GERMAN NUCLEAR POWER POLICY BEFORE AND AFTER FUKUSHIMA

A Critical Discourse Analysis of the change in the German Government's discourse on nuclear power

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Executive summary

Through a social constructionist approach on critical discourse analysis, the thesis investigates how the nuclear incident in Fukushima, Japan 2011 changed the German government's discourse on the nuclear power policy.

Immediately after the Fukushima incident in Japan in 2011, the German government decided to phase-out nuclear power by 2022. Until 2011, nuclear power had been a large part of the energy mix, supplying Germany with 25% of its energy demands (World Nuclear, 2016). Due to the immediate proximity of the policy change to the Fukushima incident, the thesis identifies how Fukushima has changed the discourse on nuclear power policy.

Using concepts from Siegfried Jäger (Wodak & Meyer, 2001), the thesis selects two political speeches held by representatives for the Merkel cabinet II at different points in time. The first speech is held before the Fukushima incident, and the second speech is held after. The discursive properties are analyzed through Norman Fairclough's three-dimensional framework for discourse analysis (Fairclough, 1992). Discourse practice, text practice of the speeches are compared in order to identify the nature of the change and the effect of Fukushima. The results are evaluated normatively and discussed with other interpretations of the realpolitik of nuclear power policy.

The analysis has been concerned with how the government articulates the nuclear power policy. It finds that there has been a great deal of change in the German government's discourse on nuclear power policy. The discourse changed on seven different elements of discourse. Among other elements, the analysis identifies the discourse in the political speech before Fukushima as business liberal as it foregrounds the economic benefits to producing nuclear energy. After the Fukushima, the discourse is concerned with risk and risk assessment as the trust in the security of nuclear power plants had been damaged due to the widespread consequences of the Fukushima incident.

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1 Introduction

1.1 Problem statement

Every time a nuclear power plant causes a disaster, the world directs its attention there. It happened at Harrisburg and Chernobyl. And most recently in Fukushima, Japan in 2011, where a tsunami followed an earthquake, causing all three reactors to melt. Nuclear incidents are always top stories in the news media and an issue of debate in the public sphere. In addition, nuclear power has been a political issue, which has stimulated large anti-nuclear demonstrations since the 1960ties. The consequence of nuclear power in the energy mix has always been on the agenda, because there are imperceptible and long term consequences of a nuclear disaster. On the other hand, bringing down CO2 emissions is also a global issue and some believe that nuclear power can be utilized as a clean and sustainable energy source.

Especially in Germany this issue has been debated in recent times, and in the fall 2011, a united Federal Parliament made the decision to phase out nuclear power by 2022. At the same time, in an effort to fight climate change and bring down the consumption of fossil fuels, they began an energy transition. The government does not believe that nuclear power has the potential to play a major role in the energy mix anymore. Therefore, the role of renewable energies as energy of the future is encouraged. The energy transition is the most ambitious energy policy in Europe and the aim is to be a role model for other countries to follow (BMWi, 2016).

The Merkel Cabinet II's decision to phase-out nuclear power came rapidly after the Fukushima incident. The starting point of this research study is the interest to investigate the possible correlation, if any, between the Fukushima incident and the change in policy in Germany.

The German phase-out project is a unique story of policy turn-arounds, because the nuclear power policy has changed many times throughout just the past 15 years. I decided to find out how these policy changes were articulated in politics, because it puzzles me how and why the decision to phase-out nuclear has been made.

The question is, if the proximity of the Fukushima to the changes in nuclear power policy has had an effect on the way the German government articulated the policy through language and text. In order to identify this, the discourse should be investigated. We know the policy changed, but did the discourse change as well?

1.2 Research question

How has the Fukushima nuclear incident changed the German government's discourse on nuclear power policy?

1.3 Justification

Discourse analysis is the study of language, but why is it important to study language and discourses at all? It is fundamental to study the language and words we use, because it shapes our perceptions of the world. The meaning we subconsciously attach to words may be the same, different, or change over time. Language is social and as such always a part of our interaction with others. The same way language shapes our perception, it also shapes us as individuals. In other words, we study language in social contexts because it has an effect on social life.

Language and discourses are important for business and politics as well. New words are created when we need them, and other words may become obsolete in our vocabularies. This is also the case both within business and politics. In business, words or discourses can be important to the way we perceive the financial sector, capitalism, liberalism, etc. When words are redefined, our ideologies may be redefined, too. In politics the right kind of communication and rhetoric are crucial to win elections and power. In some cases, words can start wars, in others they form the European Union. The study of language makes important contributions to the way we understand modern society.

"Texts as elements of social events have causal effects, - i.e. they bring about changes. Most immediately, text can bring about changes in our knowledge (we can learn things from them), our beliefs, our attitudes, values and so forth." (Fairclough, 2004, p. 8). Texts can bring about changes in social action, for instance in commercial texts that have a direct and even long term effect on shaping people's identities as consumers. And at the same time change in the material world (Fairclough, 2004), for example the phase-out of nuclear power.

In addition, the investigation of change of discourses can make important contributions to debates on social change (Fairclough, 1992). When we know this, and recognize the power language has in all aspects of social life, the research question becomes interesting, as the results may reveal power structures in politics.

1.4 Limitations

The RQ is quite narrow in scope. But with regards to energy policy, there are many important aspects to take into account. Unfortunately, there are various relevant factors which had to be left out. I shall briefly describe the most relevant ones.

The EU 2020 goals, which set the standard in Europe are of course of critical relevance to the nuclear power and energy policy in Germany. The 2020 goals are a binding legislation from 2009 to be implemented and followed in the member states, in order to ensure that the EU meets common climate and energy targets. Among other things, it consists of a 20% improvement in energy efficiency (Europa.eu, 2016). This can be hard for Germany to reach, due to a nuclear phase-out, because 25% of the electricity generated come from nuclear power production (World Nuclear, 2016). Thus 25% would have to be replaced by some other energy source.

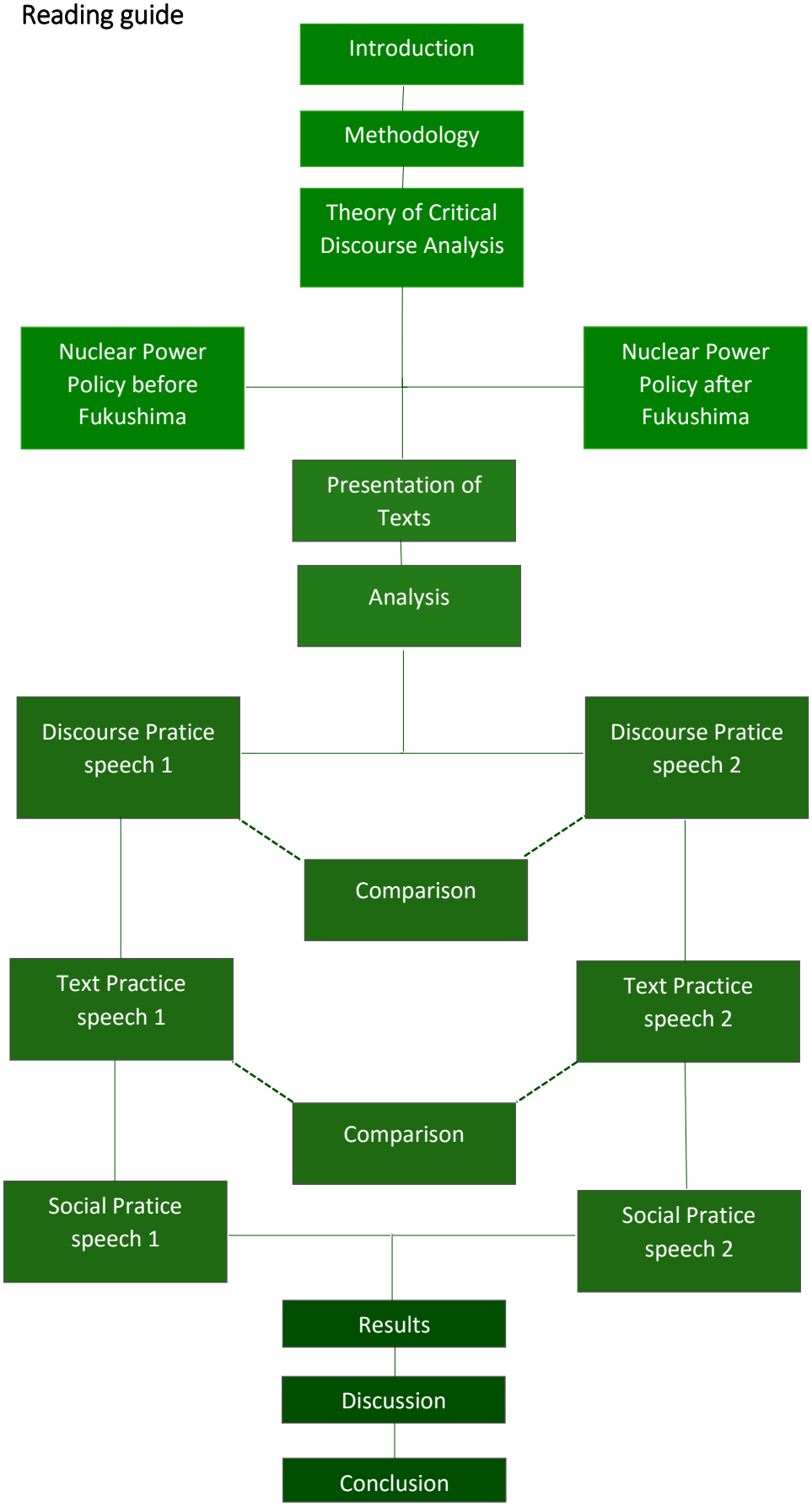
Climate and environmental goals are crucial to take into account, when policies in this area are changed. But this discussion and assessment will not be included. Neither will the economic and social benefits from the change. Or in other words, the winners or losers of the phase-out.

The Energiewende Since the decision to phase-out, Germany launched a very interesting project called the energy transition, or the Energiewende. The policy was introduced together with the phase-out, so the phase-out could not be a success without it. But it has been delimited from the thesis, because it is besides the scope of the research question, as I am dealing with the nuclear power.

Energy security is a crucial determinant for European countries as imports and export of energy are high in the EU. This means that the phase-out and Energy Transition can have negative consequences for Germany's neighboring countries, if Germany's aggregated energy production decrease. On the other hand, it could raise Germany's dependency on energy imports, which is higher than the EU average at 61,4 (Clean Energy Wire, 2016). Especially an increased dependence on Russian oil and gas, could be seen as problematic. Among other things, due to instabilities in this region.

The nuclear power policy and the practical implications of the phase-out is approached generally. I will not go into detail or regulatory technicalities. The policy is treated at the governmental, not regional level. As such, the policies should be seen as the context for the analysis, because it is communicative events, where the policy articulated, which is of interest.

1.5 Reading guide



2 Methodology

The following section will describe the research methods used in order to answer the research question. The focus in this section will be on the methodological choices as well as the background for them.

2.1 Research philosophy

Firstly, the research philosophy and the employed strategy will be outlined. Research philosophy deals with the development of knowledge and the nature of that knowledge. Inherent in these choices are assumptions about the way I view the world.

2.1.1 Ontology

The ontological choice is concerned with the nature of reality. It is a choice of an assumption about the way the world operates. Through a subjectivist view, the meanings attached to social phenomena, such as the Fukushima incident, will be investigated. I will see social phenomena as created from perceptions of social actors; they are constructed. I am studying a change, and therefore I must assume that these social phenomena are in a continual process, where by interaction, e.g. through language, they are constantly being revised (Saunders, Lewis, & Thornhill, 2009).

Discourse is language and it is constructed by social actors. A subjectivist view allows me to look at a constructed reality through social actor's perceptions of reality and consequently their actions. This choice of ontology stresses the studying of the details of a situation (Saunders, Lewis, & Thornhill, 2009), which is exactly what discourse analysis does, when it looks at semiotic details in a text.

To answer the research question in the best way possible, the thesis will adapt a pragmatic view on the analysis. The pragmatic approach further allows for a mixed-methods approach where both qualitative and quantitative data can be used. This thesis will use qualitative methods to a large extent, because the analysis deals with language. But discourse analysis can also have quantitative aspects, in that the frequency of a certain word or argument can be counted. However, the quantitative will always be secondary to the qualitative (Wodak & Meyer, 2001).

2.1.2 Epistemology

The choice of acceptable knowledge in my thesis is in line with discourse analysis. I am conducting research between human beings, who each create their own knowledge in reality. By epistemological interpretivism, I will be able to see the differences between humans in the roles of social actors. And the knowledge they create through language is acceptable in this study. In accepting this, I recognize that the knowledge is placed with the social actors and the way they interpret a certain situation (Saunders, Lewis, & Thornhill, 2009). In conjunction with the subjectivist ontology, I can focus on the details of the situation and the reality working

behind these details. Interpretivism will be used in tight association with social constructionism, which views reality as being socially constructed (Saunders, Lewis, & Thornhill, 2009).

2.1.3 Axiology

I will be placed within the social actor's reality and the interpretation of it in the text. My interpretation of the discourses will inevitably be shaped by my inherent values. Thus it is paramount to deal with my judgements about values and how I interpret social phenomena in the data. These meanings are determined in the axiological choice about what roles our values play in the research choices. Based on an interpretivist axiology, the choices I make reflect my values and what I think is important. As I play a part in what I research, my values cannot be separated from it. In line with my ontology, my axiology is subjective. (Saunders, Lewis, & Thornhill, 2009). I must add that I do not recognize neither total objectivity nor total subjectivity. The two can only be strived for, but never reached.

2.1.4 Social constructionism

"Discourse is one of the principal ways in which reality is socially constructed and has long been the subject of scholars in sociology, psychology and cultural studies" (Cukier, Bauer, & Middleton, 2004, p. 234).

The aim of discourse analysis is to investigate the constructed social reality and the object of analysis t is a constructed sense of an event that involves language. This section will serve to clarify the social constructionist perspective that needs to be put on discourse analysis.

Often, the term constructionism is understood in terms of *"the details of the situation to understand the reality or perhaps the reality working behind them".* (Saunders, Lewis, & Thornhill, 2009, p. 111) Or in other words, an exploration of the subjective meanings motivating the actions of social actors, so the researcher can understand these actions. In short, social constructionism sees reality as a social construct. (Saunders, Lewis, & Thornhill, 2009).

According to Jonathan Potter (Potter, 2012) a realist, neutral, and objective definition of a constructionist approach, would be a rejection of constructionism. In this sense, the notion may be best described as *anti-realist.* That said, in order to understand what the perspective entails, this thesis will present a definition by John Shotter and Ken Gergen from 1994*: "Social constructionism has given voice to a wide range of new topics, such as the social construction of personal identities; the role of power in the social making of meanings; rhetoric and narrative in establishing sciences; the centralities of everyday activities; remembering and forgetting as socially constructed activities; reflexivity in method and theorizing. The common thread underlying all these topics is a concern with the processes by which human abilities, experiences, commonsense and scientific knowledge are both produced in, and reproduce, human communities."* (Potter, 2012, p. 3). I understand this as a perspective which can be employed in all aspects of social life, and especially

in areas where language is central to social actors' understanding of themselves and the world around them. Also, it should be highlighted that the *role of power in the social making of meanings* is understood in a political sense, because it should be assumed the construction around making meaning of the role of power is placed in the political institution (by a social actor), e.g. government.

For the most part, social constructionism has been used within the fields of psychology, feminist studies, conversation analysis and postmodern political sciences. (Potter, 2012) As an attempt to make sense of the social world, social constructionists view knowledge as constructed as opposed to created. (Andrews, 2012) The thesis adopts Foucault's thoughts on knowledge, because his ideas has had an impact on the development of social constructionism (Lock & Strong, 2012); namely that knowledge means all kinds of contents which make up for a consciousness and or all kinds of meanings used by respective persons to interpret and shape surrounding reality. This knowledge is derived from discursive contexts in which we are involved (Wodak & Meyer, 2001). Clearly, the focus of constructionist is on the epistemological issues rather than ontological, as it concerned with the nature of knowledge (Andrews, 2012).

Social constructivism has been subject to critique for not recognizing the objective reality, because it denies that knowledge is a direct perception of reality (Andrews, 2012). The critique lies in the conceptualization of realist and relativist accounts, which represent two differentiated perspectives between *one* objective reality at one end and *multiple* realities on the other end (Andrews, 2012). Qualitative research has been subjected to this criticism, because both the realist and the relativist perspectives are problematic. The critique is inherent in the perspective where research leads to a constructed interpretation of a constructed reality. Because, then how can we ever regard a social event as knowledgeable, and which one of the realities is closest to the objective reality that constructionism in fact dismisses (Andrews, 2012). Social constructionism is defended by the fact that it rejects the idea of ontology.

According to Andrew (2012), realist and relativist accounts exist on a continuum, which makes it possible to adapt a middle ground perspective of what is social knowledge. *"This acknowledges the existence of an independent reality, a world that has an existence independent of our perception of it, but denies that there can be direct access to that reality, emphasizing instead representation not reproduction of social phenomena."* (Andrews, 2012, p. 1). This view should be used in conjunction with a common sense understanding: a pragmatic view of knowledge based on experience judged in relation to what is already commonly known. When knowledge about social phenomena is common sense, it adds to the validity of the research finding (Andrews, 2012).

2.2 Research strategy

The purpose of this thesis as a research project is twofold. First it will, by descriptive research seek to portray the nuclear power policy and the political circumstances at the time. Then, it will by interpretivist explanatory research analyze the chosen texts.

The description will happen in line with the philosophy of interpretivism. The nuclear power policy and the political circumstances of it, are considered factual events. But they are portrayed through my interpretation. It is very important for the validity of this thesis that the account of the nuclear power policy, is distinguished from the analysis. This is central, because it is necessary to have a picture of the phenomena and context the texts are a part of.

Thus the discourse analysis will have the purpose of an explanatory study. In this sense, it is widely a recognized way of conducting research and has the name *descripto-explanatory studies.* In explanatory studies, the focus is on studying a problem in order to explain relationships between variables; or in other words, establish causality (Saunders, Lewis, & Thornhill, 2009). Having an explanatory purpose and using discourse analysis, can be viewed as problematic, because we cannot know for sure if language and or discourse by itself, was the causal variable that brought about social change. However, as Fairclough notes, it would not make much sense to focus on language in social contexts if we did not think it would have causal effects on social change (Fairclough, 2013). The issue at hand here, is that in discourse analysis it is not the simple mechanical causality that can be identified. Nor is it regular or can be counted on to happen right away. In conclusion, we can attribute causal effects to linguistic forms, but only through a careful account of meaning and context (Fairclough, 2013). An additional argument for choosing the explanatory purpose for a discursive study is in the method of discourse analysis. Conducting the analysis, we seek to explain why social realities are as they are, and how they are either sustained or changed (Fairclough & Fairclough, 2012).

The research strategy employed on the analysis will have traits of the ethnographer, whose purpose is to describe and explain the social world seen from a social constructionist point of view. The ethnographic strategy is not understood in its conventional sense, but as observations I can make, when I “dig into” the context of the texts in the analysis. The analysis is placed within Norman Fairclough’s theoretical three-dimensional framework for critical discourse analysis (CDA). His framework works as the theory for analysis, therefore this study is deductive. With a deductive approach the CDA theory will be tested and evaluated. Testing the hypothesis in the research question, may reveal no evidence of discursive change, some change, or changes in many or all variables.

Also, deduction allows, within specific variables in the theoretical framework, to explain and draw out causal relationships between them. In this study, we will see whether there is a discursive causality between the Fukushima incident and a change in discourse.

Normally in a deductive study, the data is quantifiable. In this way, results can be operationalized, reduced and generalized. This study works with qualitative data (texts), where an understanding of meanings attached to events including a concern with the context the texts are a part of, are in question. Therefore, it is less concerned with the need to generalize. The generalization that can be expected from this study is only within the German government articulations within the time horizons (section 2.2.2). The texts are considered to have a sufficient sample size to do so.

Deduction is concerned with ensuring reliability in order to make sure the study can be replicated. This calls for a structured and coherent methodology. The philosophy of science in this study is interpretivist and may challenge the replication of analysis (Saunders, Lewis, & Thornhill, 2009). This issue will be discussed now.

2.2.1 Validity and Reliability

There has been limited reflections on validity and reliability in discourse research (Cukier, Bauer, & Middleton, 2004). What follows is an account of whether we may and or can talk about validity and reliability in their true forms when analyzing discourse.

Reliability is defined as: *"Reliability is defined as our ability to measure without error. Reliability assumes that what we want to measure has a true score."* (Peterson & Somit, 2011, p. 99) A true score may be understood, in ontological terms, as an objective truth. With reference to above standing paragraph on social constructionism and its rejection of ontology, the question is, if we can even talk about reliability of the research findings here. This study could be deemed reliable, if two researchers undertook the same inquiry consecutively, then interrater reliability would be achieved (Peterson & Somit, 2011). Although, this is not achievable within the scope of the thesis. Validity is defined as a measure which measures what it is supposed to measure (Peterson & Somit, 2011). The difference between reliability and validity, is that a reliable measure does not necessarily entail validity and vice versa. Therefore, it is for example possible to measure something with low reliability, and high validity (Peterson & Somit, 2011). It has to be recognized that in their true forms, validity and reliability are hard to achieve via discourse analysis. But this study recognizes that through recognizing the pitfalls, e.g. researcher bias and assessment of validity claims, it becomes possible to get closer to valid results, as long as the premise and assumptions are out forth and dealt with.

Ruth Wodak, does not accept validity and reliability in their true forms as they are most fitting for quantitative research. Thus, she as well as other scholars suggest a modified form. James Paul Gee argues that "*the analyst*

explains his or her data in a certain way and those data so interpreted, in turn render the analysis meaningful in certain ways and not others" (Jaipal-Jamani, 2014, p. 802). Accordingly, it is the assessment of explanatory capability of the analysis that validates analysis. Fairclough and Fairclough (2012) speaks also about the explanatory ability of discourse, because discourse analysis seeks to explain why social realities are as they are. Both explanatory and normative critique in social science are judgements of an aspect in social life (Fairclough & Fairclough, 2012). For Gee, the most important aspects of validity in discourse analysis are two elements: convergence, meaning the use of many different questions result in interpretations that support the analysis, and linguistic details. In alignment with the social constructionist discussion of a self-referring system, the credibility of discourse analysis is enhanced when the researcher uses a common set of rules, beliefs, or frame of reference to interpret the semiotics being analyzed. Therefore, the analysis is legitimized through the use of common social knowledge. The core argument of Gee's transdisciplinary convergence is validation from three levels; semiotics; systemic functional linguistics; and critical theory. It must be this way, because triangulation of different data sources are not available (Jaipal-Jamani, 2014). Here, he is opposing Ruth Wodak and Ron Scollon, who argue that a modified, intertextual triangulation procedures can ensure validity (Wodak & Meyer, 2001). Transdisciplinary convergence presents a credible way to validate discourse analysis, because interpretation occurs at multiple levels, where the researcher uses tools of analysis that go beyond one discipline.

2.2.2 Time Horizons

Time horizons are an important part of the research strategy, because of the RQ. The research question calls for two different points in time because, I look at how the discourse has changed. Therefore, this section will aid to clarify, how time will be considered.

The strategy for time, will be a longitudinal approach. It is necessary, in the first place to employ a longitudinal strategy because it has the capacity to study change. This thesis will have a historic point of departure and then it will explore a change over time. A change, we know for a fact happened. What we do not know, is if the change was causal to the discourse. What will be investigated here, is the change in discourse. For this to be possible, data for analysis has been carefully selected (see chapter 5).

Specifically, this thesis will deal with a timeframe from 1998 to 2011. Especially the time between 2010 and 2011 will be looked at in detail, because important policy changes were made.

2.2.3 Data collection

First and foremost, the body of data will be secondary. The chapter on the nuclear power policy will solely be based on secondary data collected primarily on the internet. It must be recognized how data used here, probably contain a political bias. This is relevant to consider when the data collected includes articles and

reports from political think-tanks, such as *Clean Energy Wire* and *energytransition.de,* etc. In order to ensure credibility of the findings, they will be critically reviewed. Furthermore, they will be triangulated with other sources, and juxtaposed with independent articles from peer reviewed journals, as well as government publications. Scholars, who have commented on the intentions of the change in nuclear power policy, such as Huss and Buchan, may also contain a political bias in their works. Both are relatively critical towards the decisions made post Fukushima and question the political intentions thereof.

When looking at the empirical method of CDA, we can see that there is no "go to" method, understood as a typical way of collecting data for the discourse analysis. They do not unanimously suggest a way to select texts, as a phase that has to be completed before embarking on the analysis. In fact, most carry out selection of (new/more) texts simultaneously with the analysis, in order to answer new concepts and questions which emerge throughout the procedure (Wodak & Meyer, 2001). Because there is no set empirical method of data collection, I will choose two texts that represent the German government policy on nuclear before and after the Fukushima incident. This selection shall take departure in Jäger's CDA. Furthermore, there are no requirements to the collected data as such, only Jäger directly suggests that texts selected has been subjected to mass media coverage are preferred. Fairclough makes no such suggestion. However, in more of his works he uses a speech by Tony Blair and focuses on New Labor in the age of new Capitalism (Fairclough & Fairclough, 2012) and (Fairclough, 2004).

3 Theoretical Approach to Critical Discourse Analysis

In this first section of the chapter on critical discourse analysis (CDA), a short general introduction will be given. Most relevant questions such as what exactly constitutes CDA and what makes it critical will be answered. Then Siegfried Jäger and Norman Fairclough, the selected scholars for the specific approach will be presented. Jäger aid in the selection of texts for the analysis. Fairclough's widely recognized three-dimensional framework is used as the method for the analysis. Lastly, the chapter discusses the shortcomings of the method.

3.1 Critical Discourse Analysis defined

A general definition of CDA is: *"CDA may be defined as concerned with analyzing the opaque as well the transparent structural relationships of dominance, discrimination, power and control manifested in language."* (Wodak & Meyer, 2001, p. 2). The aim is to investigate critically social inequality as it is expressed, signaled, constituted, legitimized by language. There is nothing more social than language. CDA regards language as a social practice, and considers the context of language use to be crucial. (Wodak & Meyer, 2001) CDA intends to uncover an area of interest within the relationship between language and power. Especially in politics the use of language, and the meaning thereof in a given context decides what can be said. This is the exact purpose of the discourse analysis method chosen for the thesis.

CDA is built on the long tradition of critical social science (Fairclough, 2013). It stems from a Marxist tradition within the Frankfurt School of thought (Internet EInternet Encyclopedia of Philosophy, 2016). This tradition is evident in the viewing of social reality as conceptually mediated, which means that social events or practices possess a reflexive character; people see, interpret, conceptualize and construct them as a part of their social reality (Fairclough, 2013). Due to their reflexive character these social events and practices are both material and semiotic in character. As a consequence, critical social analysis is interdisciplinary, since disciplines that deal with the material facets and the semiotic facets are brought together. This means that the textual analysis cannot stand alone as it is insufficient as discourse analysis. Hence, it does not shed light on the connections to culture, politics, ideology or societal factors. The analysis must therefore be carried out at different levels, which entails a transdisciplinary perspective in order to create an understanding of social practices and relations of power (Jørgensen & Phillips, 1999). In addition, CDA assumes that all discourses are historical and therefore reference to context is always important. (Wodak & Meyer, 2001).

