

Miina Kaarkoski

'Energimix' versus 'Energiewende'

Competing Conceptualisations of
Nuclear Energy Policy in the German
Parliamentary Debates of 1991-2001



JYVÄSKYLÄ STUDIES IN HUMANITIES 290

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ABSTRACT

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The Fukushima nuclear accident in March 2011 made *'die Energiewende'* the mainstream concept in German energy politics. In particular, it marked the most recent phase in a long evolving debate about the use of nuclear energy. This dissertation focuses on the decade from 1991-2001, as this was when greater attention was paid to the demands for energy reform. Indeed, it was in 2001 that the Bundestag finally passed an act to phase out nuclear energy. The study explains the gradual change in policy towards this phasing out in Germany and the eventual mainstream success of *Energiewende*. It also considers why the act passed in 2001 turned out to be more moderate than had been originally expected. The work contributes to the discussion about the fundamental source of the dispute, and helps to explain the continuity and success of the anti-nuclear discourse. The sources include plenary debates from the Bundestag and Bundesrat; protocols from the Committee on the Environment, Nature Conservation, and Nuclear Safety; and selected newspaper articles. The work discusses competing conceptualisations in parliamentary policy debates by analysing micro-level speech acts by individuals which then contributed to semantic shifts at the macro-level of discourse with the politicisation of new topics. The success of *Energiewende* can be explained by the fact that the parliamentary debates evolved through the deliberate use of language applied to contemporary real world events. Macro-level semantic shifts explain the continuity of the discourse and the relative success of anti-nuclear demands, as the conceptualisations were being constantly brought up-to-date by the parliamentarians and other political actors. Anti-nuclear demands evolved with time, having accreted various meanings from real-life events that gradually transformed the key concepts at the macro-level. These macro-level changes brought the political views of the SPD and CDU at least somewhat closer, even if there was still a significant gap between their views in the early 2000s.

Keywords: Germany, parliament, debate, energy policy, nuclear energy, 1990s, 2001

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PREFACE

Writing a doctoral dissertation is a long process. Mine began in October 2010. Even though I might have had some idea of what to expect at the beginning of this process, only the experience could have taught me what working with a doctoral dissertation truly means. When writing these words in July 2016, the manuscript has already been formally accepted for defence, of course, and the summer holiday begins in just a few days, but somehow the dissertation is still not yet finished. I know now that there will always be more things that the manuscript needs, but at some point you really have to let it go, accept its shortcomings, and move on. Luckily, I will have reached this point very soon!

My colleagues, who have been variously experiencing this same journey with their own doctoral dissertations, have told me about the different kinds of situation that they have dreamt about during the process, especially at the points when they needed some motivation to keep going. These dreams have usually concerned the book getting published, or the public defence and the celebration that follows. In the Department of History and Ethnology, we have a tradition of hanging, or more precisely “nailing” the most recent doctoral dissertation in a certain cabinet (*naulaus*). For some of my colleagues, this has also been a driving force when writing the dissertation. Personally, I have gained strength from the thought that some day I will be at this very point when I can write the preface for my work. So it is with some relish that I can finally write this and know that the work is almost done.

At the same time, I want to make it clear how grateful and happy I am and how privileged I feel to have been allowed to experience this long and eventful journey. It has certainly involved hard work and a number of difficult and desperate moments. Still it has been one of the most wonderful experiences in my life, in which time I have also been able to learn and do a great number of other important things than just writing the dissertation itself. It has included working with the best colleagues in the best working community. I want to express my deepest gratitude to Professor Pasi Ihalainen whose inspiration and support were the main reasons why I was willing and able to start this process in the first place. His guidance and assistance has not only helped me throughout the whole process, but also allowed me to start working on a new research project as well. I am very grateful that I will have the opportunity to continue enjoying this rewarding and captivating academic work straight after this doctoral dissertation project. Professor Jari Ojala, as the head of our department and the second supervisor of this work, also deserves my warm gratitude for his constant encouragement and faith in me, and for offering me the space to work and other facilities in our department. I also want to thank Professor Willibald Steinmetz for his encouraging pre-examination statement, and Doctor Esa Ruuskanen for his perceptive and highly competent suggestions that helped to finish the work. The text has been edited and proofread by Alex Reed, who has put a lot of effort into improving its quality.

The Department of History and Ethnology and the Faculty of Humanities have enabled this project to take place by offering practical support and the largest share of funding for this project, for which I am very grateful. The project has also

been funded by the Science Council of the University of Jyväskylä, the Emil Öhmann Foundation, and Finnish Cultural Foundation. Two projects by the Academy of Finland, "Parliamentary Means of Conflict Resolution in 20th Century Britain" and "Supra- and Transnational Foreign Policy versus National Parliamentary Government, 1914-2014", have also advanced my work greatly with their broad international networks and travel aids.

Discussing and associating with colleagues in seminars, workshops, and in other formal and informal events at home and abroad have, for the large part, made this journey particularly memorable. I want to thank everyone working at the research groups for the Comparative Study of Political Cultures and Postwar Studies and the frequent chats with colleagues in the coffee rooms of *Villa Rana* and *Historica*. I am particularly thankful to Laura-Mari Manninen, Teemu Häkkinen, Matti Roitto, and Satu Matikainen with whom I have shared some of the greatest (and the most desperate) moments of this project and whose expertise and friendship mean a lot to me. I also feel special gratitude to Miia Kuha and Emmi Lahti, who I am fortunate to call my friends and with whom I have had the greatest and most therapeutic conversations about our families, work, and life in general. I am most grateful for my wonderful friends outside the work community too.

The feeling that you are supported and trusted by your family is crucially important. Even though it is sometimes difficult to explain just how all-consuming a doctoral dissertation project is and how demanding it can be, my family has always shown understanding and support. My mother, Ulla, has especially encouraged me to take education seriously ever since I was a child. She showed this by, for example, showing exemplary devotion, even if it was sometimes a bit annoying, to finding solutions for my homework. I thus want to thank Ulla, Ilkka, Markus, and Anne for being my parents and teaching me the value of work, family, and taking care of your health. Also my parents-in-law, Mirja and Heikki, deserve my gratitude for being devoted grandparents and always ready to help in everyday life. During the last year, I have also constantly enjoyed the hospitality of Sampo and Kia in Vaasankatu, which I appreciate greatly.

The final words I want to address to my husband Tuomas and to my son Viljo. Tuomas, I hope I can show you as much support with your work as you have showed and are showing with mine. You are the most encouraging spouse one can have and the last ten months, in which I was finishing the manuscript, have certainly not been easy for you. Thank you for being with me and for everything we share! My little Viljo, I cannot tell you enough how much I love you. You have reminded me what the priorities in life are, and being your mother is proving the greatest journey in life. You keep amazing me every day.

Espoo, in early July 2016

Miina Kaarkoski

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1 INTRODUCTION

1.1 Research Topic and Questions

Germany, which is presently the leading European economic power and also one of the world's greatest, has committed itself to '*die Energiewende*', i.e., the phasing out of nuclear energy, increasing the share of renewable energy sources, reducing energy consumption, and improving efficiency via other political means. From the viewpoint of rest of the world the German commitment to carrying out '*die Energiewende*' seems rather exceptional.¹ Meanwhile, the German decision to phase out nuclear energy has far-reaching consequences for Europe's geopolitics, climate conservation policy and energy security; most importantly it means that reliance on Russia has increased - examples of this include gas pipe projects through Baltic Sea and Russian involvement in a nuclear power plant project in Finland. On the other hand, German resistance to nuclear energy has also had a positive impact on the development of alternative energy sources and technology,² which could further advance the targets to fight climate change.

The disagreement over nuclear energy has been the dominant feature of German society and politics since the 1970s. This was a time when the construction of nuclear power plants was expanded throughout the country. It was also when the anti-nuclear movement, objecting to the use of nuclear energy for 'peaceful' purposes emerged in Germany and other countries, along with other transnational movements concentrating, e.g., on women's rights and

¹ After the accident on Three Mile Island in 1979 and in Chernobyl in 1986, many other countries also reconsidered the safety of nuclear energy. In Sweden, Italy, Netherlands, and Denmark, parliamentary decisions against nuclear energy were made, but Sweden, for example reversed that decision later on. Kern, Koenen & Löffelsend 2004, 192.

² E.g., Bechberger & Reiche 2004; Jacobsson & Lauber 2006.

peace.³ A flourishing public discussion about the topic emerged, and a number of environmental institutions were established: e.g., Institute for Applied Ecology in Freiburg, Institute for Energy and Environment (IFEU) in Heidelberg and the *Gruppe Ökologie* in Hanover. The discussion about nuclear energy did not just involve political parties, but also education institutes, academic circles, churches, and unions.⁴ In 1987, the German historian Joachim Radkau justifiably described the nuclear energy debate as being one of the most fundamental and most widely discussed public issues in the history of the Federal Republic (FDR);⁵ If we further consider the emergence of massive demonstrations in every decade since the second half of the 1970s onwards,⁶ the portrayal of state versus citizens, in the media,⁷ and the polarisation of political party opinions after the nuclear accident at Chernobyl (1986),⁸ this definition also aptly describes the German nuclear energy discourse in later years.

