relevance.), [Online] <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32019R0942> Accessed: 2022-08-15

European Commission, 2022, Commission Implementing Regulation (EU) 2018/1990 of 11 December 2018 establishing the forms referred to in Council Regulation (EU) 2016/1104 implementing enhanced cooperation in the area of jurisdiction, applicable law and the recognition and enforcement of decisions in matters of the property consequences of registered partnerships, [Online] <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32018R1990> Accessed: 2022-08-15

European Commission, 2022, Energy Efficiency directive, [Online] https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive_en Accessed: 2022-08-15

European Commission, 2022, Regulation (EU) 2021/557 of the European Parliament and of the Council of 31 March 2021 amending Regulation (EU) 2017/2402 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation to help the recovery from the COVID-19 crisis, [Online] <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R0557> Accessed: 2022-08-15

European Commission, 2022, EU taxonomy for sustainable activities, [Online] https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en Accessed: 2022-08-15

European Commission, 2022, Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (Text with EEA relevance), [Online] <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852> Accessed: 2022-08-15

European Commission, 2022, Liquefied natural gas [Online] https://energy.ec.europa.eu/topics/oil-gas-and-coal/liquefied-natural-gas_en Accessed: 2022-08-15

European Commission, 2017, Nord Stream 2- Divide et impera again, European Political Strategy Centre

European Commission, 2002, What do European think about the environment? (Eurobarometer Report)

European Commission, 2002, Sustainable development survey (Eurobarometer Report)

European Commission, 2002, Eurobarometer 58.0, The attitudes of Europeans towards the environment (Report)

European Commission, 2008, Special Eurobarometer 69, Climate Change (Report)

European Commission, 2011, Special Eurobarometer 372, Climate Change (Report)

European Commission, 2014, Special Eurobarometer 416, Climate Change (Report)

European Commission, 2015, Special Eurobarometer 435, Climate Change (Report)

European Commission, 2019, Special Eurobarometer 490, Climate Change (Report)

European Commission, 2020, Special Eurobarometer 501, Climate Change (Report)

European Council, 2022, Energy Union, [Online] <https://www.consilium.europa.eu/en/policies/energy-union/> Accessed: 2022-08-15

European Environmental agency, 2021, Overview of reported national greenhouse gas policies and measures in Europe 2021, (EEA report, December 2021)

European Parliament, 2022, Environment Policy: general principles and basic framework [Online] <https://www.europarl.europa.eu/factsheets/en/sheet/71/environment-policy-general-principles-and-basic-framework> Accessed: 2022-08-15

European Parliament 2022, Energy policy: general principles, [Online] <https://www.europarl.europa.eu/factsheets/en/sheet/68/energy-policy-general-principles> Accessed: 2022-08-15

Fischer, Lisa, 2018, Renewable and Decarbonised Gas options for a zero-emission society, (E3G report)

Furlong, Paul, Marsh, David, 2010, “A skin not a sweater: ontology and epistemology in political science” in Marsh, David – Gerry, Stoker (eds), Theory and Methods in Political science. 3rd edition, Palgrave Macmillan P.60–79

Gawlikowska-Fyk, Aleksandra, et al. 2017, Germany and Poland in the Energy Union, European Energy Journal, Volume 7, Issue 2, P.49-60

Gov.pl. Energy Policy of Poland until 2040 (EPP2040) [Online] <https://www.gov.pl/web/climate/energy-policy-of-poland-until-2040-epp2040> Accessed: 2022-08-15

Hodson, Dermot – Peterson, John, 2017, The Institutions of the European Union, 4th ed, Oxford: University Press

Holz, Franziska – Kemfert, Claudia, 2021, Die kurz- und lan langfristige Bedarfsentwicklung im deutschen und europäischen Erdgasmarkt: Stellungnahme zur Fertigstellung und Inbetriebnahme des Nord Stream 2 Pipeline-Projekts, DIW

IEA, 2019, The role of gas in today’s energy transitions [Online] <https://www.iea.org/reports/the-role-of-gas-in-todays-energy-transitions> Accessed: 2022-08-15

IEA, 2019, The role of gas in today’s energy transitions (IEA report)

IEA, 2021, France 2021 Executive summary. [Online] <https://www.iea.org/reports/france-2021/executive-summary> Accessed: 2022-09-06

IEA, 2022, Poland 2022 Executive summary. [Online] <https://www.iea.org/reports/poland-2022/executive-summary> Accessed: 2022-09-06

IPCC, 2022, Special report: Global warming of 1.5⁰C [Online] <https://www.ipcc.ch/sr15/chapter/spm/> Accessed: 2022-09-07

Kacper Szulecki, Severin Fischer, Anne Therese Gullberg & Oliver Sartor. 2016 Shaping the ‘Energy Union’: between national positions and governance innovation. EU energy and climate policy, Climate Policy. Vol. 16 Issue. 5 P.548-567

Kleine, Mareike, Pollack, Mark, 2018 Liberal Intergovernmentalism and Its Critics, Journal of Common Market Studies, Vol. 56. Issue. 7. P.1493-1509