Both Jäger and Fairclough are inspired by the Foucauldian tradition and his theories of society and power. But Jäger is closest to Foucault's original notion of discourse. Norman Fairclough has a stronger focus on the Marxist tradition of social conflict. (Wodak & Meyer, 2001).

3.1.1 What makes it critical?

The term critical is, as previously mentioned, traces back to the critical social science developed by sociologists at the Frankfurt School; one of these is the widely recognized Jürgen Habermas, described as the second generation of the tradition (Internet EInternet Encyclopedia of Philosophy, 2016). However, it is not critical in the conventional sense; it is in Fairclough's words basically making the interconnectedness of things visible (Wodak & Meyer, 2001). CDA may take the part of the underprivileged and try to identify the linguistic means used by the privileged to stabilize or even intensify injustices in society. Thus the purpose of the critique is to make the unequal power relations transparent, and bring awareness to them. (Wodak & Meyer, 2001)

The paradigm of critical discourse analysis, which separates it from discourse analysis as such, is the focus beyond the text. This means that the "critical" in the full conventional sense would entail the analysis to engage and theorize the structures and social processes that surround the text and the meaning people attach to it (Wodak & Meyer, 2001).

The critical element of CDA consists of normative and explanatory critique which aims to describe societies and systems and to evaluate them normatively. The normative evaluates social beliefs and practices as true or false. The other characteristic is the *explanatory* critique which seeks to explain why social realities are as they are, and/or how they are sustained or changed. The goal of the explanatory critique is to reach an understanding of why a social order works. These two fundamental characteristics to critical social science extend to discourse, because normative critique uncovers the hegemonial structures, power and domination, in discourse. And explanatory critique includes forms and effects of social change (Fairclough & Fairclough, 2012).

3.2 Siegfried Jäger – discursive strands and synchronic cuts

This current section will deal with Siegfried Jäger's version of CDA. It will only deal with same concepts of his theory. In particular, focus will be on notions of time and the historic focus in the analysis of discourses. These will aid in the selection of the text for CDA.

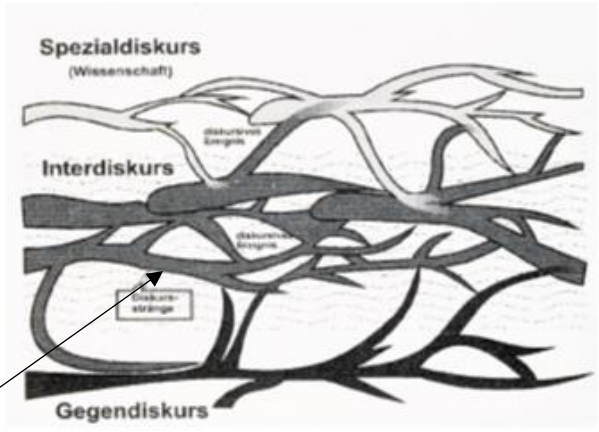
This thesis deals with change. A change of policy and a change in discourse to be investigated. In this regard, Jäger asks a most relevant question: whether and how discourses can be analyzed at all because they change over time (Wodak & Meyer, 2001). Furthermore, he defines CDA: *"as the flow of knowledge – and or all societal knowledge stored – throughout all time"* (Wodak & Meyer, 2001, p. 34). The knowledge of which he speaks, is valid at a certain place at a certain time. It means that it evolves and becomes independent as a result of a historic process. This knowledge is derived from discursive contexts in which we are involved. CDA then aims to identify the knowledge, and to explore the context of it (Wodak & Meyer, 2001). In addition,

and due to his close development of his CDA method on the basis of the late Foucauldian tradition, he sees *"(…) discourse as a whole is a regulating body; it forms consciousness"* (Wodak & Meyer, 2001, p. 35). In explaining this, Jäger turns to Foucault's assumption of a dualism that exists between discourse and reality. As consciousness is related to reality, we as individuals have to attach meaning to this reality. When the knowledge contained in the discourses change, the meanings attached to it, change as well. This can either happen as a fracture in time or as a long process in which, often unnoted, everything changes (Wodak & Meyer, 2001).

3.2.1 Siegfried Jäger's structure of discourses

To analyze the changing discourses over time, Jäger offers specific helpful concepts. Discourses flow through time as knowledge. They represent an interwoven mass of discursive strands (Wodak & Meyer, 2001). Discourse strands can be seen as intertwined horizontal branches. The figure illustrates these. The other concepts in the figure, are not used here and may be disregarded.

Figure 2 What is discourse?



(Jäger, 1993)

A discourse strand is a *thematically uniform discourse processes*, which means each strand deals with one theme. Each strand has a synchronic and diachronic dimension. A synchronic cut through a discourse strand has a finite range – this cut is made to identify what has been said and will and or can be said at a point in time. In this way, a "piece" of discourse can be isolated for analysis. The diachronic dimension is the development of the discourse over time.

Each discourse strand consists of a multitude of elements which are called texts. However, Jäger prefers to call them discourse fragment to text, because a text can address all kinds of themes and thereby contain different kinds of discourse fragments. Therefore, a discourse fragment is a text or a part of a text that deals with a certain theme, which in this case could be nuclear power. Because a discourse fragment can and or does make references to many other discourse strands (themes), it emerges in an entangled form. The entanglement of strands happens when a text addresses various themes, and when the main theme makes references to other themes (Wodak & Meyer, 2001). E.g. in a text about the use of nuclear power, references to climate, energy, and economic questions are made.

Besides, understanding why and how we can even analyze discourses because they change over time, Jäger specifically aids in the selection of the discourse strand for analysis. The synchronic cut through the discourse strand is specifically relevant. Historically oriented analysis can cut through several discursive strands at different points in time and compare them to each other. Such analysis provides information on the changes to, and continuities of, discourse processes through time (Wodak & Meyer, 2001). Historic references are helpful to the analysis and interpretation of the piece of discourse isolated for analysis.

On the selection of the discourse fragment, the researcher must determine the location where the theme is expressed. This discourse strand provides the text which is to be investigated. Initially one has to concentrate on the discourse plane, which is the overall institution where the theme is found e.g. nuclear power policy is found in politics. Furthermore, Jäger argues that Germany evidently has undergone a strong ideological homogenization of the overall societal discourse after the reunification in 1989 (Wodak & Meyer, 2001). This means that the societal discourse in Germany can be characterized as highly hegemonial. This concept of hegemony will be treated again and more detailed later in the thesis, as it has high explanatory value for public opinion on the nuclear power policy.

3.3 Norman Fairclough's three-dimensional framework

I have chosen Fairclough as the foundation for the CDA, because he developed a useful framework for it. In order to keep a stringent understanding of Fairclough's CDA, I have chosen to primarily base my approach to CDA on his work from 1992 *Discourse and Social Change.* Firstly, Fairclough's view on discourse and change

will be outlined. Secondly, his three-dimensional framework is presented. Lastly, a critique of the CDA is offered as issues of time and validity are discussed.

3.3.1 Discourse

In discourse the focus is on language. Language should be regarded as a form of social practice. Most importantly this implies, that there is mutual relationship between discourse and social structure, and as a condition for, and an effect of the more general relationship between social practice and social structure (Fairclough, 1992). Fairclough thinks of social structures as defining a set of possibilities, through institutions, language, economic structures, etc. Furthermore, discourses are socially constitutive, which means they are indirectly and directly shaping the structures of society; (Fairclough, 1992) they reproduce and change knowledge, identities and social relations between people, including relations of power (Jørgensen & Phillips, 1999). Another important point to discourse is that it is constitutive both in its conventional way as well as in a creative way. Discourses may reproduce an already existing discourse, but it may also challenge the social structure by transforming society (Fairclough, 1992).

3.3.2 Change

Change occurs when language is articulated in a creative or innovative way. But, as stated above, most discourses simply reproduce what has been said earlier.

So for a discourse to bring about change, not only in the discourse but also in the material world, it needs to adapt existing conventions in new ways. In other words, the language should be constructed in a way that it has not been constructed before. If there is a change in discourse, it is likely that the issue the discourse deals with also changes over time. Either as an event which reproduces and preserves the traditional discursive event, (such as "*nuclear power should be abolished*"). Or it may contribute to a transformation through a hegemonic struggle and resolve the dilemma through innovation, (such as *"nuclear energy should be replaced by renewable energies")* (Fairclough, 1992).

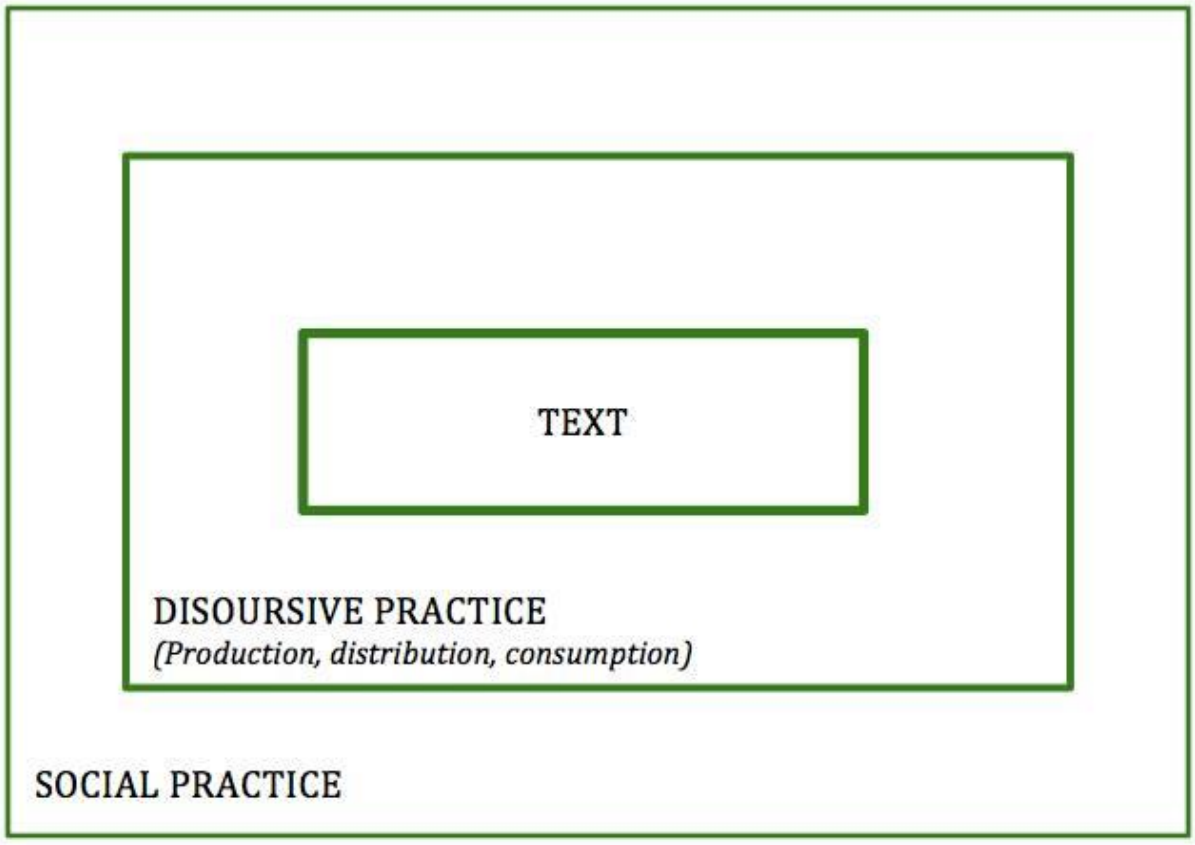
Although, the kind of causality is not a simple automatic causality nor is it regular or can be counted on to happen right away. therefore, we can attribute causal effects to linguistic forms, but only through a careful account of meaning and context (Fairclough, 2004), or in other words, through the analysis. Reality is not automatically changed through discourse. And if it is, the change might take time to become implemented in practice. Change leaves traces on texts in many forms; forms that can be revealed through CDA. This adds a second focus, namely on the structural change on orders of discourse (Fairclough, 1992). Orders of discourse are social practices in their language aspect. The elements of the orders of discourse are styles, genres and discourse (Fairclough, 2004). These will be elaborated and explained later. Therefore, when

investigating this, focus should shift between the discursive event (text) and structural changes (Fairclough, 1992). I understand structural changes as what we know actually happened.

3.3.3 Three-dimensional framework

In literature on discourse analysis, this framework is described as the most useful model for CDA. The framework which is depicted underneath, consists of three elements; social practice, discursive practice and text. All three are internalizations of social practice, which means that every element is a part of the other, and all are a part of social practice (Fairclough, 2004). The relation between text and social practice is mediated by the discursive practice, the element where texts are produced and consumed; texts shape and is shaped by social practice (Jørgensen & Phillips, 1999). All three elements should be included in the analysis. In practice, this means that I should look at the wider, social practice of which the text is a part; the production and consumption of the text; and the grammatical characteristics of the text. An important point is that the characteristics of the texts may overlap with the discursive practice, they must, however, be separated in the analysis (Jørgensen & Phillips, 1999). For cognitive purposes, I have chosen to explain the figure, from the outside in. But the order of the three dimensions in the analysis does not matter (Fairclough, 1992).

Figure 3



(Fairclough, 1992, p. 73)

3.3.3.1 Discourse as Social practice

Social practice is the wider social context the text is a part of. Social practice is explained as articulations of different types of social elements which are associated with particular areas of social life. The elements of social practice are made of three ways, in which discourse figures: Genres (ways of acting) are ways of acting and interacting, such as speaking and writing; it is discourse, because it involves language. Discourses are ways of representing the material world and is always a part of social practice. Styles are ways of being as a person, bodily behavior, the use of language of a person in role, e.g. at work. Together these elements form a network of social practices in its language aspect. Fairclough calls them orders of discourse, which is a key notion in analyzing social practice, especially with regard to hegemonial struggles. The elements possess the ability to select or exclude certain possibilities defined by languages. So they can be seen as the social organization and control of linguistic variation. This I understand as what can be said and what cannot be said. These functions of discourse are a part of social practice because they mediate the relationship between the text and the event (Fairclough, 2004).

3.3.3.2 Ideology

Fairclough understands ideology to be *"significations/constructions of reality (the physical world, social relations, social identities), which are built into various dimensions of the forms/meanings of discursive practices, and which contribute to the production, reproduction or transformation of relations of domination."* (Fairclough, 1992, p. 87) It means that certain uses of language are ideological and serve (sometimes) to establish or sustain relations of domination. Ideologies in discursive practices are most effective when they become common sense. Or in other words, when they become stable. Words are stable when their meaning is a common sense assumption and everybody agree that the word means the same. Words are not always stable, because their meaning can be transformed through an ideological struggle (Fairclough, 1992).

3.3.3.3 Hegemony

According to Fairclough, hegemony is very important to how we should look at discursive change. He is inspired by Antonio Gramsci's view on western capitalism and uses him to theorize change in relation to power (Fairclough, 1992). Hegemony is both leadership and domination of economic, political, cultural and ideological areas of society. It is power over society, but is never achieved more than temporarily, as it reaches an unstable equilibrium. Therefore, the focus is an ongoing struggle between classes that wish to construct, sustain or break the relations of domination that take political or ideological forms. The conception that ideologies structure, restructure, articulate and rearticulate represents the hegemonic struggle, harmonizes with Fairclough's notion on discourse: *"the dialectical view of the relationship between discursive structures and events; seeing discursive structures as orders of discourse conceived as more or less unstable configurations of elements; and adopting a view on texts which centres upon their intertextuality and how*

they articulate prior texts and conventions." (Fairclough, 1992, p. 93). The articulation and rearticulation of orders of discourse (genre, discourse, style) are stakes of the hegemonic struggle. At the same time, discursive practice (described beneath) as the production, distribution, and consumption and interpretation of texts is a kind of hegemonic struggle which may, to a greater or lesser extent, contribute to the reproduction or transforming of orders of discourse. (Fairclough, 1992). This means that social practice evaluates order of discourse and properties of discourse practice in terms of how creative or conventional the discourse is.

3.3.3.4 Discursive practice

Discursive practice contributes to reproducing society (social identities, social relationships, systems of knowledge and belief; see below), but it also to transforming society. Our patterns of speech can change our social relationships and belief systems (Fairclough, 1992).

Discursive practices involve processes of text production, distribution and consumption. These vary between types of discourses according to social factors, which are termed genre, style, and discourse[1]; the same as on the social practice level, which makes it hard to separate them. But it should be noted that they are only separated for analytical purposes, so on which level they figure is of lesser importance. The concern is to interpret the text in order to classify the elements which make out orders of discourse. The concept of the text producer, may be specifically complex, as it may be possible to distinguish between the animator (the person who presents the text), the author (responsible for the wording), and the principal (whose position is represented by the words).

Texts are consumed differently in various social contexts. Consumption may be individual or collective, depending on the genre of the text, e.g. love letter or academic article. In addition, texts can have either simple or complex distribution, again, depending on the genre. Especially texts produced by governmental institutions, Fairclough argues, are produced with the anticipation that the text can and will be transformed, consumed and distributed in multiple ways and at multiple levels. Therefore, they have multiple audiences built into them.

There are features, which formally deal with features of text, but are used under the element of discursive practice (Fairclough, 1992). The dimension of intertextuality is very important to discursive practice. It means that texts contain parts of other texts. These may be either explicitly presented or merged into the text. In this way, a (new) text always adds to the existing chain of speech communication.

[1] And activity type. But this type of discourse has been left out, as it merely describes the practice of making a political speech in front of an audience, and as such does not aid in answering the RQ.

A special feature of analyzing discursive practice is how it brings together a micro – and macro analysis, which is where the relationship between textual analysis and analysis of social practice is mediated. *"[I]t is the nature of social practice that determine the macro-processes of discursive practice, and it is the micro-processes that shape the text."* (Fairclough, 1992, p. 86) The micro-analysis consists of making clear how texts are produced and should be interpreted. This level provides evidence for and must be accompanied with the macro-analysis in order to determine if the orders of discourse in the text bring about change. This way of analyzing poses a significant challenge, as Fairclough does not engage in or not guide explicitly how to interpret, which leaves it up to the researcher. For instance, the elements of force and coherence may be interpreted in many difference ways, depending on the social circumstance of the interpreter, limits of knowledge, or lack of linguistic expertise (Fairclough, 1992).

3.3.3.5 Text Practice

Discourse is constructive in three aspects; social identities, social relationships, and systems of knowledge and belief. They correspond to three functions of language.

Firstly, Social identities, which is how we view our self and others, relates to the ways social identities are set up in discourse; the relational function related to how social relationships are enacted and negotiated. These are grouped together as the interpersonal function. This is investigated through grammatical modality and the affinity with the proposition. Secondly, the systems of knowledge and belief correspond to the ideational function. This means how texts signify the world and its relations. It is seen through the grammatical dimension transitivity which is process types in a sentence. The third function is the textual. It deals with how information of topics are foregrounded or backgrounded and for what reasons, and to the social situation outside the text (Fairclough, 1992).

Textual analysis is organized under four main headings: vocabulary, which deals with individual words; grammar is the combination of words in to sentences; cohesion deals with how clauses (phrases) and sentences are linked together; and text's structure, which deals with large-scale organizational properties of texts. These in combination with the three headings dealt with under discursive practice, but formally have to do with the features of text, make out the headings that is considered the framework for analyzing texts (Fairclough, 1992).

Table 1: Summary of the construction of discourse

Social practice element of orders of discourse	Discourse practice mediator between text and social practice	Textual practice function of language and grammar
Style: ways of being	Social identities: the way we see ourselves revealed through the way they set up in the discourse Relational: related to how social relationships are enacted and negotiated	Interpersonal function: grammatical modality and the affinity with the proposition.
Discourse: ways of representing	Systems of knowledge and belief (ideologies)	Ideational: how text signify the world through processes of transitivity (process types, voice, nominalization)
Genre (ways of acting according to the social situation outside the text	Activity type: production, consumption, distribution	Textual: theme (how information is foregrounded and backgrounded)

3.3.4 The practicalities of doing critical discourse analysis

This section deals with how Fairclough presents general guidelines for CDA. He describes it as a progression of the order of the levels of analysis. This progression works appropriately with a focus on change. Stepwise it looks like this:

1. Analysis of discursive practices, at a macro-level, which focuses on intertextuality and interdiscursivity of the sample.
2. Analysis of text including the micro aspects of discourse practice.
3. Social practice analysis of which the discourse is a part.

These will overlap in practice, but this progression is useful to structuring the results. It is noticeable that it involves a progression that goes from interpretation of the discursive practice to description of the text and back to interpretation, which draws on results in discursive practice and text practice (Fairclough, 1992).

3.3.5 Critique of Critical Discourse Analysis

The following section will look critically on CDA. Conducting this kind of analysis, it is very important to consider the pitfalls and limitations of it, due to specific weaknesses in the method. Various limitations such as time, validity and causality will be examined.

By itself, textual analysis has limited explanatory power and should only be seen as a supplement to social science research, when used in combination with other means of analysis (Fairclough, 2004). Fairclough furthermore argues that the analysis has to be framed within ethnography to fulfill the purpose of discovering the social effects of texts in society. In other words, the discourse analysis is a form of micro analysis, which then should be linked to a macro analysis of how power relations structurally work (Fairclough, 2004).

One of the biggest problems of using discourse analysis as a research theory and method, is the researchers own bias, also known as measurement error (Adcock & Collier, 2001). Jäger stresses that any researcher must see clearly that with one's critique, they are not situated outside the discourse they are analyzing. If not, they bring their own concept in question. Not forgetting that they are an outcome of the historical discourse, valid at a certain place, at a certain time, their own bias may not be based on truth, but as a result of another discursive process (Wodak & Meyer, 2001).

3.3.5.1 Time

Conducting CDA is very time consuming for the researcher. Jäger suggests a Foucauldian traditional genealogy, where analysis in carried out in a long timeframe, yet this is an enormous project (Wodak & Meyer, 2001). More scholars agree with him, and highlight how the process is at a disadvantage because it is time consuming for the researcher (Saunders, Lewis, & Thornhill, 2009). In choosing CDA, one has to align the scope of the research project with the time limitations of it. Jäger suggests to go about the problem by conducting more, but smaller research projects as a part of a larger process. (Wodak & Meyer, 2001).

3.3.5.2 Validity

Even though, CDA is a qualitative research method in the social sciences, the validation and reliability parameters have to be accommodated to this specific method, since the validity and reliability measures cannot be utilized in their true form.

No one agrees how best to validate results from discourse analysis. Therefore, the practical applications of the results from this analysis, can and may be questioned. That stated, the thesis has to be aware to explain how the discourse embedded in language will yield practical results that can point to a change. But on the other hand, it would not make much sense to see so many peer reviewed academic writings with a focus on language in social contexts, if we did not think it would have any effect on social life.

In addition to the points of critique above, there is a debate about the nature and application of CDA as opposed to pure conversations analysis, from which it stems, because there is a risk of the results being merely ideological. Furthermore, there are internal debates among CDA scholars. A specific discussion has developed between Norman Fairclough and Henry Widdowson, because Widdowson criticizes the notion of discourse and calls it vague and fashionable*: "Discourse is something everybody is talking about without knowing with any certainty just what it is: in vogue and vague."* (Wodak & Meyer, 2001, p. 17). However, in reply to the criticism, Fairclough points out the open-endedness of results and ideological commitment. These opposing positions are as much a part of a methodological debate about ontology, as they are about the practical utilization and results of CDA in academic research; how much objectivity, or any value-free position is it possible for the social science researcher to obtain. For a further discussion on the ontological considerations applied in this thesis, return to the section 2.1.1.

4 The German nuclear power policy

This section will deal with the various aspects of the German nuclear policy within the scope of the thesis. Especially, it will contain descriptions of the changes in German politics and the implications thereof. In order to keep a red thread throughout the thesis, this chapter will be divided into two sections: the nuclear power policy before Fukushima and the nuclear power policy after.

4.1 Nuclear power policy before the Fukushima incident in 2011

This section will deal with and describe the German nuclear policy and the political landscape from 1998 to 2010, where the life span extension of nuclear power was decided upon.

There has been much debate about the utilization of nuclear energy throughout the 20th century (Deutsche Welle, 2009). The Green party, founded in 1980 was, to a large extent bred on the basis of nuclear opposition. In 1998 a coalition government consisting of the Social Democratic Party (SPD[2]) and the Green Party[3] was formed, and led by Chancellor Schröder.

In June 2000 the coalition government made an agreement, a *Nuclear Energy Consensus,* with the utility companies[4].In the agreement the government and the utility companies promise each other to respect the orderly end to nuclear energy production. It also entails intensions of law and policy revision to comply with the first phase-out attempt. Construction of new plants was supposed to be banned by law, as well as the federal nuclear law should be amended and intended to pass in the parliament (German Atomic Forum, 2000).

The agreement did not set a precise end date to the phase out, but instead it allotted a certain amount of production volume for each reactor, demanding them to cease to operate in 2022 (Buchan, 2012).

In 2002, then opposition party, now government party Christian-Social Union in Bayern (CSU)[5] said that they would circumvent this decision, in case they won the next election (FAZ, 2002). The Nuclear Energy Consensus became law in 2002, and the phase-out began with the closing of two old plants, which were taken offline in 2003 and 2005. Again the opposition, this time the Chairwoman of the Christian Democratic party (CDU[6]) Angela Merkel, said that this was a destruction of national property and the law would be revoked if and when CDU came to power (Clean Energy Wire, 2015). The logic of the pro-nuclear argument used by the

[2] Sozialdemokratische Partei Deutschlands
[3] Bündnis 90 / Die Grünen
[4] RWE; E:ON; Vattenfall; EnBW
https://www.cleanenergywire.org/factsheets/citizens-participation-energiewende (June 15, 2016)
[5] Christliche Soziale Union in Bayern
[6] Christliche Demokratische Partei Deutschlands

conservative parties, was how it was to be a “bridging of technologies” to bring the country forward towards a mix of nuclear and renewables (Energy Transition, 2015).

4.1.1 The Renewable Energies Act 2000

In year 2000, the first policy on renewable energies due to a nuclear phase-out was implemented. A policy that should later be one of the core pillars of the Energy Transition. The Renewable Energies Act, was intended to put forth a new quality to facilitate renewables in Germany. The requirement for the act was the newly agreed commitment to the Kyoto protocol on Climate change. The goal Germany had agreed to reach was a 21 % reduction in carbon dioxide emissions before 2010. This was to be done through the utilization of wind power, as well as through a subsidy to renewable energies under the Act of the Sale of Electricity to the Grid; an incentive for the industries for making it possible to reach a doubling of renewables in the energy mix (BMWi, 2016).

4.1.2 Merkel Cabinet I

In the election in 2005, Angela Merkel (CDU) won her first term as chancellor of Germany and formed a grand coalition government (Cabinet I) with SPD and the CDU sister party in Bayern, the CSU, in which the leader of the SPD, Sigmar Gabriel became vice chancellor and head of a key ministry that combined economy and energy, in an effort to facilitate the transition towards renewables (Deutsche Welle, 2013). While the parties agreed on promoting renewables, the SPD continuously vetoed any initiative from CDU/CSU to expand the lifetime of nuclear power plants (Huss, 2014), scheduled to close before 2022. This means that in this term, the conservatives did not succeed in circumventing the nuclear phase-out initiated by the former SPD/The Green Party government. Indeed, according to Huss (2014) they pursued the energy policy of the former government, except of course for the question of nuclear power energy, which they say as a way to bridge the gap in the transition to renewable energies (Huss, 2014).

