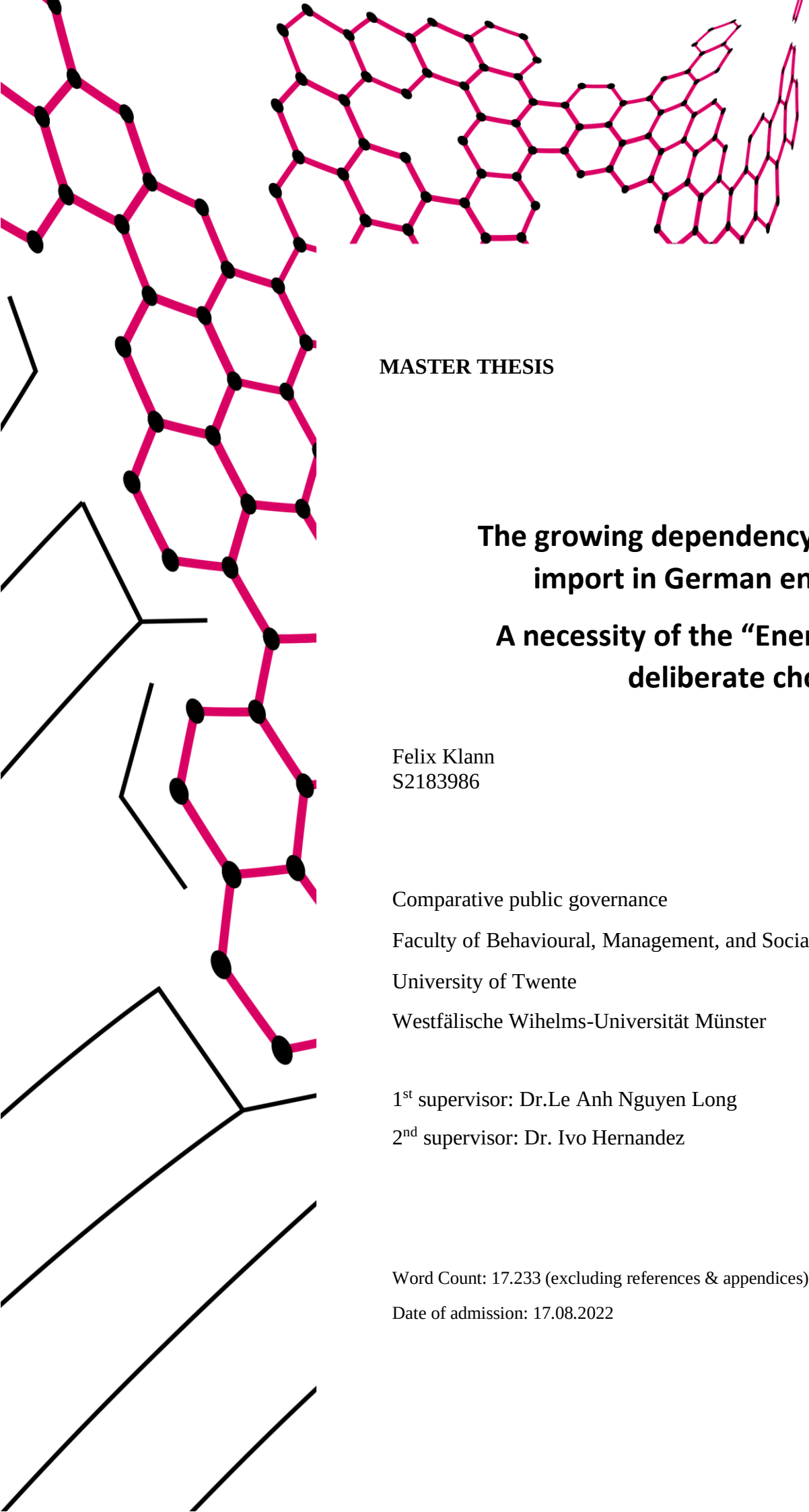

MASTER THESIS

The growing dependency on Russian Gas import in German energy policy:

A necessity of the “Energiewende”, or deliberate choice?

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1.Introduction

The Russian invasion of Ukraine, subsequent sanctions, and diplomatic and military scrambles surprised many. The diplomatic scramble that marked the subsequent sanction regime was marked by a two-way dependency: Fossil fuel exports make up the largest source of income for Russia, while Europe, first and foremost Germany, are highly dependent on the flow energy for their Economy and domestic consumption. Even as Most energy resources are exempt from trade sanctions, the new German government nonetheless shifted their stance towards Russia significantly in comparison to their predecessors, adjusting energy policy to reduce dependencies with massive investments in new infrastructure (ndr 2022) and fashioning a rhetoric of pressure and confrontation – while still forced to cooperate on the maintenance and trade of natural Gas (Rosner 2022; Marsh and Chambers 2022). Germany is in a particular pickle, managing domestic energy needs, a history of cooperation with Russia since during the cold war, and its strategic and political interests as a member of the NATO. First tensions under the new government already showed in February, when the ambitious yet internationally criticised German-Russian pipeline project Nord Stream 2 was halted (Marsh and Chambers 2022). This ambiguous stance marks the challenging end of a time of rapprochement,

cooperation, and growing mutual dependency on and with Russia that marked decades of German foreign politics. Particularly since the turn of the millennium, this was accompanied by a continuous increase of Gas import shares from Russia under the conservative led great coalition government.

Since Angela Merkel took office as the German chancellor in 2005 and continued to lead four government coalitions until 2021, energy policy and energy transition was a common matter of political debate. With the continuation of the Energiewende formally set into policy in 2010, Germany set ambitious targets to reduce emission, decarbonize electricity production, heating, and transportation, and phase out of coal-based energy production as well as nuclear energy (Bundesregierung, 2022a). Throughout these last 16 years, while the share of renewable in electricity production rose, domestic gas consumption remained largely stable, consistently posing the third largest energy source after coal, and overtaking it in 2017 (IEA, 2022). What changed, however was the import rate and sources for natural gas. As the overall import rate increased consistently until 2014 and steeply after, Russian exports to Germany increased to a historical high in 2018 and remained largely stable since (CEIC, n.d.). Simultaneously, the share of Russian-origin gas has increased substantially (IEA, 2020), now estimated to dominate German imports at 55% (Bundesministerium für Wirtschaft und Klimaschutz, 2022).

The new Government coalitions turn to question the reliance on Russian-imported Gas does not only change energy policy, but also ends the longstanding – and uniquely German – "Ostpolitik". Born from an effort to ease tensions between the then-separated West and East Germany, this political stance followed the motto "Wandel durch Annäherung" (change through reproachment") and was implemented by the centre left coalition of SPD and FDP in 1969, led by chancellor Brandt. It replaced a hard stance and united western prowess to pressure the Soviet Block with negotiation, relaxation, and accommodation of Russian, Polish, Tschechoslowakian, and eastern German concerns and interests (Schubert 2020; Cary 2000, 238). This political stance can be seen as a throughline until at least the construction of the ambitious Nord stream 1 pipeline through the Baltic Sea, a project initiated under chancellor Schröder in 2005, and officially finalized by Merkel in 2012 (Knight 2021). It is the foundation of longstanding and sometimes strenuous economic cooperation between Germany and the Russian federation.

The overlap of and tension between these two policy subsystems became increasingly apparent when Merkel announced a follow-up project Nord Stream 2 while tensions with Russia increased in light of the annexation of Crimea, and the great coalitions resistance to international criticism of the project and overall open stance towards Russia (Clean Energy Wire 2022). An investigation of how these domains interacted and contributed to the dependency on Russian Gas imports demands grounding to both the historical dimensions of the two countries' relationship, and an understanding of the ambitious German energy transition policy.

The national Government holds a significant share of policy competences and generally delegates mostly monitoring, enforcing, and maintenance to the federal level. At the same time, differently powerful economic and civil actors are vested in certain energy types, industries and consumers are important consumer groups, and Germany is part of an EU market area, adding further public and private foreign interests and actors.

The advocacy coalition framework is a well-suited approach to address complex and multi-level policy analysis. According to this theoretical approach, different advocacy coalitions form between

different political, economic, and civic interest groups arounds certain policy issues. They compete and form policy subsystems around these policy issues, which stabilize over time and are characterized by relatively stable policy beliefs – the central variable of the ACF (Weible et al. 2020, 1064). Once established, policy beliefs are the driving force of decision-making in a given subsystem, while changes in policies and positions are minor as coalitions defend their beliefs and select the information accordingly (Cainey 2019, 2). Conflicting coalitions dispute these beliefs and attempt to gain supremacy over a subsystem through various strategies. In the – more common – absence of such a change in dominant actors, long periods of policy stability with incremental policy learning by continuous adaptation to new knowledge, spill overs across policy-systems, or long-term societal value changes prevail (Cainey 2019, 14). This accounting for conflict among beliefs makes the ACF ideal to assess the disputed policy fields of Energy transition and "Ostpolitik" with their multitude of private actors, national and federal agencies, and international politics both within and outside of the EU, each with their own beliefs, interests, and ideologies.

Complicating the field further, "Ostpolitik" often blurs the line between energy-policy and strategic security-policy in its function to define relation between Germany and Russia, motivating eastern EU member states and additional domestic stakeholders to take interest as well. The ACF accounts for this complexity by focussing on the various levels of government and polities involved in drafting, implementing, and monitoring policy, emphasizing the multitude of policy participants across those levels – and stages of the policy cycle (Cainey 2019, 3, 20; Sabatier and Weible 2006, 126). Strategic actors can shift the venue of a particular issue towards a polity, or to a different policy subsystem where they secure power. This makes the framework suited to understand the interplay of the complex policy and allows for the possibility of moving the gas policy debate away from the central government towards the EU or German States.

Policy beliefs in the ACF are the connection between established actors and their coalitions around policy issues – forming policy subsystems. Beliefs follow from the perceptions and learning of actors, become dominant in a subsystem, and subsequently inform and motivate policymakers. Consequently, this thesis proposes that growing dependency developed as a consequence of the dominant policy beliefs translated into policy throughout the last decade.

The advocacy coalition framework has been applied to a wider variety of energy-, environmental, and other policy subsystems, giving further credence to its merits as an analytical tool for such cases (Gabehart et al. 2022). It showed the relevance of policy-learning and accepted beliefs in EU energy efficiency policy (von Malmborg 2021), proposes pro-renewable coalitions as the drivers of German and by extension European energy transition (Bosman 2013), and investigates the interplay of established beliefs and frameworks within local wind power policy subsystems with exogenous concerns (Newell n.d.), and the interaction of beliefs within subsystems and coalitions (Freudenburg and Gramling 2002). These few applications of the framework stand representative for the diverse and successful application of the ACF on energy-policy in particular.

A. Research question

Against this background, the analysis will be informed by the extended literature on both German-Russian (energy) relations, as well as domestic German energy policy. It adds to this already extensive body of literature by investigating the motivations and priorities of by three successive

government coalitions led by the same party (CDU) and chancellor (Merkel), as expressed in their coalition agreements. Against this background, it seeks to apply the ACF to answer the following research question across the two policy systems: Energy policy and "Ostpolitik":

RQ: ***To what extent can the policy belief systems in German government coalition agreements explain the growing dependence on Russian gas imports since 2010?***

This question is particularly interesting, as the stark increase in dependency on Russian gas only occurred after the invasion/ conflict/ annexation of the Crim peninsula in 2014 (bpb 2019), widely regarded as a decline in Russia's reliability as an international partner. To address it under consideration of the interconnected policy subsystems of "Ostpolitik" and energy policy, two sub-questions are posed:

SQ1: How did policy beliefs change or remain stable in the German governmental energy policy?

SQ2: How did policy beliefs change or remain stable in governmental policy towards Russia?

B. Practical relevance

The answers to these questions can provide clarity on the rationale – or lack thereof – leading to increased energy dependence and identify the domestic policy-structures' corresponding belief systems. As those systems tend to be stable and resistant to change, such knowledge is valuable not only to understand German government behaviour, but also to provide valuable insight for stakeholder analysis in energy policy in Germany and Europe, an issue that will undoubtedly remain on the political agenda for years to come.

This is not only highly salient in light of current political events and Germany's – and the EU's – gas dependency, but also a feasible conclusion of the last 16 years of conservative-led governments energy policy at a point in time where a new coalition is taking office during an international security- and the threat of a national energy crisis. Additionally, it adds to the literature of energy resource trade under crisis, a field not overtly explored from an ACF-perspective. Many western nations rely on energy imports. Shedding light of such reliance's pitfalls can inform policymakers to take precautions when drafting policy.

C. How does the thesis add to these current events?

This thesis offers an insight in how the demanding situation – gas dependency on Russia – was influenced by the domestic beliefs and policy subsystems in Germany, the EU's largest economic consumer of gas and import infrastructure hub for the EU gas grid. Beyond informing future policy makers and adding a long-term assessment of energy policy development, this thesis approaches the question of accountability and drawbacks of the development of energy dependency. Lately, the domestic German public debate increasingly focussed on energy prices, economic feasibility of energy transition in the light of energy shortage, and the emergency procedures should trade embargos and gas delivery stops continue. In understanding the high gas-dependency as an outcome of domestic policy, and investigating the policy beliefs that led to it, this thesis adds an ex-post account of the interaction and development of German-Russian energy-relations and their drivers to the debate.

D. Academic implications

The central research interest of this analysis is to explain the outcome of high energy dependency on Russian gas exports as a consequence of government policy since 2010. Thereby it adds to a younger offshoot of the ACF that investigates unique interactions of overlapping policy-subsystems. While already considered by Sabatier, many studies focus on the formation of beliefs and underlying coalitions rather than policy beliefs explanatory power for policy making and policy focus. This thesis contributes to filling the gap for a unique policy constellation: strenuous foreign trade and security policy, and energy transition policy in Germany.

2.Theoretical framework: The advocacy coalition framework

The German energy policy, particularly with regards to the role of Gas, is a complex policy subsystem with a multitude of actors, national and federal agencies, and international politics both within and outside of the EU, each with their own sets of perspectives, ideologies, and beliefs. The advocacy coalition framework (ACF) addresses the complex interplay of actors within conflicted and established policy subsystems over long periods of time to explain policy change as a function of the beliefs of dominant advocacy coalitions within policy subsystems. This section will introduce the framework, break it down in its core components and mechanism as relevant to this analysis, and link it to the case at hand.

First developed by Paul Sabatier in 1988, the framework seeks to explain long-term policy change, and policy learning as a function of competing belief system under conditions of individual actors bounded rationality (Ma et al. 2020, 7). It was developed to combine pre-existing approaches to policy change, leading to its main assumptions: the timespan required to analyse policy change is a decade or more, interaction of different actors develop in policy-subsystems that form around policy areas they seek to influence, and that the resulting public policy represents dominant belief systems of the policy-subsystems made up of values and assumptions on how to realize them (Sabatier and Jenkins-Smith 1994). Such beliefs are not always unique to one subsystem, as they can be layered and nested structures that overlap. „Sometimes it is difficult to define the geographic and substantive boundaries of a policy subsystem because some policy subsystems are nested within broader policy subsystems and because some policy participants are active in more than one policy subsystem.“ (Sabatier and Weible 2006, 127) Despite its initial application and development in an US-American context, it has since been applied to a variety of different political systems and issues.