The amendment to the German Atomic Energy Act introduced by Angela Merkel's cabinet after the Fukushima nuclear accident in 2011 marks the beginning of the most recent phase in a long evolving discourse about German nuclear energy. The amendment ordered the immediate permanent closure of eight German nuclear reactors, and the other nine closed by 2022.⁹ It was significant, since the CDU/CSU (*Christlich Demokratische Union Deutschlands/Christlich-Soziale Union in Bayern*) and FDP (*Freie Demokratische Partei*) at this point abandoned their previous pro-nuclear policy, and began to emphasise the need to phase out nuclear energy. In terms of the policy debates, however, the roots of this lie in the deliberate use of certain language earlier. This doctoral dissertation therefore offers a historical background to show how Fukushima provided the perfect example of a situation which the CDU and FDP had claimed would never happen, i.e., a serious nuclear accident in a technologically advanced and democratic country not unlike Germany.

This doctoral dissertation throws light on the decade from 1991–2001 as this was when more attention started to be given to the demands for an 'energy reform' - *die Energiewende*. The phasing out of nuclear energy was the most crucial part of this, and it resulted in the German parliament (*Bundestag*) accepting the bill to phase out nuclear energy in 2001, when Chancellor Gerhard Schröder was presiding over his first red-green cabinet.¹⁰ Even though

³ Glaessner 2005, 114-116; Görtemaker 1999, 620-621; Joppke 1991, 46; Radkau & Hahn 2013, 326; Rucht 2008; Schreurs 2003, 84-85.

⁴ Radkau & Hahn 2013, 326-327; Radkau 2011b, 209-213.

⁵ Radkau 1987, 397.

⁶ E.g. Kolb 1997; Radkau 2011a; Rucht 2008; Stay 2011.

⁷ E.g. Edler 2001; Schulz, Berens & Zeh 1998.

⁸ Jung 1995, 655-656; Jung 1994, 119-212.

⁹ See Appendix 1 and 2.

¹⁰ Drs. 14/6890. The bill included following elements: companies were obliged to close down the nuclear power plants after producing a certain amount of electricity. Companies would also be prohibited from constructing or reconstructing the reactors; and obliged to carry through periodic safety checks. The reprocessing of radioactive waste was forbidden from June 2005 onwards, and operators were

this bill still allowed most of the nineteen still operating German nuclear power reactors to continue operating until the early 2020s - only two of them (Stade and Obrigheim) were actually closed down in the following decade¹¹ - this amendment to the German Atomic Energy Act was a significant phase in the political process during which parties were getting all the time closer to each other at the conceptual level. Nevertheless, the amendment made to the Atomic Energy Act at the end of the period (1991-2001) was less far-reaching than originally expected, most likely because the SPD relaxed their initial demands within the red-green coalition for such a strict time frame to phase out nuclear power. It is therefore important to look at the parliamentary debates from this decade to find out more precisely why this happened. Furthermore, in the early 2000s, there were still decidedly pro-nuclear conceptions being bandied about by the CDU/CSU and FDP; it was not until the Fukushima nuclear accident of 2011 that these conceptions became politically indefensible.¹²

The overall task of this study is to try to understand how this energy reform (or *Energiewende*) - a term originally used as radical concept by a small leftist and green minority - gradually became the dominant and mainstream concept in German policy discourses, pushing other conceptions to the background and leading to policy changes with worldwide significance. This doctoral dissertation complements existing academic literature on this topic by proposing a language-oriented analysis of parliamentary policy debates to examine the German nuclear energy debate in the spirit of 'new political history'¹³ and to explain the gradual parliamentary process to phase out nuclear energy. The pragmatic use of political language might explain wider semantic changes in the German nuclear energy discourse,¹⁴ so I argue for an approach to studying continuity and incremental yet decisive changes in policymaking, by looking at the discursive processes¹⁵ of parliamentary policy debates - where gradual policy change is the result of a long-lasting defining process between competing conceptions of nuclear policy.

When addressing this subject, scholars have mainly concentrated on the emergence, continuity and success of the German anti-nuclear movement,¹⁶ but we will see later on that research about the nuclear energy debate at the

obliged to construct interim storage facilities for radioactive waste at the power plants.

¹¹ See Appendix 1.

¹² This is, of course, only one aspect when explaining the political U-turn of the second Merkel cabinet after the Fukushima accident. In the meanwhile, support for wind power and solar power has made nuclear power less profitable than, for example, a decade earlier.

¹³ Steinmetz & Haupt 2013.

¹⁴ Halonen, Ihalainen & Saarinen 2015, 3-26; Ihalainen & Saarinen 2015 29-31; Ihalainen 2010, 20-23; Ihalainen 2006, 125; Ilie 2016, 134-135; Ilie 2004, 3-4.

¹⁵ Ihalainen & Saarinen 2015, 33.

¹⁶ E.g., Radkau & Hahn 2013; Radkau 2011a; Radkau 1983; Roth & Rucht 2008; Rucht 2008; Rucht 1994.

parliamentary level, in fact, leaves a lot of space for further aspects. The discussion has mainly centred on the Commission of Inquiry into 'Future Nuclear Energy Policy' (*Zukünftige Kernenergie-Politik*) which was established in 1979, and was instrumental in bringing the Bundestag into the process of nuclear energy policymaking. Before the question was politicised, these decisions had been made largely behind closed doors by ministers, experts, and lobbyists, with the Bundestag playing only a minor role in policy formulation.¹⁷ From the 1950s to the early 1970s all the major political parties and powerful sectors of West German society supported the atomic program, and the press wrote about the topic in mainly positive tones.¹⁸

As the leading legislative organ and decision-maker in the FDR, the role of the Bundestag in the nuclear energy debate deserves closer attention, especially if we aim to explain the gradual policy shift towards phasing out nuclear energy. According to article 73 of the German Constitution (*Grundgesetz für die Bundesrepublik Deutschland*), the Federation has exclusive legislative power over "the production and use of nuclear energy for peaceful purposes, the construction and operation of facilities for such purposes, protection against hazards arising from the release of nuclear energy or from ionising radiation, and the disposal of radioactive substances".¹⁹ In addition to this, analysing parliamentary debates using language-oriented methods enables us to study the dynamics of political discussion and conceptualisations of policy questions as they actually happen *in situ*.²⁰

This thesis argues that our understanding of this gradual change in German nuclear energy policy can be deepened and additional causal explanations provided, by using a language-oriented methodology to study policy debates on the subject in the federal parliament (1991-2001). The sources I have analysed include plenary debates of the Bundestag (Parliament) and Bundesrat (Federal Council), protocols of the 'Committee on the Environment, Nature Conservation, and Nuclear Safety in Germany' (AfUNR, or *Ausschuss für Umwelt, Naturschutz und Reaktorsicherheit*) and the written motions of the party groups. Analysis of selected newspaper articles from the *Frankfurter Allgemeine* (FAZ) and *Süddeutsche Zeitung* (SZ) have also helped to contextualise these parliamentary debates within the wider public debate. The competing conceptualisations of German nuclear energy policy are analysed by looking at the pragmatic use of language on the micro-level and concepts used by individual parliamentarians, and how these influenced the semantics of

¹⁷ Altenburg 2012, 262-263; Radkau 2011a, 12.

¹⁸ Rucht 1994, 446, 450.

¹⁹ Grundgesetz für die Bundesrepublik Deutschland, Art 73. "[d]ie Erzeugung und Nutzung der Kernenergie zu friedlichen Zwecken, die Errichtung und den Betrieb von Anlagen, die diesen Zwecken dienen, den Schutz gegen Gefahren, die bei Freiwerden von Kernenergie oder durch ionisierende Strahlen entstehen, und die Beseitigung radioaktiver Stoffe."

²⁰ Burkhardt 2016; Burkhardt 2003; Halonen, Ihalainen & Saarinen 2015; Häkkinen 2014; Ihalainen, Ilie & Palonen 2016; Ihalainen 2010; Ilie 2016; Ilie 2004.

language and concepts at the macro-level. Studying political language in a specific policy field such as German nuclear energy policy illustrates the necessity of concentrating on language used in day-to-day policy debates and the evolution of how arguments are constructed,²¹ instead of presenting hypothesis of central concepts beforehand.

Similar political commitment to reorganise the energy policy and phase out of nuclear energy has not occurred in other countries. During the first years of the 1990s, the share of nuclear energy in electricity production was in Germany more than thirty per cent, and in 1998 still nearly thirty per cent.²² In 1998, there were nineteen nuclear reactors operating.²³ I shall demonstrate how in the German case topical and partly unexpected and sudden events such as the Chernobyl nuclear accident (1986), conflict over the transport of radioactive waste, and growing concern over the world's climate were deliberately drawn into the political sphere and politicised²⁴ in the context of ongoing discourses that was attempting to define and redefine the values, ideas, and concepts at the core of all nuclear energy policymaking.²⁵ The success of this *Energiewende* and especially strong resistance of nuclear energy in German politics can be explained by the fact that the anti-nuclear lobby were able to adapt concrete events (such as Chernobyl) to ongoing discourses. Thus events were politicised and earlier hypothetical meanings of central concepts and arguments redefined in the context of these events. The case illuminates the significance of political discourses,²⁶ which was interlinked to policy discourses elsewhere in society, for advancing and carrying through policy changes; demonstrates how Bundestag members deliberately used political language to affect the policy decisions; and illustrates how political discourse indeed had an effect on the content of executed policy.