4.1.3 Merkel Cabinet II

In 2009 Angela Merkel won her second term as Chancellor of Germany and this time forming a coalition government consisting of CDU/CDU and the Free Democrats (FDP)[7] (Cabinet II). These parties' stance on nuclear power and its utilization was more positive as the two parties relied more on the free-market for energy, than did the SPD, who was replaced as coalition partner.

CDU/CSU and FDP immediately began working on a phase-out of the phase-out: The decision to a life span extension was found between the coalition parties on September 28 (Deutscher Bundestag, 2010) and (Kernenergie, 2016). The government had financed an extension of the operating time for seven nuclear power plants by eight years and 14 years for the remaining ten plants still in operation (Clean Energy Wire,

[7] Freie Demokratische Partei

2015). The CDU/CSU were focused on promoting renewables, and saw that utilizing nuclear power in the transition phase towards renewables as a way to bridge the gap.

Angela Merkel said, she does not believe, Germany could do without nuclear power entirely, and meet its carbon dioxide emissions targets at the same time (Clean Energy Wire, 2015). However, there were technical problems with one of the most modern nuclear power plants in Germany. Therefore, it had to be shut down for maintenance. Almost at the same time, another reactor shut down, even though it had just undergone reparations for two years. As a response, the Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety, announced that electrical systems at nuclear power plants must be checked nationwide (Deutsche Welle, 2009).

4.1.4 Public opinion

Since the 1960ties Germany has utilized nuclear energies through the German Atomic Energy Act. Throughout the 1970ties, when Europe was hit by the oil crisis, utilization of nuclear power grew a long side with the opposition and anti-nuclear protests. Widely known nuclear disasters such as Three Mile Island, Harrisburg (1979) and Chernobyl (1986) spurred a growing resistance among the German population, where the number of demonstrators went as high as 100,000 (Deutsche Welle, 2009). With regard to the Nuclear Energy Consensus reached by the Schröder government and the big four utilities, a poll shows that only 13% were in favor of the phase-out in 1998. Then in 2008, the Germans seemed as divided as ever on the subject, in that 46% favored the continued use, and 46% supported the phase-out (World Nuclear, 2016).

4.2 Nuclear power policy after the Fukushima incident in 2011

This section deals with the change of policy after the Fukushima incident. The focus is on the political landscape and circumstances leading up to the decision to phase out nuclear power in Germany.

An earthquake developed a tsunami that hit the reactors of the Fukushima Plant in Japan, which led to the biggest nuclear disaster since Chernobyl. Three reactors of the Fukushima nuclear power plant melted down. During the months following the disaster in Japan, the German government changed its nuclear policy and embarked on the work towards closing down the country's nuclear power plants, which supply Germany with crucially important energy (Deutsche Welle, 2011). However, also in this month, March 2011, just after the disaster in Japan, a new wave of anti-nuclear demonstrations rolled over Germany. It seems not only did the politicians and the government react, but the broader public too. The Green Party[8], a well-known anti-nuclear

[8] Bündnis 90, Die Grünen

party, received an immense amount of support at this time and actually managed to take over the majority in the old CDU[9]/CSU[10] dominated state Baden-Württemberg at the election there (Deutsche Welle, 2011).

In 2010, the German government had decided to expand the life span on power plants until 2036 at the earliest. The nuclear plants were deemed fit to continue operating many years to come. But in the spring of 2011, several commissions were set to work on the state of the nuclear power plants, and found that a lot of them had security problems. A decision to circumvent the initial decision made in 2010 to prolong the life of nuclear power plants to later than 2036 was made (Deutsche Welle, 2011). This led to the proposal to close all of them down by December 31st 2022 the latest. In total, 600 delegates of the parliament voted, thereof 513 voted yes and 79 against, eight abstained from voting (Deutscher Bundestag, 2011). Overall, this vote is without a doubt unanimous.

On the same day as parliament voted about the nuclear phase out, the CDU/CSU and the FDP[11] also put another proposal on the table, namely an initial proposal to the Energy Transition. In other words, a law package to paint the way to *Energiewende*, because the government had to have an answer to the question on everybody's' lips; how did the German government plan to cover the energy gap from nuclear energy? Until march 2011, close to 25 % of the electricity in Germany was produced through nuclear power (World Nuclear, 2016). The very short answer was wind, solar and biomass; namely renewable energies. The intent was to double the amount of renewable energies in the energy mix as well as develop and modernize the grid so that these renewable energies could be transported around the country without losses. All of this without entailing rising prices of power consumption for the end-users (Deustcher Bundestag Gesetz, 2011).

4.2.1 Public opinion after 2011

March 2011, right after the Fukushima accident, an opinion poll reveals that 81% of the Germans were in favor of the decision to (again) phase out nuclear power. The highest support is found among west Germans, and young (14-29 years). Only a small amount of the population is still opposed to the new nuclear power policy (Clean Energy Wire, 2015).

When asked *"Do you think the federal government took the right decision for Germany to phase out nuclear by 2022",* 73% agreed and 16% disagreed (World Nuclear, 2016). In conclusion, public opinion proves to show that a majority of Germans oppose the use of nuclear power in the energy mix, although the numbers

[9] Christlich Demokratische Union Deutschlands
[10] Christlich Soziale Union in Bayern
[11] Freie Demokratische Partei

fluctuate depending on the point in time. This may also be perceived as a reason for the shifting policy on the area through various governments from 1998 to present day, when seen as a premise of political decisions based on populism.

5 Presentation of texts chosen for analysis

In order to answer *how* the discourse of the German government's nuclear power policy has changed, I will analyze speeches by German government representatives that deal with nuclear policy and then compare them. The comparison shall reveal how the discourse has changed.

Jäger's terminology is used to set up criteria for the selection of the texts. The aim is to enhance validity of the project by presenting an argument for choosing exactly these speeches. I have chosen speeches, because they are the form of communication used for presenting arguments by the government. Alternatively, I could have chosen governmental reports. But, speeches are usually more explicit about the speaker's attitude towards an issue. It is the change of explicit opinion and articulation of argumentation in the nuclear power debate, I am interested in. Had I chosen governmental reports, the text would be an objective account of a policy, and probably not give a nuanced picture of the articulation.

We know there has been a change in nuclear policy. This was described in the nuclear power policy chapter, which dealt with the political circumstances surrounding the nuclear policy before and after March 2011. Because the event that divided the change of policy, the Fukushima catastrophe happened in March 2011. Therefore, it is important that the analysis deals with a speech act before the change and after the change of policy. Because the analysis is also going to deal with whether there may be established causality between the Fukushima catastrophe in Japan and a change in discourse.

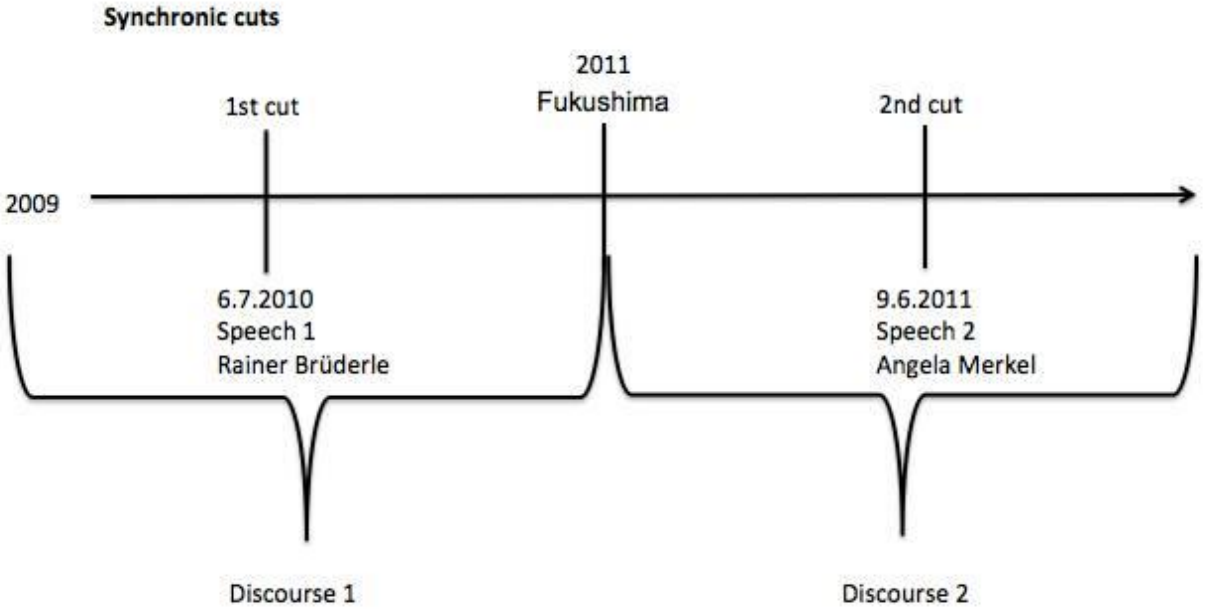
In order to establish a causality between the change that the Fukushima catastrophe brought about in the nuclear policy and the influence Fukushima had on the discourse on nuclear power policy, it must be discussed if the event can be regarded as a discursive event. Only the events which are especially empathized by the media, can be seen as discursive events, argues Jäger. Because, as a general rule, only such events, influence the discourse (Wodak & Meyer, 2001). Even though, this thesis does not rely on media as a source to discourse analysis, it may, nonetheless, be argued that the Fukushima incident has received a lot of media attention in the German media. Furthermore, it may be assumed that when the issue of nuclear power and the security issues thereof, is so major among the population, as the section 4.1.4 and 4.2.1 show, it may also be a major issue in the media, because in general media tend to treat subjects that interest their readers.

Therefore, it may be concluded that the event that brought about change in the nuclear power policy, is such an event that Jäger means when he speaks of discursive events. In fact, as examples of this he mentions widely known nuclear disasters, Harrisburg and Chernobyl. And most notably he argues that through discourse analysis, it may be established whether such events become discourse events or not. Meaning whether such events bring about change. *"It can at the same time be observed that a discursive event, such as the one just described, can have an impact on the entire discourse on new technologies by re-directing attention, for instance to the necessity of developing new energy resources."* (Wodak & Meyer, 2001, p. 48).

For the selection of speeches for analysis, the location where the theme is expressed must firstly be determined; the German nuclear policy is found the in discourse plane politics. Therefore, I have searched for political speeches at the federal government's (Die Bundesregierung, 2016) and the relevant federal ministry's (BMWi, 2016) webpages. Then I narrowed down the search to speeches dealing with nuclear power policy. The specification of the theme, then revealed a discourse strand, where the thematically uniform discourse processes was found. This discourse strand, then provided the discourse fragments to be investigated.

Furthermore, I must look at the issue of time. We know that discourses change over time. So in order to compare two discourse fragments at separate points in time, I had to do a synchronic cut in time. This allowed me to isolate a piece of discourse at a particular point in time. It has been clear that the two discourse fragments should be on either side of the Fukushima incident. Therefore, the search was narrowed down to political speeches from 2009 and until March 2011. 2009 was chosen because of the federal election, where the government, commonly known as Merkel Cabinet II was formed. It consisted of CDU/CSU and FDP (see section 4.1.3). Within this first synchronic cut I found and selected a speech (discourse fragment) by the Minister for Economic Affairs and Energy, Rainer Brüderle that dealt with nuclear power policy. This speech is presented in Appendix 1 (Appendix 1, 2010) and will be called speech 1. The second synchronic cut should be after March 2011, but within the same governmental period so the discourse fragments and the articulations thereof were a part of the same government's policy direction. In this way, I selected a speech by chancellor Angela Merkel from CDU from June 2011, where the Fukushima events still we in relatively fresh memory. The speech is held in the same month as the vote on a new nuclear policy, where nuclear power was phased out (Deutscher Bundestag, 2011). The speech deals with the government's nuclear power policy in the wake of the Fukushima event. It is presented in Appendix 2 (Appendix 2, 2011) . It will be called speech 2.

Figure 4:



It is important to have this section on the selection of speeches, because otherwise the validity of the project could be contested. In this regard, it is also important to give an explanation to why exactly the speech by Rainer Brüderle from the coalition party FDP was chosen instead of a speech by a Politian from CDU. It can be argued that a speech by a FDP representative may distort the discourse analysis, as their notions and ideological view foreground that of the core government consisting of CDU/CSU. Nevertheless, there is a restricted number of speeches available on the subject of nuclear power policy. It may have been more appropriate to choose a speech by the Federal ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB, 2016). The role as minister was at that point in time possessed by Norbert Röttgen from the CDU. He made a speech dealing the with, only among other things, the life span extension times of the nuclear power plants in 2010. However, the selection of the speeches has to be in alignment with Jäger's terminology, and here the notion of discourse fragment is put to use. This speech is a part of a discourse strand that deals with whether the decision to extend the life span of nuclear power plants should be made by the Federal Parliament or the Federal Constitutional Court (Norbert Röttgen, 2016). Not whether the life span of nuclear power plants should be extended. In this it is sense not really about the nuclear power policy. Therefore, the speech by Rainer Brüderle was chosen over this speech, as there is too big of a part of it which belongs to another discourse strand, or in other words, theme.

5.1 Comments

The analysis will focus on the elements in the framework which aid in answering the RQ. The framework is quite exhaustive. It does not make sense to describe parts of the text that are outside the scope of the thesis, as well as characteristics of the text that are not there. This is for example true for the issue of interactional control, where the objective is to describe conversational texts at a large scale. Since, the thesis deals with one-way communicative events in the form of political speeches, this factor of interactional control is not deemed fit to be included in the analysis. This decision is fully justifiable because the framework is not to be regarded as a checklist for CDA, hence the analysis will not suffer from incompleteness because certain parameters are left out.

The speeches are in German. There are big linguistic differences between German and English, which makes a correct translation very hard without the distorting word meaning, transitivity, and or modality. As a consequence, the translation shall be direct and will not produce correct English. The original meaning in German is an important parameter for the discourse analysis.

The analyses take departure in the entirety of the speeches. And to increase the level of detail I have chosen excerpts, which work as starting points for the textual analysis. It is important for the textual analysis to look at a longer clause in a text, in order to find the cohesion and functional relationships between the sentences. The excerpts are chosen because, they are the parts of the speeches that deal the most with nuclear power. They are the parts of the speech, where the speaker expresses their attitude towards nuclear the clearest. In this way, I can focus on the discourse on nuclear power.

Speech 1 is found in Appendix 1 and speech 2 is found in Appendix 2. I will draw out examples of statements, sentences or clauses from the speeches to exemplify important points. Sentences and clauses are translated into English and refer to the corresponding sentence or clause in the speeches by a number.

The analysis will follow guidelines presented in Discourse and Social change (Fairclough, 1992, pp. 231-238). In Appendix 3, the reader will find a glossary. It consists of explanations of the concepts and guiding questions for the analysis.

6 Analysis

6.1 Discourse practice of speech 1

This section in the analysis chapter deal with the discourse practice dimension of the three-dimensional framework.

6.1.1 Interdiscursivity

The CDA takes its point of departure in the discourse practice of the text. The types of discourses will be described. These descriptions imply how it has been produced, distributed in terms of intertextual chains, and consumed. Discourse practice also uncovers the text's discourse, as it relates to its genre.

The text's genre constitutes a political speech. The speech is acted out by the minister of Economic Affairs and Energy. The ministry is a federal institution which, among other things is purposed to drive the economic efficiency and climate protection sustainability of the Energy Transition forward. In addition, it has to make sure that the energy produced and consumed in Germany stay affordable and competitive with other markets (BMWi, 2016).

The genre, political speech is associated with different styles that vary along three parameters: tenor, mode, and rhetorical mode.

The tenor of this speech is formal and official. Normally, political speeches tend to be formal because they are constrained by a social practice materialized by expectations to formality. This speech is held at Chamber of Commerce and Industry[12] in Berlin. Possibly, in front of an audience consisting of representatives from the German industry. The German industries are represented by The Association of German Chambers of Commerce and Industry *"(…) is also responsible for politically representing the interests of industry and commerce. (…) and conveys the economic interests in the political discussion."* (Deutscher Industrie und Handelskammertag, 2016) This points to close corporation between politics and the energy industries.

The mode in which the speech is written is formal. This is in alignment with the purpose of a speech in how it is written to be spoken (style). This information is given. The spoken word is written down to constitute this text[13] therefore, in this case it is written as spoken.

The formal tenor and mode, may be attributed to the German culture. German's are known for their correctness and very formal way of socializing. they still maintain the distinction between you (Du) and the polite You (Sie).

[12] *Haus der Deutschen Wirtschaft*
[13] Es gilt das gesprochene Wort!

The overall rhetorical mode is argumentative. The argument is concerned with the positive consequences for life span extension of nuclear power plants for the competitiveness of Germany. And how the future energy supply should be structured by the market economy. This in line with a to be expected rhetorical mode in political speeches, which means that in this sense in is also constrained by its genre. There will be a further interpretation of the rhetorical mode under the factor cohesion at the textual level.

Discourse Most predominantly is a liberal business discourse. There is a presumed liberalistic tone to the structure of the argument, where assumptions predominantly build on the liberal ideology and the assessment of economic consequences. The speech's voice resembles that of a CEO of a privately owned business. Reading the speech, without knowing the producer is a federal minister, it would be understandable to interpret the tone of the speech as pure business-like. In this way, it is important to highlight how he speaks almost on behalf of the German industry in an effort to manage their interests, not the state's. This below sentence illustrates this: *"Instead, we must provide for dependable conditions, which offer long term investment – and planning reliability [1]."*

The liberal business discourse is applied to the concept of energy; the nuclear power policy and the life span extension of nuclear power plants. Furthermore, it is used to argue for how Germany must position itself in the international market, so their competitiveness is secured. The speech applies the concept of competitiveness and treats the nuclear power policy as a business project.

6.1.2 Intertextual chains

In this section, the distribution, coherence, production and consumption will be identified. The purpose is to specify what sort of transformation the speech undergoes.

This interpretation is based on how Fairclough also describes the distribution of political speeches, which he uses as an example to a complex distribution across many patterns of different institutional domains (Fairclough, 1992). A political speech has a very complex distribution. The complexity occurs because the speech is transformed at several levels. Especially it must be noted the transformation political speeches undergo in the media. The decision to extend nuclear power has received immense focus in the media. In this sense, it is important to mention that politicians wish for media attention. Their voters are not the direct consumers of their speeches, but the consumers of the types of texts the speech is transformed into, e.g. articles, interviews, television news, etc.

Concretely, the speech is a part of a month long public and political debate on the life span extension of nuclear power plants in Germany up until the decision in September by CDU/CSU/FDP (Deutscher Bundestag, 2010).

On the contrary to initial belief, it has not been possible to find newspaper articles that respond to the content of the speech. The absence of media coverage, could point to the fact that the speech lacks a dimension of concrete political suggestions and is directed at the German industry.

That said, the speech does contain a dimension of intertextuality, The speech has been paraphrased in a German book on the networks of energy security (Mükusch, 2011) *"We want a climate friendly, secure and at the same time affordable energy supply in the future [2]."* This sentence reoccurs in more speeches and in other societal institutions. The same words *climate friendly, secure, and affordable, energy supply*, constantly reappear in the same form and in the same context. The words and the same context have been used in other speeches by the Federal Minister for Economic Affairs and Energy on June 1 2010 on the future energy concept of the federal government (BMWi, 2010) and on April 20 2010 (Schattenblick, 2010). Besides, how he repeats himself, the same words and the same context is also used by the CDU party: *"We want a secure, affordable and climate friendly energy supply (…)"* (CDU, 2016). But in addition to this, the words in the sentence is also used by both RWE and E.On. They are two of the four big utility companies in Germany. RWE states: *"A secure, dependable, and affordable energy supply (…)"* (RWE, 2012). And E.on states *"(…) secure, climate friendly and affordable energy supply (…)"* (E.on, 2009). It is obvious how both political parties and industrial leaders agree on the modal adjectives to energy supply, and it is noticeably how similar the purposes are articulated.

It may imply that state and industries work closely together towards the same goals, or that either the industry represents the interest of the state or the other way around.

Another intertextual property of the text, is this sentence: *"The nuclear energy is on its way in to the regenerative age – besides the utilization of clean coal – a bridge. A bridge which we are going to use for quite a while. The bridge must not be so short that in the end, we are not going to reach our common goal [3].*[14]*"*

The speech does not mention the word Brückentechnologie [bridge/technology] as such, which means that it has been discursively adopted in the German language. This is only possible if the word has been integrated as a common sense word and constitutes a shared assumption. Therefore, this speech act as a reproducer of the word *Brückentechnologie,* which means that is has been imbedded deeply in the German language and is pivotal to the articulation of the nuclear power policy by the German Government.

[14] There is much uncertainty to and discussion in the dictionaries of what the expression „baden gehen" actually means, how it can be understood and how to translate it into English. I have translated it, freely, after the synonyms Duden offers: http://www.duden.de/rechtschreibung/baden_gehen

The above analysis of intertextuality, and especially the use of *Brückentechnologie,* means that the intertextual discourse properties of this text are reproductions of already common sense and widely shared assumptions of articulations in the language used to describe the German nuclear power policy.

6.1.3 Coherence

Coherence looks at how the text can be interpreted. If a text is coherent, it could be read by everybody, and they would interpret it in the same way. Optimally, a text should make sense to its interpreters. A coherent text has parts (episodes and sentences) that are meaningfully related so it makes sense as a whole (Fairclough, 1992). This section shall analyze, how the speech is ambivalent for different interpreters.

The text is consistent with the liberal ideology that relies on the powers of the free market. In this way, I can identify ideological assumptions underlying the meaning of the expressions. The example below illustrates how the liberal way of thinking is the underlying assumption in the clause, and it explains why he states it the way he does. Furthermore, looking the thematic structure of the sentence, it starts with the word competition. Competition is the common sense assumption about the power of the free market. He does not need to explain the word; it is a non-count substantive. Placing it in the beginning of the sentence, the word and the meaning of it, is being foregrounded as the pivotal means or action to identify the "*right kind"* of energy sources.

"It must be revealed through competition which energy sources and means of production should be enforced. The state must not be allowed to cut more into the economic freedom of business and consumers [4]."

This a liberal way of thinking of the state. It assumes that the best economic output is secured by free market power. As a whole the text is not ambivalent and does not discuss its liberal assumptions, in terms of good and bad economic consequences. In other words, it does not shed light on the problem from more perspectives but the liberal.

Since the liberal values are so clear throughout the text, it means that when the text is read by someone less convinced of the liberal ideology, the discourse can be contested. Or at the very least, they will not agree. In this way, the text will not receive consistent readings, because of two things. Firstly, interpreters may disagree so strongly that the text will not make sense to them. And secondly, it can be interpreted wrongly, because some statements are vague: *"(…) that there apparently also were suggestions from the leading parliamentary groups. These ideas do not, at first sight, sound disagreeable [5]."* This sentence for example, is quite ambivalent and needs inferential work in order to understand exactly what he means. In addition, it is solely up to the interpreter to assess how much affiliation is expressed and to what degree he does not disagree with the parliamentary groups.

6.1.4 Conditions of Discourse Practice

A text such as this political speech is produced collectively. Therefore, it is possible to deconstruct the producers' roles into different positions:

The animator The person who makes the words is Rainer Brüderle. He is the Federal Minister of Economic Affairs and Energy of the coalition party to CDU/CSU, FDP. Admittedly, the fact that Brüderle does not belong to the primary government party, has a certain impact on the realpolitik. It can be argued that he might promote some key notions, by which the FDP can separate themselves from the CDU/CSU due to electoral purposes, and which only the FDP can vouch for. In this sense, the choice of exactly this speech is not optimal when the purpose is to uncover articulations by the German government. But it is however, the way politics work, and especially German politics. Because it is almost always formed by a coalition government, and so it actually adds to the perception of realpolitik. Therefore, it is presupposed that he, in his role as minister, represents the views and direction of the German government, and follows Chancellor Merkel's policy direction.

Author It is deemed that a minister has a speech writer or a team of speech writers, which corresponds to the collective production of this text. In this sense, the clauses, wording is not an expression of their view, (though it certainly can be influenced by their interpretation of it) but that of Rainer Brüderle. He is held responsible for the wording.

Principal In addition, this speech has a principal whose position is represented through the words. The speech represents the Merkel Cabinet II attitude and articulation of their nuclear power policy. As argued earlier, FDP's ideology may shine through, but it is within the coalition government's (CDU/CSU/FDP) agreed upon direction.

6.1.5 Consumption

The speech is consumed collectively. The immediate consumer for this text is the audience at Chamber of Commerce and Industry. A speech acted out orally is subjected to semi-focused attention, because it is directed to a room full of people who listens more or less carefully to what is said.

The oral enactment followed by a semi-focused attention, is replaced by a close scrutiny reading, by for example the media, authors or by me, as it moves into its distribution and becomes complexly transformed through this process. The interpretative work put into the text consequently shifts to another focus. Therefore, the author(s) of the text should have anticipated more audiences and several modes of interpretation, because it can and will read in many different ways. I do not see any obvious evidence of this anticipation, as analysis should reveal how the speech has multiple audiences built into it. The speech speaks

a predominant business language and addresses their need for a reliable energy policy which regards the needs of the energy (nuclear) industry. If it had more audiences built into it, the speech would address other interests than the industry's, too.

6.2 Discourse practice of speech 2

This section will deal with the discourse practice of speech 2, which was held after the Fukushima incident in march 2011. The speech is also a political speech and as such has a lot of common traits with speech 1.

6.2.1 Interdiscursivity

The text's genre constitutes a political speech. It is carried out by the German chancellor Angela Merkel. As chancellor in Germany she is head of government, and has been since 2005. She has a background in physics before she joined CDU and became a member of parliament in 1990. Since then she has had an impressive political carrier, where she, among others, held the post as Federal Minister for the Environment, Nature Conservation, Building and Nuclear Safety (Bundeskanzlerin, 2016).

The three different styles associated with the political speech genre, vary along tenor, mode and rhetorical mode. The tenor is formal and official. Again, the practice of carrying out a political speech is constrained by the expectations to the genre. The speech is held in the Federal Parliament in front of the members of parliament. Hence, the tenor is attributed to the traditional and institutional frames around the Federal Parliament. These are heavily embedded in the genre and this speech does not deviate from them in its tenor.

The mode of the style of this speech is written to be spoken. Sentences are quite long and sometimes also grammatically complicated. In this way, it is formal. The formality is attributed to the genre, and the institutional frames surrounding it. But, again also to the German culture, which is more formal than other cultures in the context of business as well as politics.

The rhetorical mode is both argumentative and explanatory. The speech's overall argument speaks to a necessity of political action on the grounds that a nuclear catastrophe like the Fukushima must be prevented at all costs. Because of the immediate phase-out of nuclear power production, a specific plan for the mix of the future energy supply is presented. There are a lot of *if – then* clauses, which means that it is explained *why* and *how* action is required and what the solutions are. The rhetorical mode will be elaborated in text practice under the section on cohesion.