A. Role of beliefs

The advocacy coalition framework approaches policy-change as a function of boundedly rational individuals promoting their beliefs and attempting to infuse them into policy by forming coalitions among aligning actors along their shared believer – as opposed to short-term utility gains. These coalitions compete for dominance within a policy-area's policy subsystem using a variety of resources and strategies, and under the conditions – both opportunities and constraints – of environmental conditions of such a subsystem (Cainey 2019, 1, 2). Because of the complexity of policymaking, and

highly specialized institutional frameworks in and out of government structures high levels of investment and specialized expertise are required to form policy coalitions, which represent equally specialized actors with subsystem-specific beliefs, strategies, and limited resources These actors are consequently interested in sharing knowledge and resources when opportune (Cainey 2019, 17). While core policy beliefs concern subsystem-wide goals and problem definitions applicable to only one subsystem at a time, secondary policy beliefs that are instrumental to realize higher-order beliefs can be confined to subunits of a policy subsystem, or branch out across it (Weible et al. 2020, 1063).

Coalitions portray coordinated behaviour (Ma et al. 2020, 9; Cainey 2019, 5) to influence „the generation, dissemination, and evaluation of policy ideas“ (Jenkins-Smith and Sabatier 1993, 179; Sabatier and Weible, 2007: 192). Their belief systems guide actors‘ assessment and determination of causes, solutions, and preferred methods of political problems. Thus, new information can alter belief systems, though they are more likely to be selectively applied to support existing beliefs within the subsystem. Agreements on these factors form the foundation cooperation between them, resulting in the formation of coalitions advocating for and against certain policies based on their shared beliefs, including fundamental political, politicized, administrative, and socio-technical dimensions (Cainey 2019, 1, 2).

Fittingly, previous studies identified a number of common and often dominant beliefs for energy policy, a common field for application of the ACF: As such, long-term development targets of renewable energy share extension, and mitigation of environmental impacts of the use of fossil fuels are often set as central components of belief system, with a variety of “technical statements that could be classified as secondary components, such as the procedures for securing permits to build renewable energy infrastructure.“ (Weible et al 2020, 1063). In the Swiss energy policy subsystem, a pro-economic and a pro-environmental coalition were identified around beliefs for low energy prices and degrees of regulatory intervention, similar to the German subsystem. Here, shared secondary policy beliefs pertaining to support for renewables and nuclear phaseout were widely shared across coalitions, leading to support for energy transition policy despite stable adversarial coalitions (Markard et al. 2016, 230)“. Also, smaller and overlapping sub-coalitions have been found to support one or few energy technologies (Schmid et al. 2020, 1120)

B. Policy change

The advocacy coalition framework is designed to understand and explain gradual long-term policy changes and policy stability as the norm, and major, short-term policy change as an exception. First, it assumes that the core condition for stable policy subsystems is only possible within a wider political system defined by stable parameters. They determine the context, resources, processual rules as well as constraints and opportunities to coalitions, and usually only change in the course of decades (Sabatier and Weible 2006, 125). They form the long opportunity structures of coalitions across subsystems and consist of „societal cleavages“, „openness of the political system“, and „the degree of consensus needed“ for decision-making. Within a subsystem, policy change is often long and arduous due to the level of conflict, complexity of issues, and responsiveness of government (Sabatier and Weible 2006, 126) and focusses on substantial policy as well as the strategic change of policy process by „changing institutional rules, resource allocation, and appointments.“ (Sabatier and Weible 2006, 129) As stable democracy with an extensive administration, Germany fullfills these

requirement transparently, as are the policy subsystems under study characterized by multiple cleavages along ideological and economic lines.

Biased by their beliefs, actors operate under bounded rationality to achieve subjective goals and address subjective problems, that is they seek resources and evaluate the utility of investments to gain power and dominance in their subsystem, (Cainey 2019, 6, 7, 20). Most commonly, this process leads to minor changes that alter secondary aspects of policy while retaining the dominant belief system and structure of the subsystem. These minor changes of substantive or territorial aspects occur more often and accumulate over time (Sabatier and Weible 2006, 130).

C. Policy learning

Within the environmental constraints and through actor's bounded rationality, the main mode of policy-change is policy-oriented learning: Coalitions continuously adjust to environmental changes, new information, and changes in strategy of their adversaries. This learning is a necessity to retain strategic advantages within a policy system and occurs through the lens of actors' respective belief systems, meaning that beliefs only change marginally and slowly, while information is processed and assumptions on reality are chosen to support them, "as individuals face cognitive constrains" (Sabatier and Weible 2006, 130). This is particularly true when the subsystem holds multiple coalitions, is well-established, and when the issue is strongly politicized – as is the case for German energy- and more so "Ostpolitik". Here the ACT assumes that increased competition between varying belief systems encourages defensive positions where coalitions internally reaffirm their beliefs while they „demonize their opponents" (Cainey 2019, 2; cl. Sabatier et al, 1988). Slow policy-learning can also be the consequence of adaptation to spill overs across policy-systems, long-term societal value changes, or continuous direct threats among rivals (Cainey 2019, 14).

Under these normal conditions, knowledge is continuously and gradually accumulated through studies, experiences, research, and exchange of knowledge within a subsystem. Where this knowledge is connected to policy goals, instruments, or – albeit rare – even fundamental aspects of belief systems actors react by adjusting their thought and behaviour permanently (Sabatier and Weible 2006, 130). This processing of information is done on the level of individuals, and of coalitions (MA et al. 2020, 9; Cainey 2019, 11). The mechanisms for learning – within the limits of bounded rationality – can be various: A long-term analysis of the German energy policy subsystem showed that endogenous and exogenous factors of the subsystem and its policies combined to produce policy outcomes that were observed and reacted to by the advocacy coalitions. This formed a feedback loop "between such policy outcomes and subsequent politics" (Schmid et al. 2020, 1126).

As coalitions are the vehicle to translate beliefs into policy, learning is most relevant where it alters a coalition's core or secondary (methodological) beliefs. This most often occurs incrementally, when coalitions react to new information and encourage minor policy changes but can also prompt major changes as a reaction to internal or external shocks (Cainey 2019, 21). However, routine policy monitoring and evaluation of policy outcomes remains the most common cause for learning (Cainey 2019, 12), as does it commonly effect beliefs of HOW to attain a certain outcome for a certain problem, not the definition of the problem or the desirability of the outcome (Sabatier and Weible 2006, 127; Cainey 2019, 11).

D. External Shocks

Rare major policy-changes become possible when major external shocks occur. These can be located within or outside of a policy subsystem, such as a change of government, socio-economic crises, natural disasters, or highly impactful new information such as the discovery of new technologies that demand coalitions to react. Then, dominant coalition in a subsystem might change or be replaced by an "adversarial coalition" (Weible et al. 2020, 1072) and with it the dominant belief system, or a coalition might disband after its belief system was substantially challenged (Sabatier and Weible 2007: 205–207; Cainey 2019, 2). In such a setting, new information does not incite learning, but is used as a resource to gain supremacy over decision making (Cainey 2019, 12, 21). This usually leads to a change of underlying dominant belief systems and causes major changes in the policy options considered, prioritized problems, and long-term policy goals. That way, External shocks play a substantial role for major policy change: While external events and conditions can change gradually – and foster equally gradual adaptation through policy learning – rapid change of events alter the resources available to different actors in a system, presenting constraints to some, while enabling other coalitions within a subsystem. Shifts in public attention to certain subsystems, actors, and issues play a particularly impactful role (Sabatier and Weible 2006, 129, 130). This adds to the additional effect a shock can have on inner coalition questioning of belief systems (Cainey 2019, 13). Shocks thus hypercharge policy change: In reaction to them, „one coalition changes, or another coalition takes its place and pushes for major change" (Cainey 2019, 14). These effects are not given, as shocks might not be perceived as such in each subsystem, established coalitions' policy beliefs proof too resilient, or no sufficiently agreeable alternatives exist. E.g., while the Russian invasion in crimea may have been shock to a greater public, Russian transgressions are a known factor within the "Ostpolitik" subsystem, causing minor changes to policy beliefs, yet not questioning the core policy beliefs, or even reinforcing them.

In the absence of shocks, environmental conditions and the setup of a policy-subsystem determine degrees of policy stability. Stable and well-established subsystem present a lower number of coalitions with fixed and resilient beliefs and relatively lasting power structures (Cainey 2019, 13) that can be stable over multiple decades. Further, old coalitions tend to have more hardened belief systems, as all internal exchange and adjustments are rare and new members are more inclined to adapt. Under these conditions, competition among core belief systems is replaced by small-scale technical issues and incremental policy learning, or even stagnation (Cainey 2019, 10).

E. Matching theory and case

The Advocacy Coalition Framework's causal centre is the focus on beliefs in combination with power, and the relations between the two (Cainey 2019, 20). They determine the type of policy pursuit, and the likelihood of success of advocacy coalitions.

Summarizing their framework after two decades, Sabatier an Weible state that it „is best served as a lens to understand and explain belief and policy change when there is goal disagreement and technical disputes involving multiple actors from several levels of government, interest groups, research institutions, and the media" (Weible and Sabatier 2006, 123).

When comparing its conditions, factors, and assumptions to the case at hand – the development of high gas dependency on Russia – a puzzle becomes apparent: The share of Russian gas imports grew

incrementally, indicating policy stability with only few extraordinary peeks or increases in speed. Stable government coalitions, and the longstanding tradition of rapprochement with Russia, as well as the powerful established industries in Germany add to the image of policy stability. At the same time however, the German energy transition was at the focus of public debate multiple times, the domestic energy sectors where highly involved in negotiating phaseouts, subsidies, and debating technological feasibility, while the gas trade with Russia experienced stern criticism internationally and sometimes domestically. This impression of conflicted overlapping policy field would support sped up policy learning or even changing beliefs in the face of new information and conditions. The notion of a German energy transition policy subsystem prone to change is further supported by the reactions to the nuclear catastrophy of Fukushima. While German "Ostpolitik" is a more stable policy subsystem through its long formative history, multiple shocks in international relations with Russia occurred since 2000, ranging from individual diplomatic scandals assassination of political figures (DW 2021; Neumann 2021), or the annexation of the Ukrainian Crimean Peninsula (Grant 2017; BPB 2019) shocked the political status quo between the two nations and caused devided calls for reaction (Poplawski and Kwiatkowska 2014). These evens do merit the expectation of a decreased focus of cooperation from a German political standpoint, as they reduce Russia's reliability and feasibility as partners, particularly in relation to Germanies firm anchoring in EU and NATO, both being entities in opposition to Russia.

The puzzle consequently is: Does the increasing German dependence on Russian gas imports result from stable policy belief in spite of conflict and shocks, does it reflect a change in policy over time, or is it a development that cannot be explained by analyzing the belief systems in German government coalition contracts? Due to the unique context of this analysis, the two policy fields considered are that of energy (transition) policy, and of the German stance towards Russia – "Ostpolitik". Both are characterized by a complex mix of established and relatively new actors forming coalitions based on expressed beliefs that define their interests and conflict between them, and both are affected by external and internal shocks. Further, due to their cultural (Ostpolitik) and economic relevance, both policy areas are frequently covered in public debate and appear ideologically relevant to multiple stakeholders and political groups.

As such, the advocacy coalition framework, particularly its focus on beliefs as the foundation of policymaking, is well-suited to address this complex policy analysis to explain the high gas dependency and connected crises currently faced by Germany.

The following segment will discuss these policy subsystems and their history in greater detail, as well as already show connections to the ACF by pointing out their underlying policy beliefs.

3.Methodology

This chapter introduces the research design and discusses its benefits and shortcomings. Relevant concepts are defined and operationalized. They will serve to developed codes to be applied and expanded during analysis. That way and especially during the first stages of data assessment, the analysis and collection of data will overlap (Ruona, 2007, 237, 239).

A. Research design

This thesis investigates the causes for natural Gas dependency in Russian exports in Germany, 2022. Consequently, it is a single case study. The selection of the case was made based on its relevance for its political context, and Germany as a country with a complex energy transition policy. As such, it represents "critical case sampling. […] Critical cases are those that can make a point quite dramatically or are, for some reason, particularly important in the scheme of things." (Patton 1990, 174). Analysis and data gathering is focussed on understanding that individual case, while generalization is limited.

Aligning with these sampling conditions, Gerring's single-outcome-study describes ""Studies that investigate a bounded unit in an attempt to elucidate a single outcome occurring within that unit" (Gerring 2006, 709). This particular type of single case study is applicable, if an individual observed outcome is of concern, and the particular type of outcome is rare, or its cases portray heterogenous conditions that inherently prevent comparison. The outcome explained can be a change in a single variable, here gas dependency, or a curiously unchanged variable despite expectations of change, which can be understood as the continuous growth in gas dependency since 2010 and before (Gerring 2006, 710). Due to the assumed uniqueness of the case at hand, the analysis and data gathering focusses on material within the particular case, and outside comparison is as limited as the level of inference drawn to other cases (Gerring 2006 , 715). Patton similarly argues that critical case' analysis and data gathering is focussed on understanding that individual case, while generalization is limited (Patton 1990, 174, 175).

As the case at hand focusses on one country, Germany, within a limited timeframe, 2009-2021, and seeks to explain a single outcome – high gas dependency – it qualifies as a single outcome study and considers its benefits and limitations more closely.

B. Analytical approach

In this type of study, the causal factors of analysis are assumed be contingent, that is inherent to the context of the case at hand. These are investigated to provide a deterministic explanation for an observation, further limiting cross-case comparability. Nonetheless, factors outside of the case should not be ignored when contextualizing findings (Gerring 2006, 716, 717). To identify the right factors, and to appropriately guide the analysis, the outcome of such case studies needs to be clearly defined, while clear hypotheses guide the analysis to answer a specific research question (Gerring 2006, 713).

True to this type of single case study, a qualitative and theory-driven or deductive approach is chosen. Qualitative data is very rich, but oftentimes strictly contextual on the case selected, with little external validity. It requires "detailed analysis of available information to recognize patterns with some conceptual flexibility to adjust for nuances in observation (Ruona 2005, 236, 237). Further, qualitative analysis poses an inherent problem of inference: Findings well supported by data may be hard to generalize and therefore hard to test (Seawright & Gerring, 2008, p. 295, 306). To mitigate these challenges, the analytical frame is theory-driven, and a pre-existing theory for policy-analysis was chosen to frame the analysis and provide some basis for comparison and cross-case comparison (Van Thiel, 2007, p. 92). Such a deductive approach relies on the application and testing of a theory in a particular case by comparing collected data with hypotheses derived from it. In qualitative data

analysis in particular, some conceptual flexibility requires "shifting back and forth between inductive and deductive modes of thinking during the process of data analysis" (Ruona 2005, 238). In this case, Sabatier's Advocacy coalition framework will provide the broad categories guiding the analysis, while the code will be developed based on the data.

Since the nature of single-outcome studies mandates a focus on unique cases, comparable operations in the predictive variable must be constructed from within-case evidence. Longitudinal research, or the comparison of data across different points in time is the most feasible method of comparison to observe slow and gradual changes (Gerring 2006, 711, 717, 727) – as are expected based on the Advocacy coalition framework.