Previous research has to some extent discussed German nuclear energy discourse from the perspective of its semantic development, but the pragmatic use of language and concepts in actual speaking situations is also relevant. Matthias Jung has studied the semantic macro-level of the discourse from the 1940s to the first years of 1990s and described how the German nuclear energy debate was a semantic struggle over the meaning of central concepts such as 'Atom', 'Kern', 'GAU (*größten anzunehmenden Unfall*)', 'Restrisiko'²⁷ etc. He went on to point out the special role of the nuclear energy debate in German history since it has symbolised the disagreement over scientific and technological

²¹ Steinmetz 2002, 88.

²² IAEA Country Nuclear Power Profiles 1998, Germany, 202, 208.

²³ See Appendix 1.

²⁴ Steinmetz, Haupt 2013, 21, 23-26.

²⁵ Ilie 2016, 134.

²⁶ In this doctoral dissertation, the term 'discourse' is used descriptively in the meaning to refer to series of evolving parliamentary discussions about nuclear energy policy instead of referring to discourse analysis in its Foucauldian meaning. Similar approach to 'discourse' emerges e.g. in Häkkinen 2014, 46 and Roitto 2015, 44.

²⁷ See chapter 3, for more on "*größten anzunehmenden Unfall*" and "*Restrisiko*"

progress, public participation, value orientation, and a sociopolitical view of life.²⁸ From his work, we already know that semantic connotations of the central terms in the German nuclear energy discourse have varied over the decades, many of them adapted originally from experts' terms or from the American discourse.²⁹

Although there are few other studies of the nuclear energy discourse in Germany since the 1990s, it is clear that the debate picked up after Chernobyl, as Matthias Jung pointed out³⁰ and this work empirically proves. The development of the nuclear energy discourse from the early 1990s onwards is pertinent since only then can we illustrate how the polarisation of party political opinions affected the dynamics of discussion at the parliamentary level³¹ and how the political language used explains the German decision to phase out nuclear energy that was finally accepted by the Bundestag in 2001.

Those against nuclear energy, or at least critical of it, were making their voices heard in all the major West German political parties by the 1970s; and in 1977, the CDU, SPD, and FDP each organised a conference on energy and environmental questions.³² But only after Chernobyl did the political discussion at the federal level really emerge. In particular, the Social Democrats (SPD - *Sozialdemokratische Partei Deutschlands*) made the decision at their Nuremberg party conference in 1986 to support the phasing out of nuclear energy within ten years. This was because the party already had a strong anti-nuclear lobby in it during the 1970s, and because after Chernobyl the Federation of German Trade Unions (*Deutscher Gewerkschaftsbund, DGB*), which was the largest trade union organisation in West Germany and an alliance of several unions, made the decision to support the phasing out of nuclear energy as well.³³ This leaves space for further speculations about the meaning of the decision as an election tactic (especially for Gerhard Schröder) or as an attempt to show support for the domestic coal sector, which represented a key part of the party's electoral base. Public opinion after Chernobyl changed dramatically and the overwhelming majority of the West German public started to oppose nuclear power. Between 1982 and 1986 an average of 46% of the public opposed the construction of additional nuclear power plants, but in December 1986, seven months after the accident, 75% of the public were for an instant or gradual nuclear moratorium.³⁴ For the German Green Party, established in 1980 (on the national level) by the environmental movement and voted into the Bundestag in the 1983 elections, the phasing out of nuclear energy was clearly the founding theme.³⁵ The

²⁸ Jung 1994, 14.

²⁹ Jung 1995; Jung 1994. Following parts of the work discuss this more precisely.

³⁰ Jung 1995, 655-656; Jung 1994, 119-212.

³¹ Häkkinen 2014, 45; Ihalainen, Ilie & Palonen 2016, 12 Ihalainen & Saarinen 2015, 33.

³² Rucht 1994, 446, 450.

³³ Rucht 1994, 453.

³⁴ Joppke 1993, 179.

³⁵ Glaessner 2005, 114-116; Jacobsson & Lauber 2006, 263. In 1993 the Green party unified with its Eastern counterpart into the Alliance 90/Greens.

emergence of the Green party on the local level in individual state (*Land*) parliaments (from 1979 onwards) and then nationally in the Bundestag (from 1983) affected the everyday political arguments that took place; while the deliberate use of language that could be framed within the nuclear energy debate meant that it became a part of everyday policy debates.³⁶ In this way the anti-nuclear movement expanded to become a large political force in a way that changed West German politics fundamentally.³⁷

The CDU/CSU and FDP continued to favour nuclear energy by highlighting its importance for German industry. The federal government, led by Chancellor Helmut Kohl thus carried out a nuclear-friendly energy policy during his 16-year term in office (March 1983 - October 1998). But an opportunity to change nuclear energy policy arrived when Gerhard Schröder replaced Kohl in 1998, heading a new ruling coalition of the SPD and the Alliance 90/Greens. In their coalition agreement the red-green federal government agreed to introduce the orderly phasing out of nuclear energy and an amendment to the Atomic Energy Act, and this was eventually accepted by the Bundestag in December 2001. In practice, 'orderly phasing out' meant allowing nuclear power plants to continue operations over a set time period while an alternative energy system was being developed in the meantime.

Because the overall purpose of this doctoral dissertation is to try and understand better (through analysing parliamentary policy debates) how the German federal state decided to phase out nuclear energy; the hypothesis is that the anti-nuclear parties³⁸ were able to gain more space to argue their points in the Bundestag and convincing in the prevalent atmosphere of political debate, and their particular terminology became more frequent in policy debates due it being deliberately employed. In other words, the work rests on the presumption that the anti-nuclear parties were able to promote their concepts through deliberate use of language and, therefore, increase their definition power over the policy issues.³⁹ However, when presenting this hypothesis, we should also keep in mind the gradual nature of the policy change and the fact that Germany is still currently using nuclear energy. So clearly the conceptualisations of both the anti-nuclear *and* pro-nuclear groups in parliament were evolving during this discourse.

Similar questions have been asked to explain, for instance, the continuity and relative success of the anti-nuclear movement in Germany over several generations.⁴⁰ In comparison, although a vigorous and powerful anti-nuclear

³⁶ Jung 1994, 117.

³⁷ Glaessner 2005, 114-116; Görtemaker 1999, 620-621; Joppke 1991, 46; Radkau & Hahn 2013, 326; Schreurs 2003, 84-85.

³⁸ The anti-nuclear parties were the SPD, the Alliance 90/Greens, and PDS (*Partei des Demokratischen Sozialismus*) who, as successors to the socialist party which ruled the DDR until 1990, are not to be confused with the SPD.

³⁹ Ilie 2016, 134.

⁴⁰ Joppke 1993; Radkau & Hahn 2013; Radkau 2011a; Radkau 1983; Roth & Rucht 2008; Rucht 2008; Rucht 1994.

movement also emerged in France during the 1970s, it had all but vanished without having made any real gains by the early 1980s. Meanwhile, in the US, the anti-nuclear movement certainly contributed to the safety regulations of nuclear power plants - especially after the Three Mile Island accident (1979) - and the nuclear industry seemed to go into a political and economic decline for a while; but it was not long before the movement disintegrated and the focus of public debate turned from nuclear energy to nuclear disarmament.⁴¹ In 1996, France had 54 nuclear power plants in operation and the country was the world's second largest nuclear electricity producer.⁴² In the US, annual nuclear electricity generation more than doubled from the 1980s to early '90s and in 1993 there were 109 operable nuclear power plants.⁴³ In Germany, the development of nuclear technology for the production of energy had begun in the 1950s and first power plants were installed during the next decade.⁴⁴ When the OPEC (Organisation of the Petroleum Exporting Countries) oil crisis hit in 1973, dependence on imported oil was high in West Germany, like in many other Western European countries, and its price increase significantly affected the economy.⁴⁵ As a consequence the Schmidt government pushed through the first Energy Programme, which specified that within the coming decade almost half of the nation's electricity should come from nuclear power. Thus, in the period 1972-1976 many new nuclear power plants were planned and installed.⁴⁶ Increasing the nuclear power capability after the oil crises of the 1970s was a common trend in other countries as well. For example, in Japan and Finland nuclear energy became a strategic priority in energy policies in the early 1970s and by the 1980s, Japanese and Finnish power companies were investing heavily in nuclear power. However, by the late 1990s and the 2000s Japan and Finland went a step further than Germany to increase the share of nuclear energy in power generation explaining it with climate strategies for reducing emissions.⁴⁷

There are two schools of thought as to why the German anti-nuclear movement has successfully persisted for as long as it has. One is espoused by those, such as Radkau, who sees that it is the problems inherent in nuclear technology itself that have been the main cause of so much support for the anti-nuclear movement in Germany.⁴⁸ Although the movement emerged simultaneously elsewhere in the world too, Radkau argues that Germany stands out for the tenacity with which the movement has been supported from one generation to the next, and for its relatively high media coverage of the

⁴¹ Joppke 1993, 19; Rucht 408-427, 457, 472-473.

⁴² IAEA Country Profile France 1998, 182, 186.

⁴³ IAEA Country Profile United States of America 1998, 604.

⁴⁴ IAEA Country Profile Germany 2001, 292-293.

⁴⁵ Anderson 1999, 95-97.

⁴⁶ Jacobsson & Lauber 2006, 261; Joppke 1991, 46. Also the domestic coal industry gained governmental support until the beginning of 1990s.