The speech draws on more discourses and the tone changes throughout. In fact, three different kind of discourses have been identified, where one is more dominant than the others, because it covers more text.

Discourse The first discourse which can be identified, is risk and pathos. The first part of the speech, line number 9 – 52, is concerned with the risk of nuclear power. The speech starts with a narrative of the Fukushima incident focused on the residual risk of nuclear energy. This part is very descriptive in terms of the consequences of the Fukushima incident. It uses strong modal adjectives such as: horror, devastating, dramatic incident[15], which underlines the risk of nuclear power in painting a picture of disaster with words. A specific wording which is mentioned more times is human error: "*(…); because the residual risk of nuclear power can only be accepted by he who is convinced that it cannot occur due to human error. [1]"* It places the responsibility on an outside factor, somewhat like a natural disaster.

The discourse speaks to feelings, or in other words appeals to pathos in the consumer. However, this is mixed with objective explanations of security matters – so simultaneously with the feelings about the incident, there is an objective focus on security calculation. Therefore, it is risk assessment which is presented as a key argument to the change of policy. It is noticed when Merkel speaks of her own attitude towards nuclear energy, the word assessment[16] is used instead of opinion. It is highlighted more times how her assessment has changed. She needs to explain to her voters why her conviction has suddenly changed. Because before this, she was known for her pro-nuclear stance.

Then the discourse becomes more and more objective and technical in its language, as the speech becomes concerned with the future of the energy supply. I call this discourse technical - legal. It relies on quantities, numbers and goals. In addition, the sentences become longer and more complicated. The language becomes politicized and legal. As readers, we get the impression we are reading a legal document. It is exemplified in this sentence: *"Furthermore, the integration of the amended Energy Industry Act of intelligent counters as a starting point for the intelligent grid will be regulated* [2]*."* This discourse continues throughout the speech until line 266, where it changes again.

The three last paragraphs, lines 266 to 283, includes a third discourse. It focuses on glorifying Germany as a country which can overcome any obstacle. *"Which country, if not our country, should have the strength to do so? [3]"* This discourse, I call patriotic. These paragraphs are almost grandiose in their tone in an effort to tie the country together in a common effort to implement the policy changes.

[15] Schreckens, verheerend, dramatischen Ereignisse

6.2.2 Intertextual chains

Political speeches have a complex distribution. As this speech deals with a policy change, and as the speech is one of the first articulations of the change in policy by the German government, it should be expected that the speech is transformed into a lot of different kinds of media coverage. The first articulation of the policy change happened in the May 2011, only two months after Fukushima (Angela Merkel zum Atomausstieg, 2011). Speech 2 is transformed out of this press conference.

As the decision to phase-out nuclear power, entails broad consequences for Germany, both politically, industrially, and for the citizens, the media attention was immense. Here are a few examples of the media coverage from national media domains that the speech was transformed in to on the same day: Radio (Deutschlandradio, 2011), newspapers (Focus, 2011) and (Süddeutsche Zeitung, 2011). In addition, it is important to mention the international attention the speech received. International coverage adds to the complexity of the distribution, but within the scope this is too broad to look into in detail. On the basis of a simple google search, the impression and assessment is that it has already become a historic event and used in discussions on perspectives of energy security (google.dk, 2016).

The obvious case of intertextuality is how it takes its point of departure in the Fukushima incident and treats the event as commonly known. Although, the speech describes in short what happened, it assumes that the consumer is familiar with Fukushima.

Three days earlier than this speech was held, the Federal Ministry released a document on new decisions regarding the new nuclear policy. This document contains the political decisions the speech is built on, or in other words, transformed out of (BMWI PDF, 2011). The interesting feature is the headline, which reads: *"The road to the energy of the future – secure, affordable and environmentally friendly."*[17] The attentive reader, might remember that these words are similar to the words in speech 1: *"We want a climate friendly, secure and at the same time affordable energy supply in the future [2]."* (see section 6.2.2). In fact, secure and affordable are exactly the same words. Simultaneously with the decision to extend the life span operational times in the fall of 2010, the German government initiated a new energy concept. It relied on nuclear power and fossil fuels to bridge the gap, in addition to a new dimension of a larger share of renewable energies in the energy mix. The sentence used to describe this is: *"Energy concept for an environmentally preservative, reliable, and affordable energy supply."*[18] (BWMI & BMU PDF, 2010).

[17] Der Weg zur Energie der Zukunft - sicher, bezahlbar und umweltfreundlich

[18] Energiekonzept für eine Umwelt schönende, zuverlässige und bezahlbare Energieversorgung

The words used to describe energy supply in this speech are: *"(…) reliable, affordable, environmentally safe, thus secure [4]".* Synonyms seem to reoccur like environmentally preservative and safe. Words like reliable, affordable and secure do not change and seem embedded as a stable part of the discourse of the policy. The German government seem to agree on the adjectives it uses in the articulation of energy supply. This points to an alignment of the policy aim, and hence a sign of hegemony.
One thing should be noticed. There has been a change from climate friendly to environmentally friendly. The question is, if there is an ideological shift underlying this change. Or if climate and environment are interchangeable words used to denote the same meaning. This will be discussed in chapter 7.

6.2.3 Coherence

There are many formal explicit markers in the speech. These will be treated in detail under the textual analysis in the section on cohesion. The formal markers are contributing to an explicit coherence between clauses and sentences, which makes it easy for the interpreter to follow the argument. Because of the explicit markers, the meaning is served to the interpreter. In addition, the speech is divided into specific policy steps, which makes it easy to follow the sequential development of the argument.

The impression the speech gives is not very ideological; it does not seem that Merkel supports her claims on a conservative ideology, on which her party is build. The speech is pragmatic and solution oriented. Furthermore, it appeals to Germans in how it uses culturally salient key words. In this way, it appears grounded in the German culture. There are traits in the discourse of the cultural features; order, quality, technological innovation.

I can see two ways in which the speech could be interpreted differently than as an articulation of a rational, problem-solving energy concept to reduce co2-emissions effectively and phase out nuclear power.

The decision to phase-out nuclear power, could obviously be contested by nuclear supporters, who both in a matter of public opinion and in a discursive sense represent the minority at this point in time. It would be contested that Fukushima is the reason for the policy change, because Germany could not be hit by a tsunami. Therefore, nuclear power is not seen as posing a risk, but as efficient production of energy, which makes it beneficial for the economic development in Germany.

The ambition of the new policy can be put to question. Is it even possible within the timeframe to reach the goals of the energy transition? In this lies the questioning of the political intentions by Angela Merkel. The phase-out can be seen as a politically driven process. The German Scholar Christian Huss is a spokesman for this contestation. He argues that in the wake of the Fukushima catastrophe nuclear power policy became a symbolic and populistic issue in German politics (Huss, 2014).

In sum, the speech is a bit ambivalent in that one proposition and the intention can be contested or questioned.

6.2.4 Conditions of Discourse Practice

Due to the genre of a political speech, this speech is produced collectively. In the same way as the other speech, the producers' roles are deconstructed into different positions.

Animator The person who makes the words is Angela Merkel, Chancellor of the Germany and head of CDU/CSU. Her role as the chancellor has an impact on the clauses and the argumentative mode of the speech. The role gives her more room for political maneuvering within the political arena. Or in other words, the role gives her the opportunity to be more explicit about the direction of the policy. She is responsible for uniting her government and her ministers from the coalition parties CDU/CSU/FDP and setting the policy direction and goal for nuclear power. In addition, she has the strongest mandate to be the representative for that direction, but at the same time also has the most at stake if and when this direction is contested either within her own government, by the opposition or in the media.

Author It is deemed that Angela Merkel has a team of speech writers. But the wording is solely an expression of her policy position. She and the German government are held responsible for the wording.

Principal Clearly, it is Chancellor Angela Merkel's position which is represented through the words. But in her role as head of government, it would be apparent to assume how the entire government's position is represented through Merkel.

6.2.5 Consumption

The speech is consumed collectively. And the immediate consumers of the text are the members of parliament. In addition, the parliament is life broadcasted on TV. Therefore, another audience must be considered; the German citizens, or in this context the voters. By this, more audiences must be built into the text, because the producers are aware of the exposure of the speech.

Due to the content of the speech, it has impact on the everyday lives of German citizens. An anticipation of media coverage must be expected. Therefore, Merkel is very explicit about her own affinity to the statements, and she cements her own opinion and how it has changed. In doing so, the speech offers headlines for media, which they can quote directly. For example: "Fukushima changed my attitude towards nuclear energy."

6.3 Comparison of discourse practice

The comparison is focused on the changes in the discourse.

There are a lot of similarities in the speeches at the discourse practice dimension. Obviously, a great deal of these similarities respond to the genre being the same, which also explain why means of production and distribution are the same. The rhetorical modes vary. Speech 1's is argumentative, and speech 2's is both argumentative and explanatory. When looking at differences in discourse, it makes most sense to compare the discourse on nuclear power policy. The discourse in speech 1 is business liberal. The economic benefits to nuclear power in the energy mix is foregrounded. There is no mentioning of what the downsides to nuclear may be. Whereas in speech 2, the discourse is constructed around the risk and risk assessment, along with the feelings that correspond to the Fukushima incident, which are feelings of empathy for the victims, and fear that a nuclear disaster may hit Germany. This is a comprehensive change and point to how the system of knowledge and belief towards nuclear power in the German Government has changed.

The most noticeable thing about intertextuality is how the same words are used to describe energy supply throughout. In speech 1: *"We want a climate friendly, secure and at the same time affordable energy supply in the future [2]".* And in speech 2: "*Decisions for a reliable, affordable, environmentally safe, thus secure energy supply in Germany [4]."*

It is remarkable how both politicians and the industries articulate the goal in the exact same way. The hegemonic articulation must mean that it has a lot of impact on the way energy concept is perceived by the wider public. Comparing the two speeches, it becomes clear how the sentence has maintained some words, where others have changed. Affordable and secure remain, however secure is foregrounded in speech 2, which is in alignment with the discourse of the speech (risk assessment). Climate friendly has become environmentally friendly, and reliable has been added. Overall, speech 1 draws on more intertextual features than speech 2.

The biggest difference between the coherence is that speech 1 is far more ideological. Instead of relying on ideology, speech 2 is more pragmatic and solution oriented. They can both be contested, in their own way, so neither of the speeches are completely heterogeneous.

Due to the genre, political speech, the speeches are produced and consumed the same way. I want to point out, that both speeches have the same principal; the Merkel Cabinet II. It seems that speech 2 anticipates the media coverage, where speech 1 does not.

6.4 Text practice of speech 1

Text practice takes departure in a chosen excerpt from speech 1.

"I have always argued for significant life span extension times. Essential are the economic measurable benefits: Longer life span times lead to lower electricity prices and lower CO2 pricing. Without longer operating times, the dependence would increase on foreign countries due to increased energy imports. There is certainly is no computer or scientist who could provide objective numbers about how long we should let the nuclear power plants run. A political decision is necessary for this. The energy concept can provide an incentive for this purpose. Therefore, it is rational to go about the theme of life span extension times of nuclear power plants parallel with the energy concept. [6]"

6.4.1 Cohesion

The clause starts with an emphasis on Brüderle's personal opinion with the expression of an explicit subjective affinity: *„I have always argued for (…)".* The modal adverb *always* adds a dimension of time to the first sentence, which underlines that this is something he has always meant. In this way, it gives him a certain amount of credibility, because it signifies he has not and will not change his mind about nuclear power. *Argued for* is used instead of said, think, believe, etc. By this, the argument becomes more neutral, because even though the affinity is subjective, to argue is objective.

The most predominant functional relationship there is between the sentences is elaboration; The sentences are connected in in a way where the second sentence in a clause, elaborates on the first. This becomes evident, as we see that the first sentence in the excerpt as a statement of opinion towards life span extension. The following sentences elaborate on, why he means this. He clarifies and exemplifies the economic advantage to nuclear power, which is the underlying assumption to the argument for life span extension. Consequently, the argument is built around an argumentative rhetorical mode, which first offers an opinion, then spells out three reasons to elaborate. This is a very classic way to structure an argument (Written for College, 2016). What is not so classic is how the reasons used to highlight the need for nuclear power are not spelled out or exemplified by statistics, facts, figures, etc. In the same way it also does not spell out causal relations. This is linked to something that will be treated below. Namely, a categorical nature to the statements throughout the speech.

Overall, there is a predominant absence of explicit cohesive markers. Therefore, the cohesion stems from the functional relationships between the sentences, which was just established as elaboration. On the other hand, it may be argued that the complete absence of the German word *weil* (because*)* in the text, adds to

the claim-like and categorical nature to the clauses. Few explicit markers make it harder for the interpreter to follow the development of causality in his argument. In the excerpt of the speech, there are two explicit markers: *that makes (dafür)* and *therefore (darum)*. The last sentence, initiated by *therefore*, is a conclusion to the clause's argument. In the speech overall, *denn (because) is used five times, damit (thereby) five times, and sondern (but) four times.* It may be ascribed to the written as spoken style, because usually not as many conjuncts in the spoken language. But is also may be ascribed to a taken for grantedness inherent in the producers of the text that these things are ideologically connected so they do not need to be explicitly connected.

For modality and strengthening the argument, the speech is predominantly uses the present tense. The use of the present tense implies a categorical modality. In this sentence *„Longer operating times lead to lower electricity prices and lower CO2 pricing.",* the strong coherence between operating times and its consequences becomes clear. It is stated in a way where we understand operating times as being equal to lower prices. It is assumed that lower pricing is a good thing, and it is assumed that the first consumer of the text (the audience) will not contest this statement. Because it is not elaborated what lower prices mean, in terms of how much lower the prices will be. The strong use of the present tense strengthens the argument. But on the other hand, it also generates a postulating mode. Hence, when the individual sentences are isolated from their context, they are claims, because condition and purpose are not dealt with.

Looking at auxiliary modal verbs in this excerpt, the use of them is most prominent in this sentence: *"There is certainly no computer or scientist who could provide objective numbers about how long we should let the nuclear power plants run."* For interpretation of auxiliary verbs, the context is important. In this context, the use of *should* is an expression of an obligation. In this way, the auxiliary verb helps establishing a categorical presumption that life span extension of nuclear power plants does not stand to be discussed. The message conveyed is that they should run longer, the only question is for how long. *Could* is used in a hypothetical sense, as indicated by the German tense. This underlines a possibility, but it is dismissed in the next sentence.

6.4.2 Grammar

The section on grammar covers three dimensions: transitivity (ideational), theme (textual), modality (interpersonal) functions of language (Fairclough, 1992). Modality has already been dealt with above, but it will be treated in more general terms here. Analyzing transitivity has the objective to find the choices of voice, the significance of nominalization processes, the expression of causality and attribution of responsibility (Fairclough, 1992). The process types of sentences will not be included, because they are very different in German than in English. Therefore, even though I translate to English, the main process types in English cannot be found in the German speeches.

6.4.2.1 Choices in voice

The active voice is used, when there is no specific reason for choosing the passive. This means that there could be a political or ideological reason for choosing the passive (Fairclough, 1992). There is no use of the passive voice in the excerpt, and as such, it is not widely used in the speech throughout. Sentence structure is mostly subject – verb – object, which places responsibility on the subject as the agent which acts upon a goal. Though, there is one sentence where the passive is chosen for a reason. It is the very first sentence of the speech. *"The energy supply in Germany will be changed significantly in the next years [7]."* It is left out who will change it, and how it will change. The motivation for choosing a passive here, could be that is places *energy supply* to initiate the sentence, and in this way forefronts is as the theme. But it can also be seen as a statement of presumption because Brüderle wants to act ahead in the political debate. Therefore, it is ascertained that it cannot and will not be discussed. The only question is how, and by what measures.

The dominant active voice in the speech, points to how responsibility is spelled out, but causalities are left vague because of the rhetorical mode and the nominalization process.

6.4.2.2 Nominalization process

Nominalization processes turn processes and activities into states and objects, and concretes into abstracts (Fairclough, 1992). There is a weighty significance of nominalizations in the speech, because words are used as entities. The nominalization contributes to the reproduction of the discourse about energy, because words are used in their stable and common-sense meaning. For example: *"Affordable energy is exactly a central requirement for our energy intensive industries, (…) [8]."* Affordable energy is used as a presumption and as such cannot (and will not) be contested. It is used in an abstract way, because there is no mentioning of how much affordable energy is supposed to cost, and for whom, all other things equal.

It is a dominant pattern that sentences are initiated by a substantive verb. An example from the excerpt: *"The energy concept can provide an incentive for this purpose."* In addition to the interesting aspect of the thematic structures (also dealt with just below) is how they become more obvious when the nominalization is the theme of the sentence. This makes them the object of attention and it sends a significant signal to the interpreter about what is important in the German energy debate. *Energy supply*, or from the example above *energy concept* are concretes that are dealt with in an abstract way. They are presented as common sense assumptions in way that makes it hard for the consumer of the speech to question them, because the process itself, the question of how the energy concept is constituted, is backgrounded.

6.4.3 Theme

The theme is the information dealt with first in a clauses and as such foregrounded or prioritized. They can give insight to common sense assumptions, patterns of social order, or rhetorical strategies. (Fairclough, 1992).

In addition, to the use of subject as theme, the pronoun *we* is used to initiate many of the sentences. And so *we* becomes the theme. In this way, Brüderle speaks on behalf of everyone, and includes everyone in the project. Therefore, it works as a rhetorical instrument to underline the need (realized through modal auxiliary verbs (see below)) for common action. But it also adds to a more a general tone in the speech, there are many places where one if left wondering about the concrete political steps and/or facts to support the argument for life span extension.

6.4.4 Modality

The aspect of tense has already been dealt with. Underneath, auxiliary verbs will be dealt with in overall frequency, followed by an analysis of adverbs and adjectives.

The factor of modality is very important, especially in the German language because it is built around them. But it should be duly noted that the translation of them are not always straight forward when translating from German to English. Here, they will be directly translated.

The most frequent modal auxiliary verbs are accounted for in the table here:

Table 2

Modal auxiliary verbs speech 1

Verb	Frequency
Must (Müssen / Muss)	18
Can / Is/Are able to (Können / Kann)	17
Will (Wollen / Will)	8

The verb *must*, in plural is the most frequent. Must is used to express a (strong) obligation, duty, or necessity (Lingua Press, 2016). As in these examples: "*We must make progress with the global climate protection [9]"* or *"We must identify the path [10]."* They express a necessity of action to find a way forward. At the same time, they also assume that the there is a problem for which they must find a solution. Information, about the what exactly the problem is and what the solution to the global climate protection is, is not expressed.

The second most frequent is the verb *can*. This is used to express an ability or an opportunity (English Page, 2016). *"We can only together solve the global challenges with climate protection [11]."* This articulates an

international orientation, where it is understood that German cannot act on its own. It points to a perspective of globalization.

The third most frequent verb is will, which expresses a willingness or a future willingness (British Council, 2016). As this example shows: *"We are an industrial country, and still will be in 2050 [12]."* The tone of the speech is very oriented towards the future energy supply, and as such does not address or evaluate the current state of it. In this way, the use of the modal auxiliary verb *will*, stresses the political goal and willingness of action of the future energy mix. It is however, not specified what the means are to get there. On the other hand, the sum of the most predominant auxiliary verbs implies strong intentions of action. By this, the use of these auxiliary verbs as opposed to *should*, *could*, or *might* make the force of the argument stronger.

6.4.4.1 Modal adverbs and adjectives

The modality features such as adverbs and adjectives give the interpreter of a text an indication of how the producer represents reality. Taken a point of departure in the excerpt, it is clear that modal adjectives are more used than modal adverbs. Only two adverbs are found: *always* and *certainly.* Adverbs are used to modify or qualify the verb (Education First, 2016). The absence of adverbs then works to make the statement more categorical, because less descriptive affinity is expressed.

There are relatively many adjectives compared to adverbs. Just in the excerpt the following are used: *crucial, economic, measureable, increased, objective, political, necessary, reasonable.* These are in line with the overall discourse of the speech, established as a liberal business discourse. The adjectives work in this way to legitimize the position towards nuclear energy. As well as, to speak in an affirmative manner about the issue at hand. In addition, it has an impact on how the message comes across and is perceived by the interpreter. The adjectives hold a strong influence on the tone of the speech as objective. Therefore, the use of these adjective seems deliberate. And the fact that they point in the same direction, makes the argument stronger.

In the degree of affinity, on the count of modality, it is clear that Brüderle is not trying to hide what he means. On the other hand, this would inherently be unconstitutional to the purpose of politics and political speeches. There are some instances, as noted in the beginning of this chapter, where he takes a point of departure in himself: *"That is for me also the direction for discussions of the future organization of the Renewable Energies Act [13]"* and there are other times where the modal auxiliary verbs determine the subjective affinity. On the other hand, the significance of nominalization processes can contribute to the interpreter's perception of how he is not being very explicit about concrete policy actions. This could be contributed to (at this point in

time) that the policy has not been financed yet. Therefore, he does not want to be explicit about a political promise.

6.4.5 Word meaning and wording

With the research question in mind, I have chosen the word which has the most relevance in terms of the nuclear power policy. The core question of the speech is the life span extension times of nuclear power plants; in German *Laufzeitverlängerung [life span extension]*. In 2010, this was a salient topic both politically and culturally. In the speech, the word is only used with one meaning. A meaning, which is inherent in the ideological assumptions of the discourse. Namely, that when Laufzeitverlängerung is used, it is assumed to be connected to nuclear power. In fact, the word appears only once in the same sentence along with nuclear power plants. The word is embedded as a signifier to nuclear power.

Looking the word up in the dictionary, it has only meaning : *"Extension of span time, operation time, especially with nuclear power plants."*[19] (Duden, 2016). However, it seems that the word can have other meanings, when other dictionaries are consulted. For example: *"(…) refinancing within a reasonable period, so that it would be necessary to extend the life of the loans and guarantees."*[20] (Linguee, 2016). The quote exemplifies how it is also used in financial language. I think, this could point to how the word was predominantly used in connection to nuclear power, and by this experienced a hegemonic application. In this period of the public and political debate of which this speech is a part, (summer and fall of 2010) its other meanings became backgrounded. Hence, the word has experienced a struggle of meaning. After the policy change where nuclear power was phased-out, the word could have lost its ideological assumption; the connection to nuclear power. The purpose of articulating a proposition where life span extension is assumed to mean life span extension of nuclear power plants becomes obsolete and it starts to appear in other contexts.

[19] Verlängerung der Laufzeit, Betriebsdauer, besonders bei Atomkraftwerken

[20] […] überschaubarer Zeit nicht zu erreichen sein würde, so dass eine Laufzeitverlängerung der Kredite der Bürgschaften erforderlich sein würde.

6.5 Text practice of speech 2

Text practice takes departure in an excerpt from speech 2.

"The point is exactly this – not, whether such a devastating earthquake can happen in Germany, a just as catastrophic tsunami like in Japan. Everybody knows that it cannot happen the exact same way. No, after Fukushima it is about something else. It is about the reliability of risk expectation and about the reliability of probability analysis. Because, these analyses built the basis on which the political decisions must be made; decisions about a reliable, affordable, environmentally friendly, that is secure energy supply in Germany. Therefore, I explicitly add: as much as I also argued in the fall last year within the lines of our energy concept for the life expansion times of the German nuclear power plants, so unambiguously I assert to this parliament: Fukushima changed my attitude towards nuclear energy [5]."

6.5.1 Cohesion

The clause starts by specifying the argument, with a negation (not whether). The negation is used to act ahead of an expected criticism. It presupposes an attitude from the opposition to the nuclear phase-out, whose argument would be something in the likes of: it is naïve to assume that a tsunami could happen in Germany, so why would we even react politically to the Fukushima catastrophe. In essence, an argument which could contest the reason why the government made this hasty decision on the basis of something that happened half around the world under circumstances which could never occur in Germany.

The excerpt starts out with the theme Fukushima, which acts to forefront it as the main reason for the phase-out. The predominant pattern of the excerpt of the speech is the development of an argument which leads to the conclusion *"Fukushima changed my attitude towards nuclear energy [4]".* The functional relationships are predominantly *enhancement*. This is in line with the structural development of an argument sentence by sentence. The first sentence enhances the meaning of another by qualifying it in different ways (Fairclough, 1992). Specifically, it is obvious in these sentences*: "It is about the reliability of risk expectation and about the reliability of probability analysis. Because, these analyses built the basis on which the political decisions must be made (…)".* The explicit marker *because* acts as conjunction which establishes a causal relationship between the two sentences. It adds to explanatory purpose of the reason why these decisions are necessary. Furthermore, the choice to use *must* as the modal auxiliary verb in this context is an addition to the underlining of the necessity, as *must* expresses a duty or necessity towards a goal.

There are sentences where the enhancement works to express conditional relations. This example: *"If the renewable energies in the future ought to take over a big part of the energy supply even faster – 35 % is still more than a third of the future electricity consumption -, then we must consequently regard the cost efficiency and market integration [6]."* It has an *if A then B* (Fairclough, 1992) relationship. Again the choice of modal auxiliary verbs in *ought to* and *must* underline the articulation of necessity, as they both express this. This conditional relation is being used more times throughout the text – also as a figure of speech in quotation signs: *"Because we know, "you cannot say A, without saying B" [7]"* and *"You may finish what you start [8]."* These are both explicit expressions of the *if A, then B* relationship in the argument, which underlines the necessity for this policy direction.

The functional relationship between the sentences and clauses work as conditions for the decision to phase out nuclear power. The rhetorical mode is an explanatory argumentation with a process mode of analysis (csub, 2016). Overall, the speech follows a series of steps and stages, which then are explained in parts and causality. The steps are explicit in the *firstly, secondly, thirdly* mechanism, which is used two times. The steps are used to explain and give direction about the policy action. Or in other words, the speech underlines *this is what we are going to do.*

The functional relationship between the sentences are connected by explicit markers, in the form of conjunctions. In the excerpt we find for / because *(denn),* therefore *(deshalb)* as much as *(sosehr – so).* The use of conjunctions underline the rhetorical mode described just above. They tie the argument together as it develops and makes it easy to follow for the consumer and interpreter.

6.5.2 Grammar

The section on grammar is firstly concerned with what corresponds to the ideational function. It is seen in the structure of the sentences how systems of knowledge and belief is signified through the language. Analyzing transitivity has the objective to find choices of voice, the significance of nominalization processes, the expression of causality and attribution of responsibility (Fairclough, 1992).

6.5.2.1 Voice

The active voice is used, when there is no specific reason for choosing the passive. This means that there could be a political or ideological reason for choosing the passive (Fairclough, 1992). The speech has a mix of passive and active voice. But passive sentences are the most interesting ones. Passive clauses are specifically predominant in the technical – legal discourse, where the new policy is presented. The passive voice is in alignment with this discourse, as it adds to the legal tone of it. An example is: *"The nuclear law is going to be amended [9]."* The reason for choosing passive clauses here can be attributed to two factors. The tense of

the clauses is the future tense. And the agent who acts upon these policy goals, the government, is self-evident.

An important thing to address is whether the agency, causality and responsibility is explicit or left vague. In passive clauses the agent is omitted or left vague. As stated above, there are many passive sentences, where the agent is self-evident. The agent who acts in the sentences is the government or in some cases the Federal parliament. This means that even though, the agent in the sentence is left out or is vaguely represented, the "holder" of responsibility is still explicit. It is the government who will carry out these policy changes. Causality is explicit due to the rhetorical mode of the speech. This was established in the cohesion section above.