The advocacy coalition framework is a widely applied theoretical model for policy analysis, particularly for comparative and case-study applications across policy issues, levels of government, and different political systems (Cainey 2019, 14). There have been multiple meta-studies on identify how the ACF was used since its conceptions. In terms of methodology, qualitative (71.7%) and mixed (23.9%) approaches are most common (Ma et al 2020, 18, 19). In terms of data sources, content analysis (73.9%) in documentary research, either alone (21,7%) or in combination with interviews (47,8%), is the focus of most studies (Ma et al 2020, 19). Environmental and energy policy are the most studied policy area (43%), followed by public health, education, and welfare (Cainey 2019, 15).

Consequently, neither the qualitative case study based on document analysis, nor the topic are unusual, lending additional merit to the approach.

C. Data sources: Coalition agreements/ Coalition contracts

The analysis relies on coalition agreement documents between the parties making up the three governments under study. Coalition agreements are common and somewhat unique into the German government formation process. They represent codified semi-contractual mutual reassurances of political parties to co-elect a chancellor and form the basis for cooperation in the newly formed government. It is published after usually extensive negotiations and enumerates the shared accepted goals (Thurich 2011; Scheider and Toyka-Seid 2022), appointments to core governmental positions (Feldkamp and Ströbel 2005), procedures and limits of cooperation in varying degrees of detail, from general goals to specific and detailed policies (Georgii n.d., 1).

While these coalition agreements are not legally binding, nor do they legally mandate individual Members of parliament to adhere to its content – both would conflict with core constitutional clauses – its role as a political agreement is essential for stable coalition governments in Germany. Unilaterally breaching this contract demands justification and is usually seen as politically unreliability, jeopardizing stability, and governmental ability to act, and might risk dissolution of the coalition and potential re-elections – where the perceived ill-acting party is usually punished at the ballot (Georgii n.d., 2).

Consequently, coalition agreements are treated as government agendas and policy by media, and in the broader public debate. Its drafting and publication are highly salient for all parties and indicates their preferred shared self-presentation towards the public. They thus often include value-statements and recognitions of conditions, goals, and priorities across all policy areas, making them highly valuable for analysing government rationales – or belief systems.

Two drawbacks of using coalition agreement need to be considered. First, the 2009-2013 coalition does not consist of the CDU-SPD "great coalition but is instead made up of the CDU and FDP. This somewhat decreases comparability, but only limited, as the CDU is the consistently party in all three coalitions. As all three governments contributed to the development of policy in the two subsystems at hand, the added value by including the slightly different government constellation outweighs its drawbacks. Second, with the focus on one document per government, it is possible that data from other documents, or data sources is ignored. While certainly a challenge to the validity of this analysis is impacted by this, as additional aspects may be excluded or observations from coalition contracts might be wrongly generalized, the long timeframe of the analysis and central role of coalition contracts mitigates these challenges. In context, it is unlikely that a policy belief is newly introduced between governments and not brought up in the subsequent coalition contract under the same party leadership.

D. Conceptualization: Policy Belief systems

Believe systems are at the centre of analysing policy change through the Advocacy Coalition Framework. They are imagined by Sabatier are constituted of "ideological principles, shared values and norms" (Torenvlied, 2000, 26) or "normative/partisan orientations" (Sabatier and Hunter, 1989, 231). The ACF identifies three central types of beliefs: *Deep core beliefs* are rarely explicitly stated and concern philosophical and personal views beyond policy systems. They form the basis of more explicit positions by conceptualizing human nature and rough expectations of causality within the wider world. Next and more concrete, *policy core beliefs* concern normative and empirical positions and perceptions within a policy subsystem. They can and do change through policy learning or active reassessment in light of new information or events, although change usually occurs slowly and incrementally. Finally, and most susceptible to change, *secondary aspects* of belief systems refer to methodological and causal aspects of policy that are easily adjusted relatively easily and short-term and largely define routine behaviour and methods deemed preferable or acceptable for a policy system or specific policies: The „funding, delivery and implementation of policy goals" (Cainey 2019, 7). Belief systems produce problem perceptions (Torenvlied, 1996, 26) and specific policy positions (Sabatier & Hunter, 1998, 231). These normative components are linked to preferred policies (Torenvlied, 1996, 26) through "causal perceptions" (Sabatier & Hunter 1989, 253) concerning implementability, effectiveness, and legitimacy of policy measures (Torenvlied, 2000, 25).

E. Operationalization

Due to significant variation, nuance, and combinations of belief systems within and across subsystems, their concrete content „should be ascertained empirically" (Cainey 2019, 6) to account for the variety of perspectives and biases inherent in them. This represents the majority of qualitative research methods and interviews discussed by Ma et al (2020) and is in line with Sabatier and Weible's recommendation to use preliminary interviews with participants. Particularly an evaluation of the *importance of problems*, *causes of problems*, and *preferred solutions* are of value to identify belief systems central aspects – the core policy beliefs (Sabatier and Weible 2006, 128)

Consequently, the main three labels used to categorize the belief systems at hand will be (1) Problem relevance, (2) Problem causes, and (3) Preferred solutions. For these labels, normative and empirical beliefs will be considered.

The less central and more frequently changing aspects of belief systems concern causal perceptions (Sabatier & Hunter 1989, 253) pertaining to routine behaviour and methods deemed preferable or acceptable in expectations of certain effects. Consequently, the fourth and fifth labels are (4) methodological concerns and (5) causal aspects.

This distinction between policy core beliefs on the one hand, and causal perceptions on the other can be found in other applications of the ACF as well. As such, in climate change policy, policy core beliefs are found to be more relevant for coalition formation, while specific policy instruments to achieve certain goals are broadly supported across coalitions (Kukkonen et al. 2017, 721). While there is still disagreement on policy tools, they are found to be unlikely to motivate coalition forming in South African tree plantation politics, as their causal arguments are too diverse and spread across actors to serve as a unifying dimension (Malkamäki et al. 2021, 1) This supports that not all policy beliefs are alike, but that their hierarchy affects how they impact coalition forming and policy-making within a subsystem (Weible et al. 2020, 1073).

Consequently, the differentiation between the two blocks of policy beliefs serves to evaluate the prevalence of core policy beliefs in relation to that of lower order policy beliefs. Assessing them separately allows to incorporate the idea that some beliefs are more fundamental to a coalition – and thus for policy outcomes – than others. The further separation into subgroups (1-3 & 4-5) serves to better structure the coding process and will be largely ignored during interpretation**.**

4.Background:

This thesis aims to explain the high level of dependency of the German energy system on the imports of Russian gas. To inform the analysis of German government coalition agreements of the last decade, this section will introduce the policy areas – and related subsystems – of "Ostpolitik", and German energy policy, including the role of natural Gas in the German energy mix, its infrastructure, legal frameworks, and consumption patterns.

A. „Ostpolitik" and the development of natural Gas in German-Russian relationship

Energy policy lies at the intersection of multiple historically relevant political and economic developments. Gas in particular plays an integral role in the relations between Germany and Russia. An overview over these relations and the role of natural gas therein lays the foundation and will later inform the analysis by identifying existing beliefs prevalent in German policy towards Russia. Originally born from security concerns and the strife for German reunification chancellor Brandt's rested on the idea that economic and civic cooperation can motivate internal change towards a more western style of government and societal values in Russia. This belief of cooperation, and goal of alignment instead of confrontation motivated shared economic projects, exchange of technology against natural resources, while balancing international security conflicts, firm German alignment in Western economic systems, values, and strategic NATO membership. Particular the style, or causal beliefs of how to organize cooperation was often disputed, ranging from personal head-of-state relationships, individual prestigious projects, to attempts for more formalized institutions.

I. From Adenauer's hard stance to Brandt's "Wandel durch Annäherung"

After World War II ended in the separation of the two German states, Adenauer's stance as the first chancellor of West German aimed to assert the new countries position among Western allies. To that end, embedding the federal republic in inter- and supranational institutions, and resisting the USSR in an effort to „convincing or compelling the Soviets to accept reunification under Western democratic auspices"(Cary 2000, 239, 240). This policy – believing in the utility of show of force to achieve unification – remained the dominant political stance until the construction of the Berlin wall in 1961 (Cary 2000, 244). From then on „Wandel durch Annäherung" („Change through reproachment") emerged as an alternative and resulted in the so-called new „Ostpolitik" (Eastern policy") as implemented by the centre left coalition of SPD and FDP in 1969, led by chancellor Brandt. Grounded in a liberal international belief system of cooperation, mutual benefits, and economic development as driver of democracy, it effectively reversed the strategy to now employ negotiation, relaxation, and accommodation with Russia, Poland, Tschechoslowakia, and eastern Germany (Schubert 2020; Cary 2000, 238). This policy considered peaceful coexistence with the Communist systems of government preferred method to achieve German unity. Offering economic benefits through cooperation, and diplomatic recognition of Soviet interests in Eastern Europe, it aimed to entice concessions on humanitarian issues as well as German interest for reunification, as well as to create (economic) dependencies as a foundation for future negotiations (Cary 2000, 244, 247; Ash 2022). These new diplomatic efforts resulted in a number of treaties formalizing the relations between the two systems and states: The Moscow treaty acknowledging the borders of East Germany, the concession of the Oder-Neisse frontier to Poland, the four-power pact to regulate the status of Berlin, and the basic treaty for permanent relations between the two Germanies without accepting separated statehood (Cary 2000, 247). Among other rationales, these treaties reflect the belief that positive concessions and inclusion into a more convenient international system will reduce resistance and allow for more room to manoeuvre with less sacrifice, while preventing some hardship and humanitarian crisis in the meantime. While both Adenauer's and Brandt's position aimed for reunification, their methods were opposed – confrontation versus cooperation.

Despite some rising tensions during the cold war, this style of Ostpolitik was adopted by all future governments up to and beyond the German reunification in 1989, although with adaptations and often pressed to balance different political beliefs and priorities during the crises of the Cold war. As such, chancellor Schmidt's handling of the INF missile deployment in 1983 (countering prior Russian missile placements) clearly prioritized transatlantic treaties and allies over the prerogative of relaxing relations. Nonetheless, Schmidt's government continued to promote for humanitarian concessions and retained the economic- and aid-connections across the inner-German Border, never abandoning the premise of cooperation and negotiations (Cary 2000(a), 376-382).

II. Helmut Kohl (1982-1998)

The conservative German government led by Helmut Kohl, continued this limited version of change through reproachment. This meant maintaining relations between the Germanies, pursuing a goal to ease rather than exacerbate the East German crisis. A new factor and goal was the desire for domestic stability and normalcy in West Germany that was linked to the perceived humanitarian and diplomatic gains in public perception. This new goal was aimed at maintaining a prosperous west-Germany, shifting a focus from fast results of reunification to domestic (economic) stability (Cary

2000, 260, 261). The most essential mark of Kohl on the German Ostpolitik was his declaration of inter-German relations (and Ostpolitik in general) as “Chefsache” or “to be handled by the leaser” (Prowe 2002, 124). This belief in Ostpolitik based on the heads of government’s mutual understanding and agreements should continue well into the Merkel-governments (Spanger 2012, 34). After the fall of the Berlin wall and subsequent reunification of Germany in 1989/1990, chancellor Kohl was the leading figure in managing the reintegration of Germany and withdrawal of Russia. Shortly after these events, he moved to proclaiming a strategic partnership between Germany and the then-young Russian federation (Bros et al 2017, 15), further moving “Ostpolitik” towards mutual economic cooperation, away from the focus on humanitarian goals. By forging a number of bilateral treaties, namely „the Agreement on Good Neighbourliness, Partnership and Cooperation (1990), on Cooperation in Labour and Social Policy (1990), on the environment (1992), on mutual help in times of national emergency (1992), on cooperation in international road and air transport (1993), on the creation of the common commission to work on recent history (1997)“ (Götz 2007, 3), this ensured the continuation of the policy of approachment and interdependence into the 1990s, thus upholding the firm belief in international cooperation resting on economic growth.

Beyond personal ties with Gorbachev and later Yelzin, increased financial contributions and economic aid (supported by the US), and the inclusion of the Russian federation into international frameworks (namely the WTO, G8, and the formalization of cooperation with NATO in 1997) aimed to entice Russian reforms into a market economy first, and hopefully a democracy second (Spohr & Piirimäe 2022). Here, the hierarchy of beliefs in economic development first, positive reinforcement of change, and international institutionalism remains obvious. Even though the prior goal was only partly realized, and the latter certainly failed, this increased focus on economic integration and cooperation effectively replaced the now completed reunification of Germany while maintaining the main policy premise of interdependence over confrontation.

III. Gerhardt Schröder (1998-2005)

When Schröder initially took office, in 1998, a focus on multilateral frameworks, institutionalization of relations, and increased criticism on moral and democratic ground marked a change from Kohl’s politics. European integration was an expressed priority (Spanger 2012, 34, 35). However, this was short-lived, and the social democrat quickly adopted close cooperation with Russia, primarily on an economic basis. Guiding principle were an economically expanding Germany’s interests, modernization of Russia (first economic, then by adoption of western values), and a strategic partnership was declared based on overlapping economic and security interests (Spanger 2012, 35). Stability, trade, and energy-cooperation were dominant motivators for Schröder’s approach, while democratic shortcomings and humanitarian issues received less attention, sparking criticism among the conservative opposition (Spranger 2005, 12, 20). Indeed, Schröder’s protective statement of Russian president Putin as a „Lupenreiner Demokrat“ (impeccable democrat) was even then criticized as hypocritical and opportunistic. (Spanger 2012, 34). Mirroring this criticism, the „Petersburger Dialog“ – a forum for civil societies hosted by the German-Russian forum and financed by Gazprom and A German business lobby group – excluded multiple NGOs and is often described as an elitist circle at odds with its original purpose (Heinemann-Grüder 2013, 189, 190).

When critically assessing the strategic partnership between Germany and Russia, Spanger argues that economic relations mark the foundation of German-Russian relations during Schröder’s

government . While this is as much a consequence as an alignment with German preferences for international relations through economic interdependence, the cooperation is also bolstered by an absence of bilateral disputes and overlapping interest in international security. Accordingly, only the dimension in inner development of Russia and its relation to democratic values causes tensions. (Spanger 2005, 11, 12). During this face, while maintaining the fundamental belief in cooperation, the focus shifts further away from humanitarian, closer towards the solution of economic and to a lesser extent security-concerns. In conclusion, the strategic partnership is a largely symbolic effort based around shared interest, first and foremost pursuing economic cooperation, energy partnership, and stability (Spranger 2005, 12-19, 37), while democratization or even civil exchange among societies remains marginal (Spranger 2005, 38).

IV. Angela Merkel (2005-2021)

While Merkel – similarly to Schröder – initially focussed on de-personalizing relations with Russia, her coalition government with the social democrats ultimately extended and intensified the trend set by Schröder, officially launching the so-called modernization partnership policy in 2008, after Medvedev took office in Russia (Meister und Staron 2012,477; Spanger 2012, 25). It rephrased Brandt's original premise into „Annäherung durch Verflechtung" („rapprochement through interlocking"), aiming to promote both countries economic standing through cooperation in energy efficiency, infrastructure projects, and some social areas (Meister and Staron 2012,476, 477; Bros et al 2017, 15). The premise of this partnership was to induce technological and economic modernization in Russia that would trickle down to eventually incite societal and political change – a hope that remains largely unfulfilled until today – all while additionally fulfilling German economic and energy interests (Burkhardt 2013, 101, 106). Merkel's government further continued the notion of strategic partnership with Russia around international issues such as Iran's nuclear program or climate change (Benoit et al. 2009), though always on a diplomatic basis rarely covered by lasting institutions or solid mandates.