⁴⁷ Seung-Joon & Ruuskanen 2015, 123-124, 128.

⁴⁸ Radkau & Hahn 2013; Radkau 2011a; Radkau 1983.

issue.⁴⁹ The other school, however, of mostly sociologists and political scientists have seen the German anti-nuclear movement has an expression of deeper political and cultural dissatisfaction similar to other social movements.⁵⁰ Although the present study focuses on the nuclear energy debate at the parliamentary level rather than the German anti-nuclear movement as a whole, it does contribute to this discussion with a complementary viewpoint from analysing how politicians conceptualised the issue in the period 1991-2001. The analysis of political language reveals that anti-nuclear arguments did not simply deal with the safety of nuclear technology, but were also linked to more abstract questions such as ‘German democracy’. In other words, analysing parliamentary policy debates helps reveal more specifically which elements of anti-nuclear rhetoric were linked to broader questions of political culture in a parliamentary democracy; which in turn might also explain the success and continuity of these arguments at the parliamentary level.

Since this thesis analyses competing conceptions of nuclear energy in parliamentary policy debates, it is necessary looking at the wider question of how this rhetoric evolved as a political phenomenon during the time period 1991-2001. Following the definition by the so-called Bielefeld group in new political history, ‘the political’ is defined as describing a “communicative sphere that is subject to substantial variation in space and time, across different cultures, and in the course of world history”.⁵¹ Kari Palonen’s definition of politics also includes a similar idea of evolvment as “a complex and intricate web of related topics, vocabularies and activities”.⁵² In this respect, parliamentarians have deliberately defined and redefined the ‘political’ meaning of the use of nuclear energy through their speech acts. For example, in the period 1991-2001, nuclear energy evolved into a political question in terms of how it related to environmental protection, economic development, and the realisation of democracy, among other issues. We should therefore pay special attention to the “politicisation” (as the Bielefeld group called it) of certain topics, agents, or practices.⁵³ Although the dawn of the atomic age is generally thought to mark the end of WWII,⁵⁴ nuclear *energy* only really became politicised during the 1970s, and this continued to go on in the decades that followed, as we shall see here. Parliamentarians of all hues brought constantly new topics to the nuclear energy policy debates of the Bundestag, and presented competing

⁴⁹ Radkau 2011b, 211-213.

⁵⁰ Roth & Rucht 2008; Rucht 2008; Rucht 1994.

⁵¹ Steinmetz & Haupt 2013, 21, 23-26.

⁵² Palonen 2006, 10.

⁵³ Steinmetz & Haupt 2013, 21, 23-26. The Bielefeld group suggests that politicisation may happen, firstly, through deliberate verbal acts, when certain topics, agents, or practices are drawn into the sphere of political communication; and secondly, through symbolic or physical acts of various kinds, such as gathering statistics, exchanging gifts etc.

⁵⁴ Roitto 2015.

descriptions for these topics within the existing contextual framework of the ongoing political discussion.

When gradual policy changes are understood as the outcome of discursive processes, which bring out different views, ideologies, understandings and competing conceptions of policy in question⁵⁵ in addition to changes in physical reality, a researcher faces the technical challenge of defining a clear empirically based starting point and an end to this process. In our case, related discourses had begun to flourish already at the end of the 1970s and have continued since the Fukushima nuclear accident too. In practice the challenge can be solved out by selecting various phases in the series of related parliamentary debates, which can then be analysed more closely. In the German nuclear energy debate, the Chernobyl nuclear accident in 1986 would seem to serve as a well-justified starting point for one such phase, as it was a real-world event that activated a new cycle in the debate;⁵⁶ and yet this study begins in 1991. This is because German unification understandably had an effect on parliamentary research; and so this date limits the perhaps otherwise excessive amount of parliamentary source material available. The first federal Bundestag elections in unified Germany took place in December 1990, and so it was in the parliamentary session of 1991 that the Bundestag started to debate nuclear energy policy for the whole of Germany for the first time. By then, the Greifswald and Rheinsberg nuclear power plants, which had operated in the DDR, were closed down.⁵⁷

Finding an end for the period of analysis was a slightly less complex issue, however, since the task of this thesis is to consider explanations as to why the Bundestag passed the bill to phase out nuclear energy in December 2001 and how the process took place during the decade leading up to this. The parliamentary debates did not end here though, of course - as the Fukushima crisis amply illustrated. This having been said, the parliamentary policy debates during Angela Merkel's second cabinet (from 2009 onwards) should be considered as a new cycle in the policy debates, and this period might be a fruitful research topic for scholars in the future. This was because nuclear energy did not feature much in parliamentary debates after the first few years of the millennium. It was only with the change in power relations caused by the Bundestag election of 2009, that there was a new active phase for nuclear energy policy in the discussions again. This cycle was marked by attempts to overrule the original 2001 act, and then the political U-turn by Merkel's cabinet after the Fukushima accident.

In the German nuclear energy debate both '*Atomenergie*' and '*Kernenergie*' have been used when debating the subject. Matthias Jung has studied the connotations of these two concepts and concluded that both of them were used

⁵⁵ Ihalainen & Saarinen 2015, 33.

⁵⁶ Boyd & Palviainen 2015, 64, 69, 73.

⁵⁷ See Appendix 1.

from the earliest phase of developing nuclear technology onwards, but their semantic meanings have evolved during the decades. In the 1940s and '50s the term '*Atom*' was the dominant variation in the scientific context, and in political connections and the wider public debate and it had positive connotations expressing high hopes towards prospects of technological development. From the 1950s, '*Kern*' (nuclear) also started to be used as well alongside '*Atom*'; and until the first half of the 1970s both terms were used more or less interchangeably without any strong polemic. By the end of the 1970s, however, the anti-nuclear movement and its political representatives, the Greens, had made the deliberate choice to use '*Atom*', as had prominent people such as futurologist Robert Jungk. Meanwhile, the supporters of nuclear energy tended to use the term '*Kern*' more frequently, as it had more technological connotations and avoided negative associations with the atom bomb and military uses of the technology (e.g., '*Atomtote*', '*Atomgefahren*' and '*Atomkrieg*').⁵⁸ Indeed, the Chernobyl incident seemed to provide fresh impetus for the press to use the term '*Atom*' in their reports on the negative implications this accident would have for the technology. In the aftermath, many SPD members echoed the ecological wing of their party when they referred to '*Atom*' and '*Ausstieg*' rather than '*Kern*', and in so doing, their discourse became linguistically closer to the Green party; although some party members continued to use '*Kern*' and '*Verzicht*'. Nevertheless, by the early 1990s the importance of choosing between using the term '*Kern*' or '*Atom*' seemed to have diminished compared with the late 1970s and 1980s.⁵⁹

Bearing this in mind, and how the terms had become relatively neutral and equal in their connotations, this study uses the English term 'nuclear energy', except in those cases where quotes which specifically use *Atom* and associated terminology are translated directly from the German. Indeed, when analysing the Bundestag debates it is usually quite clear if the speaker was in favour of nuclear energy or against it with or without the help of this terminology. As Matthias Jung has observed, and the empirical analysis in this work should confirm, the use of these terms was inconsistent between the speakers in many cases by the 1990s. Furthermore, from the viewpoint of analysing conceptualisation the most prominent meaning of utterances is in the context of their whole argument⁶⁰ rather than observing the semantic differences in this terminology alone. Thus, when quoting from the German, '*Atomenergie*' will be translated as 'atomic energy' and '*Kernenergie*' as 'nuclear energy'. I should add at this point, just to be very clear, that by using the English term 'nuclear energy' I am not taking any political position on the question of using nuclear energy or not - it is simply a practical choice without any hidden agenda.

⁵⁸ Jung 1994, 58-64, 82-83, 97, 99, 134, 642.

⁵⁹ Jung 1995, 656-657, 642, 664.

⁶⁰ Steinmetz 2002, 88.

The following parts of this introduction shall continue the discussion about methodology and previous research. Chapter 2 discusses how dissent and consensus were elementary features of parliamentary policy debates in the sense that, though the opinions of party factions were strongly polarised, the ideal of finding cross-party consensus was strong. This background chapter is also used as an opportunity to discuss the relative positions of the parties towards using nuclear energy and internal disagreements within them. Chapters 3, 4 and 5 then look at how the political parties defined nuclear energy policy within the different macro-level thematic issues of: the question of safety (chapter 3); environmental issues (chapter 4); and political legitimacy (chapter 5). The subchapters will analyse the debate within these thematic entities in chronological phases linked to language used at the micro-level.

With all these parts assembled, this doctoral dissertation illustrates that, despite a certain degree of personal and linguistic continuity in German anti-nuclear discourse, the debate in this decade was not trapped in the past, even though there was some continuity in the themes discussed. The debates evolved with a deliberate use of language linked to descriptions of contemporary real world events. The opponents to nuclear energy in the Bundestag took the debate to a higher abstract level by relating it to questions concerning the meaning and fulfilment of German democracy – expressing fears over strong executive power that did not respect democracy or basic rights. After all, the political cultures of the Third Reich and DDR still cast a long shadow over the FDR.