- Kurze, Kristina – Lenschow, Andrea, 2018, Horizontal policy coherence starts with problem definition: Unpacking the EU integrated energy-climate approach, *Environmental Policy & Governance*, Volume 28, Issue 5, P.329-338
- Lenschow, Andrea -Seliako, Lulii, 2015, Energy policy coherence from an intra-institutional perspective: Energy security and environmental policy coordination within the European Commission, *European Integration Online Papers* Volume 19, Issue 1
- Leuffen, D., Malang, T., & Wörle, S. (2014). Structure, capacity or power? Explaining salience in EU decision-making
- Ladrech, Robert, 2014, Rethinking the relationship between Europeanization and European Integration, In Coman, Ramona, Kostera, Thomas, Tomini, Luca (ed) *Europeanization and European Integration: From Incremental to Structural Change*, Palgrave Macmillan, P.15-28
- Mete, Gökçe. 2020, *Energy Transitions and the Future of Gas in the EU: Subside or Decarbonise*. 1st ed. Palgrave Macmillan
- Moravcsik, Andrew, 2020, “Liberal Intergovernmentalism” [Online] <https://doi-org.ludwig.lub.lu.se/10.1093/acrefore/9780190228637.013.1065> Accessed: 2022-08-15
- Moravcsik, Andrew, 1998, *The Choice for Europe: Social purpose and the state power* Messina to Maastricht, Cornell University Press
- Moravcsik, A., & Schimmelfennig, F. 2009. Liberal intergovernmentalism. In A. Wiener & T. Diez (Eds.), *European integration theory* (2nd ed.). Oxford, UK: Oxford University Press.
- Moravcsik, A. (2018). Preferences, power and institutions in 21st-century Europe. *Journal of Common Market Studies*, 56(7), 1648–1674.
- Nash, John, 1953, Two-Person Cooperative Games, *Econometrica*, Volume 21, Issue 1, P. 128-140
- Neumann et al. 2018, Natural gas supply: no need for another Baltic Sea pipeline, DIW
- Nilsson, M et al. 2012, Understanding Policy Coherence: Analytical Framework and Examples of Sector–Environment Policy Interactions in the EU, *Environmental Policy & Governance*, Volume 22, Issue 6, P.395-423
- Naurin, Daniel, 2018, Liberal Intergovernmentalism in the Councils of the EU: A Baseline Theory?, *Journal of Common Market Studies*, Vol. 56. Issue. 7. P. 1526-1543
- Regeringen, 2017, *Energipolitikens inriktning* [Online] <https://www.regeringen.se/497262/contentassets/5fe7ecdee2b440eb81348fc722324c91/energipolitikens-inriktning-prop.-201718228> Accessed: 2022-08-15
- Regeringen, 2018, *En ambitiös klimat-, energi- och miljöpolitik*. [Online] <https://www.regeringen.se/artiklar/2018/03/en-ambitos-klimat--energi--och-miljopolitik/> Accessed: 2022-09-06

- Saurugger, Sabine, 2014. Theoretical approaches to European integration. 1st edition. Palgrave macmillan
- Schimmelfennig, Frank, 2015, Liberal intergovernmentalism and the euro area crisis, *Journal of European Public Policy*, Volume 22, Issue 2, P. 177-195
- Schimmelfennig, Frank, Winzen, Thomas, 2019, Grand theories, differentiated integration, *Journal of European Public Policy*, Vol. 26. Issue. 8. P.1172-1192
- Simon, Frédéric, 2019, “The Brief, powered by BP – A green bridge over the EU’s East-West divide?” EURACTIV, News article. 2019-12-12
- Skjærseth, Jon Birger. 2021. “Towards a European Green Deal: The evolution of EU climate and energy policy mixes”. *International Environmental Agreements: Politics, Law and Economics*, Vol. 21. Issue 1. P. 25-42
- Skovgaard, Jacob, 2018, Policy coherence and organizational cultures: Energy efficiency and greenhouse gas reduction targets, *Environmental Policy and Governance*
- Statista, 2022, Natural gas imports by type in Europe in 2020, by country [Online]
<https://www.statista.com/statistics/332218/gas-trade-imports-in-selected-countries-in-europe/>
 Accessed: 2022-09-07
- Svensson, Torsten-Teorell, Jan, 2016. Att fråga och att svara. 1st edition. Liber
- Tallberg, Jonas, 1999, Making states comply: the European Commission, the European Court of Justice & the enforcement of the internal market. 1st edition. Lund: Studentlitteratur
- The Treaty of the Functioning of the European Union (TFEU)
- Treaty of Maastricht 1993
- Treaty of Amsterdam 1999
- Treaty of Lisbon 2009
- UNFCCC, 2020, Submission by Croatia and the European Commission on behalf of the European Union and its member states. [online] https://ec.europa.eu/info/sites/default/files/european-green-deal-communication_en.pdf Accessed: 2022-08-15
- UNFCCC, 2022, The Paris Agreement, [Online] <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement> Accessed: 2022-09-07
- Wallace ,Helen-Pollack, Mark A.- Young Alasdair R, 2015. Policy-Making in the European Union. 7th edition. Oxford: University Press
- Wettengel, Julian, 2022, Polls reveal citizens support for climate action and energy transition, *Clean Energy Wire*, 2022-08-05
- Ydersbond, Inga Margrete, 2018, Power through Collaboration: Stakeholder Influence in EU Climate and Energy Negotiations, *International Negotiation*, Volume 23, P.478-514