6.5.2.2 Nominalization process

The nominalization process is not very significant is this speech. The reason why it is not, is attributed to the rhetorical mode. There are many political concepts, but they are explained and expanded upon, which makes them concrete entities.

6.5.3 Theme

The textual function of discourse focuses on how information in the text is foregrounded and backgrounded.

Theme in also concerned with discerning a pattern of thematic structures. The structure of the pattern is classic. It resembles a structure of a newspaper article. The first sentence in a clause denotes the theme, and the last sentence is a conclusion to the it.

The overall structure of the speech starts with Fukushima. In this way, the catastrophe in Japan is foregrounded as the purpose for the speech and hence the decision to phase out nuclear power. On the other hand, Fukushima may be seen as the incentive to introduce the new policy.

Only in the beginning of the speech, the issue of phasing out nuclear power policy is foregrounded. The emphasis on the future energy supply says something about how issues are prioritized. If an issue takes up more space in the text, it reveals that this is an important issue to the government. They become foregrounded to issues not treated as detailed. The prioritizing of issues and how much space they take up, is a representation of the political reality for the government. Even though the speech is about the phase out of nuclear power, a major part (3/4) deals with the implementation of renewable energies.

6.5.4 Modality

6.5.4.1 Modal auxiliary verbs

Through modality it can be investigated how social identities and social relationships are set up in the discourse. Modality reflects the interpersonal function of language.

The speech has a high frequency of modal auxiliary verbs.

Table 3

Modal auxiliary verbs in speech 2

Verb	Frequency
Will (Wollen)	14
Shall, Should, Ought to (Sollen / Soll)	15
Can / Is / Are able to (Können / Kann)	13
Must (Müssen / Muss)	17

The most frequent modal auxiliary verb is *must.* Must is used to express a (strong) obligation, duty, or necessity (Lingua Press, 2016). *"In Fukushima we must take note of, [10]"* and *"Who recognizes this, must adhere to the necessary consequences [11]."* The application of *must* is an expression of the premise for the decision to phase-out nuclear power and consequently speed up the implementation of the Energiewende.

The second most frequent verb is *shall / should / ought to*. The high frequency of this can be attributed to Merkel's role as chancellor. She has the mandate to set the policy direction. In this sense she realizes a chancellor discourse in her articulation of the affinity and certainty in what is said. In the same way a CEO or a manager of a company would. Therefore, she speaks as a social actor, where she sets the agenda.

6.5.4.2 Modal adverbs and adjectives

Taking a point of departure in the excerpt, there are more adjectives than there are adverbs. However, only once the adverb is used to modify the adjective: *"a just as devastating earthquake".* The interesting thing here is the use of *exactly* (genau and genauso) three times, in order to underline grammatically that the exact same thing could not happen in Germany. To describe Fukushima: *e.g. devastating, catastrophic* are used. These are weighty words. Then the adjectives change, when she describes the future energy supply: *reliable, affordable, climate friendly, secure*. The adjectives reflect the different discourses found in the speech.

Merkel is like Brüderle very explicit about her affinity with the propositions. There is a predominant use of subjective statements, where it cannot be misinterpreted what she means. There are no examples of hedging and the statements are strong. The high degree of affinity reveal something about the power structures in German politics. This is elaborated in the discussion.

6.5.5 Word meaning and wording

For this analysis I chose key words, which have the most significance for the discourse on nuclear power policy.

The main theme is the energy supply of the future. The speech discusses the new architecture of it. The German word *Energieversorgung* [energy supply] has a very stable meaning potential. The dictionary defines it as: "*supply of energy or energy carriers"* (Duden, 2016). The stable meaning of the word means that it is used with the same common sense assumption by everyone. The word is modified through modal adjectives and adverbs, which adds to an emphasis of a future orientation. *Energieversorgung* is used mostly in association with some form of future orientation: of tomorrow, future development, etc. This is exemplified by the headline: *"The road to energy of the future [13]."*

Energy supply implies a political discussion on the construction of the energy mix. Until this speech, nuclear power had been a significant part in it. Since nuclear power is longer a part of energy mix, it should also be phased out of the discussion if self. I believe that this has already happened to some extent, because the major part of speech deals with renewables. This discussion will be elaborated in the social practice section.

The speech contains a new lexical item, which is both interesting and a significant point of discursive change. The new word is *Zukunftsstrom* [future/electricity]. The word is not defined in the Duden dictionary (Duden, 2016). Which implies that it has not yet become embedded in the German language. But it is not sure it will, because it has to go through a struggle of meaning, where the meaning potential is explored in different kinds of knowledge structures. A google search only yields 753 results (google.de, 2016). This is very few results. It points to how the word is not widely used in the German language.

6.6 Comparison of text practice

There is a difference between the functional relationship of the sentences. In speech 1, the first sentence in a clause, elaborates on the next. But there are not many explicit markers. The elaboration is not spelled out by facts, but by more statements. This means that the functional relationship does not establish causal relations, but rather categorical statements. In speech 2, the functional relationship is enhancement. The explicit cohesive markers tie the argument together and establish causal relations. Furthermore, there is a widely used emphasis on conditional relations, which underlines the assumed necessity for a new policy direction and the conditions for the decision to phase-out nuclear power. In conclusion, speech 2 has a more explicit cohesion.

In speech 1 the active voice is preferred, whereas in speech 2 there is a mix between the active and the passive voice. The passive voice is dominant in the legal discourse, as it adds to the legal tone. But even though the agent is omitted, it is self-evident that the German government acts on the proposals. It is different from speech 1, where causalities are left vague due to the rhetorical mode and a significant nominalization process.

In speech 2 there is no noteworthy nominalization process. This denotes a major discursive significance because nominalization is very significant in speech 1. Nominalizations are presented as common sense assumptions, which contributes to the reproduction of the discourse about energy, because words are used in their stable meaning.

The use of the present tense to imply a categorical modality is quite widely used in speech 1. However, speech 2 draws on many more grammatical tenses.

The nominalization process is obvious in speech 1 as they initiate many sentences as the theme. In addition, the use of *we* adds to the importance of the energy concept as a common project. The themes are differently structured in speech 2. It is noticeable that Fukushima is foregrounded as purpose of the speech, but most of the speech does not deal with nuclear power as such, rather the new energy concept with an emphasis on renewable energies.

In both speeches the use of adjectives is more frequent than adverbs. The adjectives also shape the discourse: In speech 1, the adjectives are objective business verbs which legitimize the position on nuclear power. In speech 2, the verbs are emotional and descriptive of feelings towards nuclear power.

There is shift in which modal auxiliary verbs are predominantly used. The biggest difference is the use of *ought to* and *must* or *to be able to*. Speech 2 uses many assertive verbs such as *ought to* and *must* in a higher degree than speech 1, where *to be able to* is used significantly more. It is already possible to reveal a concrete

change in an important modal auxiliary verb, which is very interesting. In speech 1, the sentence was structured around will (wollen): *"We will a climate friendly, secure and at the same time affordable energy supply in the future [2]."* However, in speech 2, it has changed to should (sollen): *"The energy of the future should be more secure and at the same time reliable, economic and affordable [14]."* This is very significant for three reasons. Firstly, this sentence is the dominant feature of hegemonic intertextuality. Secondly, because *should* expresses relatively more affinity with the expression than *will*. Because *will* can be seen as an intention, whereas *should* determines *this is what we are going to do*. Thirdly, because of the use of *should* asserts Merkel's role as chancellor and shape her identity as the decision maker. In this way, the different modal auxiliary verbs reveal power structures in politics.

The affinity is explicit in both speeches. This can be attributed to the genre, political speech. The purpose is to gain support for one's propositions, and therefore are explicitly stated.

Culturally and politically salient words like *life span extension times* and *energy supply* are used in their stable meaning as signifiers to nuclear power. In both speeches there is an outlook towards the future, which seems to be the focus of the discussion on energy supply. Most importantly, a new word is created in speech 2: (Zukunftsstrom) [future/electricity], which has not yet become embedded in the German language.

6.7 Social practice of speech 1

Many aspects of social practice have already been dealt with throughout the analysis of both speeches. As also mentioned earlier, the levels are not separable in practice, only on theory. Specifically questions of ideology and hegemony have been raised. This section will elaborate on them and discuss the elements of social practice in order to establish how the discourse has changed.

6.7.1 Social Practice

Speech 1 is a speech which is a part of the debate leading up to the decision to expand the life times of nuclear power plants. Its purpose was to gain support in the industry to this decision. Up until 28. September 2010, the policy was still to phase-out nuclear power in 2022 (Deutscher Bundestag, 2010). But the Merkel Cabinet II had worked hard for a circumvention of the phase-out. The decision to phase-out the phase-out was a part of the new energy concept, which is also articulated in speech 1. However, the Merkel governments, cabinet I and II have pursued the same policy on renewables, proposed by the Schröder government (SPD/The Green Party) in 2000 (the EEG). The only major difference was that the new energy concept in 2010 still relied on nuclear power to bridge the gap towards the renewables by ensuring cost-effectiveness and securing supply. Therefore, the energy concept of 2010 relied on expanding the lifespan of reactors to twelve production years on average, which meant a closing of the last nuclear reactor in 2036 at the earliest. This expansion was implemented in 2010 (Huss, 2014).

As the speech is only a part of the debate leading up to the phase-out of the phase-out, what Fairclough calls the extra-discursive outcome (Fairclough, 1992), or what I call the causal effect on reality of the text, is not major. The speech does not directly affect a policy change. But the speech argues for a life span extension, which we know happened. However, could the decision have been made without the discursive force of this speech? Probably yes. The speech was only a small fraction of the public and political debate. And as such it has been established in the section on discourse practice that in terms of intertextuality, the speech was more transformed out of the debate, than in to it. It did not bring in new arguments or creative language. Nor was it widely used in intertextual chains in the media afterwards. The reproduction of the argument towards an extension of nuclear power plants, is a part of the hegemonic discourse on nuclear power. It is hegemonic within the frames of the German government, which (in theory) democratically should be seen to represent the majority of public opinion and hence reflect their attitude towards nuclear power.

6.7.2 Orders of discourse

The social practice of the speech will now be evaluated in terms of how conventional or innovative its elements are. The elements of orders of discourse are genre (ways of acting), discourse (ways of representing reality) and style (ways of being as a person in a role).

Genre The genre political speech has a very significant impact on the way it is written and the circumstance the speech is held under. The speech is held in front of a very specific audience and this is a constraining factor. A part of the genre is the argumentative rhetorical mode. This is expected of political speeches, because they should be explicit about how they see reality and how they want to construct it in the future. These formalities attributed to place and genre and rhetoric are constraining the discursive creative possibilities for the speech.

Discourse The discourse is a liberal business discourse. The speech sees reality through a liberal political perspective. This means that the speech is restrained by a political ideology, through which all arguments are shaped. It can be seen as a form of bias, which constrains the creative possibilities, because options in language is restrained by a premise of what can be said, and what cannot be said. In this way, it limits the persuasion power of the speech.

Style The style is Rainer Brüderle as a person and his position in the government. He can say things in his role as minister for Economic Affairs and Energy, that other ministers cannot. The liberal political ideology shapes the entire speech, and in this sense also contributes to the reproduction of a conventional discourse.

In conclusion, Speech 1 is relatively conventional in its social practice.

6.7.3 Ideology and Hegemony

There are certain elements of intertextuality that the speech contributes to reproduce. It uses embedded words within the German language which have a stable meaning. In this way, the language in terms of articulation and grammar is not creative.

A creative option for a new structure of language would have been to denote the life span extension of nuclear power as an *Atombrücke* or *Kernbrücke*. Instead there is a reproduction of the word *Brückentechnologie* [bridging technology]. He refers to the word without mentioning it, which implies how the word has been ideologically embedded with this exact meaning throughout many years of use. This is how Merkel has described nuclear power as a way to bridge the gap in the transition towards renewable energies since 2005. It describes the necessity of the continued supply of nuclear energy. This word *Brückentechnologie* has been adopted and is widely used by the media as well, for example by Frankfurter Allgemeine Zeitung (FAZ, 2010) and Focus (Focus, 2009). It is defined in the German dictionary *Duden* as a technology used in transition periods because there are no other alternatives, and or the alternatives are imperfect and not fit for the future (Duden, 2016).

It contributes to reproducing the hegemonic argument of life span extension times. It is hegemonic because it is the government's policy. The government should represent the majority of German voters' interests.

Looking at public opinion as a benchmark for hegemony, or in other words, the majority position to nuclear power, we know that in 2008 it came to a tie between opposition and supporters. However, in 2010 in the aftermath of the decision to extend the lives of nuclear power plants, Germany experienced the largest uprising in nuclear opposition in many years. The decision to extend was contested tremendously by German citizens (The Sydney Morning Herald, 2010), who had hoped for a phase-out and hence a maintaining of Schröder's nuclear consensus from 2000. It points to that the hegemonial discourse, where nuclear power plants are seen to benefit society economically (and the issue of risk is backgrounded) has reached its equilibrium in the synchronic cut in time of which this speech is a part. But the equilibrium is instable – and here discourses enter a struggle. This is elaborated under social practice of speech 2.

6.8 Social practice of speech 2

6.8.1 Social Practice

The speech can be seen as a response to the Fukushima incident in Japan. The speech also directly refers to this incident and points to this as the reason why Angela Merkel's attitude towards nuclear power changed.

Speech 2 has a significant causal effects on reality. As such, the speech carries with it a very large scaled change for Germany, because the energy mix is substantially changed. It is known for a fact that the policy changed, but the question I seek an answer to is how the Fukushima incident changed the discourse. The speech received a lot of attention in the media. Therefore, a long intertextual chain is transformed out of this speech. The speech draws on intertextual chains that deal with the governmental presentations of the policy. The framework for the policy on the implementation of renewable energies has been discussed in German politics since the first EEG in 2000 and been amended many times (Erneuerbare Energien, 2016). This means that much of the content of the speech is not new in terms of renewables, but an amendment of an existing policy. A policy we now know as the energy transition.

As we know from the former section on social practice, there was a tremendous increase in the opposition to nuclear power along with the decision to extend the life span extension times in 2010. I also touch upon how, the hegemonic discourse of speech 1 had reached its equilibrium, but these equilibriums of hegemony are not stable. After the Fukushima incident, the opposition grew even larger as it reached over 80 % (see 4.2.1). Therefore, it can be argued that Fukushima disrupted the hegemony, alongside with the growing public opposition. This view is in alignment with the discourse of speech 2. It relies on feelings and empathy, but most importantly it foregrounds risk assessment. Thereby, it establishes a new hegemony due to Fukushima: A hegemonic articulation by the government, where risk of producing nuclear power is deemed to be greater than the economic benefits.

6.8.2 Orders of discourse

The elements of order of discourse, will be evaluated in terms of their conventional or innovative discursive properties.

Genre The speech does, in the same way as speech 1, not deviate from the conventional genre of a political speech. The formalities of the speech and the frames for a political speech is constraining the creative options for language of the speech.

Discourse Seen in relation to what we know the discourse was before Fukushima in speech 1, the discourse found in speech 2 is not conventional in terms of reproducing the hegemonic discourse of the government. It does not reproduce the discourse found in speech 1. But is it innovative? Nuclear power has been discussed since 1960'ties, so the issue of risk and risk assessment has certainly been a part of the discussion. Especially every time, there has been a nuclear incident like the one in Fukushima. Historically, the opposition to nuclear has always been highest in the time after an incident. Therefore, I think the discourse of risk has long been an argument in opposition to nuclear power, both among the public but also politically, e.g. by The Green Party: *"Nuclear power is an unpredictable technology of risk"*[21] (Die Grünen, 2016). Although, in terms of governmental discourse it has never before been an argument of CDU/CSU. As mentioned above, Fukushima disrupted the hegemonic discourse and consequently the oppositional, minority discourse was adopted by the Merkel cabinet II. Therefore, I cannot call the discourse of speech 2 new or creative.

The change in hegemonic discourse corresponds to a change in system of knowledge and belief. This change becomes explicit in the statement: *"Fukushima changed my attitude towards nuclear power."* This change of belief should imply that the discourse should change as well. If we look at Merkel's own statements from before speech 1, they correspond to the discourse found in speech 1. She earlier believed that nuclear power was supposed to be bridging of technologies to bring the country forwards.

Style In terms of Merkel's role as chancellor it is obvious that she can say some things nobody else in German politics can. This means that she holds the power to policy change, because she has the mandate to present it. Modal auxiliary verbs reveal the chancellor power in the textual function of ways of being. The high frequency of *ought to*, *shall* and *must* determine the force behind the statements.

6.8.3 Ideology and hegemony

The new energy concept is foregrounded over the issue of the phase-out, simply because the speech spends much more time on the new concept. In either of the speeches discussions on pros and cons of nuclear power, do not take up much space. They rather deal with how the future energy mix should and will be

[21] Atomkraft ist eine unberechenbare Risikotechnologie

constructed, respectively. I think, the nuclear debate has been outdated or out-debated, due to many years of hegemonic struggle between the arguments where technological advancement and economic benefits weigh higher before Fukushima, where the argument of the assessment of risk weigh higher in the belief system after Fukushima.

The backgrounding of a debate of nuclear power and a foregrounding of the future energy system may correspond to how the societal situation (public opinion) is outside of the political institutions. When nuclear is phased-out in (social) practice, the discussion of it becomes obsolete in politics. Looking at how much space, the new energy concept takes up in comparison to nuclear power, this has already happened to some extent. The ideology in terms of how the energy mix is signified through language, has to undergo a change. In the future, the word *energy mix* (Energieversorgung) will also go through an ideological change. Before speech 2, the common sense assumption of the word was that is contained nuclear power. The ideological meaning is going to change, because nuclear is taken out of the mix and is replaced by renewables. In other words, the way energy mix is understood and what it denotes will change in German social practice.

I have spent a lot of time on specific sentences which are strikingly similar. They are widely used to denote energy supply: [2] and [4][22]. The sentences, in all of their editions, are expressions of a hegemonial discourse on energy by the government in Germany. They tell us about the ideologies applied in the German debate; about how the discourse is articulated and how the hegemonial discourses is infiltrated at levels of German society; in politics and throughout the industries. The ideologies of specific words denote what politicians such as Merkel and Brüderle, deem to be most important for the end-consumer of the energy supply. Note that end-consumers are voters as well.

Most ideological significant and different is the shift from climate friendly in 2010 to environmentally friendly in 2011. Traditionally, climate denotes the weather as a circumstance in an area (Duden, 2016). The entire world can affect the climate with their CO2 emissions. Whereas, environment is a more tangible concept. It involves human action in terms of what you and I do to harm or protect nature. The environment experiences the consequences of human action faster than the climate. The environment is more directly affected by our actions. Therefore, the concept of environment is closer to human action than the climate. The shift may be explained by an increased focus on the immediate effect of renewable energies in the energy mix. Implementation of renewable energies bring us closer to the environment, because renewables are by

[22] Speech 1: *"We want a climate friendly, secure and at the same time affordable energy supply in the future."*
Speech 2: *"Decisions for a reliable, affordable, environmentally safe, thus secure energy supply in Germany."*

themselves a part of the environment and do not harm it. In this way, the change from climate friendly to environmentally friendly corresponds to the change of policy from nuclear and fossil fuels as exploration of nature, to renewables as greener energy production.

Furthermore, the word *reliable* has been added to the sentence. The addition of *reliable* tells us something about the wish to be able to trust energy production. The discourse on nuclear energy in speech 2 relies on risk and risk assessment. This means that trust in nuclear technology has been lost due to the Fukushima incident. This corresponds to what Fairclough calls *Technologization* of modern societies. *"It is a large scale tendency towards increasing control over more and more parts of people's lives"* (Fairclough, 1992, p. 215). The phase-out of nuclear power is a state intervention into the energy mix in order to control risk in the production of energy. Let me exemplify: The government's pro argument before 2011 was to use nuclear as a "bridging of technologies". In speech 2: *"After Fukushima, we had to realize that even in a high-technology country like Japan, the risk cannot be controlled [15]."* The trust in nuclear technologies has disappeared because of Fukushima. Instead the trust in put in technologies and innovation of renewable energies. Hence, Technologization is still the tendency in the overall societal discourse. But, as mentioned before, the previous minority discourse of risk has become the hegemonic. In this discourse the belief is that the uncontrollable risk in the production of nuclear energy supersedes the economic benefits.

6.9 Results

Evidence of discursive change will be presented, as ways in which the Fukushima incident changed the discourse most significantly.

From Business to risk First and foremost, there has been a change in the discourse on nuclear power. In speech 1, the discourse was built on arguments that foregrounded the business aspects of utilizing nuclear power. The weight was put on the economic benefits. This discourse was compared to the nuclear discourse in speech 2, which foregrounded the risks of nuclear power. The assessment of the risk was deemed to be greater than the economic benefits. Furthermore, it was clearly stated that Fukushima changed the chancellor's attitude towards nuclear energy. The trust in the security of nuclear power plants had been damaged to the widespread consequences of the Fukushima incident.

Phasing-out The debate about nuclear power is phased out along with the decision to abandon it in the energy mix. The speeches do not discuss pros and cons of utilizing nuclear. Instead the role of fossil fuels and the implementation of renewables take up space in the presentation of the new energy concept.

Rhetoric's The rhetorical mode changes: speech 1 presents categorical statements and relates them functionally with cohesion built on elaboration. The rhetorical mode of speech 2 is constructed around a cohesion built on enhancement, where decisions concerning the phase-out nuclear power are spelled out. In addition, there was a strong focus on conditional relations. Many arguments are built around an *if A, then B* structure. It underlines the necessity of the new policy direction: *when we phase-out nuclear, we must do this.*

Language innovation There is creative and innovative language in speech 2. Such innovation is one of the most significant signs of discursive change, because otherwise all language are reproductions of known language structures. The new word is *Zukunftsstrom* [future/electricity] and has not yet become embedded in the German language.

From intentions to Energy Transition The has been a change in change in modality. In speech 1, modal auxiliary verbs articulated intentions (will) and options (can). In speech 2, the auxiliary verbs are more assertive. This is in alignment with how the speech presents decisions. By using ought to and must, the legal discourse used for presenting the new energy concept emphasizes *this is what we have to do.*

Sustainability The hegemonial sentence which denotes energy supply has undergone an ideological change. Most important is the change from climate friendly to environmentally friendly. It means that the view on the consequences for energy production has moved closer to the consumer. And how both producers and consumers have a responsibility in securing sustainable energy production - not just the government.

Assumptions The use of nominalization processes is significant in speech 1, whereas in speech 2 the words are explicitly spelled out in a context of concrete policy steps. This is a significant change as nominalizations contribute to reproducing a discourse on energy, which relies on common sense assumptions. The change consists of denoting an explicit meaning to the words.

7 Discussion

The discussion chapter will deal with three topics. Firstly, the aim is to conceptualize the matrix between social practice and discourse. The important question to ask in this regard is, how we can establish causality in how the Fukushima incident has affected the discourse. Secondly, the results of the analysis will be evaluated normatively, as it is one of the critical elements of CDA. It will be juxtaposed with realpolitik seen from scholars' Buchan and Huss point of view. Both are relatively critical towards the decisions made post Fukushima and question the political intentions. Lastly, I will discuss the theory and assess how well it worked.

7.1 Social practice matrix

The social practice matrix allows me to engage in an explanatory discussion of change. The possible outcomes of the relationship between social and discourse practice will be examined. It deals with how the texts stand in relation to the structures surrounding them: a change of policy.

A conceptualization of the outcomes looks like this:

Table 4

Matrix

	Discourse in speeches	
Practice (policy change)	+ / +	+ / -
	- / +	- / -

+ / + Both discourse and practice has changed

+ / - practice changed, but discourse did not

- / + practice did not change, discourse did

- / - Both practice and discourse did not change

As the figure illustrates, there are four possible outcomes of the analysis. We know, for a fact, that the policy changed. Nuclear power is phased out by 2022 and the first steps have already taken place. Concretely, the

electricity generated from nuclear energy is now down from 25% in 2011 to 16 % in 2016 (World Nuclear, 2016). Therefore, we know that practice has changed. And therefore we can disregard the bottom cells of the matrix.

Looking at speech 1 as a baseline discourse, then it has just been established that the discourse in speech 2, has changed on seven parameters. Therefore, the outcome of the matrix between social and discourse is found in the upper left cell.

The question is; is there causality between the practice change and the discourse change? As the matrix show, both the social practice, and the discourse changed. Causality can be established quite normatively, by the fact that it was explicitly stated in speech 2: *"Fukushima changed by attitude towards nuclear power."* This means that the outcome of the social practice matrix and this statement show, within the frames of CDA, that there is a causality between the Fukushima incident and the change in discourse. But, there are certain limitations to this causality. Firstly, the two speeches are relatively close to each other in time; they are only a year a part. As mentioned before, causal change between discourse and reality is not automatic (see section 3.2.2), so normally we cannot count on it to happen right away. The change found here, happened right away. But the problem is that the change in policy is, at the time of speech 2 (June 9), only a proclaimed change. The vote on phasing out nuclear power is three weeks later on June 30 (Deutscher Bundestag, 2011). But most importantly the change is not implemented fully before 2022. Therefore, it may be argued that the speech phases out the policy in a social constructed reality by using a discourse of risk to legitimize the decision. Hence, the causal effect of Fukushima on the discourse is a premature change because the discourse changes before reality does.

Normatively speaking, Fukushima's causal effects on the nuclear power policy can be seen in many ways, besides the way, it was just established. It can also be seen as an incident that had a real direct causal effect on German nuclear power policy, not just the discourse. Or it served as a political inspiration to change something that may or may not needed to change. From an inspirational point of view, the consequences of Fukushima would work as a notion that nuclear power is dangerous. However, the same circumstances, specifically in terms of human error, technology, and a natural disaster could most likely not be present in Germany, the exact same way, they were in Japan in march 2011.

We know that discourse is constructed and it constructs a social reality, where a phase-out is necessary. But is there a dualism, where a political reality is not revealed through CDA, because it exists outside the language? The political reality, as I understand it, is shaped by the power structures of the institution (federal parliament) and the holder of the power mandate (the chancellor). The most powerful mandate is Merkel's. But did I reveal her true intentions through CDA. The short answer is *no*. because I have looked at her socially

constructed reality, where she has shaped the reality surrounding the decision to phase out through language.

The results of the CDA are limited and do shed light of all aspect concerning the phase-out. The findings do not reveal all power structures of realpolitik. Then in order to evaluate the results normatively, I must look at another level of interpretation of the intentions working behind the phase-out. These other interpretations are analyses by peer-reviewed scholars. They have critically investigated what the political motivations might have been.

According to Huss, the political motivation for the security maintenance of the nuclear power plants was beyond the Fukushima catastrophe. Due to a public consensus seen as a rise in support to The Green Party, who had long been recognized for their anti-nuclear stance, and due to the upcoming regional elections, where the government could lose crucial parliamentary decision-making power, the coalition government immediately decided to close down the seven oldest plants (Huss, 2014). The security investigations of the nuclear power plants attested that they were as safe as ever. Nevertheless, nuclear power and especially safety was a hot topic during the regional elections of 2011. SDP and The Green Party won in two very large states; Rhineland-Palatinate (Landtagswahl, 2011) and Baden-Württemberg (Wahlen, 2011). In spite of the outcome of the investigations and due to the outcome of the recent elections, the government withdrew the lifespan of the nuclear power plants (Huss, 2014).