1.2 Sources and Methodology

In recent years, parliamentary research using language-oriented methods has become a prominent part of the interdisciplinary academic debate surrounding new political history. This doctoral dissertation joins this trend of research into the evolution of political culture in parliamentary debates by analyzing also the use of key concepts such as ‘democracy’ and ‘parliamentarism’, the role of parliament in policymaking, the theory behind parliamentary speaking, and multidisciplinary methodological approaches for studying parliamentary debates (among other aspects of parliamentarism).⁶¹ From this basis, it proposes a methodological application to be used for studying conceptualisations made in the nuclear energy policy debates in the Bundestag. A special emphasis is placed on the politicisation of events and questions taking place in society (often at the same time) in the context of the ongoing discourse, i.e. how the

⁶¹ E.g., Burkhardt 2016; Haapala 2012; Halonen, Ihalainen & Saarinen 2015; Häkkinen 2014; Ihalainen, Ilie & Palonen 2016; Ihalainen 2016; Seaward & Ihalainen 2016; Ihalainen 2013; Ihalainen 2010; Ihalainen & Palonen 2009; Ilie 2016; Pekonen 2014.

direction of policy discourses are affected by 'real world events' and potentially *vice versa*.

Sources

The source material not only include different types of parliamentary records as sources, but also a selection of newspaper articles from the *Frankfurter Allgemeine* (FAZ) and *Süddeutsche Zeitung* (SZ) to situate the topics in the wider public debate. The selection of parliamentary records include plenary debates of the Bundestag and the Bundesrat, protocols of the above-mentioned AfUNR (also referred to as the Committee in the following chapters), and the written motions of party groups in cases when the topic dealt with some aspect of nuclear energy policy. After discussing these sources more precisely, the latter part of the chapter considers, which aspects of policy debates can be studied and which methods of analysing political language can be used for this. The methodological starting point is that the analysis of arguments for or against a particular motion enables competing conceptualisations of the policy being debated to be evaluated.⁶² In other words, it investigates whether analysing arguments for or against (*pro et contra*)⁶³ a particular motion or topic will allow competing conceptualisations about the policy in question to be better evaluated.⁶⁴

As anyone who has worked with parliamentary sources is well aware, there is often a lot of material to choose from, and nuclear energy policy is no exception; some of the documents had to be weeded out to ensure that the research could be completed in a reasonable amount of time. Still, I want to make it very clear that this selection only happened after I had first gone through a wide range of other documents connected with German nuclear energy policy in a number of ways. It is this primary selection process that I will be going through next - based on an empirical reading of the sources and methodological observations between different types of parliamentary documents.

Firstly, it quickly became apparent that comparing plenary debates and other documents with more specific contents would not be an easy task. For instance, in parliamentary question time (Frage Stunde) the queries and answers back concerned very specific aspects of nuclear energy policy. Similarly, the parliamentary questions dealt with in writing (Kleine Anfrage) were detailed. Often, the questions and answers presented in parliamentary

⁶² Ihalainen & Palonen 2009, 23.

⁶³ Palonen 2008, 82. Kari Palonen stresses how the parliamentary style of politics is both historically and conceptually linked to rhetorical thinking in terms of opposing standpoints, arguments or perspectives. He defines that the confrontation of any proposition with an alternative is the driving force behind the distinctively parliamentary form of politics.

⁶⁴ Ihalainen & Palonen 2009, 23.

question time, or as written questions, concerned very specific technological details, so the same methodology devised for analysing the plenary debates could not be used, and would have broadened the work unnecessarily. Yet although many of the motions (*Anträge*) made by the party groups included such overly specific details, some of them could be included in the analysis as they included an introduction which described the purpose of the motion, which allowed them to be comparable to the plenary debates.

Secondly, the Bundesrat representing individual German states (*Länder*) participated in the legislative process and some bills required its approval. Often the majority of *Länder* representatives were of a different political hue from the federal government and so the parliamentary opposition would be able to pursue its own political agenda in the Bundesrat. Voting in the Bundesrat would understandably be more driven by state interests, which would mean it might sometimes not follow the official line of the opposition in the Bundestag.⁶⁵ The Bundesrat has been taken into account by including its plenary debates in the analysis, in those cases where it debated the bill proposals, i.e. the amendments of the Atomic Energy Act that interest us here.

In practice, the opinions of the state ministers were often heard directly in the Bundestag plenary debates. During the decade we are specifically interested in, it was the storing of radioactive waste that proved to be the thorniest issue between state and federal levels of government. The former was hoping to directly affect policymaking by politicising issues in each state through various verbal, symbolic, and physical acts (not just through the Bundesrat);⁶⁶ and these will be explored in more detail in chapter 5 of this book. In other words, what was happening at the state level became clearer in many cases by looking in the newspapers or plenary debates of the Bundestag than through analysing the Bundesrat protocols. Furthermore, there is a danger of overemphasising the importance of the Bundesrat in nuclear energy policy because, for example, the three amendments of the Atomic Energy Act (including the bill to phase out nuclear energy) were passed in such a way that they did not require the approval of the Bundesrat - these will be discussed in chapter 2.

Thirdly, much of the discussion happened in the committee work involved in preparing the different motions and bills before they were presented in parliament, which in the nuclear energy context meant the AfUNR Committee in the majority of cases. Although some other committees were occasionally involved in the process as well, for practical purposes this work uses only the AfUNR protocols. Committees were mostly organised in parallel to ministerial departments,⁶⁷ and seats were shared out in proportion to the representation of parties in parliament. Each committee would prepare

⁶⁵ Glaessner 2005, 71-72.

⁶⁶ Steinmetz & Haupt 2013, 23-26.

⁶⁷ Beyme 2000, 34.

recommendations about motions and bills, i.e., whether the Bundestag should accept or reject them, and voting in plenary sessions commonly followed this recommendation. Most of the committee protocols were abridged minutes of the meetings (*Kurzprotokoll*), but there were also stenographic (*Stenographische Protokoll*) and tape-recorded copies (*Tonbandabschrift*) as well. Statements by the Federal Minister for the Environment and hearings from experts were also commonly discussed in these committee meetings.

Fourthly, a recent study by Matti Roitto, which represents a more traditional political history approach for parliamentary studies, suggests that the results of reading parliamentary sources would remain otherwise intangible unless compared to those of the executive or viewed within the context of events.⁶⁸ I agree with the notion that it is important to view parliamentary sources within the context of events; thus in this study, parliamentary sources are studied alongside newspaper articles and previous research. Issues which reveal themselves to be particularly important from this perspective are the safety of nuclear power plants in the former DDR, the transport of radioactive waste, the demonstrations against this, and a growing concern about climate change.

However, the comment concerning the necessity of comparing parliamentary sources with the protocols of executive appears more arguable when seen in the context of parliamentary studies in general. Firstly, these executive sources are not made available for the researcher of more recent history, and indeed the solidity of claims that executive protocols *must* be included depends on the purpose of research. If the task is to study the dynamics of political discussion and rhetorical redefinitions of political concepts within a polity,⁶⁹ we should perhaps focus instead on analysing plenary debates spanning a longer time period. The importance of plenary debates is highlighted for example by Cornelia Ilie who stresses that

[i]n socio-historical periods marked by significant paradigm shifts and political polarisations, parliaments have played a decisive role in benchmarking current societal issues and exposing party-political agendas by debating the pros and cons of alternative political solutions. [...] By debating ideas and opinions, proposals and counterproposals, parliamentarians are discursively problematising and (re)shaping current conceptualisations of values, identities and relationships that lie at the basis of collective decision-making.⁷⁰

Furthermore, the idea of parliamentary debates as a nexus where different historical layers and political interests meet,⁷¹ highlights the relevance of

⁶⁸ Roitto 2015, 47. Matti Roitto presents the criticism from the point of view of his doctoral dissertation in which he studies the role and potential effect of Parliament on British foreign policy in terms of the Anglo-American atomic collaboration in 1945-1946.

⁶⁹ E.g., Halonen, Ihalainen & Saarinen 2015; Häkkinen 2014; Palonen 2008; and many others.

⁷⁰ Ilie 2016, 134.

⁷¹ Halonen, Ihalainen & Saarinen 2015; Ihalainen, Ilie & Palonen 2016.

studying plenary debates in studying significant historical changes and trajectories in political discussion and decision-making within a longer time frame. And just parliamentary debates alone in the wider public context offer a fruitful supplementary source, as executive protocols alone do not have such a rich political debate over competing conceptions - the wider political debate took place in the plenum.

The idea of parliamentary debates serving as a nexus, i.e., a forum where different historical layers and interests of political discussions come together, can be further developed in this case by studying the Bundestag debates on the use of nuclear energy. There is a clear continuity in topics, concepts, and central persons in the discourse in the longer historical perspective and especially during the years 1991-2001. A special vocabulary for debating nuclear energy emerged from the 1970s onwards, as energy began to be a major issue on the political agenda, and for society in general (after the OPEC oil crisis). Terms like *Restrisiko*, *Entsorgung* and *GAU* thus entered the debate in these earlier decades, but their meanings and use changed in certain small yet crucial aspects by the 1990s. The safety of nuclear technology and the environmental consequences of nuclear energy⁷² were still important topics, but the arguments had developed. Many of the speakers from this decade thus had a longer background in the discourse, and they also remained central figures afterwards.