Economically, interconnection and mutually beneficial relations expanded further, with Russia being a crucial energy supplier for Germany, while it also became a fast-growing market for German exports, mainly industrial machines, cars, and chemical products (Benoit et al. 2009; Heinemann-Grüder 2013, 185). This is accompanied by growing economic ties between German and Russian companies, particularly in the Energy sector, where joint ventures, long-term import contracts, and at least one long-standing influential lobby organization – the „Ostausschuss der deutschen Wirtschaft" (Meister und Staron 2012, 479). Indeed, already during the election campaign leading up to Merkel's election in 2005, she argued for continuation of good and close relationships, as Russia holds large energy reserves (Spranger 2005, 36). While Schröder largely focussed on energy and general cooperation on separate issues, Merkel's government added a distinct goal of supporting the German industry, additionally bolstering its development by adding a new export marked in high demand of complex industrial machinery, further interlocking the Ostpolitik with German domestic interests and continuing to reverse the role of economic cooperation – not a means to achieve rapprochement, but a reason to continue cooperation. This broad cooperation based on shared interest, while certainly tamed, was not abandoned even when Russia annexed the Crimean Peninsula from Ukraine, sparking international sanctions, but not ending the cooperation in energy trade, international security. (Siddi 2016, 665) This shows how deep the core beliefs in rapprochement and cooperation with Russia are integrated into German foreign – and most likely also energy policy. Assessing the German reaction to the crisis, Siddi asserts a shift – though not

abandonment – from economic to diplomatic methods in German-Russian relations, as well as greater insistence on respect for international law and domestic human rights, both factors previously and increasingly side-lined by economic exchange (Siddi 2016, 675). This shows how within the core belief of Russia as a partner, the methodologies, and conditions for cooperation – secondary policy beliefs – changed after the Crimean Crisis.

Conversely, towards the end of Merkel's second chancellorship, Meister and Staron conclude that Germany was a critical advocate for Russian interests in the EU, as well as a strategic partner for energy and economy - as it was under Schröder (Meister und Staron 2012, 475). Formally aiming to develop Russia into a market economy, this cooperation was primarily and increasingly „commercial-based and business-driven […] which corresponded with the political interest in a close energy partnership" (Bros et al 2017, 19). Spanger concurs, that energy- and economic relations are the core German motivator, despite occasional debate and worries around a growing dependency on Russian imports (Spanger 2012, 38). This shows how the focus, underlying motivations, and causal beliefs that accompanied Brandt's Ostpolitik have shifted towards economic cooperation for German domestic interests, with humanitarian issues, Russian development, or even inclusion in international Regimes losing in relevance. This is reflected in the international and domestic opposition's critique of the great coalition's reaction to multiple domestic and international humanitarian concerns involving Russia.

Although other factors remain noteworthy, this discussion shows how economic cooperation and energy-trade are at the heart or German-Russian relations. It remains valuable, however, to focus specifically on the role of natural Gas within that cooperation.

B. German-Russian Energy relations

Trade, and particularly cooperation and trade in energy was a dominant dimension of Soviet-German, and late Russian-German relations. The first trade agreements were arranged by first chancellor Adenauer in 1958, sparking bilateral trade, prominently the provision of pipeline component by West Germany to the construction of the Eastern European "Druzhba"- or friendship-pipeline, finished in 1964. This arrangement was greatly extended as part of Brandt's Ostpolitik ("change through rapprochement"). In 1970, West Germany agreed to supply parts for an extended gas pipeline into West German Bavaria, providing the first direct gas trade into the German energy grid in 1973 (Ash 2022; Sullivan 2022; Bros et al 2017, 5). Afterwards, the exchange of German pipeline parts for Russian natural gas under an arrangement fittingly dubbed "pipes for gas", contributing to trade as an essential part of Brandt's Ostpolitik – promotion of economic ties. That way, Russian gas accounted for roughly one third of demand in West Germany by 1989 (Sullivan 2022; Ash 2022). After reunification, the integration of East and West German (and European) gas marked - and the expanded trade relations with the Russian federation through chancellor Kohl – continued that trend. This energy trade, primarily natural gas and oil formed a central shared interest and focal point for cooperation, first as a means for diplomatic exchange, later driven by commercial interests on both sides. The 2005 contract for the Nord Stream 1 pipeline as a direct connection between the two nations can be seen as the height of this phase of the relationship (Bros et al 2017, 15, 16, 19).

Since then, neither geopolitical crises involving Russia – and more often than not Ukraine-, nor reforms of the European and consequently German energy markets reduced energy trade between Germany and Russia, even though they reformed their structure and actors. As such, shale gas arose as a competition to Russian imports, while gas crises revolving around transit rights through Ukrainian territory in 2006 and 2009 reduced trust in Russia's reliability – as well as heightening awareness of dependency throughout Europe, motivating the EU to withdraw from direct multilateral cooperation (Bros et al 2017, 22). Additionally, the EU third energy package, particularly Regulation (EC) No. 715/2009 on conditions for access to the natural gas transmission networks and Directive 2009/73/EC concerning common rules for the internal market in natural gas aimed to combat monopolies and increase competition in an integrated EU energy market. While this affected Gazprom's business model and transformed the German energy market from a politically fostered closed to a monitored and open market, the Russian export monopoly was maintained and Gazprom ultimately adopted a diverse strategy of involvement in European market trading, and German storage facilities, albeit under increased scrutiny by the EU and its eastern member states (Bros et al 2017, 23-27). Finally, the energy transition policy dubbed „Energiewende", introduced another factor of uncertainty – this time uncertainty of demand – and a new competing domestic energy production sector within Germany (Bros et al 2017, 30).
Nonetheless, none of these developments led to a substantial reduction of the Russian share in the German gas imports. Bros concludes that despite Russian reliability being questioned in the aftermath of the 2006, 2009, and 2014 Ukrainian security crises, and despite trade relationships due to ensuing sanctions, „implications for the actual German-Russian gas relationship [are limited], insofar as the security crisis has not (yet) resulted in an energy crisis", by 2017. Indeed, as the gas sector is exempted from sanctions against Russia and Merkel's government remained supportive of the domestically and internationally criticized (and directly sanctioned) Nord Stream 2 project shows the stability and level of integration of Russian-German gas trade (Bros et al 2017, 35-42). In fact, only the 2022 invasion of Ukraine by Russia motivated a stop of the pipeline, and not during Merkel's chancellorship (Sullivan 2022). Another analysis of the discourse around Nord Stream 2 showed that the belief in cooperation as a preferred mode of interaction with Russia deeply influences German and by extension European energy relation with Russia. Partly due to the traditional diplomatic and economic cooperation, Russia is only partly conceptualized as antagonistic. Other states such as Poland – and some German domestic groups – do not share this belief in cooperation based on their past experience. This shows how German "Ostpolitik" bridges security and energy policy subsystems, with its core policy beliefs conflicted by international and smaller national actors, while cooperative positions maintain a central stance in the German relations with Russia (Siddi 2019). The international European debate on Russia as an energy supplier mirrors these dimensions, albeit against a backdrop of different belief systems. Here, confrontation between Russia and the EU In the context of the post-annexation crisis in Ukraine raised concerns on Russia's reliability in ensuring security of energy supply. These concerns – proven valid by recent developments – show how security of supply are a broadly shared policy-goal, though the beliefs on how and from which sources this is to be achieved differ (Tichý 2017, 190). German policy during the last decade seems to rely on continued cooperation and shared infrastructure projects such as Nord Stream 2, even as this approach draws growing criticism from many others

When measuring the exact extend of gas imports in Germany, and the share of Russian gas within it remains challenging due to only sporadically published data, it is clear that Russia is the largest source of fossil fuels for the German, as well as the European market. Official data is limited

however, and can vary between data source, as gas imports are no longer specified by country of origin since 2016, and instead different estimated values, voluntary disclosure by energy companies, and few hard data points serve as a basis to estimate the extent to which Germany depends on Russian Gas (BMWi 2020). The graphs and tables in Appendices B to F therefore depict a general trend complimentary to the developments discussed above.

These figures describe a broad trend, whereas the share of natural gas imports from Russia steadily increased over the 1970s, albeit with some temporary inclines. Especially during the last two decades, its share in the gross German energy import exceeded critical marks: In 2007, Germany imported about 36% of its natural gas from the Russian federation (Destatis 2009), after a decline to a share of 31% (Statista 2022). In 2018, based on provisional data, this share increased to 57% and with a more than 20% lead on the Netherlands, which are the next biggest exporter with 34% (IEA 2020). According to data from Eurostat, this further increased to a 65% share of gross gas import to Germany in 2020 (Caon 2022).

In 2021, when Merkel left office, Germany imported 6.4% less gas from Russia than in 2020 (Eckert & Abnett 2022), a small yet steady decline consistent with the 55% share of Russian gas in German gas imports by 2022, as declared by the German ministry for economic affairs and climate action (BMWK 2022).

This stark increase from about 35% to 57% about 4 years (2014-2018), despite competition from other gas sources and suppliers, remains a remarkable development especially when the multiple crises and increased international pressure on Germany during that time is concerned.

C. Energiewende: The German energy transition policy

Defining the energy policy subsystem, the German energy transition policy, as developed since 2010, will be broadly described in its goals, methods, and academic reception. As neither renewable energy sources nor carbon emissions are the focus of this thesis, this policy will be discussed broadly to complement an overview over German energy policy in the timeframe under analysis, focussing in on aspects particularly relevant to understanding the role of gas.

I. Goals and policy tools

The German Government states that the goal of the „Energiewende“ is to switch to renewable energy in electricity, heating, and mobility, while maintaining security of supply and affordable prices (Bundesregierung 2022a). It is made up of ambitious goals for decarbonization, aiming to reduce greenhouse gas emissions substantially compared to 1990 levels (Schiffer and Trüby 2018, 1; Fischer et al. 2016, 1580). The beginning of the energy transition is marked by the 2000 renewable energy sources act promoting renewable energy sources through minimum tariffs and priority access to energy grids, giving them a much-needed kickstart (Schiffer and Tüby 2018, 4). This was shortly followed by phase-out plan for nuclear energy in 2001, reacting to building public pressure since after the 1986 Chernobyl reactor meltdown (Rechsteiner 2021, 310). The next substantial development was the publication of the 2010 energy concept by the second conservative Merkel-led government. It extended the running times for nuclear power, until reconsidering under the impression of the Fukushima-Daiichi nuclear disaster in 2011, when the extension was largely reversed (Schiffer and Tüby 2018, 4; Dickel 2014, 24-29). This decision incorporated nuclear phaseout

as an essential part of the energy transition and established that nuclear power would play no role in decarbonizing the energy sector, temporarily solving a persistent debate that is currently resurfacing (Rechsteiner 2021, 109). The foundational documents laying out the goals and procedures of the nuclear phaseout and decarbonization of German energy production are consequently the governmental energy concept presented in 2010, its post-Fukushima amendment in 1011, and the coalition agreements of governing parties since 2013 (Fischer et al. 2016, 1580).

The ambitious goals of the energy transition, including the nuclear phaseout are based in broad public and political approval. While focussing on different aspects, payoffs, and risks for Germany as a future economic actor, job markets, or the environment, all major parties publicly agree on the premises and goals of the Energiewende (Leipprand and Flachsland 2018, 190). Adding to the extent of ambitious goals is also competition among at least the progressive parties in light of public approval, and the public perception that the transition undercuts expectation (Fischer et al. 2016, 1587). Federal Governments, even if made up of these parties, tend to remain vaguer and often try to push ambitious goals further into the future, as they have to consider negative consequences on the existing energy sector, investments, and energy security (Fischer et al. 2016, 1587). Indeed, „Producer rents were significantly cut, while the subsidisation of renewables has led to a sharp increase in end-user prices.“ (Schiffer and Trüby 2018, 1)

The policy is driven by the goal to reduce carbon emissions in the energy sector, widely believed to be necessary to stop global warming, as well as mandated by international agreements, foremost the Paris climate agreement. The means to achieve this differ, ranging from beneficiary mandated tariffs or access rights to the energy grid – both political alterations of market mechanisms – or direct subsidies. Further, on different levels of government, conflicting policy goals are identified by decision makers, such as security of supply, consumer prices for power, and competitiveness of the conventional energy sector.

II. Critical reception of the policy

The complex and ambitious energy transition is a conflicted policy subsystem. Both core and secondary policy beliefs are disputed by various actors, with a focus on different information, aspects, and timeframes.

While its goals are largely undisputed, the methods, consequences, and success of the Energiewende are subject to substantial debate, particularly on economic grounds. It is agreed that the growth in renewable energy sources and corresponding economies would not have been profitable and thus would not expand without minimum price, market access rules, and low administrative barriers. (Rechsteiner 2021, 310). The level of technological specificity of these rules – an important condition of the energy transition is that no particular technology is to be supported directly – is disputed, however, as these de jure neutral economic rules are often viewed as a de facto subsidy on wind and solar, paid by higher consumer prices (Fischer et al. 2016, 1587; Rechsteiner 2021, 311). Further, emission reduction was minimal despite the growth in renewables, as they largely compensated for their reduction of nuclear energy over the same time span. This failure to meet one target – decarbonization is argued to be directly based on its second main goal: nuclear phaseout (Schiffer and Trüby 2018, 1, 12). Since the goals of decarbonization and introduction of renewables are widely accepted among the public and political actors, debate largely revolves around the efficiency and

effectiveness of policy instruments, as well as the responses to challenges resulting from the accelerated restructuring of the energy systems (Fischer et al. 2016, 1580, 1581).

A core technical challenge is to maintain security of supply in the short and long term, measured as number and duration of blackouts, and affordability of electricity prices (Fischer et al. 2016, 1582). While supply security in Germany – both for electricity and conventional fuels – remains high, this is often believed to be due to maintained high shares of conventional power generation supplying the grid base load (Rechsteiner 2021, 312, 314). How to balance subsidies and pricing of fossil fuel capacity against the expansion of renewables to maintain available base-load capacity without inhibiting the energy transitions remains cause for dispute, often conflated with the outlook on alternative renewable energy storage or carbon-capturing technologies as future solutions(Rechsteiner 2021, 314, 315). Central to this concern is the volatility of renewable energy over days, months, and years as sun and wind availability varies greatly over time, albeit more reliably for sun (Unnenstall 2017, 48).

Finally, a consumer-side issue causes continued criticism related to the price of electricity and burden for public expenses related to the energy transition. Until 2022, subsidies on renewable energy were financed via a surcharge on electricity prices (Bundesregierung 2022b), making up more than two thirds of end consumer prices since 2017 (Schiffer and Tüby 2018, 6; Fischer et al. 2016, 1584). These added costs are largely carried by private households, as industrial consumers are often relieved from the surcharge and other infrastructure investment costs (IEA 2020; Rechsteiner 2021, 318). As household energy costs remained stable throughout this timeframe, and in particular with the termination of the „EEG“ surcharge, the issue seems resolved, but throughout the last decade, worries around procurement costs and related energy poverty constituted an important dimension of the public debate around the „Energiewende“ (IEA 2020; Rechsteiner 2021, 318, 313). As the mirror image of household costs, concern rising energy prices for commercial and industrial consumers imply reduced competitiveness of these businesses, as expenses rise and profits decline, even if the increase in energy costs were lower than those experienced by private households (Fischer et al. 2016, 1583).