Buchan looks at the decision from a competitive point of view and argues that the change can be seen as a first mover advantage; Germany is a first mover on the renewable's market, especially in solar PV's where it rivals the US and China. Germany employs a very large group of people (370.000) in this industry, which makes it beneficial to employment, as well. The subsidies of renewables have created very good market conditions for many small start-up companies to strive in the industry. If it continues to grow and expand, the nuclear phase-out will become an economic success and give Germany a competitive advantage in the future (Buchan, 2012).

Looking at the change from this level of meaning, we look at it from a more strategic political point of view. In political science, we recognize that elections may be highly motivational for political actions. Therefore, we may hypothetically assume that this policy turn-around makes sense as a starting point for an electoral campaign leading up to the general election in September 2013. Since the new environmental policy is both a long term project as well as hot topic in political electoral debates, it is presented very timely.

As Huss also argues, both CDU and FDP was struggling in the regional elections (Die Zeit, 2016), so they needed a winning cause which could serve many purposes at the same time. An implementation of a nuclear

phase-out may be seen as such a cause. It has a long durability, because the implementation and transition take many years. With CDU/CSU's and FDP's new anti-nuclear stance, it was a political springboard to gain some lost votes in the general election. The nuclear power policy became a new cross-party cause which united all parties in the Parliament. The only thing, the political parties disagree on, is how the bridge the gap. Some argue it should be renewables while others see utilization of fossil fuels as the best way (Tagesschau, 2013). Using Fukushima in the nuclear phase-out, Merkel set a broad agenda, where an agreement beyond ideological party lines was made. In this sense, the phase-out became a political means to move and shape a new perception of CDU, from traditional and conservative into a future-oriented and visionary, cooperative party. In addition, Merkel presented the energy concept as if it was a new idea. However, in reality, it is very similar to Schröder's (SPD / The Green Party) nuclear energy consensus from 2000 (see section 4.1). Only the implementation of renewables is speeded up and the utilization of fossil fuels downplayed. But the phase-out year, 2022 is the same.

7.2 Limitations of the analysis

In this last section of the discussion, I will evaluate and assess how well the theory worked. There are certain limitations to CDA, because it only tells us something about a constructed reality which is shaped by the producer's intentions to shape a perception of reality.

One of the purposes of CDA is to reveal power structures of social practice through the analysis. But did I reveal power structures? The analysis itself, revealed it in terms of modality and the texts' causal effects on their social practice contexts. I regard the element of orders of discourse, style is most important to power structures in politics. Therefore, a CDA of politics, should give this aspect more attention. Merkel's speech is more powerful in terms of causal effects, than Brüderle's. Because Merkel holds the political mandate to articulate the direction. Brüderle held a mandate, where he could express intentions. Therefore, there is a difference in their discourses which can be accounted for by the difference in political mandate they hold. Especially Brüderle's liberal business discourse can be explained by his role as Minister for Economic Affairs and Energy Then, on another level, the discourse in speech 1, can be explained by power structures in realpolitik, personal as well as party interests other than discourse.

Even though the CDA has fulfilled its analytical purposes, it is a very long and complicated process. The concepts in CDA take time to understand. The RQ is in itself very narrow in scope. But even so, the analysis takes up a lot of space. In the critique of CDA (section 3.3.5) Jäger suggests to go about the problem by conducting more, but smaller research projects as a part of a larger process (Wodak & Meyer, 2001). But CDA is limited in this sense, because even smaller research projects require a lot of time. I think discourse analysis should be used as a smaller part of a bigger analysis, where the limits of it are more narrow. So an analysis

would say something the articulation of a subject in conjunction with a more realistic analysis of socio-economic factors or institutional factors. This would increase the scope of the practical results as they would say more about reality on more levels than the discursive. It would also add to the application possibilities of the results. Because, the results found here have limited practical application as they only tell us something about a constructed reality.

The analysis was quite extensive and time consuming in that many variables at all three dimensions in the three-dimensional framework had to be interpreted. In this sense, it surprised me how much text I could produce about the speeches. The three-dimensional is more extensive than it at first sight appears to be. I intended to include as many relevant factors and elements as it was possible within the scope of the thesis. In this way, the scope of the framework was utilized almost fully. A point of critique to this could be how CDA requires for a very long analysis and a lot of time in order to answer a quite narrow research question.

Discourse is traditionally used to find the voice of a minority. Although here, it is used to analyze the government's, which should represent the majority of a population. Fairclough has a strong focus on the Marxist tradition of social conflict, where he uses his approach to CDA to find linguistic manifestations in discourses. Specifically, elements of power and dominance, where the minority is "losers" within social life (Fairclough, 1992). Most discursive research is within psychological and feminist studies, where the dominant structures are critically reviewed. In this sense, the CDA method is applied untraditionally here, because I have only been concerned with the dominant and hegemonial discourse, benchmarked with public opinion. And even so, the method worked well.

CDA proved to be quite useful theory in terms of applicability on the speeches. But there is a language and translation issue that needs to be addressed. The analysis has been carried out in English, even though the speeches are German. But even so, only one factor of transitivity could not be applied. A part of the ideational dimension in textual practice, is process types in sentences. However, these particular process types can only be found in original English language. Even though I translated sentences into English, the process types could not be revealed, because the sentences would lose their inherent meaning. This would entail a distortion of underlying assumptions of ideological relevance for the analysis. And this would be a point of contestation in terms of validity. For future purposes this should be a point of awareness.

Despite the limitations above, which I regard as minimal, the limitations are not enough to invalidate the theory as such. In essence, the CDA method worked well, because it made me able to answer the RQ and I was able to establish a change.

8 Conclusion

8.1 Answer to research question

The intention for the study is to find out how the Fukushima incident changed the German government's discourse on nuclear power policy. The question is answered through a social constructionist approach to CDA, and with Fairclough's three-dimensional framework, which led to an analysis of two political speeches from before and after the Fukushima incident in 2011, respectively.

The answer to the research question is: The Fukushima incident has changed the discourse a great deal. Seven significant discursive elements have changed. In terms of the three-dimensional framework, the results show change at all three dimensions.

In the discourse practice dimension, the most significant change was the discourse itself. The discourse on nuclear power changed from a business liberal to a discourse emphasizing risk, risk assessment and feelings of uncertainty towards the trust we can put into the production of nuclear power plants. Besides this, the intertextual sentence, which was a hegemonic articulation of energy supply, changed from focusing on climate to the environment. However, there were elements in the discourse practice that did not change. Means of production and the distribution (intertextual chains), did not change. Most importantly, the genre; political speech was constrained by its discursive practice, in terms of formality and expectations to a political speech, did not undergo a change.

In the textual dimension, there were a lot of changes. Modalities changed, as the plan for the phase-out and implementation of renewables was presented in the speech held after the Fukushima incident. And most importantly, there was innovative language as the new word *Zukunftsstrom* was used. Under textual practice, there were minor factors that did not change, such as voice and affinity with the expressions.

In the social practice dimension, the policy changed and the orders of discourse, discourse and style, changed. Causality to the Fukushima incident was explicitly stated. Angela Merkel changed her attitude towards nuclear power due to Fukushima. But besides this, Fukushima was found to change the discourse because it, alongside of a growing public opposition to nuclear power, disrupted the hegemonial articulation of the policy before the incident. The trust in the security of nuclear power plants had been damaged to the widespread consequences of the Fukushima incident.
It was a bit surprising that the discourse was found to change with the articulation of the phase-out. Because, in the literature on CDA, it is stressed how we cannot count on it to happen right away. In this sense, the discourse changed prematurely, because the complete phase-out is not in effect before 2022.

8.2 The added value

"*Given the changing nature of policy making, discourse analysts are supposed to have a task in identifying the new sites of politics and analysing the political dynamics therein."* (Hajer & Versteeg, 2016).

This citation reflects that as policies change, we should consider the possible reasons for this change. This thesis may be considered such a contribution. Studies of discursive change are valuable in that they may identify how language is used in politics and how this may reflect policies.

In politics there should be a coherence between is said and what is done. The results of the discursive change show that the hegemonic way of articulating nuclear power policy corresponds to the actual policy. When the hegemonic discourse foregrounded the economic benefits, the nuclear power policy extended the life span of power plants. When the discourse changed into foregrounding risk of producing energy be the means of nuclear, the policy changed and phased-out nuclear. That said, the hegemonic discourse and public opinion does not necessarily always correspond to the lead policy on an area. But in the case of nuclear power in Germany, they do. In this way, the thesis has identified structures of political dynamics.

Although, the results may not be regarded as very useful outside the discursive debate in social science, it is still important to be aware of and critically reflect on the way issues are articulated, because it has an impact on how we perceive them. Therefore, considerations about discourse is a valid starting point for any political discussion, as it makes aware of differences in the ideological meanings we denote to words.

8.3 Perspectives

The results of this thesis open op for other approaches. As a perspective within the CDA tradition, it would be interesting to see how the discourse has developed until today now the process of the phase-out has developed more than in 2011. It could be investigated whether discourse has changed again or been sustained compared to the results from this study.

Also, in immediate proximity of the scope of this thesis could be an investigation of the media discourse in the same time frame to see if the discourse of politics dovetails that of the media, or the other way around. The results from this study could be compared with the findings and put into a perspective on the media as the fifth power. It could be interesting to see how much media and politics influence each other.

Personally, the German energy transition interests me a great deal. It is a widely addressed and debated topic in German media, politics and among the population. Recent developments of the energy transition report a milestone in how renewable energies supplied almost all of Germany's power demands one day in May (Bloomberg, 2016). Renewables was, for the first time ever in 2014, the most significant part of the energy mix with a share of 27,3 % (Energy Transition, 2015). This number is steadily increasing, as it reached 31,6%

in 2015 (BMWi, 2016). Furthermore, power prices turned negative for periods of time on that same day in May (Bloomberg, 2016). Affordability is one of the main goals of the energy transition. And indeed wholesale prices fell to a record low in 2014, because forward contracts for purchases and the renewable energy surcharge are lower. The distributors are passing the advantages on to the customers (Agora Energiewende, 2015).

The energy transition increases German competitiveness on the world market for clean energies. A recent report shows that German banks combined are the world's biggest clean-tech lenders at 12,5 billion euros (Energy Transition, 2016). This point to how many new companies are entering the renewable's market at a rapid pace, and aid in developing and innovating the market for renewables.

In sum, Germany is on meeting its political promises and the plan presented in speech 2: "*Decisions for a reliable, affordable, environmentally safe, thus secure energy supply in Germany.*"

9 Bibliography

Adcock, R., & Collier, D. (2001, September 1). Measurement Validity: a shared standard for quantitative and qualitative research. *The American Political science review*, pp. 529-546.

Agora Energiewende. (2015, January 1). *agora-energiewende.de*. Retrieved from Trendwende in der Energiewende: http://www.agora-energiewende.org/topics/the-energiewende/detail-view/article/trendwende-in-der-energiewende/

Andrews, T. (2012, June 1). *Grounded Theory Review - An International Journal*. Retrieved from Issue 1, Volume 11: http://groundedtheoryreview.com/2012/06/01/what-is-social-constructionism/

Angela Merkel zum Atomausstieg. (2011, May 30). *Youtube.* Retrieved from Pressekonferenz von Bundeskanzlerin Angela Merkel zum Atomausstieg und zum Einstieg in Erneuerbare Energien am 30.05.2011 in Berlin: https://www.youtube.com/watch?v=VVw3T2OdCLk

Appendix 1. (2010, July 6). *Federal Ministry for Economic Affairs and Energy*. Retrieved from Rede des Bundesministers für Wirtschaft und Technologie Rainer Brüderle anlässlich der BDI-Veranstaltung zum Energiekonzept: http://www.bmwi.de/DE/Presse/reden,did=349314.html

Appendix 2. (2011, June 9). *bundesregierung.de*. Retrieved from Regierungserklärung von Bundeskanzlerin Angela Merkel zur Energiepolitik "Der Weg zur Energie der Zukunft" (Mitschrift): https://www.bundesregierung.de/ContentArchiv/DE/Archiv17/Regierungserklaerung/2011/2011-06-09-merkel-energie-zukunft.html

Bloomberg. (2016, May 16). *Bloomberg.com*. Retrieved from Germany just got almost all if its power from renewable energies: http://www.bloomberg.com/news/articles/2016-05-16/germany-just-got-almost-all-of-its-power-from-renewable-energy

BMUB. (2016, August 5). *Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety*. Retrieved from http://www.bmub.bund.de/en/

BMWi. (2010, July 1). *Federal Ministry for Economic Affairs and Energy*. Retrieved from Die zukünftige Energiepolitik der Bundesregierung: Rede des Bundesministers für Wirtschaft und Technologie Rainer Brüderle anlässlich des BDEW Kongresses 2010: http://www.bmwi.de/DE/Presse/reden,did=348718.html

BMWi. (2016, september 18). *Federal Ministry for Economic Affairs and Energy*. Retrieved from Rekord für Wind, Sonne und Co.: http://www.bmwi.de/DE/Themen/Energie/Erneuerbare-Energien/erneuerbare-energien-auf-einen-blick,did=701676.html

BMWi. (2016, June 5). *Federal Ministry for Economic Affairs and Energy*. Retrieved from Energy of the future: http://www.bmwi.de/EN/Topics/Energy/Energy-Transition/overall-strategy.html

BMWi. (2016, September 18). *Federal Ministry for Economic Affairs and Energy*. Retrieved from Energy of the future - an overall strategy for the energy transition: http://www.bmwi.de/EN/Topics/Energy/Energy-Transition/overall-strategy.html

BMWi. (2016, August 7). *Federal Ministry for Economic Affairs and Energy*. Retrieved from Tasks and Structure of the Federal Ministry for Economic Affairs and Energy: http://www.bmwi.de/DE/Ministerium/aufgaben-und-struktur.html

BMWi. (2016, August 7). *Federal Ministry for Economic Affairs and Energy*. Retrieved from Reden, Interviews und Namensartikel: http://www.bmwi.de/DE/Presse/reden.html

BMWI PDF. (2011, June 6). *Federal Ministry for Economic Affairs and Energy*. Retrieved from Der Weg zur Energie der Zukunft: https://www.bmwi.de/BMWi/Redaktion/PDF/E/energiekonzept-2010-beschluesse-juni-2011,property=pdf,bereich=bmwi2012,sprache=de,rwb=true.pdf

British Council. (2016, August 20). *britishcouncil.org*. Retrieved from Will or Would: https://learnenglish.britishcouncil.org/en/english-grammar/verbs/modal-verbs/will-or-would

Buchan, D. (2012, June). The Energiewende - Germany's gamble. *The Oxford Institute for Energy Studies*, pp. 1-38.

Bundeskanzlerin. (2016, August 13). *Bundeskanzlerin.de*. Retrieved from Biografie: https://www.bundeskanzlerin.de/Webs/BKin/DE/AngelaMerkel/Biografie/biografie_node.html;jsessionid=58E37BCB859D6DE117C6198572AC7F66.s1t2

Bustam, M. (2011, May). Analyzing Clause by Hallidays's Transitivity System. *Jurnal Ilmu Sastra*, pp. 22-34.

BWMI & BMU PDF. (2010, September 28). *Federal Ministry for Economic Affairs and Energy and Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety* . Retrieved from Energiekonzept - Gesamtstrategie: https://www.bmwi.de/BMWi/Redaktion/PDF/E/energiekonzept-2010,property=pdf,bereich=bmwi2012,sprache=de,rwb=true.pdf

CDU. (2016, June 15). *cdu-bb.de*. Retrieved from Energie, Umwelt: http://www.cdu-bb.de/standpunkte/energie-umwelt.html

Clean Energy Wire. (2015, Juli 24). *cleanenergywire.de.* Retrieved from Factsheet: The History behind Germany's Nuclear Phase-out: https://www.cleanenergywire.org/factsheets/history-behind-germanys-nuclear-phase-out

Clean Energy Wire. (2016, September 17). *cleanenergywire.org*. Retrieved from Germany's Dependence on Fossil Fuels: https://www.cleanenergywire.org/factsheets/germanys-dependence-imported-fossil-fuels

csub. (2016, August 22). *csub.edu*. Retrieved from Rhetorical Modes: http://www.csub.edu/~rhewett/english100/rmodes.htm

Cukier, W., Bauer, R., & Middleton, C. (2004). Applying Habermas' Validity Claims as a Standard for Critical Discourse Analysis. In *Information Systems Research - Relevant Theory and Informed Practice* (pp. 233-258). Springer US.

Deustcher Bundestag Gesetz. (2011). *(17/6063) Gesetzentwurf der Fraktionen der CDU/CSU und FDP; Entwurf eines Gesetzes über Massnahmen zur Beschleunigung des Netzausbaus Elektrizitätsnetze.* Berlin: H. Heeneman GMBH & CO.

Deutsche Welle. (2009, October 9). *dw.com*. Retrieved from Nuclear power in Germany: A Chronology: http://www.dw.com/en/nuclear-power-in-germany-a-chronology/a-2306337

Deutsche Welle. (2011, December 27). *dw.com*. Retrieved from Fukushima und die Folgen in Detschland: http://www.dw.com/de/fukushima-und-die-folgen-in-deutschland/a-15562222

Deutsche Welle. (2013, December 12). *dw.com*. Retrieved from Politics - 'Grand Coalition' Returns to Germany: http://www.dw.com/en/grand-coalition-returns-to-germany/a-17299248

Deutscher Bundestag. (2010, September). *Bundestag.de*. Retrieved from Laufzeitverlängerung von Atomkraftwerken zugestimmt: http://www.bundestag.de/dokumente/textarchiv/2010/32009392_kw43_de_atompolitik/203098

Deutscher Bundestag. (2011, June 30). *bundestag.de*. Retrieved from Namentliche Abstimmung zu Atomausstieg und Energiewende am 30. Juni 2011: https://www.bundestag.de/dokumente/textarchiv/2011/abstimmung/250082

Deutscher Industrie und Handelskammertag. (2016, August 13). *dihk.de*. Retrieved from Innovation and the environment: http://www.dihk.de/en/segments/innovation-environment

Deutschlandradio. (2011, June 9). *deutschlandradio.de.* Retrieved from "Fukushima hat meine Haltung zur Kernenergie verändert": http://www.deutschlandradio.de/fukushima-hat-meine-haltung-zur-kernenergie-veraendert.331.de.html?dram:article_id=204183

Die Bundesregierung. (2016, May 6). *bundesregierung.de*. Retrieved from Suche: https://www.bundesregierung.de/SiteGlobals/Forms/Webs/Breg/Suche/DE/Nachrichten/Redensuche2_formular.html?nn=391688&doctype.HASH=5a3d6cb3acd5cbe1c3d&path.HASH=f5ff1afa01df408f252f&searchtype=news&path=%252Fbpainternet%252Fcontent%252Fde%252Frede*%2B%252Fb

Die Grünen. (2016, September 5). *Bündnis 90 - Die Grünen - Bundestagsfraktion*. Retrieved from Atomausstieg: https://www.gruene-bundestag.de/themen/atomausstieg.html

Die Zeit. (2016, March 3). *Zeit.de*. Retrieved from Grafik: Überholen die Grünen die CDU?: http://www.zeit.de/politik/deutschland/2016-03/landtagswahlen-die-gruenen-winfried-kretschmann-umfrage-baden-wuerttemberg

Duden. (2016, September 18). *duden.de*. Retrieved from Klima: http://www.duden.de/rechtschreibung/Klima

Duden. (2016, September 28.). *Duden.de*. Retrieved from Energieversorgung: http://www.duden.de/rechtschreibung/Energieversorgung

Duden. (2016, August 30). *Duden.de*. Retrieved from Zukunftsstrom: http://www.duden.de/suchen/dudenonline/zukunftsstrom

Duden. (2016, August 22). *Duden.de*. Retrieved from Laufzerverlängerung: http://www.duden.de/rechtschreibung/Laufzeitverlaengerung

Duden. (2016, August 11). *Duden.de*. Retrieved from Brückentechnologie, die: http://www.duden.de/rechtschreibung/Brueckentechnologie

E.on. (2009). *Die Zukunft der Energie. Weitergedacht.* E.on.

Education First. (2016, August 20). *ef.com*. Retrieved from Using adverbs in English: http://www.ef.com/english-resources/english-grammar/using-adverbs-english/

Energy Transition. (2015, August 14). *energytransition.de*. Retrieved from Germany's decision to phase out nuclear power is fundamentally sensible from an economic perspective: http://energytransition.de/2015/08/german-nuclear-phase-out-is-economically-sensible/

Energy Transition. (2016, August 10). *energytransition.de*. Retrieved from Germany is the biggest clean tech funder worldwide: http://energytransition.de/2016/08/germany-is-the-biggest-clean-tech-funder-worldwide/

English Page. (2016, august 20). *englishpage.com*. Retrieved from Can: http://www.englishpage.com/modals/can.html

Erneuerbare Energien. (2016, september 5). *erneuerbare-energien.de*. Retrieved from Das Erneuerbare-Energien Gesetz: https://www.erneuerbare-energien.de/EE/Redaktion/DE/Dossier/eeg.html?cms_docId=71110

Europa.eu. (2016, September 15). *europa.eu*. Retrieved from 2020 climate & energy package: http://ec.europa.eu/clima/policies/strategies/2020/index_en.htm

Fairclough. (1992). *Discourse and Social Change.* Cambridge: Polity Press.

Fairclough. (2004). *Analyzing discourse: Textual analysis for social research.* London: Routledge.

Fairclough. (2013, Vol. 7 No. 2). Critical Discourse Analysis and Critical Policy Studies. *Critical Policy Studies*, pp. 177-197.

Fairclough, I., & Fairclough, N. (2012). *Political Discourse Analysis - A method for advanced students.* Abingdon: Routledge.

FAZ. (2002, February 1). *Frankfurter Allgemeine Zeitung*. Retrieved from Atomkonsens und seine Restlaufzeit: http://www.faz.net/aktuell/politik/dokumentation-atomkonsens-und-seine-restlaufzeit-147737.html

FAZ. (2010, September 6). *Frankfurter Allgemeine Zeitung*. Retrieved from Zukunft der Kernkraft: http://www.faz.net/aktuell/politik/inland/zukunft-der-kernkraft-im-schnitt-zwoelf-jahre-laengere-laufzeit-1597691.html

FAZ. (2010, March 1). *Frankfurter Allgemeine Zeitung*. Retrieved from Kernkraft als Brückentechnologie: http://www.faz.net/aktuell/politik/inland/kernkraft-als-brueckentechnologie-sie-muss-bis-zum-anderen-ufer-reichen-1954530.html

Focus. (2009, October 22). *Focus.de*. Retrieved from Kernkraft ist keine Brückentechnologie: http://www.focus.de/wissen/klima/tid-15920/technik-kernkraft-ist-keine-brueckentechnologie_aid_446875.html

Focus. (2011, June 9). *Focus.de.* Retrieved from „Atomkraft nicht beherrschbar": http://www.focus.de/politik/deutschland/atomausstieg/bundeskanzlerin-merkel-atomkraft-nicht-beherrschbar_aid_635448.html

German Atomic Forum. (2000, June 22). *Kernenergie.de.* Retrieved from Agreement between the Federal Government and Utility Companies: http://www.kernenergie.de/kernenergie-wAssets/docs/presse/Vereinbarung14-06-englisch.pdf

google.de. (30. August 2016). *google.de*. Retrived from Zukunftsstrom: https://www.google.de/?gws_rd=ssl#q=zukunftsstrom abgerufen

google.dk. (2016, August 13). *google.dk*. Retrieved from Search: "germany phase out nuclear power": https://www.google.dk/search?q=germany+phase+out+nuclear+power&ie=&oe=

Hajer, M., & Versteeg, W. (2016, September 17). A decade of Discourse Analysis of Environmental Politics: Achievements, challenges, perspectives. *Journal of Environmental Policy and Planning*, p. Abstract. Retrieved from Abstract: A decade of Discourse Analysis of environmental Politics: Achievements, Challenges, Perspectives: http://www.tandfonline.com/doi/abs/10.1080/15239080500339646

Huss, C. (2014, September 8). Energy Transition by Conviction or by Surprise? Environmental Policy from 2009 to 2013. *German Politics*, pp. 1-18.

Internet EInternet Encyclopedia of Philosophy. (2016, July 12). *Internet Encyclopedia of Philosophy - A Peer Reviewed Academic Resource* . Retrieved from The Frankfurt School and Critical Theory: http://www.iep.utm.edu/frankfur/

Jaipal-Jamani, K. (2014). Assessing the validity of discourse analysis - transdisciplinary convergence. *Springer Science + Media Business Dordrecht 2014*, 801-807.

Jäger, S. (1993). *Diskursanalyse - Eine Kritische Einführung.* Duisburg: DISS.

Jørgensen, M., & Phillips, L. (1999). *Diskursanalyse - som teori og metode.* Frederiksberg C: Roskilde Universitetsforlag.

Kernenergie. (2016, June 15). *Kernenergie*. Retrieved from History of Nuclear Power: http://www.kernenergie.de/kernenergie-en/history/index.php

Landtagswahl. (2011). *Rheinland-Pfalz Landeswahlleiter*. Retrieved from Wahlergebnisse der Landtagswahl 2011: http://www.wahlen.rlp.de/ltw/wahlen/2011/index.html

Lingua Press. (2016, August 20). *linguapress.com*. Retrieved from Modal verbs in English: http://linguapress.com/grammar/modal-obligation.htm

Linguee. (2016, August 22). *Linguee.de*. Retrieved from Laufzeitverlängerung: http://www.linguee.de/deutsch-englisch/uebersetzung/laufzeitverl%C3%A4ngerung.html

Lock, A., & Strong, T. (2012). *Social Constructionism: Sources and Stirrings in Theory and Practice.* Cambridge: Cambridge University Press.

Mükusch, C. (2011). *Vernetzte Energiesicherheit.* Wiesbaden: VS Verlag für Sozialwissenschaften.

Norbert Röttgen. (2016, August 6). *Biografie von Dr. Norbert Röttgen*. Retrieved from Lebenslauf: http://www.norbert-roettgen.de/person.html

NY Times. (2010, September 6). *New York Times*. Retrieved from Germany Extents Nuclear Plant's life: http://www.nytimes.com/2010/09/07/world/europe/07nuclear.html?_r=0

Peterson, S., & Somit, A. (2011). *Biology and Politics - Cutting Edge.* Bingley, UK: Emerald Group Published Limited.

Potter, J. (2012, March 19). Discourse Analysis and Constructionist Approaches: Theoretical Background. *Loughborough University Institutional Repository*, pp. 125-140.

RWE. (2012). *Corporate Responsibility Bericht*. Retrieved from Innovation: http://www.rwe.com/web/cms/de/1283830/cr-bericht-2012/cr-handlungsfelder/innovation/

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students - Fifth Edition.* England: Pearson Education Limited.