Altogether, there is a broad coverage of different types of parliamentary records in this work and the examples picked are considered representative, since their choice was the result of an extensive filtering of a much bigger selection of parliamentary records beforehand. As already mentioned above, this is also complemented with source material from FAZ and SZ newspaper articles. The FAZ (founded in 1949) has an economically orientated centre-right editorial committee, rather than a single editor;⁷³ while the SZ (founded in 1945), is more centre-left oriented.⁷⁴ The FAZ and SZ thus politically complement each other quite nicely, as we shall see in their articles about nuclear energy. Articles in the FAZ from this period were mainly pro-nuclear and written from an economic perspective. Events in these reports were 'presented' in a factual style, and the voice of the author was hidden. In fact, in many cases it was not even stated who had written the article. The SZ, however, had articles which generally tended to be anti-nuclear, and the purpose of many of them was not so much to report what happened, but to take a clear stance on one particular issue in the discussion. These quality newspapers were also chosen because they also followed very closely what was being said in the Bundestag about topics related to nuclear energy policy.

Newspaper articles are only chosen where they deepen the analysis of parliamentary debates or allow the author to contextualise parliamentary

⁷² Radkau 1983.

⁷³ Meyn, Tonnemacher 2012, 71.

⁷⁴ Meyn, Tonnemacher 2012, 71.

debates in the ongoing broader discourse and chain of events. The focus of this doctoral dissertation is not to strive for comprehensive coverage of the wider public debate, but rather to provide a selective complementary sample to illustrate or counterpoint issues covered in the Bundestag.

Thus far I have mainly concentrated on specifying the sources used in this work, but the remaining sections of this chapter will discuss the characteristic features of (German) parliamentary debates. The central aim of this discussion is to continue arguing for the value of studying Bundestag debates for a better understanding of the political discussion that went on there. I argue that parliamentary debates are a valuable source for studying the ideas, values, and concepts (for instance) that form the basis of decision-making and ensure that these aspects endure.⁷⁵

For this reason, it seems a little one-sided to argue that studying plenary debates is misplaced in the German parliamentary context, because opinions had already been formulated beforehand in committees and working groups. This tradition of parliamentary research, which focuses more on aspects of ‘communication’ (*Kommunikation*) and ‘publicity’ (*Öffentlichkeit*), has its interest in parliamentary speaking from the perspective of interactions between parliament and the wider public as well as parliament as a space for communication.⁷⁶ While scholars have already been analyzing and explaining other aspects of parliamentary culture, such as for example different functions of parliamentary language, symbols in parliaments, and visual representation of parliaments,⁷⁷ the present study is more interested in the actual content of the political debate: how the issues were formulated, rather than the decision-making process as such and the influence of a parliament on government policies.⁷⁸ Armin Burkhardt, too, describes the plenary debate as having two major functions: firstly it serves as a means of legitimisation via decision-making procedures, and secondly it justifies the decisions made in a public debate.⁷⁹ If the focus of this research is on the latter aspect of presenting, justifying, and conceptualising decisions made (and to follow the dynamics of policy debate in a parliamentary democracy in general), then plenary debates are a fruitful, even a central source.

There were nevertheless elements of German parliamentary practice, which had an impact on possible interpretations, and I will clarify these next. One such element was that the Bundestag records emphasise the opinions of

⁷⁵ E.g., Ilie 2016.

⁷⁶ E.g., Schulz & Wirsching 2012, 15.

⁷⁷ E.g., Biefang 2012, Mergel 2012; Patzelt 2012; Schulz & Wirsching 2012, 20-21; Stollberg-Rilinger 2012.

⁷⁸ Häkkinen 2014, 41-42. One aspect is simply what the debates tell us about historical events and issues, which Häkkinen calls their “traditional” use as historical sources. The second is to analyse parliamentary debates by paying more precise attention to the content, i.e., the important issues, topics, and questions in the debates and how parliamentarians verbalise the matters in question.

⁷⁹ Burkhardt 2003, 5-7, 127, 167, 280.

political parties over those of individual representatives, and any inter-party disagreements would have certainly been played down. The party groups decided their speakers for topics based mainly on who had been in the working group or committee beforehand, and the speaking time was strictly shared between party groups.⁸⁰ This meant the speakers in the plenary session nearly always represented the official line of their respective party. Apart from the actual discussion, voting in the Bundestag would also reflect the extremely strong party discipline in the German parliament.⁸¹ Indeed, in the large majority of cases studied in this work, and in the Bundestag as a whole, voting took place along party lines. What this implies is that the opinions of individual Bundestag MPs cannot be studied by simply looking at the voting results, since they would commonly reflect whatever the party line was.

For this reason, it also seems inappropriate to argue that it is misplaced to study speeches made by prominent frontbenchers because they had generally been well-prepared and approved by the party's own ranks beforehand.⁸² There might be some differences between the parliaments of different countries, but in the German case it was common that the same representatives would make speeches about a certain policy field time and again, such as nuclear energy, so that in effect they became the 'expert' in this policy issue for their party group in such debates; only very rarely would some other representative make a speeches about it in the plenary. Therefore, the debate would be between these same prominent politicians on the issue, and not that all of them were frontbenchers. Most of them were, however, specialists on either nuclear energy matters, energy matters in general, or environmental matters for their party groups.

Because of this bias towards party lines then, plenary debates tended to be strongly polarised between the anti-nuclear (the SPD, Alliance 90/Greens, and PDS) and pro-nuclear parties (the CDU/CSU and FDP). During the years 1991-1998 this division ran along government versus opposition lines, but during the red-green government (1998-2002), this fault line was not so clear, since the PDS in opposition advocated a much more direct phasing out of nuclear energy than the red-green federal government was prepared to carry out. The upshot of this is that the main direction of research in this thesis has had to follow the policy lines of political parties rather than individual politicians. Indeed, it would be more or less impossible to analyse internal disagreements within party groups from the Bundestag records alone. However, inter-party disagreements or tension could be made implicitly visible in speeches by representatives of other parties, who were able to highlight the internal divisions in other parties - such as with the SPD - concerning the future use of nuclear energy in a number of ways. But for the most part the arguments

⁸⁰ Ismayar 2000, 314-319

⁸¹ E.g., Beyme 2004, 267.

⁸² Roitto 2015, 48.

for and against nuclear energy put forward in the Bundestag concerning 'real-world events' remained remarkably consistent in each respective camp. This is also explored in greater detail in chapter 2.

The previous notions mainly concern characteristic elements in Bundestag debating procedure, but I would still also like to point out the possible advantages of using *Aktuelle Stunde* as a possible source for publicly debating topical Bundestag issues. This procedure - a form of 'further question time' - was introduced to the Bundestag in 1965 to increase the possibility for discussing particular issues publicly. A parliamentary group, or a minimum of 5% of Bundestag MPs would be able to call for an *Aktuelle Stunde*.⁸³ Having empirically analysed the procedure in this work, it seems that *Aktuelle Stunde* was highly practical and widely used by the party groups, enabling parties to present and debate political topics without having to table any motions or such. In many cases, an opposition party would call an *Aktuelle Stunde* to challenge the federal government over a single political issue. *Aktuelle* differs from *Frage Stunde* in that protocols were excluded from the analysis.

Plenary debates were the principal forum for presenting, defending, justifying, and legitimising policy decisions in a parliamentary democracy, which is what makes them so important. But one must also acknowledge that policy had already been prepared beforehand at the committee stage, and thus decision-making followed these recommendations. Plenary debates about nuclear energy policy were also strongly polarised between anti-nuclear and pro-nuclear lobbies, and, even though parties may have suffered internal disagreements over nuclear energy, the speeches made during the plenary still followed the decisions of each respective political party.

Methodology

The purpose of the final sections of this chapter is to clarify how the gradual change in German nuclear energy policy can be explained through considering parliamentary debates as a 'discursive process'. The process brings out different views, ideologies, understandings and conceptions of nuclear energy policy,⁸⁴ in which the micro-level use of language by Bundestag MPs in the period 1991-2001 potentially contributed to macro-level semantic changes in the central concepts and terms used.⁸⁵ Changes in political language thus offer tools to explain gradual policy changes. Analysis is carried out by studying the pragmatic use of language on the micro-level and paying attention to the semantic connotations in terms of the historical development of larger thematic

⁸³ E.g., Ismayr 2000, 346-347.

⁸⁴ Ihalainen & Saarinen 2015, 33.

⁸⁵ Halonen, Ihalainen & Saarinen 2015, 3-26; Ihalainen & Saarinen 2015, 29-31; Ihalainen 2010, 20-23; Ihalainen 2006, 125; Ilie 2016, 134-135; Ilie 2004, 3-4.

and semantic entities in the discourse (macro-level).⁸⁶ The relationship between the micro and macro is twofold: changes at the macro-level are often gradually caused by micro-level activity, but simultaneously macro-level discourse forms the boundaries for micro-level activity.⁸⁷ When explaining gradual policy change in this way, the real interest lies in pinpointing potential micro-level contexts in which the macro-level changes may have begun their semantic shift.

Considering these parliamentary debates as a part of 'discursive process' and following the dynamics of the discussion⁸⁸ itself highlights the constantly evolving nature of language and discourse in parliaments through speech acts. From this perspective, when analysing the policy debates, we should illustrate how parliamentarians were constantly politicising topics, themes, questions, and propositions⁸⁹ and, once these were politicised, how they used them to define other topics, or conversely how they then deliberately aimed at depoliticising them⁹⁰ - in the context of concrete events that were happening in the world outside, and other speeches that were being made at the time. Therefore, parliamentary policy debates should not be considered as stable, but constantly discursively evolving as a part of political action.