These disputes among different policy beliefs pertaining to methodological and causal aspects are significant, however, covering goal definitions such as the type of technology to be supported, as well as the hierarchy of different goals, such as achieving emission reduction, maintaining security of supply, and low prices. This high level of conflict is not surprising, as the ACF expects it for relatively young policy subsystems such as the new energy transition policy, and for those that overlap with other subsystems and consequently attract more actors with different priorities.

In conclusion, the energy transition policy suffers from often conflicting goals, the main once discussed here being security of power supply, decarbonization of the energy sector, affordable energy prices, and industrial competitiveness. These core policy beliefs – goals and problem perceptions - mix with conflict around the methodological and causal aspects: cost structures of renewable energy, technologic specificity of subsidies, and preferred energy- and storage technologies. It can be expected that a hierarchy between these concerns, as well as methodological considerations has an impact beyond electricity sector, influencing the role of gas in the Energiewende and energy mix.

III. The role of Gas in the Energiewende

Having laid out the goal, mechanisms, and public debate around the Energiewende, this section will discuss its influence on the role of gas in the German energy mix, particularly in power generation. With the introduction of the „EEG“ surcharge and grid access rights, the influx of renewable energy had a significant impact on the energy market. It allowed wind and solar power plants to enter the market with low risk and guaranteed energy prices (albeit limiting possible revenue in the process) (Rechsteiner 2021, 310).

Since the variable costs of renewable energy – that is costs after the initial investment for building power plants - are tending towards 0 due to no extra costs for fuels, conventional power plants are disadvantaged over time (Unnerstall 2017, 42). That way, renewables pushed out the older generation of gas-powered plants that were designed to mid-load management and now became too expensive to operate compared to cheap renewable energy above base-load capacity (Schiffer and Tüby 2018, 7). At the same time, hard coal remained the power source for baseload electricity production, as it is cheaper than gas (= lower variable costs) and already provided this role prior to the energy transition (Schiffer and Tüby 2018, 7). Oversimplified, cheap but fluctuating renewable power replaced natural gas power plants in their role to meat mid-range and peak demands, while coal/lignite provided the reliable power output necessary for base-load grid operations at a lower cost and with more pre-existing infrastructure (Unnerstall 2017, 58, 59). Consequently, the decline in natural gas‘ share in power generation was due to the comparable high acquisition price of natural gas compared to coal and the low-cost renewable power to meet peak demand. This effected even new and efficient gas plants at the time. Remaining plants were only maintained due to their capacity to meet peak demand where renewables cannot, not for their lower emissions or price vis-a-vis coal plants (Dickel 2014, 28, 29).

This development was only possible since the market price for power, or the fossil fuels to produce it do not reflect the carbon emission advantage gas has over coal. Instead, the carbon pricing mechanism of the EU is well below what would be necessary for gas to economically compete with coal (Dickel 2014, 13). At the same time, however, such a carbon price would also be high enough to impede on the business models of traditional industries, adding to the goal-conflict discussed above, preventing the advantageous carbon footprint of natural gas to be considered an advantage on the energy market (Dickel 2014, 79). Additionally, such a carbon price would directly disadvantage (or negatively impact) both the heavy industry, and the coal lobbies, traditionally strong and unified actors with political influence (Leipprand and Flachsland 2018, 199).

Next to the lower emissions, proponents of gas also argue for greater flexibility of gas-fired turbine generators, allowing them to react comparatively quickly to demand- and supply-fluctuation of renewable energy (Dickel 2014, 82). This would enable it to run on relatively low capacity with the option to increase power output to compensate for renewables volatility (Dickel 2014, 64). Such a change would imply a replacement of coal-fired capacity with gas-fired power plants, while continuing to expand renewable energy. To achieve this via market mechanisms would require coal to become more expensive, creating an incentive to invest in new infrastructure. This decision would however risk the establishment of new path dependencies at least over the lifecycle of such new power plants, reducing the merits of gas a transitional energy source in the context of the Energiewende (Dickel 2014, 83; Bessi et al 2021). Finally, when considering the role of gas in the

German context, it is important to remember that the majority consumption is used in heat production, either domestic heating or industrial processes. Here, the original policy plans focus on increased efficiency to lower emissions (Schiffer and Tüby 2018, 12). Also, Germanies integration into the EU internal market and its role as an energy hub increases its interaction with energy price trends in other member states, depending on their own emission targets and strategies to achieve them, as well as European legislation, particularly carbon pricing (Dickel 2014, 36, 37).

D. The role of natural gas in the German energy Mix

Having shown that the complexity and high level of conflict of the Energiewende-policy subsystem, it remains particularly noteworthy that natural gas plays a relatively minor role in achieving any of its goals, largely as its emission benefit is not priced in, while the policy tends to focus on energy production, whereas gas is primarily used in non-electric energy consumption. Nonetheless the various goals and methods preferred and debated in the context of energy transition can provide a backdrop to the role of gas and its analysis within German coalition agreements. First however, the role of gas in the current German energy mix will be discussed.

I. Consumption patterns

Natural Gas holds an important role in the German energy system both as a direct energy source in electricity generation. Indeed, the country is the largest consumer within the EU in 2018, followed by Italy and Great Britain. Domestically, natural gas was the second largest energy source after petroleum in 2016, accounting for 22.6% of primary energy consumption (BMWi 2020, 8; Gaedicke et al. 2018, 21). A similar hierarchy is pointe out in 2018 as well (Schiffer and Trüby 2018, 2, 4). In 2020, it continued to make up for almost a quarter of final consumption and presented the third-largest source for electricity after coal and renewable energy. These numbers present a growth in 23% of gas consumption since 2014 (IEA 2020, 150) and are particularly interesting, as primary energy consumption declined by 12% between 2001 and 2019 (Gaedicke et al. 2018, 36). During this timeframe, gas consumption peaked first in 2010, and again even higher in 2017 (IEA 2020, 148). Since then, consumption experiences a minor decline of 3.5% in 2018 (Gaedicke et al. 2018, 21), rising again by 3,3% in 2019 (BMWi 2020, 8). Find a graph on the development of energy consumption in Appendix A.

The overall growth is caused by the three main consumption sectors for gas, namely the residential sector, industrial consumers, and power generation. Industrial application makes up 30% of overall gas consumption, mainly for energy, but to a lesser extent for chemical products as well. Meanwhile, while overall decreasing in the long term, residential consumption (primarily for heating systems, to a lesser extent for cooking) spiked up by 23% from 2014 to 2017 and remains high, although consumption varies on seasons and temperature (IEA 2020, 148-150). Indeed, about half of domestic heating is achieved via decentralized natural gas systems, namely 49% in 2014 (Dickel 2014, 71), and 44% in 2022 (BMWK 2022). This marks a growth in total consumption, as the number of households outgrows this slight decrease. Energy production remains the third largest consumer of natural gas, making up for less than half of domestic heating's intake, although it is the fastest growing sector, increasing by 18% from 2018 to 2019.

Overall, about 66% of natural gas is used to generate heat either for industrial processes, of for room and water heating. Power generation, often in tandem with block-heating systems is increasing in

share, however (BMWi 2020, 8). This mirrors the trend leading up to 2014, with volatile household consumption, stable industrial consumption and growing power production using natural gas (Dickel 2014, 71). The transport sector is neglectable, making up less than 1% of gross gas consumption (BMWi 2020, 9) This firmly establishes heavy and chemical industry, households, and the growing energy sector as the main sectors for gas consumption.

II. Legal framework for the distribution and trading of natural Gas in Germany

The dominant coalition in natural gas policy is a mix of different national and state-level executive agencies, economic actors, network operators, and some consumer advocacy groups. Additionally, European administration needs to be considered as a controlling instance for the application of largely EU-wide liberal market regulations:

Originally a patchwork of regionalized markets consisting of disconnected grids, 2011 saw German gas markets combine into two distinct balancing zones labelled „NetConnect Germany (NCG) and GASPOOL." (Bundesnetzagentur 2022; Bundesnetzagentur 2017). This process of integration follows EU goals of an integrated internal energy market and continued by forming a centralized German market with connected grids on 1 October 2021 to create „Trading Hub Europe (THE)" (Bundesnetzagentur 2022; Neziri 2021). This market is characterized by different private enterprises operating networks, maintaining storage, facilitating trade, and import/ exporting natural gas, as well as some municipal actors. Consequently, „Germany has the most complex gas distribution system in Europe with over 700 operators of regional gas distribution systems and over 800 gas suppliers." (BMWK 2022; IEA 2020, 151). Among these actors and within the gas market, variations standardized contracts for grid use by gas providers, and for gas consumers dominate interactions, backed by legal mandates for non-discrimination among consumers or consumer areas (Bundesnetzagentur 2022), often combined with hedging clauses, protecting both consumers and providers against short-term spikes or falls in gas prices (BMWi 2020, 14). This separation and diversity of actors is a relatively new development facilitating the transition of the gas sector as a politically controlled industry into a working free market (Schiffer and Tüby 2018, 4). This liberalization of the power market – historically dominated by few multi-function corporations – follows from the EU internal market package for the liberalisation of the market for electricity and natural gas, that demands „operators of gas supply networks and storage facilities are separated from natural gas trading activities." (BMWK 2022). With few exceptions, these actors share interests and are integrated into a strict and stable contractual and legal framework, leading to little conflict in core policy beliefs in this segment of the coalition that largely supports the status quo.

Domestically, the federal network agency (Bundesnetzagentur) and authorities and federal states share responsibility for gas (and electricity) grids (BMWK 2022). These agencies regulate and oversee the gas trade and distribution that is organized via open markets within Germany, together with a number of economic oversight actors. Additionally, they regulate gas distribution in case of shortages, a role more in focus since debate around security of Russian imports was doubted in domestic debate (IEA 2020, 159).

III. German natural Gas Infrastructure

The relevant infrastructure for maintaining gas supply and trade are pipeline networks, and storage facilities. They combine into the German gas grid(s). These are maintained by private operators in

cooperation and under scrutiny of regulatory agencies. As such, Gas transmission system operators plan, expand and maintain gas networks, supported by the „Bundesnetzagentur“ (Bundesnetzagentur 2022) which is also setting out capacity and network expansion goals in network development plans at least every 10 years. The fourth plan was issues in 2015. This happens in line with EU's Third Internal Energy Market Package (BMWK 2022).

The entirety of German gas influx and domestic distribution, and considerable re-export into the EU market (Bundesnetzagentur 2022) is done through pipelines, as Germany does not operate any Liquefied natural gas (LNG) terminals at present (IEA 2020, 14; Tagesschau 2022). Instead, a growing number of pipelines for grid connection within the EU, and for increased import capacity from gas providers is maintained, particularly towards Norway, Russia, Ukraine, and the Netherlands (BMWi 2020, 12).

Finally, although no legal gas storage requirements exist (IEA 2020, 159), Germany's private for-profit operators maintain one of the largest gas storage capacities worldwide. This is partly possible due to favourable geological conditions enabling underground storage capacity at low costs, and through market rules preventing gas providers and grid operators to provide for-profit storage capacity in-house (BMWi (2020). Next to balancing fluctuating consumption between seasons, the provide important buffers to the pipeline network, constantly holding a significant share of gas in circulation (INES 2022).

This section provided a backdrop for the analysis of two policy subsystems: Energy transition policy, dubbed "Energiewende", and the relations between Germany and Russia under the term of "Ostpolitik". It showed that both subsystems are characterized by conflicting goals and uncertainty over the methods to achieve them, including causal mechanisms of policy alternatives. The level of conflict varies across the two subsystems, however, as Ostpolitik is significantly older and is thus dictated by more stable belief systems. On the other hand, the relatively young energy transition policy subsystem is still highly disputed by various actors and is characterized by more uncertainty of different secondary causal and methodological beliefs. That is not to say that within the energy policy subsystem, there is a significant coalition consistent of agencies, economic actors, and network operators benefitting and expectedly largely in support of the status quo, as well as extensive legislation defining it.

Nonetheless, the policy beliefs identified for the subsystem of "Ostpolitik" and German energy policy will inform the subsequent analysis without limiting it by guiding a coding process that relies on the material at hand.

5.Coding

Ruona (2005) describes the coding of data as "organizing data into meaningful categories" (Ruona, 2005, 241). She draws from Boyatzis (1998) in naming five elements necessary for a good code: A Label, a definition of the concept measured by that code, a description of how to know when a theme occurs, additional qualifications and exclusions from the theme, and both positive and negative examples of qualifying data. (Ruona, 2005, 241). She adds guidelines for the developments of proper categories to make up a code, namely that they should reflect the research purpose, be "exhaustive" (Ruona, 2005, 242), mutually exclusive, have a label describing the assigned data and

"be conceptually congruent" (Ruona, 2005, 243). These conditions and her procedural advice guide the formation of the following code, starting from "theory-driven" (Ruona, 2005, 242) coding and shifting to "data-driven" (Ruona, 2005, 242) coding as more data is collected.

A. Identifying beliefs & code-building

This study sets out to explain Germany's high natural gas dependency on Russian exports. A first round of analysis sets out to empirically identify beliefs expressed in the three German government coalition contracts of 2009, 2013, and 2017. For the purpose of this analysis and following sections, all chapters addressing energy policy, the main consumers of gas and power (private households, transport, and industry), and international relations/ trade have been considered across sources. For a detailed list of Coalition agreement chapters included in the analysis see APPENDIX G Based on the advocacy coalitions framework, the five categories of *importance of problems*, *causes of problems*, *preferred solutions, methodological concerns, and causal aspects* were used to identify and categorize them. This section discusses the results of this initial analysis and offers a first assessment of observations. Throughout the coding process and subsequent analysis, the beliefs for energy policy and Russian relations are considered separate.

The **first category** of beliefs concerns the *relevance of problems*.

On Energy policy:

sustainaility characterizes policy	international agreements: emission reduction
ensuring competitive industry	climate protection at the center of energy politics
special attention: power intensive industry	international industrial competitiveness

On Russian relations:

Mandatory human rights	minimum democratic- and value-standards
Antagonist	

The **second category** of beliefs concerns the *causes of problems.*

On Energy policy:

climate change	CO2 emissions
Import dependency	Carbon leakage
Security of supply	electrification

No beliefs concerning problem causes could be found for Russian relations.

The **third category** of beliefs concerns the *preferred solutions*.

On Energy policy:

Technology and innovation	Efficiency increase
competitive and affordable energy	expanding renewables
competitive domestic industry	competitive renewable power industry
renewable power to heat	efficient coal
carbon capture	expanding gas markets
nuclear phasing out	security of supply
internationally integrate energy transition	electrification
import diversification	reducing energy dependence

importing renewables	alternativeless carbon plants

On Russian relations:

Strategic partnership with Russia	Modernizing partnership with Russia
Value-driven foreign politics	

The **fourth category** of beliefs concerns the *Methodological aspects***.**

On Energy policy:

Adjusting legal framework	Citizen responsibility
Market-based policy tools	Technology neutral transition
Infrastructure investments: Gas	Infrastructure investments: Power
Reforming gas markets	EEG
Emission trade	Administrative oversight
Appropriate Support for renewables	supporting businesses
Nuclear bridging technology	incentivising businesses
European harmonization	Electrification: transport

Electrification: heat	

On Russian relations:

dialogue	bilateral energy partnerships

The **fifth category** of beliefs concerns the *causal aspects***.**

On Energy policy:

renewables increase independence	emission trading threatens intensive industry
climate protection threatens energy-intensive industry competitiveness	efficiency decreases consumption
efficiency across sectors	heat markets improve transition
technology neutral policy combines with economic innovation	benefits of energiewende: employment, dependency, GDP

No beliefs concerning causal aspects could be found for Russian relations.