Schattenblick. (2010, April 29). *Schattenblick.de*. Retrieved from Brüderle anläßlich des World Energie Dialogue 2010 auf der Hannover Messe (BMWi): http://www.schattenblick.de/infopool/politik/wirtsch/pwred424.html

Süddeutsche Zeitung. (2011, June 9). *Sueddeutsche.de*. Retrieved from Die Atomkanzlerin erklärt ihren Ausstieg: http://www.sueddeutsche.de/politik/regierungserklaerung-zur-energiewende-merkel-erklaert-den-atomausstieg-zur-herkulesaufgabe-1.1106773

Tagesschau. (2013, August 22). *Tagesschau.de*. Retrieved from Wahlprogramme im Vergleich: Wie die Parteien die Energiewende schaffen wollen: https://www.tagesschau.de/wahl/parteien_und_programme/programmvergleich-energiewende100.html

The Sydney Morning Herald. (2010, September 14). *smh.com*. Retrieved from Germany's 'hot autumn' of nuclear discontent: http://www.smh.com.au/federal-politics/germanys-hot-autumn-of-nuclear-discontent-20100914-15aag.html

Wahlen. (2011). *statistik-bw.de*. Retrieved from Baden-Württemberg Staatliches Amt: http://www.statistik-bw.de/Wahlen/Landtagswahl_2011/Land.asp

Wodak, R., & Meyer, M. (2001). *Methods of Critical Discourse Analysis.* London: Sage Publications Ltd.

World Nuclear. (2016, May 23). *World Nuclear*. Retrieved from Nuclear Power in Germany: http://www.world-nuclear.org/information-library/country-profiles/countries-g-n/germany.aspx

Written for College. (2016, august 20). *Written for CollegeWrittenforcollege.org*. Retrieved from Ch. 5 Rhetorical Modes: http://www.tc.umn.edu/~jewel001/CollegeWriting/START/Modes.htm

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11 Appendices

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Appendix 2: Speech 2; *„Regierungserklärung von Bundeskanzlerin Angela Merkel zur Energiepolitik "Der Weg zur Energie der Zukunft.“*

Appendix 3: Glossary

11.1 Appendix 1

11.1.1 Speech 1

Die Vorstellungen der Bundesregierung zum Energiekonzept

Rede des Bundesministers für Wirtschaft und Technologie Rainer Brüderle anlässlich der BDI-Veranstaltung zum Energiekonzept (Appendix 1, 2010)

Datum: 6.7.2010
Ort: Berlin, Haus der Deutschen Wirtschaft

Es gilt das gesprochene Wort!
Sehr geehrter Herr Dr. Grünewald,
sehr geehrter Herr Dr. Schnappauf,
sehr geehrte Kolleginnen und Kollegen aus dem Deutschen Bundestag,
sehr geehrte Damen und Herren!

Uns allen ist klar: Die Energieversorgung in Deutschland und Europa wird sich in den nächsten Jahren massiv verändern [7]. Uns steht ein relativ kurzes Zeitfenster zur Verfügung, um unser gesamtes Energiesystem zukunftsfähig zu machen.
Viele entscheidende Fragestellungen sind dabei zu beantworten, hier nur einige Beispiele:

- Was ist die Rolle der fossilen Energien in der Zukunft?
- Wie müssen wir unsere Netze weiterentwickeln?
- Welche Chancen und Grenzen bietet der Klimaschutz?
- Oder: Wie weit wollen wir bei der Energieeffizienz gehen?

Ich will heute mit dem Thema beginnen, das mir am meisten unter den Nägeln brennt.
Und von dem ich vermute, dass es den meisten von Ihnen ebenfalls unter den Nägeln brennt:
Nämlich der Rolle der Kernenergie und der Laufzeitverlängerungen.
Meine Damen und Herren,
Ich habe mich immer für eine signifikante Laufzeitverlängerung ausgesprochen.
Entscheidend sind die absehbaren volkswirtschaftlichen Vorteile:
Längere Laufzeiten führen zu geringeren Strompreisen und niedrigeren CO2-Preisen.
Ohne längere Laufzeiten würde auch die Abhängigkeit vom Ausland wegen erhöhter Energieimporte zunehmen.
Es gibt allerdings keinen Computer oder Wissenschaftler, der uns eine objektive Zahl liefern könnte, wie lange wir die Kernkraftwerke in Deutschland noch weiter betreiben sollen.
Dafür ist eine politische Entscheidung notwendig.
Das Energiekonzept kann hierfür einen Impuls liefern.

Darum ist es vernünftig, das Thema Laufzeitverlängerungen der Kernkraftwerke parallel zum Energiekonzept anzugehen [6][23].
Bei den Fragen um die Laufzeitenverlängerung hat sich der eine oder andere in den letzten Monaten durchaus zögerlich gezeigt.
Sanfter Druck ist deshalb hilfreich und notwendig.
Ich habe am Wochenende zur Kenntnis genommen, dass es hierzu offensichtlich auch Vorschläge aus den Fraktionsspitzen gibt [5].
Diese Ideen scheinen mir auf den ersten Blick nicht unsympathisch zu sein.
Auch der Klimaschutz spricht für längere Laufzeiten.
International stehen wir mit dieser Auffassung gewiss nicht alleine da.
Ich zitiere in diesem Zusammenhang gerne auch aus dem Buch meines Kollegen Röttgen. Das Buch heißt: "Deutschlands beste Jahre kommen noch":
"...Vor diesem Hintergrund erscheint zum Beispiel das Beharren auf dem isolierten nationalen Ausstieg aus der Kernenergie als ebenso ignorant wie gefährlich. Denn einem integrierten Energiemarkt kann man sich wirtschaftlich nicht durch nationale Alleingänge entziehen..."
Der Kollege hat völlig Recht.
Wir sollten uns keine nationalen Alleingänge leisten, die den Klimaschutz unnötig verteuern.
Die Kernenergie ist auf dem Weg ins regenerative Zeitalter - neben der Nutzung von sauberer Kohle - eine Brücke. Eine Brücke, die wir noch eine ganze Weile brauchen. Die Brücke darf nicht so kurz sein, dass wir am Ende gemeinsam baden gehen [3].
Die zusätzlichen Gewinne der Energiekonzerne aus der Laufzeitverlängerung werden wir zu einem guten Teil abschöpfen.
Insoweit besteht ein klarer politischer Zusammenhang zwischen der geplanten Brennelementesteuer und der Laufzeitverlängerung.
Am Ende des Prozesses wird der Bundestag über die Änderung des Atomgesetzes abstimmen.
Die Verfassungsressorts prüfen das gerade - übrigens sicherlich auch mit Blick auf das kürzlich ergangene Verfassungsgerichtsurteil zum Luftsicherheitsgesetz.
Ich persönlich gehe davon aus:
Das geht ohne die Beteiligung des Bundesrats.
Der Ausstieg aus der Kernenergie war auch ohne Beteiligung des Bundesrats möglich.
Meine Damen und Herren,
Bei Fußball geht es in diesen Tagen um den Weltmeistertitel.
In wenigen Tagen gibt es einen neuen Fußballweltmeister.
Vielleicht heißt er Deutschland. Nach den tollen Spielen gegen England und Argentinien gibt es eine gewisse Chance auf den Titel.
Beim Klimaschutz kann hingegen nicht nur ein Land gewinnen.
Wir können nur gemeinsam die globale Herausforderung Klimaschutz meistern [11].
Leider war Kopenhagen eine große Enttäuschung.
Unser Ziel bleibt jedoch klar: Wir müssen beim globalen Klimaschutz vorankommen [9].
Deutschland und Europa müssen hier weiter Spitze sein. Die anderen müssen aber auch nachziehen - und zwar nicht irgendwann, sondern in einem überschaubaren Zeitfenster
Anspruchsvollere europäische Klimaschutzziele darf es nur im Rahmen eines internationalen Klimaschutzabkommens geben, das vergleichbare Anforderungen an die anderen Emittenten stellt.

[23] Excerpt

Denn sonst hätten wir einen Pyrrhussieg.
Wir hätten beim Klimaschutz gewonnen, aber die Arbeitsplätze und unsere industrielle Basis vielleicht verloren.
Ich begrüße, dass die Europäische Kommission ebenfalls zu dieser Einsicht gekommen ist.
Natürlich entstehen durch den Klimaschutz enorme Chancen für unsere Industrie - gerade im Bereich der Umwelt- und Klimaschutztechnologien.
Zu einer ehrlichen Politik gehört es aber deutlich zu sagen, dass mit ehrgeizigen Klimazielen auch Kosten verbunden sind.
Umsonst ist hier nichts zu haben.
Es geht also darum, Ökonomie und Ökologie sinnvoll miteinander zu verbinden.
Was dies bedeutet, wird auch Gegenstand des Energiekonzepts sein, an dem wir gerade arbeiten.
Es kann nicht Aufgabe des Konzepts sein, eine heile Energiewelt zu zeichnen und sich Träumereien hinzugeben.
Stattdessen müssen wir für verlässliche Rahmenbedingungen sorgen, die langfristige Investitions- und Planungssicherheit bieten[1].
Wir müssen Wege aufzeigen [10], wie die Energieversorgung auch bei unseren ambitionierten Klimaschutzzielen im Jahr 2050 noch möglichst sicher und bezahlbar bleibt!
Bezahlbare Energie ist gerade für unsere energieintensiven Industrien eine zentrale Voraussetzung [8], damit sie international eine faire Wettbewerbschance haben.
Wenn wir jetzt im Rahmen des Sparpakets Änderungen an der Ökosteuer vornehmen, haben wir vor allem Missbrauch und Mitnahmeeffekte im Visier.
Wir schaffen die Vergünstigung nicht ab; es ist daran gedacht, sie im ersten Jahr um ca. 25 Prozent und danach um ein gutes Drittel abzusenken.
Wir haben, wie ich finde, ein ausgewogenes Sparpaket vorgelegt.
Meine Damen und Herren!
Wir sind ein Industriestandort und wollen es auch 2050 noch sein [12].
Um zu sehen, wie wir dies sicher stellen können, lassen wir die möglichen Szenarien für das Energiekonzept von wissenschaftlichen Instituten errechnen.
Unterschiedliche Szenarien legen Zielkonflikte und Kosten offen.
Wir müssen klären, was ein Szenario für Wirtschaft und Verbraucher bedeutet.
Ich erwarte von den Instituten eine solide gesamtwirtschaftliche Abschätzung, wie die Klimaschutzziele am ökonomisch Günstigsten erreicht werden können.
Wir wollen nicht nur an quantitativen Zielschrauben drehen nach dem Motto: Je mehr, desto progressiver!
Es geht auch um qualitative Elemente zukünftiger Energiepolitik: marktorientiert, technologieoffen - auch das steht schon im Koalitionsvertrag.
Die Ergebnisse der Szenarienberechnungen werden uns Ende August vorliegen.
Das darauf basierende Energiekonzept wird wie geplant im Herbst vorliegen.
Denn Qualität geht auch hier vor Tempo!
Die Szenarien sind eine solide Grundlage, um Handlungsfelder zu erkennen und politische Maßnahmen festzulegen.
Wir wollen nicht einfach wie seinerzeit "Rot-Grün" ideologische Zielwerte und Ausstiegsdaten vorgeben.
Wir werden transparent machen, auf welcher Grundlage wir entscheiden.
Die Szenarien sind dabei ein Hilfsmittel.
Sie sind aber keine Anleitungen, die einfach planwirtschaftlich umgesetzt werden.

Wir werden die Szenarien nicht missbrauchen, um bestimmte Technologien zu fördern.
Auch die Rolle der Kernenergie werden wir nüchtern und auf wissenschaftlicher Basis bewerten.
Allerdings darf man nicht vergessen: Das Energiekonzept ist kein Kernenergiekonzept.
Vielmehr wollen wir mit dem Energiekonzept auf ganz verschiedene Aspekte eingehen:
Zukunft der fossilen Energieträger, Klimaschutz, Versorgungssicherheit, oder Energieeffizienz.
Auch das Thema Umweltschutz wird insbesondere nach der schrecklichen Katastrophe im Golf von Mexiko eine gesteigerte Rolle spielen.
Ein weiterer zentraler Punkt des Energiekonzeptes muss die Frage des Netzausbaus sein.
Die Netze sind das Nadelöhr.
Nur wenn die Netze sich verändern, kann der Ausbau der erneuerbaren Energie rasant voranschreiten, können die europäischen Strommärkte stärker zusammenwachsen.
Heute hinkt der Netzausbau der Entwicklung bei den Erneuerbaren hinterher.
Bis 2015 müssen wir nach der dena-Netzstudie I allein für die Einbindung der Windenergie rund 850 km neue Höchstspannungsleitungen bauen. Bis heute sind davon allerdings erst etwa 90 km in Betrieb.
Um den Netzausbau voranzubringen, hat das BMWi eine Gesprächsplattform "Zukunftsfähige Netze und Systemsicherheit" eingerichtet. Hier können sich die wichtigsten Interessenträgern austauschen und Lösungen vorantreiben. Auch der BDI nimmt an dieser Plattform teil.
Die Stromnetze stehen vor einer weiteren Herausforderung:
Mit dem Ausbau erneuerbarer Energien wird die Stromerzeugung volatiler und weniger planbar.
Die Volatilität ist enorm: Allein Mitte Januar schwankte die Einspeisung aus der Windenergie zwischen wenigen hundert und 18.000 Megawatt.
Ich erinnere an den 3. Oktober oder den zweiten Weihnachtsfeiertag 2009, als hohe Windeinspeisungen gepaart mit schwacher Nachfrage für negative Preise an der Strombörse sorgten.
Man musste für den Strom also nicht nur nicht bezahlen, sondern bekam sogar Geld dafür.
Die starken Preisschwankungen mit zum Teil negativen Preisen müssen wir ernst nehmen:
Zum einen werden sie infolge des weiteren Ausbaus der erneuerbaren Energien künftig häufiger auftreten.
Zum anderen werden die Kosten, die damit einhergehen, letztlich auf den Verbraucher umgelegt.
Deshalb hat das Bundeswirtschaftsministerium in einer jetzt veröffentlichten Studie die Ursachen für die negativen Strompreise untersuchen lassen.
Das Ergebnis der Studie unterstreicht die Notwendigkeit, dass wir mittelfristig den Strom aus erneuerbaren Energien bedarfsgerechter einspeisen müssen.
Zudem macht die Studie deutlich, dass wir die erneuerbaren Energien an den Wettbewerbsmarkt stärker heranführen müssen.
Das ist für mich auch die Marschrichtung für Gespräche zur zukünftigen Ausgestaltung des Erneuerbaren-Energien-Gesetzes [13].
Meine Damen und Herren,
in der Energiepolitik leitet uns derselbe Kompass wie in anderen Bereichen auch.
Dieser Kompass ist die Ordnungspolitik. Wir brauchen so viel Markt und Wettbewerb wie möglich.
Dafür muss der Staat den Rahmen setzen. Er muss Wettbewerb ermöglichen, wo er noch nicht richtig funktioniert.
Im Wettbewerb muss sich dann zeigen, welche Energieträger und Erzeugungsverfahren sich durchsetzen.
Der Staat darf daher die wirtschaftliche Freiheit von Unternehmen und Verbrauchern nicht immer stärker beschneiden [4].
Die Findigkeit und Kreativität der Menschen braucht ausreichenden Spielraum.

Nur dann erreichen wir gesamtwirtschaftlich ein hohes Maß an Innovationskraft, Wettbewerbsfähigkeit und Wirtschaftlichkeit.
Energiepolitische Planwirtschaft führt dagegen in die Sackgasse.
Starre Vorgaben zur Steigerung der Energieeffizienz und zum Ausbau erneuerbarer Energien ziehen neue Vorgaben und Subventionen nach sich.
Eine "Ökologische Industriepolitik", die Technologiesprünge herbeisubventioniert oder herbeireguliert, kann dauerhaft nicht funktionieren.
Dauerhaft funktionieren nur Wettbewerbsmärkte.
Wir müssen daher bei allen energiepolitischen Maßnahmen den Wettbewerb fördern und nicht behindern.
Ein Beispiel ist die Gasnetzzugangsverordnung, die das Bundeskabinett vor kurzem auf den Weg gebracht hat.
Es ist kein Geheimnis, dass die Bedingungen für den Wettbewerb auf dem Gasmarkt verbesserungswürdig sind.
Wegen langfristig ausgebuchter Kapazitäten war besonders der Markteintritt neuer Teilnehmer schwierig.
Drei wesentliche Instrumente prägen deshalb die neue Gasnetzzugangsverordnung:

- Wir reduzieren bis zum Jahr 2013 die Zahl der Marktgebiete von sechs auf zwei. Dadurch werden die Lieferangebote für neue Lieferanten attraktiver.

- Wir erleichtern den Zugang zu den knappen Transportkapazitäten, indem wir einen größeren Teil der Kapazitäten für kurzfristige Buchungen zur Verfügung stellen.

- Wir erleichtern den Netzanschluss neuer Gaskraftwerke. Wir geben Betreibern das Recht, Kapazitäten für maximal drei Jahre zu reservieren.

Damit stärken wir beim Gas den Wettbewerb und damit die Interessen der Verbraucher.
Die Interessen der Energieverbraucher wollen wir zudem durch eine zentrale nationale Markttransparenzstelle stärken.
Derzeit ist die Preisbildung im Stromgroßhandel oftmals nicht nachvollziehbar.
Hier setzt die Marktransparenzstelle an. Sie soll die Preisbildung auf den Großhandelsmärkten für Strom genau unter die Lupe nehmen.
Ich plane, diese Stelle beim Bundeskartellamt anzusiedeln.
Denn ich möchte hier einen scharfen Wettbewerbshüter.
Und da ist das Kartellamt die richtige Institution, sozusagen die Nummer Eins.
Meine Damen und Herren,
die öffentliche Wahrnehmung energiepolitischer Vorhaben ist heute in erster Linie eine Risikowahrnehmung.
Das können wir bedauern, müssen es aber ernst nehmen.
Wir brauchen einen offenen Dialog nicht nur über Risiken, sondern auch über die Chancen von neuen Technologien und geplanten Vorhaben.
So können wir gegenseitiges Verständnis und Akzeptanz schaffen.
Ein Beispiel ist die CCS-Technologie zur Abscheidung und Speicherung von CO2.
Nahezu alle Wissenschaftler gehen davon aus, dass wir ohne CCS unsere Klimaschutzziele kaum erreichen können.
Gerade für die weitere Nutzung der Kohle ist CCS eine wichtige Option. CCS ist aber auch für andere Industriesektoren von großer Bedeutung Ich denke an Stahl, Zement, Petrochemie.

Braunkohle steht uns als subventionsfreier Energieträger im eigenen Land zur Verfügung. Wir werden sie weiter nutzen.
Gerade deshalb brauchen wir Technologien, die die Kohle so sauber wie möglich machen - im Übrigen nicht nur für unser Land, auch für andere Länder der Welt.
Deutschland ist derzeit noch Technologieführer bei den Kraftwerkstechnologien.
Damit dies so bleibt, brauchen wir auch CCS-Demonstrationsanlagen hier bei uns in Deutschland.
Es gilt jetzt, den notwendigen Rechtsrahmen zügig zu schaffen.
Wir sind dabei auf einem guten Weg.
BMU und BMWi als gemeinsam Federführende haben sich in den wesentlichen Punkten geeinigt.
Wir werden jetzt die Ressortabstimmung einleiten können. Im unmittelbaren Anschluss kann der Gesetzentwurf dann ins Kabinett.
CCS ist eine komplexe Technologie, die es erforderlich macht, Bedenken der Bevölkerung aufzugreifen.
Der BDI ist ein wichtiger Mitstreiter, wenn es darum geht, für diese neue Technik zu werben! Dafür bin ich sehr dankbar.
Wir wollen eine klimafreundliche, sichere und gleichzeitig bezahlbare Energieversorgung der Zukunft [2].
Das schaffen wir nicht gegen, sondern nur mit der Wirtschaft.
Das Energiekonzept wird dieser Einsicht Rechnung tragen.
Wir brauchen diese Basis, denn sonst werden wir unsere Position als erfolgreiches Industrieland nicht halten können.

11.2 Appendix 2

11.2.1 Speech 2

Regierungserklärung von Bundeskanzlerin Angela Merkel zur Energiepolitik "Der Weg zur Energie der Zukunft" [13] (Mitschrift) (Appendix 2, 2011)

Datum:

09. Juni 2011

Sehr geehrter Herr Präsident!
Liebe Kolleginnen und Kollegen!
Meine Damen und Herren!

Vor 90 Tagen wurde der Nordosten Japans vom schwersten Erdbeben in der Geschichte des Landes heimgesucht. Anschließend traf eine bis zu zehn Meter hohe Flutwelle seine Ostküste. Danach fiel in einem Reaktor des Kernkraftwerkes Fukushima I die Kühlung aus. Die japanische Regierung rief den atomaren Notstand aus.

Heute, 90 Tage nach jenem furchtbaren 11. März, wissen wir: In drei Reaktorblöcken des Kernkraftwerkes sind die Kerne geschmolzen. Noch immer steigt radioaktiver Dampf in die Atmosphäre. Die weiträumige Evakuierungszone wird noch lange bestehen bleiben, und an ein Ende der Schreckensmeldungen ist noch nicht zu denken. Erst letzte Woche herrschte in Block eins die bisher höchste Strahlenbelastung. Die Internationale Atomenergie-Organisation bewertet die Situation in Fukushima als weiterhin sehr ernst.

Wir werden heute weitreichende Vorhaben für eine neue Architektur der Energieversorgung in Deutschland beraten. Aber bevor wir das tun, wünsche ich mir, dass wir zuerst an die Menschen in Japan denken. Wir trauern um die Opfer, wir fühlen mit denen, die ihre Lieben, ihr Hab und Gut, ihr Zuhause unwiederbringlich verloren haben. Ich habe beim G8-Gipfel vor wenigen Tagen in Deauville meinem japanischen Amtskollegen gesagt: Deutschland steht weiter an der Seite Japans.

Ohne Zweifel, die dramatischen Ereignisse in Japan sind ein Einschnitt für die Welt. Sie waren ein Einschnitt auch für mich ganz persönlich. Wer auch nur einmal die Schilderungen an sich heran lässt, wie in Fukushima verzweifelt versucht wurde, mit Meerwasser die Reaktoren zu kühlen, um inmitten des Schreckens noch Schrecklicheres zu verhindern, der erkennt: In Fukushima haben wir zur Kenntnis nehmen müssen [10], dass selbst in einem Hochtechnologieland wie Japan die Risiken der Kernenergie nicht sicher beherrscht werden können [15].

Wer das erkennt, muss die notwendigen Konsequenzen ziehen [12]. Wer das erkennt, muss eine neue Bewertung vornehmen. Deshalb sage ich für mich: Ich habe eine neue Bewertung vorgenommen; denn das Restrisiko der Kernenergie kann nur der akzeptieren, der überzeugt ist, dass es nach menschlichem

Ermessen nicht eintritt [1]. Wenn es aber eintritt, dann sind die Folgen sowohl in räumlicher als auch in zeitlicher Dimension so verheerend und so weitreichend, dass sie die Risiken aller anderen Energieträger bei weitem übertreffen. Das Restrisiko der Kernenergie habe ich vor Fukushima akzeptiert, weil ich überzeugt war, dass es in einem Hochtechnologieland mit hohen Sicherheitsstandards nach menschlichem Ermessen nicht eintritt. Jetzt ist es eingetreten.

Genau darum geht es also - nicht darum, ob es in Deutschland jemals ein genauso verheerendes Erdbeben, einen solch katastrophalen Tsunami wie in Japan geben wird. Jeder weiß, dass das genau so nicht passieren wird. Nein, nach Fukushima geht es um etwas anderes. Es geht um die Verlässlichkeit von Risikoannahmen und um die Verlässlichkeit von Wahrscheinlichkeitsanalysen. Denn diese Analysen bilden die Grundlage, auf der die Politik Entscheidungen treffen muss, Entscheidungen für eine zuverlässige, bezahlbare, umweltverträgliche, also sichere Energieversorgung in Deutschland [4]. Deshalb füge ich heute ausdrücklich hinzu: Sosehr ich mich im Herbst letzten Jahres im Rahmen unseres umfassenden Energiekonzepts auch für die Verlängerung der Laufzeiten der deutschen Kernkraftwerke eingesetzt habe, so unmissverständlich stelle ich heute vor diesem Haus fest: Fukushima hat meine Haltung zur Kernenergie verändert [5][24].

Vor diesem Hintergrund hat die Bundesregierung die Reaktor-Sicherheitskommission beauftragt, in den vergangenen drei Monaten alle deutschen Kernkraftwerke einer umfassenden Sicherheitsprüfung zu unterziehen. Darüber hinaus hat die Bundesregierung eine Ethik-Kommission zur sicheren Energieversorgung ins Leben gerufen. Beide Kommissionen haben inzwischen die Ergebnisse ihrer Arbeit vorgelegt, und beiden Kommissionen gilt für ihre Arbeit mein ausdrücklicher Dank.

Auf der Grundlage dieser Arbeiten hat die Bundesregierung am Montag acht Gesetzentwürfe und Verordnungen beschlossen. Sie hat damit die notwendigen Entscheidungen für den Betrieb der Kernkraftwerke in Deutschland und die zukünftige Architektur unserer Energieversorgung auf den Weg gebracht.

Erstens. Das Atomgesetz wird novelliert [9]. Damit wird bis 2022 die Nutzung der Kernenergie in Deutschland beendet. Die während des dreimonatigen Moratoriums ab-geschalteten sieben ältesten deutschen Kernkraftwerke und das seit längerem stillstehende Kraftwerk Krümmel werden nicht wieder ans Netz gehen.

Für die Stilllegung der weiteren Kernkraftwerke haben wir einen Stufenplan beschlossen. Danach wird 2015, 2017 und 2019 jeweils ein Kraftwerk vom Netz gehen. Dann folgen bis 2021 drei weitere Kraftwerke. Die drei neuesten Anlagen können noch ein Jahr länger laufen: bis Ende 2022. Reststrommengen bleiben innerhalb der festgelegten Zeiträume auf andere Kernkraftwerke übertragbar. Dies gilt auch für die Strommengen von Krümmel, Mülheim-Kärlich und die der sieben ältesten Kernkraftwerke.

[24] Excerpt

Zweitens. Bis Ende dieses Jahres werden wir einen gesetzlichen Vorschlag für die Regelung der Endlagerung vorlegen. Das schließt die ergebnisoffene Weitererkundung Gorlebens ebenso ein wie ein Verfahren zur Ermittlung allgemeiner geologischer Eignungskriterien und möglicher alternativer Entsorgungsoptionen.

Drittens. Damit die Versorgungssicherheit, insbesondere die Stabilität der Stromnetze, in der jetzt anstehenden Zeit unmittelbar nach der Stilllegung von acht Kernkraftwerken zu jeder Minute und zu jeder Sekunde gewährleistet ist, müssen wir ausreichend fossile Reservekapazitäten unseres Kraftwerkparks vorhalten.