A practical way of studying how parliamentary policy debates evolved discursively during the selected time period is to focus on the conceptual analysis of political language. Pasi Ihalainen, Cornelia Ilie, and Kari Palonen stress the usefulness of conceptual history for studying discursive processes in parliaments, since it can make visible the dynamics of parliamentary debate as well as the variety of views on the problem in question.⁹¹ Teemu Häkkinen, too, draws attention to understanding the meanings attached to concepts when pursuing the dynamics of a discussion.⁹² Indeed, when studying gradual policy change in a specific policy field, the focus on language used in parliamentary policy debates should be even more empirically based than when studying the role of parliament, for example, or certain elements in political culture. In these cases a selection of rather abstract concepts from political culture such as 'democracy', 'constitution' or 'parliamentarism'⁹³ make sense as being the

⁸⁶ Häkkinen 2014, 42; Ihalainen 2010, 20-21. In his study of democracy and popular sovereignty in British and Swedish parliamentary and public debates (1734-1800), Pasi Ihalainen combines the study of the semantic (macro-level) and pragmatic (micro-level) aspects of past political languages. He does this by contextualising single speech acts and then analysing the long-term developments in the meanings of these terms on the macro-level of individual political cultures by comparison with other political cultures. Meanwhile, Teemu Häkkinen proposes that through speaking, micro-level activity can lead to changes or reformulations at the macro-level.

⁸⁷ Halonen, Ihalainen & Saarinen 2015, 17.

⁸⁸ Häkkinen 2014, 45; Ihalainen, Ilie & Palonen 2016, 12; Ihalainen & Saarinen 2015, 33.

⁸⁹ Steinmetz & Haupt 2013, 23-26.

⁹⁰ Steinmetz & Haupt 2013, 26.

⁹¹ Ihalainen, Ilie & Palonen 2016, 12.

⁹² Häkkinen 2014, 45.

⁹³ E.g., Häkkinen 2014, 42; Ihalainen 2008, 17. Pasi Ihalainen discusses the continuity and changes in the rhetorical use of the concepts of 'the people', 'democracy' and

starting point of conceptual analysis, but in specific contemporary policy debates this may be more difficult to formulate beforehand. Every policy field had its own special vocabulary that could have evolved differently depending on the temporal and national context.

In German nuclear energy policy, this special vocabulary included concepts and metaphors such as *Atomstaat*, *GAU*, *Restrisiko*, *Gorleben*, and *Energiewende* - specific to the place and time of these debates. As Willibald Steinmetz would suggest, the starting point for our analysis must therefore be on these particular concepts as used in day-to-day political debates.⁹⁴ In effect, this means the focus must be broader than simply analysing single concepts, and should take into account the whole argument; so the relevant and interesting arguments may or may not include some central concepts commonly used in the nuclear energy debate. Such arguments are nevertheless important since they form part of the defining process.

Analysing concepts and arguments in parliamentary policy debates in this way provides a means for studying the micro-level use of language by Bundestag MPs. By looking at the rhetorical function of language (in pragmatic arguments), we are adapting the central ideas of the so-called 'Cambridge School' of political thought to parliamentary research. According to J.G.A. Pocock, language is constantly evolving through speech acts which use language as an act of power.⁹⁵ In terms of parliamentary debates, this means a struggle over definitions, because they are, as Cornelia Ilie puts it, "a concrete manifestation of the struggle for power: acquiring political power, challenging it, competing for it, or defending and consolidating it".⁹⁶ Meanwhile, Quentin Skinner treats concepts as a matter of understanding what actions can be done with them in arguments,⁹⁷ and emphasises that their meanings thus be analysed from this perspective of argumentative value.⁹⁸ Kari Palonen suggests ways in which Skinner's idea of "paradiastolic rhetorical redescription" - i.e., the readjustment of the content or range of significance of concepts, is an elementary feature of parliamentary politics and rhetoric.⁹⁹

These kinds of attempts to redefine or reverse the meanings of concepts in the parliamentary context are particularly apparent in examples where parliamentarians deliberately struggled over definitional power. Pasi Ihalainen points out here, that analysis must return to the micro-level, particularly when

their related terminology in British parliamentary debates of the 18th century. Teemu Häkkinen conceptually analyses parliamentary debates in terms of parliamentarians' thoughts about Parliament as an institution. He does this by selecting certain political concepts such as the Royal Prerogative Right, the constitution, foreign policy, deployment, and democracy to see how the references to Parliament vary in these different conceptual contexts.

⁹⁴ Steinmetz 2002, 88.

⁹⁵ Pocock 1973, 28-31.

⁹⁶ Ilie 2016, 134.

⁹⁷ Skinner 1999, 62.

⁹⁸ Skinner 2002, 109-115.

⁹⁹ Palonen 2008, 84-85.

macro-level comparisons reveal unusual speech acts in which the vocabulary has obviously been employed to achieve a particular political effect, so that new meanings become assigned to it and it is potentially able to affect policy.¹⁰⁰ This is because parliamentary debates did not only reflect stable political, social and cultural conditions, but also went some way towards shaping them,¹⁰¹ through a gradual process in which competing definitions and conceptions vied for dominance. The gradual change in German parliamentary discourse towards the policy of phasing out nuclear energy is a very good example of this. Anti-nuclear speakers constantly searched for new ways to illustrate how nuclear energy was dangerous, harmful to the environment, and – indeed – undemocratic.

In other words, when analysing parliamentary policy debates, the central task is to find out about wider semantic changes at the macro-level in the discourse¹⁰² so research strategies from the German conceptual history approach (*Begriffsgeschichte*) might be fruitfully adopted as a means of analysis in parliamentary research. This tradition emphasises the importance of political and social background when analysing meanings of concepts and highlights that past social and political conflicts should be interpreted in terms of their contemporary conceptual boundaries. The approach treats concepts as indicators and tools of historical change.¹⁰³ As Pasi Ihalainen and Kari Palonen propose, parliamentary sources are valuable for an analysis of the semantic development of language since they reveal the actual contexts in which the concepts were used and how this context gradually changed.¹⁰⁴

A macro-level analysis of the nuclear energy policy debates from this period must acknowledge not only that decades of semantic history had already fed the discourse up to this point, and that much of these semantic connotations can be gathered from previous research; but also that single speech acts were only one part of the discourse in 1991-2001, and that together they made up the wider discourse. The task of this analysis is thus to recognise and point out how the speech acts together formed larger thematic entities. The meanings of speech acts are then considered within these thematic entities, whilst bearing in mind that macro-level discourse developed through different speech acts.

Instead of proposing some totally new and radical ideas, the methodological approach of this work builds on the ongoing discussion with a certain emphases. The first is on using specifically parliamentary debates as the source material to explain policy change. This means, rather than concentrating on predetermined analytical concepts, the focus is on the central concepts used

¹⁰⁰ Ihalainen 2010, 21.

¹⁰¹ Ilie 2016, 142.

¹⁰² Scholars have practiced analysis of macro-level of parliamentary debates also by analysing, e.g., institutional boundaries of discourses. E.g., Ilie 2004; Ilie 2016.

¹⁰³ Koselleck 2004, 77, 80-81.

¹⁰⁴ Ihalainen, Palonen 2009.

in everyday parliamentary debates, and their usage as part of the whole speech act; that is the twofold interaction between micro-level and macro-level conceptualisations. In our case, this means looking at the usage of more specific concepts from German nuclear energy policy as part of the whole speech act. The micro-level activity potentially leads to gradual changes at the macro-level, which, in turn indicates the direction and content of the debate, and affects the intelligibility of future speech acts. The second emphasis is that policy debates should be seen as an ongoing process of definition without any clear starting point or end. It thus remains the task of researchers to decide and justify their time frames of study for this phenomenon. In this case, the amendment to an Act must be seen as the result of a long-lasting process of proposing and counterproposing meanings.

1.3 Previous Research

This dissertation contributes to the scholarly debate on German nuclear energy policy (1991-2001) in three ways: it covers the gap in existing research regarding the evolution of political discourse at the parliamentary level; it shows the importance of this particular decade for spreading anti-nuclear arguments at the parliamentary level; and it offers explanations for the success and continuity of anti-nuclear attitudes - from the perspective of parliamentary research.

Matthias Jung, German linguist, traced the semantic development of the German nuclear energy debate from the 1940s to the early 1990s in his book *Öffentlichkeit und Sprachwandel: zur Geschichte des Diskurses über die Atomenergie* published in 1994. The purpose of the work was to analyse “the discourse history” (*Diskursgeschichte*) of the “nuclear energy debate” (*Atomenergiedebatte*), which in effect means the semantic analysis of the language used in the German nuclear energy discourse, but only at the macro level. His article, “Umweltstörfälle. Fachsprache und Expertentum in der öffentlichen Diskussion” published in 1995 also set this debate within a wider environmental discourse.¹⁰⁵

Matthias Jung presents how key concepts of the German nuclear energy debate developed at the semantic level such as ‘GAU’, ‘Restrisiko’ and ‘Sicherheitsphilosophie’ were adapted from the language of science and other countries (mainly the US) and how semantic meanings of these concepts evolved at the macro-level of the nuclear energy debate.¹⁰⁶ Methodologically, Jung’s works come close to the approach employed in my work, but his works exclude analysis of the pragmatic function of concepts, i.e., the way they were used on a micro-level in specific political speeches. My analysis therefore builds

¹⁰⁵ Jung 1995.