A complete list of coded passages can be found in Appendix H.

I. Initial observations

Throughout all three documents, considerations regarding energy transition, and the use of gas are spread across various chapters concerning energy policy, industrial policy, housing and city development, and mobility policy. This should be considered during future analysis. Additionally, neither natural gas, nor German-Russian relations – especially in their role as energy deliverer – receive much attention. Where both are mentioned, special attention should be paid to context and priority of the statement.

Concerning the type of beliefs expressed, *preferred solutions* and *methodological aspects* greatly outweigh consideration of *causal mechanisms* and problem causes which receive both less frequent,

and less specific. Further, while the specificity of statements varies greatly across policy areas, policy tools (methodological considerations) often only apply to specific goals or problems. The frequency of certain methods and its spread across policies should be considered when evaluating their relevance among the beliefs identified. Additionally, causal mechanisms and problem causes are believed to present themselves in agenda setting and solutions reflect these beliefs. If a perceived problem is addressed by a set of methods, this implies a causal relationship that is addressed by such policy methods. Consequently, further analysis will primarily differentiate between core policy beliefs, made up by the first three categories of *importance of problems*, *causes of problems*, and *preferred solutions,* in contrast to secondary policy beliefs, concerning *methodological concerns, and causal aspects. This reconceptualization is in line with existing research in policy belief systems (cl.* Kukkonen et al. 2017; Malkamäki et al. 2021)

B. Coding 2 and mapping beliefs

The second round of analysis reformulated the beliefs described in the above section into a code to re-apply to the three sources at hand, thus increasing comparability across the documents. The new codes incorporate all previously established beliefs by combining some and relabelling others. This recoding into a more consistent structure additionally ensures methodological consistency, as all documents were subjected to the same code. Note that particularly in the categories of methodological aspects more general codes were used to combine previous beliefs following similar policy logics (market, subsidy, neutrality, etc.). Further, some codes were moved across categories to better account for their in-source use. Throughout, the coding process and subsequent analysis the beliefs for energy policy, and Russian relations are considered separate.

Energy policy

Core policy beliefs			**Secondary policy beliefs**	
Problem Relevance	**Causes of problems**	**Preferred solutions**	**Methodological aspects**	**Causal aspects**
sustainability as a characteristic of all policy	Climate change	Technological innovation	nuclear power as a bridging technology	climate protection policy threatens energy-intensive industry competitiveness
climate protection as a characteristic of energy politics	CO2 emissions	Increased energy efficiency (production and consumption)	promoting citizen responsibility	increased efficiency decreases energy consumption

ensuring competitive industry	Import dependency	Competitive and affordable energy (to households and industry)	Market based policy tools (gas and power)	renewables increase independence
	Carbon leakage	competitive domestic industry & renewable power industry	Technological neutrality policy	technology-neutral intentives cause innovation
	Security of energy supply	expanding gas markets	Emission trading	the Energiewende produces economic benefits
	Electrification (causing power demand)	expanding renewables	Supporting & incentivizing business	
		international integration of energy markets	Supporting renewable energy	
		reduced import dependence	Infrastructure investments (natural gas and electricity)	
		carbon capture	Electrification (transport & heat)	
		nuclear phaseout	European harmonization of energy policy	
		base load carbon power production		

Russian relations

Core policy beliefs			**Secondary policy beliefs**	

Problem Relevance		**Preferred solutions**	**Methodological aspects**	
status of human rights in Russia		Strategic partnership with Russia	dialogue with russia	
standards of democracy and values in Russia		Modernizing partnership with Russia	bilateral energy partnerships	
Antagonist stance of Russia		Value-driven foreign politics		

6.Analysis

Having developed a joint code to assess policy belief systems, the code was reapplied to three German coalition agreement documents across all sections previously identified as relevant. A list of sections considered in this second round of coding can be found in APPENDIX G. The following section will lay out initial observations, and address the sub-questions before setting out to answer the central research question: *To what extent can the policy belief systems in German government coalition agreements explain the growing dependence on Russian gas imports since 2010?*
A list of all coded passages can be found in APPENDIX I.

A. Observations

With 11 times mentioned, natural Gas is does not play a prominent role throughout all three coalition agreements under study. This is exacerbated, as most mentions are neither prominent nor detailed, as is the case with internationally integrating energy networks, or increasing efficiency. Additionally, broader concerns such as affordability and security of supply are not mentioned in combination with natural gas – neither as a challenge nor a solution. Similarly nuclear phase-out is a shared goal throughout all documents, though rarely commented on in their capacity as energy sources.

The most prominent throughline across sources is the concern – and corresponding goal – for economic competitiveness particularly in energy-intensive industries (though the type of energy is not specified). Interestingly, this belief is frequently mentioned throughout energy policy statements, but the reverse does not apply – meaning that energy policy does not play a role in economic and industrial policy sections of the sources. Exceptions can be found in particular in the 2009 coalition agreement where Innovation is emphasized and combined with economic actors and roles, though

they are commonly phrased as developing and providing rather than implementing such solutions. Economic parameters are also used to describe the benefits of the Energiewende, while climate protection goals are more abstractly used as overarching, largely unspecific motivations, consequently further emphasizing the priority of concrete industrial competitiveness.

The vast majority of energy policy both in volume and specificity focusses on electricity production from renewables. The relevant sections on energy policy are located in different points of the structure of the documents, both as subsections and their own main chapters. While this does somewhat hinder comparison, it can also aid in assessing the priority – or relevance – of the problem as perceived by the coalition parties: Energy transition in energy production is perceived as the greatest challenge that is awarded the most detail by far. Further, policy towards technological development is a combination of specific support and technological neutrality, applied to preferred energy sources and efficiency increases alike. This creates an interesting mix of selective support and selective neutrality. Finally, increased efficiency can be mainly found as a goal for household consumption, and significantly less to economic actors. Similarly, Electrification is only rarely suggested for industrial sectors, but instead for housing and mobility.

Another interesting observation is that Russia was rarely mentioned, in the 2009 & 2013 coalition agreements, while the 2017 agreement featured a separate section on it. Also, the country is at no point explicitly linked to energy politics, while even energy import dependency and energy partnerships are mentioned in general terms and never expanded on in detail.

For the following sections and particularly when answering the research questions, the lack of detail on both the role of natural Gas and on German-Russian energy relations will present a challenge that demands to be specifically addressed. On the other hand, the different energy consumption sectors established as main gas consumers – industry heating, housing, energy generation, and as a chemical compound – receive ample attention, enabling some indirect conclusions

B. SQ1: How did policy beliefs change or remain stable in the German governmental energy policy?

I. Stability

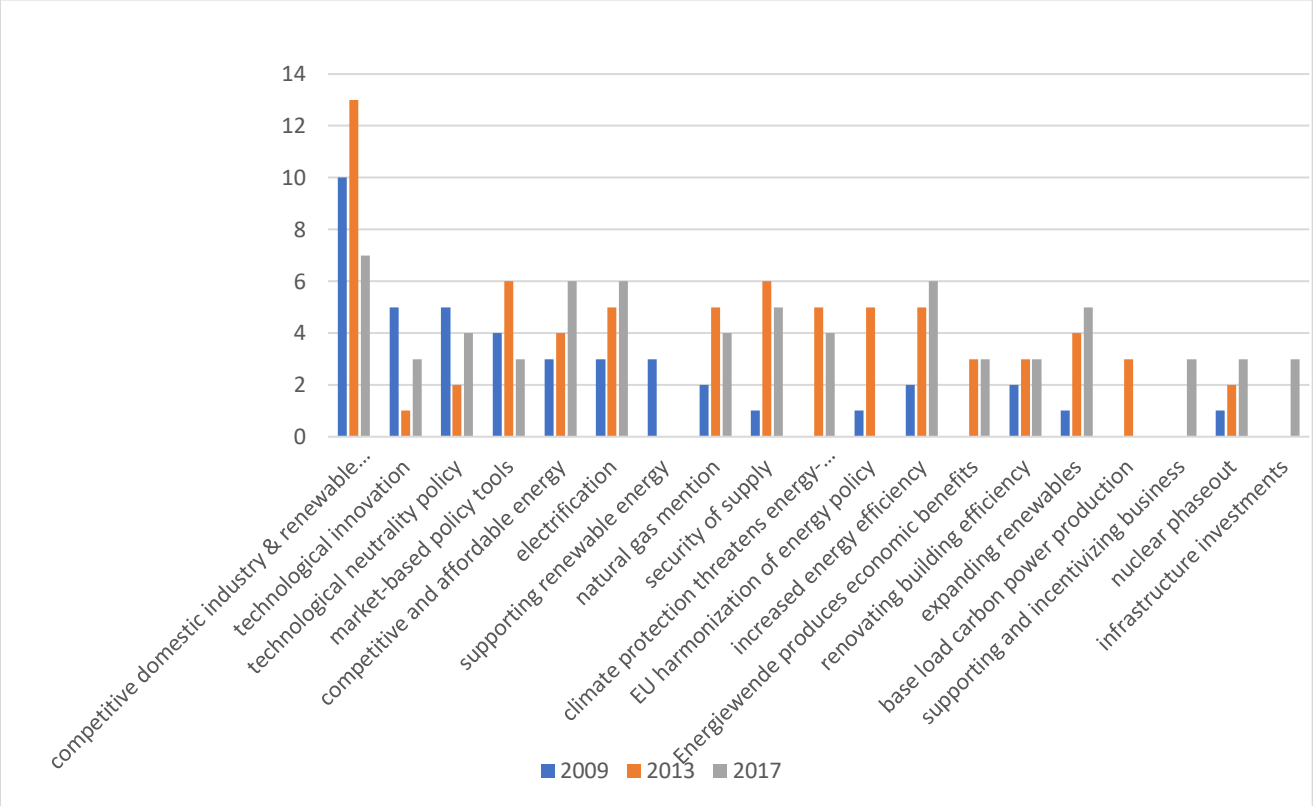
As mentioned above, the most stable belief expressed is the prioritization of economic competitiveness of (energy-intensive) industry. The most frequently expressed beliefs in all through source documents concern the competitiveness of domestic industry first, both in terms of energy prices, and where specific efficiency measures are deployed. This is especially noteworthy given that these beliefs are featured in both the chapters on energy-policy and industrial policy, but not vice versa, showing the special relevance of this beliefs.

Next to industry competitiveness, all coalition contracts prominently feature the goal – or concern – to provide affordable energy competitive on energy markets, though varying in detail. This is often in a context of renewable energy expansion in electricity, but regularly formulated without reference to any specific energy source. Electricity production and specifically the expansion of renewables remains the focus of energy policy. Other power sources and indeed energy sources outside of

electricity are rarely mentioned, even less as an explicit option in future energy systems. At the same time, no energy source is excluded with the exception of the nuclear phaseout. An exception is the consideration of nuclear energy as a transitional energy source in a single sentence of the 2009 coalition agreement.

Another factor is the rarity with which natural gas is concerned (2x in 2009, 5x in 2013, 4x in 2017), and the lack of specificity and detail attributed to it. This is particularly stark when contrasted which sections concerning different detailed and specific sections on renewable energy sources. Additionally, in many of these mentions gas is referred to in a general statement and in combination with other energy sources.

Overall, the policy beliefs throughout the 2009, 2013, and 2017 German government coalition agreements are stable at their most central and frequently mentioned policy belief – the concern for economic industrial competitiveness – while other relevant problems and preferred solutions are referred to consistently, such as the goal to expand renewables, concern for affordable and



competitive energy prices.

II. Change

However, there are some noteworthy changes of beliefs, including new introductions throughout the three source documents: As such, the 2009 coalition agreement focusses significantly more on technological innovation and its support than the subsequent 2013 and 2017 instances. The focus on technological innovation as a goal of energy policy to be achieved largely through policies not targeting any specific technology is a unique feature of the coalition contract between the union and FDP, although it remains mentioned less prominently later on. Also concerning methodological beliefs, the explicit focus on policy tools that utilize market mechanisms is present in all sources.

However, the 2017 coalition agreement presents it only 3 times – and much more selective - compared to 4x in 2009 and 6x in 2017.

As another outstanding feature of policy beliefs expressed in 2009, security of supply is only featured once, while it makes up a substantial concern in later iterations where it is dominantly featured (6x in 2013, 5x in 2017), with a similar pattern for increasing energy efficiency (2x in 2009, 5x in 2013, and 6x in 2017). Adding onto the demand side of energy policy, different dimensions of energy consumptions are referenced similarly across sources. Next to the focus on industrial competitiveness, both the residential and mobility sector are addressed in similar ways with a combination of electrification and building insulation, following a logic of efficiency. However, the frequency and relevance of these aspects increases steadily throughout the sources. As such, electrification is mentioned 3x in 2009, 5x in 2013, and 6x in 2017. Building renovation first appears with 3x in 2013 and 3x in 2017.

Focussing in on the dominant economic considerations and concern for the competitiveness of domestic industry, the diversity and specificity of economic arguments increases over time. As such, while the 2009 coalition agreement is dominated by technological innovation, 2013 and 2017 introduce causal relations between climate protection policy and a threat to domestic industry – which was previously only indicated through the formulation of economic competitiveness in the energy-policy sections of the contract. Further, the latter two coalition agreements add elaborations on economic benefits of the German Energiewende-project.