Zusätzlich schaffen wir die Möglichkeit, dass die Bundesnetzagentur, falls sie es für notwendig erachtet, eines der stillgelegten Kernkraftwerke in den beiden Winterhalbjahren bis zum Frühjahr 2013 als Reserve bestimmen kann. Auch hier ziehen wir eine Lehre aus Wahrscheinlichkeitsanalysen nach Fukushima, und zwar ein für alle Mal. Wir werden uns - und ich auch ganz persönlich - nicht dafür hergeben, dass wir uns auf etwas stützen, das das Restrisiko beinhaltet, dass es einen sogenannten Blackout in Deutschland geben kann. Auch wenn das nach menschlichem Ermessen äußerst unwahrscheinlich ist, dürfen wir dies nicht zulassen, weil wir gerade im Zusammenhang mit Fukushima erlebt haben, dass auch äußerst unwahrscheinliche Ereignisse eintreten können. Deshalb müssen wir hier Vorsorge treffen, wenn die Bundesnetzagentur das für geboten hält. Es ist nach derzeitiger Einschätzung der Bundesnetzagentur notwendig, eine Reserve bis zum Frühjahr 2013 vorzuhalten.

Viertens. Zentrale Säule der zukünftigen Energieversorgung sollen die erneuerbaren Energien werden. Wir wollen das Zeitalter der erneuerbaren Energien erreichen. Mit dem Energiekonzept vom Herbst 2010 hat die Bundesregierung dazu die Richtung festgelegt und ehrgeizige Ziele formuliert. Der Anteil der erneuerbaren Energien am Energieverbrauch soll bis 2050 auf 60 Prozent, ihr Anteil am Stromverbrauch auf 80 Prozent anwachsen. 2020 sollen mindestens 35 Prozent unseres Stroms aus Wind, Sonne, Wasser und anderen regenerativen Energiequellen erzeugt werden.

Bis 2020 sollen die Treibhausgasemissionen um 40 Prozent und bis 2050 um mindestens 80 Prozent gegenüber 1990 reduziert werden. Bis 2050 soll unser Primärenergieverbrauch um 50 Prozent gegenüber 2008 sinken. Das heißt, wir müssen ihn halbieren. Die energetische Gebäudesanierung soll im Vergleich zur bisherigen Rate verdoppelt, der Stromverbrauch bis 2020 um zehn Prozent gesenkt werden.

Das sind genau die Ziele unseres Energiekonzepts, das wir im Herbst 2010 beschlossen haben. Dieses Konzept bleibt gültig, genauso wie die Umsetzung dieses Konzepts. Aber erreichen können wir diese Ziele nur durch einen tiefgreifenden Um-bau unserer Energieversorgung, durch neue Strukturen und den Einsatz modernster Technologie; denn die Leistungsfähigkeit unserer Industrie in Deutschland ist ein hohes Gut. Sie muss bewahrt, sie muss ausgebaut werden; denn ihr verdanken wir unseren Wohlstand. Deshalb steigen wir nicht einfach aus der Kernkraft aus, sondern wir schaffen die Voraussetzungen für die Energieversorgung von morgen. Genau das hat es bislang so in Deutschland nicht gegeben.

Weil wir wissen: "Wer A sagt, muss auch B sagen [7]", wissen wir auch, dass das eine, nämlich der Ausstieg, ohne das andere, nämlich den Umstieg, nicht zu haben ist. Das ist es, worum es geht. Es führt daher kein Weg daran vorbei, die Stromnetze in ganz Deutschland zu modernisieren und auszubauen. Der erforderliche Leitungsausbau bei den Stromübertragungsnetzen in Deutschland liegt bei weit mehr als 800 Kilometern. Fertiggestellt sind bislang aber nur weniger als 100 Kilometer, weil geplante Stromleitungen noch immer auf Widerstände vor Ort stoßen. Planungsverfahren dauern - das ist eigentlich die Regel - häufig länger als zehn Jahre. Das ist nicht akzeptabel.

Hier müssen wir eine erhebliche Beschleunigung und gleichzeitig mehr Akzeptanz erreichen. Es kann nicht angehen, auf der einen Seite den Ausstieg aus der Kernenergie gar nicht schnell genug bekommen zu wollen, auf der anderen Seite aber eine Protestaktion nach der anderen gegen den Netzausbau zu starten, ohne den der Umstieg in die erneuerbaren Energien aber schlichtweg nicht funktionieren wird. Genau dieser Kreislauf - hier dagegen und dort dagegen - muss durchbrochen werden.

Dazu hat die Bundesregierung den Entwurf eines Netzausbaubeschleunigungsgesetzes beschlossen, das unter anderem eine bundeseinheitliche Planung für Höchstspannungsleitungen von überregionaler und europäischer Bedeutung vorsieht. Darüber hinaus enthält das NABEG auch Regelungen zur Sammelanbindung von Offshorewindparks sowie zur Erstellung eines Offshorenetzplans. Dabei wollen wir auch weiterhin eine möglichst frühzeitige und umfassende Bürgerbeteiligung sicherstellen.

Auch die von uns beschlossene umfassende Novelle des Energiewirtschaftsgesetzes enthält Regelungen zum beschleunigten Netzausbau. Weiterhin wird im novellierten Energiewirtschaftsgesetz der Einbau von intelligenten Zählern als Ausgangspunkt kommender intelligenter Netze geregelt [2]. Hinzu kommen zahlreiche Maßnahmen zur Intensivierung des Wettbewerbs auf den Energiemärkten sowie die Förderung von Speichern. Im Rahmen des neuen Energieforschungsprogramms werden wir die Entwicklung und Anwendung neuer Speichertechnologien unterstützen, die wir brauchen, um die fluktuierende Energieversorgung aus erneuerbaren Energien zu verstetigen.

Ich sagte es: Wer A sagt, muss auch B sagen [8]. Das eine ist ohne das andere nicht zu haben. Das gilt für den Ausbau der Netze, und das gilt gleichermaßen für die erforderlichen neuen Stromerzeugungskapazitäten, insbesondere bei Wind, Sonne und Biomasse. Leitlinie dabei sind Kosteneffizienz und zunehmende Marktorientierung. Diesem Ziel dient die Novelle des Erneuerbare-Energien-Gesetzes. Die Grundpfeiler der bisher so erfolgreichen Förderung der erneuerbaren Energien bleiben bestehen. Die gesetzliche Vergütung, der Einspeisevorrang und die Verpflichtung zum Netzanschluss haben unverändert Bestand. Damit sichern wir die notwendigen Investitionen für den weiteren Ausbau.

Schwerpunkt des zukünftigen Ausbaus soll die Windenergie an Land und auf See sein. So werden die

Finanzierungsbedingungen für Offshoreanlagen verbessert, und mit der Novellierung des Bauplanungsrechts, etwa mit der erleichterten Flächenausweisung für erneuerbare Energien, leisten wir einen Beitrag zum Ausbau und zu einer schnelleren Modernisierung von Windkraftanlagen an Land.

Aber - das ist neu -: Wenn die erneuerbaren Energien zukünftig noch schneller einen Großteil der Energieversorgung übernehmen sollen - 35 Prozent sind immerhin mehr als ein Drittel des zukünftigen Stromverbrauchs -, dann müssen wir konsequent auf Kosteneffizienz und Marktintegration achten [6]. Ein Schritt auf diesem Weg ist die Einführung der sogenannten optionalen Marktprämie, die die erneuerbaren Energien an das Marktgeschehen heranführt. Das ist ein qualitativ neuer Zugang, den wir aber brauchen, wenn erneuerbare Energien einen größeren Anteil an der Stromversorgung übernehmen sollen.

Im Bereich der Photovoltaik und der Biomasse wollen wir bestehende Potenziale für Kostensenkungen ausschöpfen. Darüber hinaus ist die Vereinfachung der Regelungen ein Leitgedanke des Erneuerbare-Energien-Gesetzes. Wo immer möglich, sind Sonderregelungen oder spezielle Boni abgeschafft oder vereinfacht worden. Damit wird die Förderpraxis vereinfacht und mehr Transparenz geschaffen.

Unsere Wirtschaft und vor allem die energieintensive Industrie sind in besonderer Weise darauf angewiesen, Strom zuverlässig und zu wettbewerbsfähigen Preisen beziehen zu können. Die rund eine Million Beschäftigten in der energieintensiven Industrie leisten einen zentralen Beitrag für die Wertschöpfung in unserem Land.

Unsere Devise heißt: Die Unternehmen genauso wie die Bürgerinnen und Bürger in Deutschland müssen auch in Zukunft mit bezahlbarem Strom versorgt werden. Deshalb wollen wir die erneuerbaren Energien schneller zur Marktreife führen und effizienter gestalten. Die EEG-Umlage soll nicht über ihre heutige Größenordnung hinaus steigen; heute liegt sie bei etwa 3,5 Cent pro Kilowattstunde. Langfristig wollen wir die Kosten für die Vergütung des Stroms aus erneuerbaren Energien deutlich senken.

Mit Blick auf die stromintensiven Unternehmen wollen wir Zuschüsse zum Ausgleich für emissionshandelsbedingte Strompreiserhöhungen vorsehen. Die Bundesregierung wird sich - das sage ich hier zu - mit aller Kraft in Brüssel dafür einsetzen, dass unsere Unternehmen faire Wettbewerbsbedingungen in Europa erhalten. Darüber hinaus wird ab 2012 die Härtefallregelung des Erneuerbare Energien-Gesetzes ausgeweitet.

Wenn wir schneller aus der Kernenergie aussteigen und in die erneuerbaren Energien einsteigen, dann brauchen wir für die Zeit des Übergangs fossile Kraftwerke. Auch daran führt kein Weg vorbei. Dazu werden wir den Rahmen für hocheffiziente Kohle- und Gaskraftwerke fortentwickeln. Mit dem Entwurf einer Novelle des Kraft-Wärme-Kopplungs-Gesetzes leisten wir einen Beitrag zur Versorgungssicherheit und Effizienz der Stromerzeugung. In einem *ersten* Schritt wollen wir die Frist für förderberechtigte KWK-Anlagen bis ins Jahr 2020 verlängern und die Voraussetzungen für die Förderung flexibler gestalten. Noch

im Laufe dieses Jahres werden wir über weitergehende Schritte entscheiden.

Die schnelle Fertigstellung der in Bau befindlichen fossilen Kraftwerke mit einer Leistung von rund zehn Gigawatt bis 2013 ist aus Gründen der Versorgungssicherheit und der Netzstabilität unabdingbar. Mindestens zehn, eher 20 weitere Gigawatt müssen in den nächsten zehn Jahren hinzugebaut werden. Durch ein Planungsbeschleunigungsgesetz wollen wir zudem den weiteren zügigen Ausbau von Kraftwerkskapazitäten sicherstellen. Insbesondere mit Blick auf kleine und mittelständische Energieversorger werden wir zudem ein neues Kraftwerksförderprogramm auflegen. Auch dies ist ein Beitrag zu mehr Versorgungssicherheit.

Aber machen wir uns nichts vor: Alle noch so ehrgeizigen Maßnahmen für den Ausbau der erneuerbaren Energien und der dafür erforderlichen Netze werden nicht ausreichen, wenn es nicht gelingt, die Energieeffizienz in unserem Land zu steigern. Im Zentrum steht dabei der Gebäudebereich. Auf ihn allein entfallen rund 40 Prozent des deutschen Energieverbrauchs, etwa ein Drittel aller CO2-Emissionen. Genau hier müssen wir ansetzen. Ziel bleibt es - so haben wir es schon im Herbst beschlossen -, bis 2050 einen nahezu klimaneutralen Gebäudebestand zu erreichen. Auch im Bereich der energieeffizienten Geräte und Prozesse wollen wir mehr tun, um den Stromverbrauch schon bis 2020 um zehn Prozent zu senken.

Wir werden deshalb die Mittel für das KfW-CO2-Gebäudesanierungsprogramm auf 1,5 Milliarden Euro jährlich aufstocken. Hinzu kommen neue steuerliche Anreize für die Gebäudesanierung, die auf weitere rund 1,5 Milliarden Euro an gezielter Förderung anwachsen werden.

In einer Novelle der Energieeinsparverordnung wollen wir festlegen, dass Gebäude nach 2020 und öffentliche Gebäude schon nach 2018 nur noch als Niedrigste energie-häuser errichtet werden sollen.

Bei der Vergabe öffentlicher Aufträge wird die Energieeffizienz als wichtigstes Kriterium rechtlich verankert. Hierzu haben wir die Vergabeverordnung entsprechend geändert. Zudem wollen wir einen Fahrplan für die energetische Sanierung von öffentlichen Gebäuden des Bundes erarbeiten mit dem Ziel, den Wärmebedarf der Bundesgebäude bis 2020 um 20 Prozent gegenüber 2010 zu senken.

Auf europäischer Ebene werden wir uns für anspruchsvolle Produktstandards im Rahmen eines sogenannten Top-Runner-Ansatzes einsetzen. Energieeffizienz soll nicht nur in Deutschland, sondern auch in Europa ein neues Markenzeichen werden.

Die Finanzierung der Maßnahmen des Energiekonzepts beruht dabei auf einem soliden Fundament. Ab 2012 sollen die Erlöse aus der Versteigerung der Emissionszertifikate unmittelbar in den von uns im vergangenen Herbst eingerichteten Energie- und Klimafonds fließen. Schon ab 2012 werden die Mittel des Fonds verstärkt.

Diese *vier* Punkte -

erstens die Novelle des Atomgesetzes,

zweitens die Arbeit für ein Entsorgungskonzept,

drittens die Versorgungssicherheit bis 2013,

viertens das Energiekonzept der Zukunft -

zeigen schon die Größe der Aufgabe, die vor uns steht. Ich sage ganz deutlich: Es handelt sich um eine Herkulesaufgabe - ohne Wenn und Aber. Alle, die zweifeln, wie wir als großes Industrieland in zehn Jahren ohne Kernenergie auskommen wollen, ohne gleichzeitig die Klimaschutzziele zu riskieren, ohne Arbeitsplätze in der energieintensiven Industrie zu gefährden, ohne das Steigen der Strompreise in das sozial nicht mehr Erträgliche in Kauf zu nehmen, ohne gefährliche Stromausfälle zu provozieren, ohne dass andere Länder um uns herum denselben Weg einschlagen, alle, die solche Fragen stellen, sind keine Ideologen, keine Ewiggestrigen, keine Spinner, denn sie stellen wichtige Fragen. Sie sind anzuhören, sie sind ernst zu nehmen, und wir haben Antworten darauf zu finden.

Es ist ja wahr: Es scheint einer Quadratur des Kreises nahezukommen, all das schaffen zu wollen, was wir uns vorgenommen haben.

Deshalb ist ein *fünfter* Punkt zwingend und unerlässlich: die Einrichtung eines lückenlosen Monitoringprozesses. Nur so können wir prüfen, ob wir unsere Ziele auf dem Weg zur Energie der Zukunft tatsächlich erreichen oder was wir zusätzlich tun müssen, wenn wir sie zu verfehlen drohen. Dabei geht es nicht um den schnelleren Ausstieg aus der Kernenergie - der steht fest -; nein, es geht um die regelmäßige Überprüfung der Umsetzung des Maßnahmenprogramms, auf die ein Land wie Deutschland in seinem eigenen Interesse nicht verzichten darf. Dieses Monitoring muss im Sinne eines richtigen Projektmanagements durchgeführt werden.

Deshalb wird die Bundesregierung diese Überprüfung jährlich vornehmen und dem Deutschen Bundestag das Ergebnis zur Debatte vorlegen. Sie wird auf der Grundlage von Berichten von Institutionen wie dem Statistischen Bundesamt, der Bundesnetzagentur oder des Umweltbundesamtes er-folgen. Über die Ergebnisse wird die Bundesregierung den Deutschen Bundestag unterrichten, und gegebenenfalls wird sie Empfehlungen zum weiteren Vorgehen aussprechen.

Wenn wir den Weg zur Energie der Zukunft so einschlagen, dann werden die Chancen viel größer sein als die Risiken. Welches Land, wenn nicht unser Land, sollte dazu die Kraft haben [3]? Deutschland hat schon so manches Mal gezeigt, was es kann, was in ihm steckt, und hat schon ganz andere Herausforderungen

bewältigt: die Einführung der sozialen Marktwirtschaft, weltweit in dieser Form einmalig; die Vollendung der deutschen Einheit, historisch ohne Vorbild; aus der weltweiten Finanz- und Wirtschaftskrise stärker herausgekommen, als wir in sie hineingegangen sind, und - ja, auch das - besser als die meisten anderen.

Deshalb sind wir überzeugt: Deutschland hat das Potenzial und die Kraft für eine neue Architektur unserer Energieversorgung. Die Energie der Zukunft soll sicherer sein und zugleich verlässlich, wirtschaftlich und bezahlbar [14]. Wir können als erstes Industrieland der Welt die Wende zum Zukunftsstrom schaffen. Wir sind das Land, das für neue Technik, Pioniergeist und höchste Ingenieurkunst steht. Wir sind das Land der Ideen, das Zukunftsvisionen mit Ernsthaftigkeit, Genauigkeit und Verantwortung für zukünftige Generationen Wirklichkeit werden lässt.

Wir alle, Regierung und Opposition, Bund, Länder und Kommunen, die Gesellschaft als Ganzes, jeder Einzelne, wir alle gemeinsam können, wenn wir es richtig anpacken, bei diesem Zukunftsprojekt ethische Verantwortung mit wirtschaftlichem Erfolg verbinden. Dies ist unsere gemeinsame Verantwortung. Für dieses gemeinsame Projekt werbe ich mit aller Kraft und mit aller Überzeugung.

11.3 Appendix 3

11.3.1 Glossary

Synchronic cut: isolating a "piece" of discourse in time, has a finite range

Diachronic: happen over time

Discourse strands: branches of intertwined discourses, which flow through time. Consists of elements, which are uniform themes in texts.

Discourse planes: area of the overall institution where the theme occurs.

Discourse fragment: text (Wodak & Meyer, 2001, pp. 32-61)

Interdiscursivity is the elements of discourse practice, also called *types of discourses* (genre, activity type, discourse and style) the text draws upon. Interdiscursivity reveals how the text is produced, distributed and consumed.

Interdiscursivity answers questions:

"Is there an obvious way of characterizing the sample overall in terms of genre? If so, what does it imply in terms of how the sample is produced, distributed and consumed? Does the sample draw on more than one genre? What activity types, styles, discourses are drawn upon? (specified according to tenor, mode and rhetorical mode. Is the discourse type relatively conventional or relative innovative in its interdiscursive properties?" (Fairclough, 1992, p. 232)

Genre is the overall text type

The view on genre allows us to weigh the way social practice is constrained by conventions and he potential for change and creativity within them.

Genre is associated with, and entails:

Activity type: the (compositional) structured sequence of actions of which it is composed. And the participants' involvement in the activity

Styles: e.g. political speeches tend to be formal (vs. informal). Styles vary along three main parameters: tenor, mode, and rhetorical mode.

Tenor: the sort of relationship that obtains between participants in an interaction: formal, informal, official, intimate, casual, etc.

Mode: written-to-be-spoken, written as spoken, spoken as written, spoken, written, spoken as written, conversational, formal written, informal written, academic, journalistic, etc.

Rhetorical mode: can be argumentative, descriptive, explanatory, expository.

Discourse: is most autonomous to genre. It is a particular way of constructing a subject matter. It emphasizes the content of the subject matter – areas of knowledge – only enter texts in the mediated form of particular constructions of them. It is helpful to choose terms which both designate both the area of knowledge and the way it is constituted. For example: "feminist discourses of sexuality". Sexuality as an area of knowledge constructed from feminist points of view (Fairclough, 1992, pp. 124-130).

Intertextual chains: When a part of a text is transformed into others or out of others. This is a way of determining the distribution of text. It can be quite complex, speeches can be transformed into various media coverages in more countries, into reports, articles, other speeches, etc. The designers / writers of such a speech try to anticipate both the distribution and consumption to the main types of audience of such a speech, but they are so complex all cannot be anticipated. (Fairclough, 1992, pp. 130-133)

Intertextual chains answer these questions:

"What sorts of transformation does this type of discourse sample undergo? Are the intertextual chains and transformations relatively stable, or are they shifting, or contested? Are there signs that the text producer anticipates more than one sort of audience?" (Fairclough, 1992, p. 233).

Coherence: a coherent text is a text that makes sense, because its parts have meaningful relationships. There may be relatively little explicit cohesion, due to few formal markers. Coherence depends on if the reader is able to make sense of what he/she reads. Therefore interpretation is the main principle here (Fairclough, 1992, pp. 83-84).

Questions: *"How heterogeneous and how ambivalent is the text for particular interpreters, and consequently how much inferential work is needed? Does the sample receive resistant readings? From what sort of reader?"* (Fairclough, 1992, p. 233)

Conditions of discourse practice: production and consumption: the specific social practices of production and consumption associated with the discourse types related to genres, activity types, styles, discourses.

Production: deconstruction of the producer into positions: same person or more people.

Animator; the person who makes the sounds.

Author: (individual or collective) the one who puts the words together and is responsible for the wording.

Principal: the one whose position is represented through the word

Consumption: with what focus it is read: close scrutiny or semi focused attention. Also modes of interpretation (how it is read) difference between a recipe and an academic article. The consumption can be either collective or individual.

Distribution: can be simple or complex. Distributions over a range of different media, countries, institutional domains with their own routines for transforming and distributing the text further. Usually this distribution is anticipated in the text by the producers, therefore they have multiple audiences built into them (Fairclough, 1992, pp. 78-80).

Questions: *"Is the text produced (consumed) individually or collectively? (Are there distinguishable stages of production? Are animator, author, and principal the same or different people?) What sort of non-discursive effects does this sample have?"* (Fairclough, 1992, p. 233)

Cohesion: how clauses and sentences are connected together, either explicitly or implicitly. Texts differ in the sort of cohesion they use and favor. It can point to ideology and cultural significance. There are three main types of functional relationships:

Elaboration: elaborates of the meaning of another by further describing it. e.g. by rewording, exemplifying, clarifying.

Extension: extends the meaning of another sentence by adding something new to it. (e.g. can be marked with and, etc., or adversative with but, yet, however, or variation marked with or, alternatively, instead.

Enhancement: enhances the meaning of another sentence by qualifying it in a number of possible ways: reference to time, place, manner, cause or condition, e.g. causal relations (reason and purpose)

Cohesion can vary over explicitness or implicitness: Explicit cohesive markers are: conjunctives, e.g. therefore, so that, since, etc. They are found on the surface of the text (Fairclough, 1992, pp. 174-177).

Questions: *"what functional relations are there between the clauses and sentences of the text? Are there explicit cohesive markers of functional relations?"* (Fairclough, 1992, p. 235)

Grammar: The three dimensions of grammar are transitivity, theme, and modality. They correspond to the ideational, textual, and interpersonal function of language. Transitivity and metaphors have been left out. The objective is to see whether particular process types and participant in sentences are favored. The choices made in voice (passive or active). How significant is the nominalization of processes? A major concern is agency, the expression of causality and attribution of responsibility? Which are most used and factors may account for this? (Fairclough, 1992, pp. 235-236)

Questions: *"Are passive clauses or nominalizations frequent, and if so what functions do they appear to serve?"* (Fairclough, 1992, p. 236)

A variable under the directive action clause is voice: passive or active. The active voice is used, when there is no reason for choosing the passive. Therefore, the passive is the most interesting. In a passive clause, the goal is subject and the agent is either passive agent or omitted altogether. a political or ideological reason for choosing the passive voice may be to "hide" something which is irrelevant, unknown or places responsibility as self-evident. It can also be used to background an issue (Fairclough, 1992, p. 182).

The agent "participant" in the sentence, is the subject, the entity who acts (defined by the verb) upon a goal (Fairclough, 1992, p. 180)

The significance of the nominalization process: turns processes and activities into states and objects, and concretes into abstracts (Fairclough, 1992, pp. 182-183).

Theme is the initial part of the clause, which means it is looking of structure and how information is given. The theme is the text producers point of departure in a clause, and generally corresponds with what is taken to be given information; information already known for producers and interpreters. It can give insight into commonsense assumptions about the social order and rhetorical strategies (Fairclough, 1992, pp. 183-184).

Questions: *"What is the thematic structures of the text, and what assumptions (for example, about the structuring of knowledge or practice) underlie it? Are marked themes frequent, and if so what motivations for them are there?"* (Fairclough, 1992, p. 236)

Modality: In any utterance, the person must indicate a degree of affinity with what is said. Modality in grammar is traditionally *may, must, should, can, will, etc*. But discourse implies more features, such as tense; the present tense realizes a categorical modality; and modal adjectives and modal adverbs.

Modality may be subjective or objective:

Subjective: *I think, doubt, mean, etc.* Where the affinity to what is said is made explicit. It often implies some form of power.

Objective: *May be, probably is, etc.* It may not be clear whose position is being expressed. It is either universal, or acting as a vehicle for the group or the individual.

Low affinity with an expression may express a lack of power, rather than lack of conviction or knowledge. Therefore, modality is the intersection between reality and the enactment of social relations. Hence, a major dimension in discourse (Fairclough, 1992, pp. 158-162)**.**

Questions: *"What sort of modalities are most frequent? Are modalities predominantly subjective or objective? What modality features (modal verbs, modal adverbs, etc.) are most used?"* (Fairclough, 1992, p. 236)

Word meaning is concerned with the meaning of words, in their dictionary meaning. The focus is on culturally salient keywords. Words whose meaning are variable or changing; and the meaning potential of a word, as a mode of hegemony and a focus of struggle

Meaning potential: the range of meanings conventionally associated with a word, represented by a dictionary; meaning potential can be stable, and universal and it may be ideological or politically invested in the discourse. Creative text contributes to deconstructing or reconstructing the meanings of words. The word's context in a clause should be considered, as well as how the word is modified through adverbs, and adjectives (Fairclough, 1992, pp. 185-190).

Wording is concerned with contrasting the ways meanings are worded with the ways they are worded in other types of text, and to identify the interpretative perspective that underlies the wording. New lexical items should be looked for in the text, because they are important to creative and innovative language (Fairclough, 1992, pp. 190-194)

Questions: *"Does the text contain new lexical items, and if so what theoretical, cultural or ideological significance do they have? What intertextual relations are drawn upon for the wording in the text? Does the text contain evidence of overwording or rewording (in opposition to other wordings) of certain domains of meanings?"* (Fairclough, 1992, p. 237)

Social practice: general objective is to specify the nature of the social practice of which the discourse practice is a part. This can explain why the discourse practice is as it is; and the effects of the social practice on the social practice (Fairclough, 1992, p. 237).

Social matrix of discourse: *"The aim is to specify the hegemonic relations and structures which constitute the matrix of this particular instance of social and discursive practice; how this instance stands in relation to these structures and relations (is it conventional and normative, creative and innovative oriented to restructuring them, oppositional, etc.?) and what effects it contributes to, in terms of reproducing or transforming them?"* (Fairclough, 1992, p. 237)

Order of discourse: Genre, discourse and style: the objective is to specify the relationship between social and discourse practice and the orders of discourse it draws upon. This may reveal effect of reproduction or transformation. Attention should also be paid to large scale tendencies (Fairclough, 1992, pp. 237-238).

Outcome at the extra-discursive level: The causality of the text. What kind of change does it bring about to society /institutions as a whole? Some texts lead to (wars, destruction of nuclear weapons, change in belief, etc.) (Fairclough, 1992, p. 79)

Bibliography of Appendix 3

Fairclough. (1992). *Discourse and Social Change.* Cambridge: Polity Press.

Wodak, R., & Meyer, M. (2001). *Methods of Critical Discourse Analysis.* London: Sage Publications Ltd.