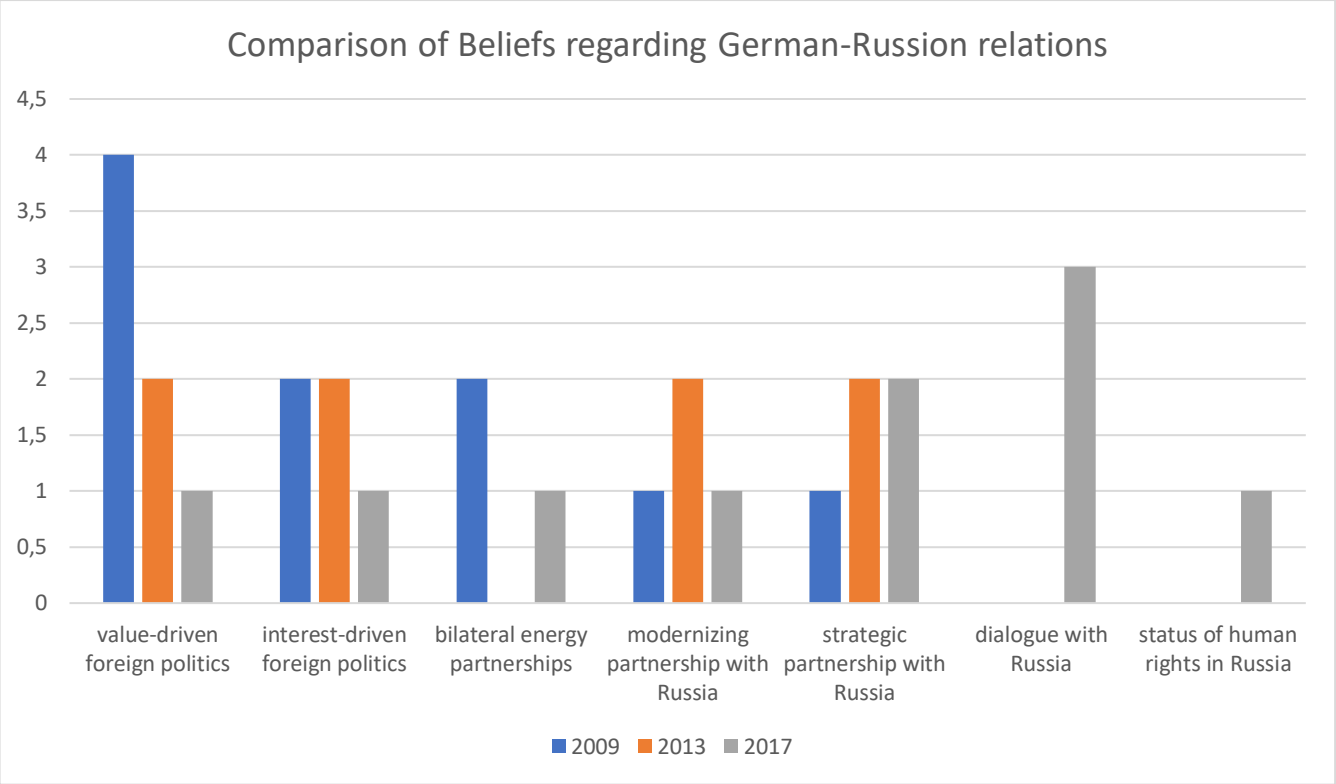
Throughout the sources, the most notable change in the policy belief structures lies in an increased diversity, as the number of beliefs increases from 8 (2009) to 13 (2013) to 16 (2017), excluding the consideration on Russian and general foreign relations. This increase is largely due to an increase in methodological and causal aspects. While the 2009 coalition agreement features 3 goals (industrial competitiveness, competitive energy prices, and expansion of renewables) and 4 methodological/ causal aspects (Technological innovation, technologically neutrality policy, market-based policy tools (gas and power), electrification (transport & heat)), this was expanded to 4 goals (adding security of supply) and 8 methodological/ causal aspects in 2013 (adding European harmonisation of energy policy, increased energy efficiency, Renovating building efficiency, Base load carbon power production). In 2017, this further increased to 9 methodological/ causal aspects (adding supporting & incentivizing business, Infrastructure investments (natural gas and electricity)).

C. SQ2: How did policy beliefs change or remain stable in governmental policy towards Russia?

Where beliefs towards German-Russian relations are concerned, a similarity across sources is the lack of any reference to Russia as an energy supplier to Germany, or joint economic projects in that area. Instead, economic and security cooperation in a modernizing partnership or strategic partnership respectively are used with very little variation throughout the sources. Further, the references to and beliefs about German-Russian relations remain largely stable throughout the sources in terms of content and frequency, albeit with one notable exceptions: The elaborations on German-Russian relations in the 2017 coalition agreement, the only source expanding on German-Russian relations in a dedicated chapter. Here – while mentioned – modernizing and strategic partnerships are conditioned on improvement of Russian internal reforms (status of human rights) and dialogues in

the context of ongoing negotiations regarding the Crimean/ Ukraine conflicts. Energy-relations remain absent nonetheless, and cooperation is the expressed preference in the long term.

In general statements on foreign politics, value- and interest-driven foreign politics are usually emphasized alongside, with an outlier in an emphasize on value-driven foreign politics in the 2009 source. Additionally, they are mentioned less often over time. In 2009 and 2017, bilateral energy



relationships are expressed as desired goals, though no specific partner is mentioned.

Overall, the policy beliefs expressed with regards to international (energy-) relations and German-Russian relations are characterized by stability. Economic and strategic cooperation are frequent throughlines, as is the absence of gas dependence as a perceived problem. Indeed, with the limited exception of the 2017 coalition agreement, no problems are identified. Consequently, German-Russian relations – where mentioned – are characterized by policy belief stability.

D. RQ: To what extent can the policy belief systems in German government coalition agreements explain the growing dependence on Russian gas imports since 2010?

This thesis set out to investigate policy belief systems in German coalition contracts from 2009 to 2017 to explain the growing energy dependency on Russian natural Gas as the outcome of either policy change, or policy stability.

In line with the observations of the above sections, policy beliefs change occurs largely in secondary beliefs concerning methodological and causal aspects. Further, if beliefs regarding problem relevance change, this tends to be additive to pre-existing beliefs rather than replacing them – as is the case

with security of energy supply. Consequently, the change in policy beliefs can be considered gradual diversification without substantial change of core policy beliefs – a characteristic of incremental policy learning.

After analysing the coalition agreements between the CDU/CSU and FDP in 2009, and the CDU/CSU and SPD in 2013 and 2017, a system of overall stable policy beliefs were identified with a clear primacy of maintained industrial competitiveness, and renewable and affordable electricity. The few exceptions of changes in policy beliefs in focus or content were incremental additions and do not or rarely contradict pre-existing beliefs. Further, different beliefs were differently emphasized throughout the coalition agreements, but rarely fully discarded. An unexpected finding was that the discussion of natural gas as an energy resource was notably scarce throughout all documents, as was the discussion of energy dependence on (Russian) imports. These findings are in line with the development of the German energy mix discussed earlier, as the overall consumption of natural gas did not change substantially since 2010, mirroring that there were no substantial changes in policy governing consumption patterns of industry or households. **Combined with the stable preference for affordable, competitive, and increasingly renewable electricity, these stable policy beliefs offer some explanatory power for gradually increasing gas dependency through the absence of concrete measures to avoid such dependency**. In other words, the lack of beliefs concerning natural Gas, and the focus on maintaining existing economic conditions additionally maintained a status quo that was sustained use of natural gas that provided in increasingly larger amounts through Russian exports.

Completing this interpretation, the observed policy belief changes, particularly the addition of concerns on security of supply specifically for electricity in 2013 created goal conflicts with the goal of decarbonization and affordable prices alike. As such, changes of the policy belief system hold some explanatory power as they show incremental diversification and specialization of policy tools and methodological belief – or policy learning – characteristic for stable policy subsystems as described by Sabatier. Following this logic, the stability of core policy beliefs, and the diversification of secondary aspects to achieve and maintain them indicate a stable advocacy coalition particularly invested in industry competitiveness. The change and diversification in secondary aspects then reflects the policy learning process, where adjustment of methodologies and causal arguments are accepted to maintain integrity of core beliefs.

In conclusion Stability of the policy belief system in national German governmental energy policy can explain the growing natural gas import dependency to some degree, though this statement is derived from indirect connections between electricity-focussed energy transition policy, and the inherent lack of attention and priority given to natural gas and the growing gas dependency. In short, lack of problem perception for security of supply or import dependency on Russia within the core belief systems explains the lack of policy-making effort to approach these issues.

Concerning the German-Russian relationships, the data is less conclusive, as few policy beliefs are mentioned very rarely. Notable, Russia is only once identified as an antagonist in the 2017 coalition agreement, while all three documents emphasize the goal of cooperation both strategically and economically. In combination with the absence of any policy belief or otherwise commentary on Russia's role as an exporter of energy resources the main explanatory implication is that in the area of energy policy, dependency on Russian natural gas imports were not perceived as relevant problem, while the core beliefs of the traditional "Ostpolitik" with an emphasize on economic

exchange and pursuit of mutual interests as practiced by Kohl and Schröder was continued under Merkel. This is particularly plausible, as it is reinforced by existing research in more recent German-Russian relations, as discussed in this thesis.

Consequently, the stability policy beliefs towards Russia aligns with the traditional priorities and beliefs in German "Ostpolitik", supporting the notion of increased gas dependency as a consequence of policy stability based in stable advocacy coalitions in the energy and Russian relations policy subsystems, and their stable core policy beliefs.

7. Discussion

This thesis successfully applied the Advocacy Coalition Framework to explain the growing growing gas dependency on Russia throughout the last 12 years. By analyzing policy belief systems throughout the corresponding governments' coalition contracts, it found little change in the underlying core policy beliefs that determined goals, problem perceptions, and preferred outcomes within the energy transition and Russian relations policy subsystems. This indicates stable policy subsystems without significant fundamental policy change, a finding supported by the identification of policy learning in secondary policy believes concerning policy tools, methodology, and causal aspects.

Additionally noteworthy and unexpected was the scarcity of some beliefs – particularly problem perceptions – pertaining to gas import dependency and Russia as an international adversary. Interestingly, neither Russia nor the umbrella topic of natural gas receive much attention throughout the coalition agreements, a phenomenon with multiple implications. First, it may an unforeseen consequence of the choice of source material. Natural gas is largely regulated by EU legislation and overseen by German national and state agencies. It is not impossible that national coalition forming does not cover this subsector off energy policy. Given the amount of public attention and controversy this field, as well as major pipeline projects received, such an interpretation is unlikely, however. Nonetheless, a similar analysis on the EU level, perhaps with a focus on all or the governmental German parties is feasible to address this uncertainty. Another option is the deliberate exclusion from the coalition agreements to avoid public attention on the issue, or because no agreement could be found between the coalition partners. While more likely, this seems startling when considering the high level of controversy around the resource, its relevance particularly for German industry and domestic heating, and the high specificity of other energy policy beliefs. Extending this analysis by means of direct interviews with members of the coalition parties at the time might yield insight in this option. Finally, the lack of beliefs and statement on natural Gas can be interpreted as a blind spot in both parties' agendas. It is entirely feasible to assume that neither party identified gas, and its increasing import rate from Russia as a salient issue. The delegation of legislation towards the EU supports this assumption, as does the economic benefits of the then-status quo, as Russian gas was accessible, cheap, and substantial investments in the Nord Stream 2 project had already been taken. Explaining the lack of attention to the issue of natural gas in coalition contracts is ultimately a question outside the scope of this thesis.

Further, this thesis showed the continued relevance of traditional German "Ostpolitik" into the late Merkel government. Following a logic of rapprochement and cooperation, few critical believes are expressed towards the internationally controversial partner. Again, the scarcity of overall attention

to this close, economically important, and internationally problematic partnership are startling. While in line with the tradition of German-Russian relations as “Chefsache” (Matter of the heads of state), it certainly contributed to the blind spot in the coalition agreements that may ultimately have contributed to the current situation and apparent surprise in some political reactions to the invasion of Ukraine, and German reactions to it.

With certainty, the Governments under study were characterized by stable, if not stagnant, core policy beliefs that focussed on industrial competitiveness, while retaining at least partial technological neutrality in the choice of renewable energy. The combined hesitancy to penalize environmentally polluting or emission-intensive resources and industries, combined with the often-unspecific support for energy transition as well as its limitation on the power production sector (with the exception of the final coalition from 2017 to 2021) indirectly contributed to a growing share of Russian exports in the German gas market through free market mechanisms, state-backed energy projects, and European regulation. It would not be appropriate to assume an active interest on behalf of the governments under study, however this makes a promising initial hypothesis for future research relying broader source material. It can be affirmed however, that the development to growing gas dependency was either ignored, not identified, or passively appreciated as a side-effect of the specific interplay of European and German energy- and gas- regulations. Further doubtless is that the traditional “Ostpolitik” supported a positive position towards cooperation with Russia even in the light of international crisis, growing criticism, and growing dependency. Referring to the title of this thesis, the growing dependency might not have been a deliberate and pursuit policy outcome but seems very likely to be deliberately accepted by governmental decision makers.

8.References

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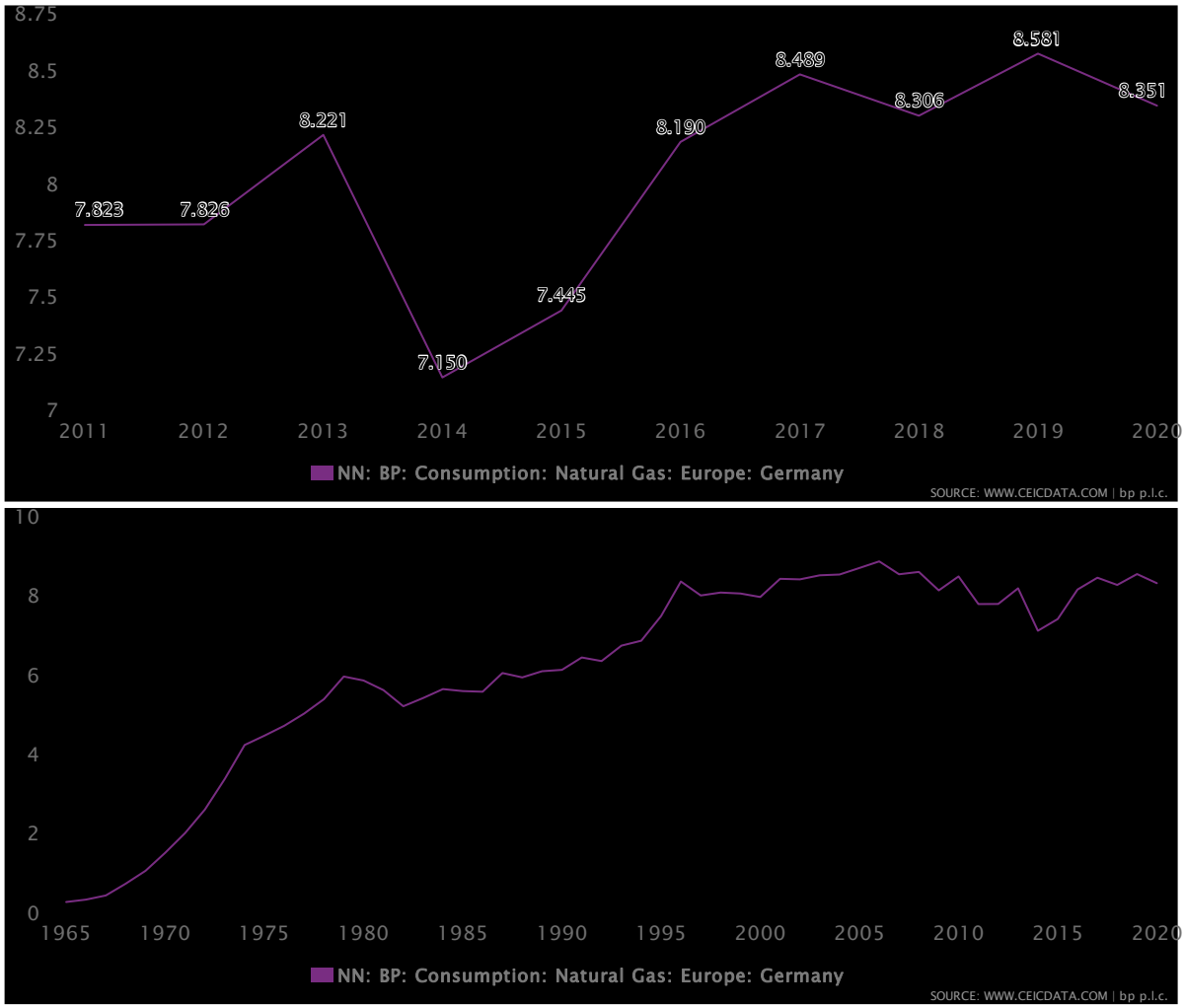
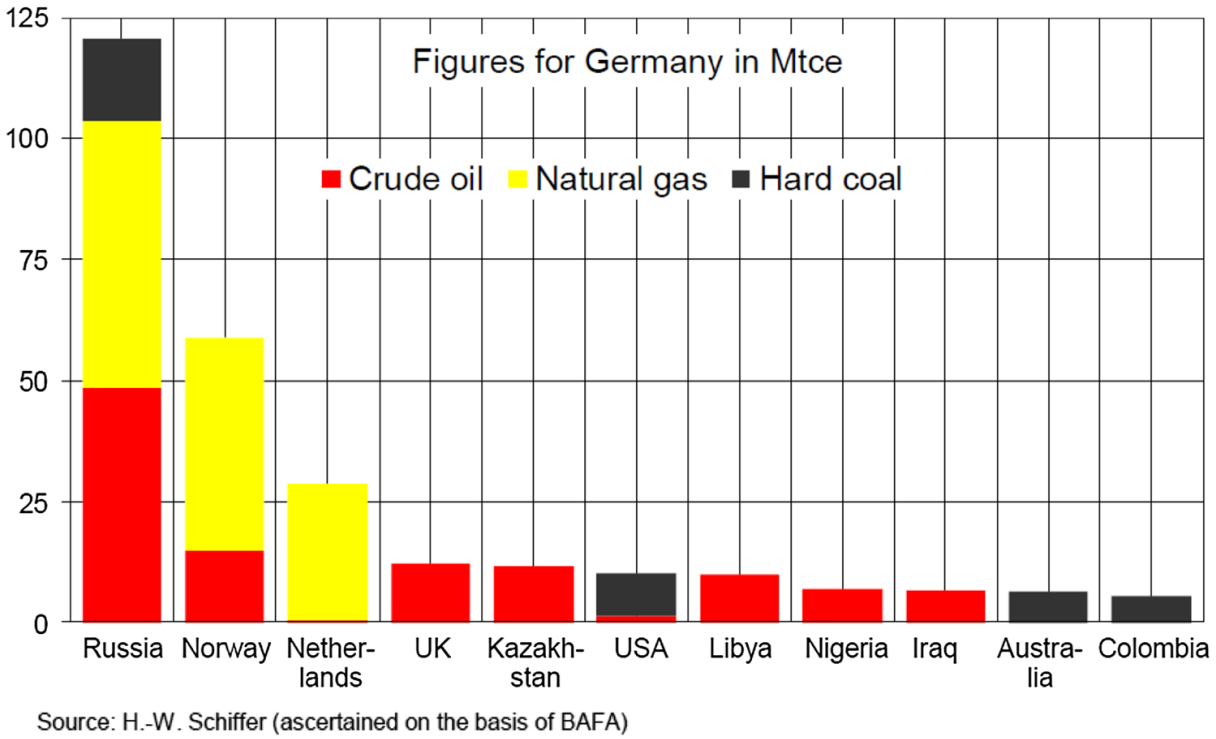
9.Appendix

Appendix A: German natural Gas consumption from 2011-2020, and 1965-2020



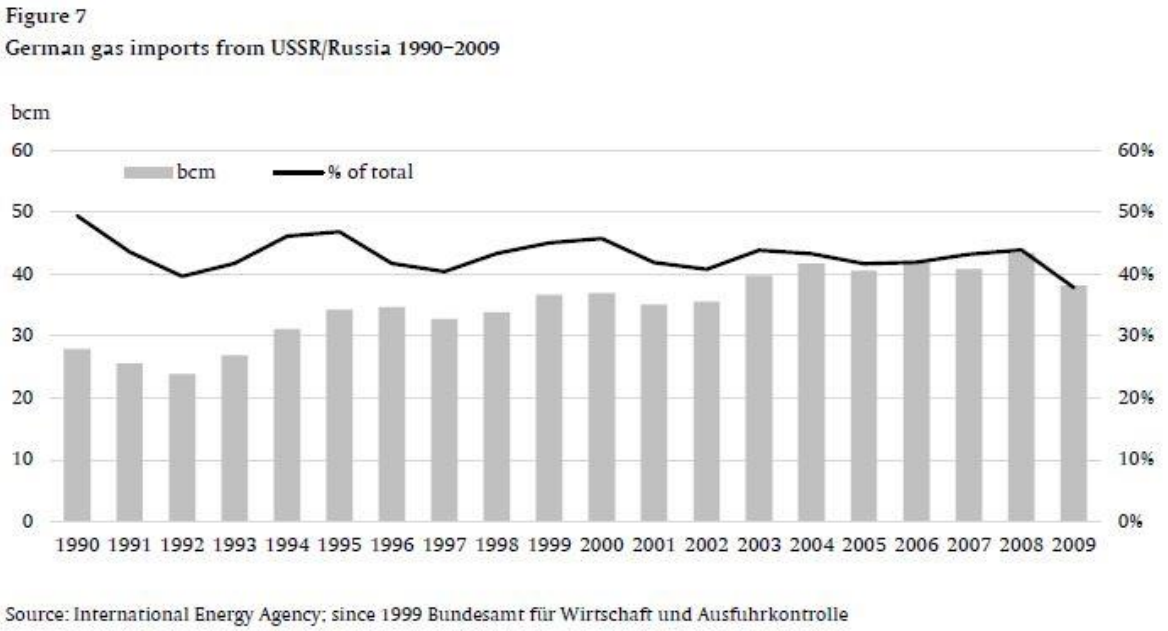
(CEIC 2021)

Appendix B: Major fossil fuel suppliers



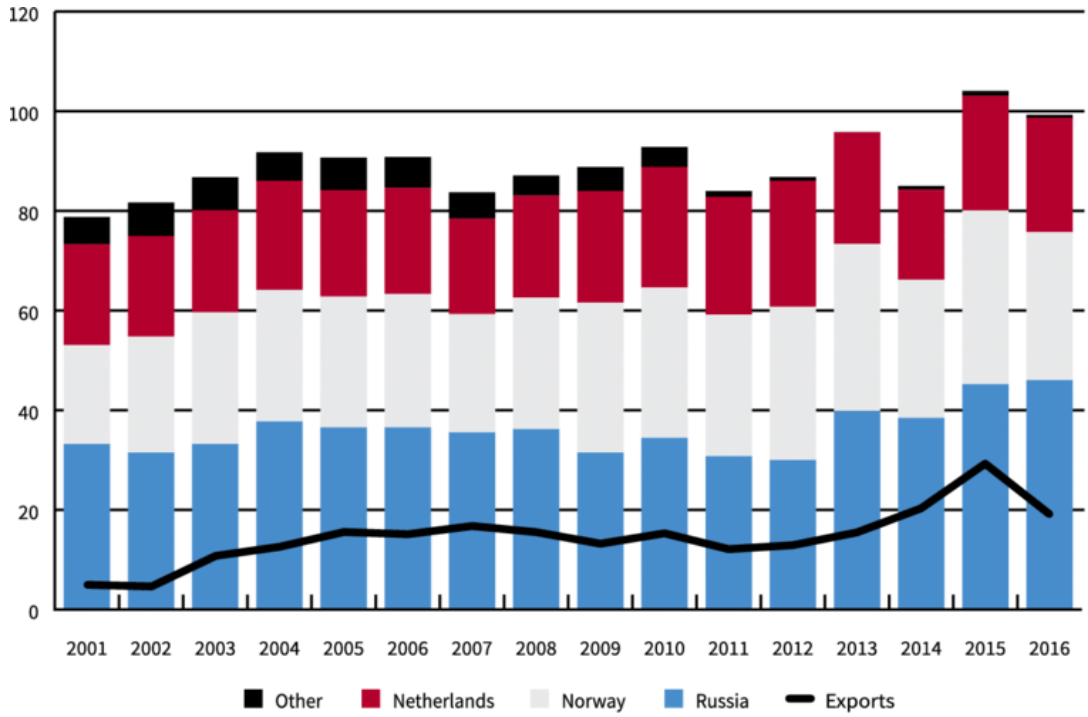
Schiffer and Trüby (2018)

Appendix C: German Gas imports from USSR/Russia from 1990-2009



International Energy Agency (2019)

Appendix D: Germany's natural gas imports by source, and re-exports, 2001-2016



Vivoda 2017, p. 27 (in bcm)

Appendix E: German natural Gas supply by source, 1960-2020

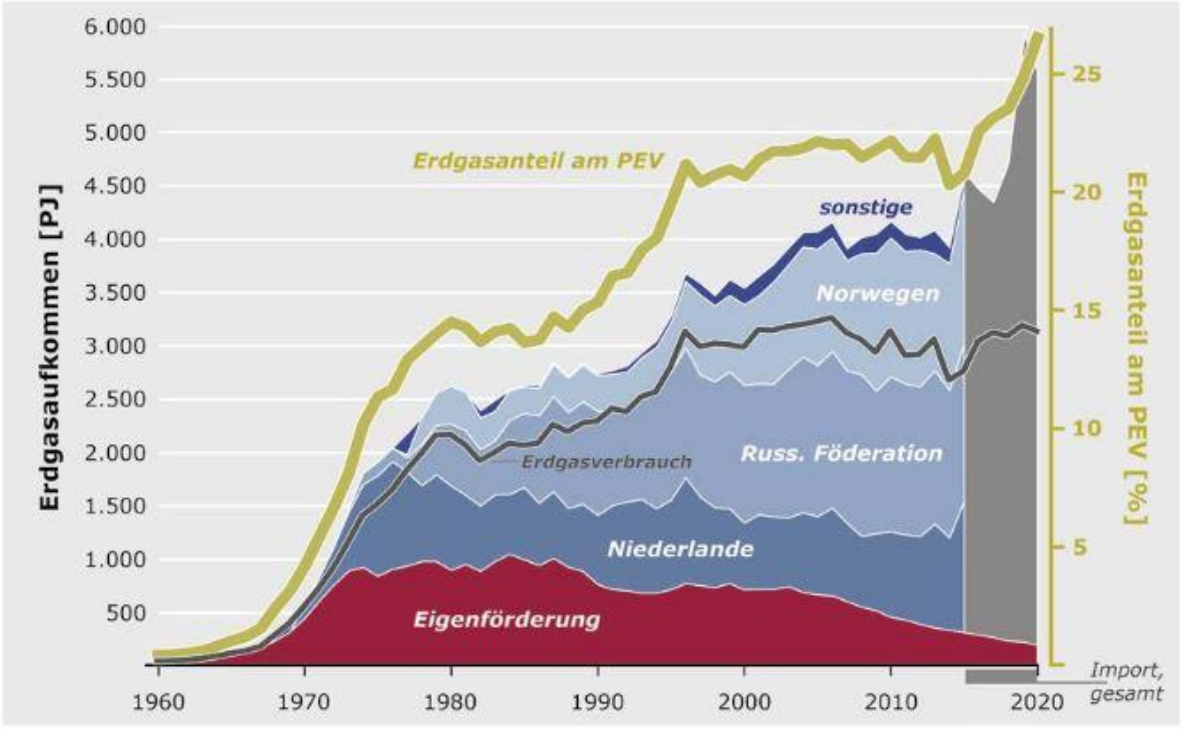
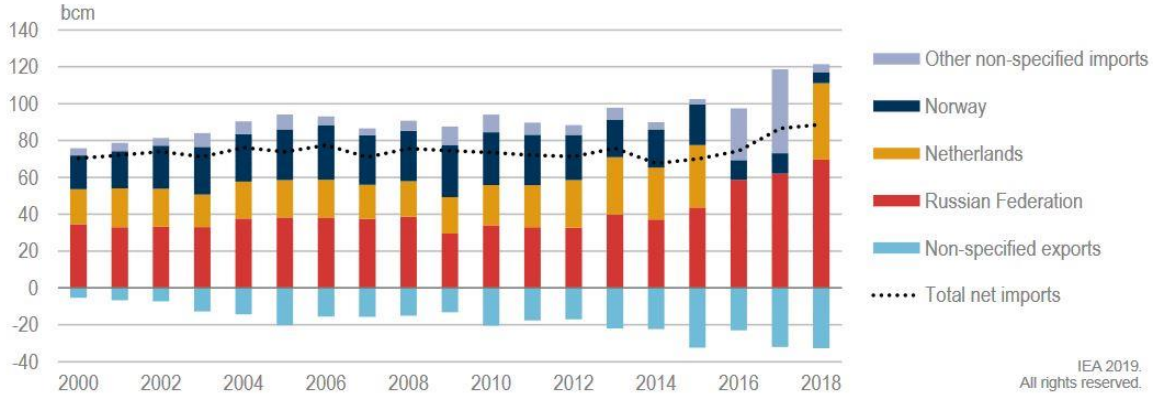


Abb. 2.17: Erdgasversorgung Deutschlands von 1960 bis 2020.

BGR-Bundesanstalt für geowissenschaften und Rohstoffe (2020)

Appendix F: Germany's natural gas net imports by country, 2000-2018

Figure 8.3 Germany's natural gas net imports by country, 2000-18



IEA (2019)

Appendix G: list of Coalition agreement chapters included in the analysis

2009 – Union & FDP

➔ Chapters under consideration concern those addressing energy policy, the main consumers of gas (private households and industry), and international relations/ trade

- 1.1_Wachstum und Aufschwung
- 1.4_nachhaltiges Wirtschaften und Klimaschutz
  - 1.4.2_Klimaschutz, Energie und Umwelt
  - 1.4.3_Neue Technologien, Industrieland Deutschland
  - 1.4.4_Moderne Infrastruktur
  - 1.4.4.1_Mobilität
  - 1.4.4.2_Bauen und Wohnen
- 1.5_faire regeln für die weltwirtschaft
- 5.1_Deutschland in Europe
- 5.2_Wertegebundene und interessengeleitete Außenpolitik
- 5.6_Menschenrechte schützen – Rechtsstaatlichkeit fördern
- 5.8_Entwicklungszusammenarbeit

2013 – Union & SPD

➔ Chapters under consideration concern those addressing energy policy, the main consumers of gas (private households and industry), and international relations/ trade

- 1._ Wachstum, Innovation und Wirtschaft
- 1.1_Deutschlands Wirtschaft stärken
- 1.3_In deutschlands zukunft invesieren: Infrastruktur
- 1.4_ die Energiewende zum Erfolg führen
- 4.2_Lebensqualität in der Stadt und auf dem Land
- 6_Starkes Europe
- 7_Verantwortung in der Welt

2017 – Union & SPD

➔ Chapters under consideration concern those addressing energy policy, the main consumers of gas (private households and industry), and international relations/ trade

- 1_Ein neuer Aufbruch für Europa
- 2_Eine neue Dynamik für Deutschland
- 6_Erfolgreiche Wirtschaft für den Wohlstand von morgen
- 9_Lebenswerte Städte, attraktive Regionen und bezahlbares Wohnen
- 11_Verantwortungsvoller Umgang mit unseren Ressourcen
- 12_ Deutschlands Verantwortung für Frieden, Freiheit und Sicherheit in der Welt
-

Appendix H: initial analysis, coded passages

Due to the length of the Appendix, It will be handed in as a separate file (Microsoft Excel) for direct access, please contact f.klann@student.utwente.nl

Appendix I: Main analysis, coded passages

Due to the length of the Appendix, It will be handed in as a separate file (Microsoft Excel) for direct access, please contact f.klann@student.utwente.nl