¹⁰⁶ Jung 1994; Jung 1995.

in many ways on the groundwork already carried out by Jung on the semantic background of concepts, which is crucial as these concepts had a history already spanning several decades. This must be taken into account, as similar concepts and arguments were still being used in 1991-2001.

But another way in which this thesis contributes to existing research, is by emphasising the relevance here of the aforementioned contextualist history of political thought. By analysing the deliberate use of language by parliamentarians, it is possible to gain a clearer understanding of how the political use of language may have affected the gradual policy change towards the decision to phase out nuclear energy. Also, because it was published in 1994 and 1995, Jung's analysis does not cover the mid-nineties - a crucial time in which the key anti-nuclear terms became more frequently used in policy debates, as we shall see in the following chapters.

Jung separates what he calls the "consensus phase" from a "dissent phase" in the German nuclear energy discourse. From 1940 to 1970, the nuclear energy debate was dominated by experts and scientists who were the first to explain and discuss the meanings of words like *Störfall*, *GAU*, *Entsorgung* and *Restrisiko*. Among the wider public, especially during the 1950s, *Atom* and *Atomzeitalter* were thus usually associated with positive meanings in the sense that there were high expectations for future technological developments. In this sense, during this consensus phase the central concepts of the German nuclear energy debate already existed, but they were mainly used and polemicised only within scientific and expert circles. In the wider public debate, the military use of nuclear technology caused understandable fears, but nuclear technology was seen as a 'peaceful' use, and thus enjoyed mainly positive images.¹⁰⁷

The dissent phase began in the 1970s, however, when the nascent but weak opposition to nuclear energy began to strengthen by adapting nuclear jargon from the fifties and 1960s to their own ends. This brought contradictory meanings to some of the key terms, and the professionals lost their dominance in defining the vocabulary used in the discourse. The first really intensive phase of dissent culminated in 1977-1979 in a conflux of events that concretised the burgeoning ecological movement, the *Atomstaat* energy crisis, and looming fears of terrorism. The Harrisburg nuclear accident (1979) and revocation of the plans for a waste disposal centre at Gorleben marked a watershed (1979-83), during which point the controversy over nuclear energy became firmly established and a part of everyday life. According to Jung, this was clearly the moment when the "semantic fight" intensified over the precise meaning of words.¹⁰⁸

Jung's work presents a semantic analysis of the German nuclear energy discourse in a very broad sense in that it includes a wide variety of sources, such as newspaper articles, scientific journals, fiction, institutional documents,

¹⁰⁷ Jung 1994, 24-81.

¹⁰⁸ Jung 1994, 82-118.

and Bundestag debates. My emphasis on policy debates at the parliamentary level enables me to focus more specifically on the political use of language, however, since the contexts of the speeches perhaps remain more consistent and it is possible to pinpoint exactly the 'political' ingredient in the speeches.

Research on the nuclear energy debate at the parliamentary level leaves room for new aspects, since policy records of the Bundestag have thus far only really been used as a complement to other source material. Special attention has also been paid to the Commission of Inquiry that began in 1979 into 'Future Nuclear Energy Policy' (*Zukünftige Kernenergie-Politik*) - led by Reinhard Ueberhorst (SPD). Cornelia Altenburg highlights how the inquiry was set up to answer growing criticism from the anti-nuclear lobby about there being a lack of openness in the decision-making process, insufficient parliamentary say over matters, and little chance of citizens being able to participate in decision-making either. She suggests that the inquiry changed the role of the Bundestag in nuclear energy policy, by making it less passive in decision-making and more active in controlling the government's decisions. The Commission of Inquiry was thus crucial in democratising nuclear energy policy, as until the mid-seventies decisions had been made mainly by ministers, the energy industry, and large research institutions. Henceforth the Bundestag, environmental institutions, and citizens' initiatives played a central role as well.¹⁰⁹ Joachim Radkau also highlights how the establishment of the Commission of Inquiry in 1979 brought the disagreement over nuclear energy to the parliamentary level, implying that the conflict had in fact emerged earlier outside parliament.¹¹⁰

In her book *Kernenergie und Politikberatung. Die Vermessung einer Kontroverse*¹¹¹ (2010), Cornelia Altenburg looks at how the Commission dealt with the uncertainties surrounding nuclear technology, and the known risks for people and the environment, as well as the benefits this new scientific knowledge might bring, and in so doing were obliged to define concepts such as *Risiko*, *Restrisiko* and *GAU* in its deliberations about future energy policy.¹¹² The present work illustrates that the decade 1991-2001 was also particularly important as by this point the full implications of the Chernobyl disaster were becoming apparent and manifested themselves in a far greater polarisation in the energy policy debates of the Bundestag.

The number of studies examining the nuclear energy debate from a linguistic perspective, especially at the parliamentary level, is dwarfed by the number that have preferred to focus on explaining the continuity and relative

¹⁰⁹ Altenburg 2012, 262-263.

¹¹⁰ Radkau 2011a, 12.

¹¹¹ The book is revised version on Altenburg's doctoral dissertation, which was submitted in 2008 at the department of History, Philosophy and Theology, University of Bielefeld.

¹¹² Altenburg 2010, 26, 134-189. Dieter Rehfeld also studies how science and politics interacted in the work of the Commission in his article "Die Enquete-Kommission Zukünftige Kernenergie-Politik: zum Verhältnis von Wissenschaft und Politik in der Kernenergie-Diskussion".

success of the German anti-nuclear movement. And, in a sense, my work also relates to that larger canon as well, since its task is to analyse how anti-nuclear conceptions gained ground and remained a topic in parliamentary policy debates in the decade in question.

Two approaches dominate explanations for the strength and continuity of the German anti-nuclear movement. One stresses the importance of defects in the technology itself¹¹³; while the other sees the anti-nuclear movement arising as part of other social movements expressing cultural and political dissatisfaction at the time.¹¹⁴ Defects in technology alone do not seem to adequately explain the success and continuity of anti-nuclear attitudes in Germany. There has to be some other reason to explain the strength of opinion, even if the largest accidents - Harrisburg, Chernobyl, and Fukushima - have also certainly caused worries worldwide. And yet the other explanations, usually touted by sociologists and political scientists are not without their faults either. Often because the latter concerned themselves mainly with very general theories about social movements, they often failed to show how anti-nuclear protest and cultural and political dissatisfaction were connected in various specific historical circumstances. From the perspective of political language used in parliament, the conflict was also clearly about conceptions of German democracy and the role of the state. Nuclear safety thus formed a basis for framing more abstract questions about bigger issues.

Joachim Radkau has written extensively about nuclear energy policy and deservedly has a reputation for being a distinguished authority on the subject. His book, *Aufstieg und Krise der deutschen Atomwirtschaft 1945-1975. Verdrängte Alternativen in der Kerntechnik und der Ursprung der nuklearen Kontroverse* (1983) points out that the development of nuclear technology to produce energy in Germany was far from straightforward. During the first decades from the 1940s onwards, experts dominated the process and the role of the state only gradually began to take shape.¹¹⁵ In 2013, an updated and condensed version of this (*Aufstieg und Fall der deutschen Atomwirtschaft*) was written by Radkau and Lothar Hahn, and it included both the Chernobyl (1986) and Fukushima (2011) disasters in the discussion.

Radkau's works, taken as a whole, seem to be asking whether the anti-nuclear movement emerged specifically in response to the particular dangers of

¹¹³ Especially Radkau 1983; Radkau & Hahn 2013.

¹¹⁴ E.g., Roth & Rucht 2008.

¹¹⁵ Radkau 1983. Similar questions are discussed, e.g., by Helga Bufe and Jürgen Grumbach in the book *Staat und Atomindustrie. Kernenergiepolitik in der BRD* published in 1979 and in the series of books by Wolfgang D. Müller. The first part *Geschichte der Kernenergie in der Bundesrepublik Deutschland. Anfänge und Weichstellung* (1990) discusses the early decades of developing nuclear technology until the end of the 1960s, and the second part *Geschichte der Kernenergie in der Bundesrepublik Deutschland. Auf der Suche nach dem Erfolg: die sechziger Jahre* (1996) continues to the discussion by moving to the 1960s. The third part of the series of books, published in 2001, is *Geschichte der Kernenergie in der DDR: Kernforschung und Kerntechnik im Schatten des Sozialismus*.

nuclear technology or whether (especially in the second half of the 1970s) they were also an expression of a wider dissatisfaction with other cultural and political phenomena. He draws the conclusion that there were certainly historical connections between the anti-nuclear and other earlier and contemporary movements of the time, but the anti-nuclear movement differed in so far as it concerned a danger that had not yet happened and could only be explored scientifically, while other citizen movements and protests concentrated on problems of everyday life that most people shared. The defects that became apparent with nuclear technology allowed for a stronger focus of criticism than most other movements, in Radkau's opinion, which also made the movement more purposeful.¹¹⁶ From this perspective, the collapse of the German nuclear industry was not caused by one single event, but a chain of them during the history of using and developing nuclear technology. In particular, constant disruptions in domestic and foreign nuclear plants had the overall effect of weakening people's faith in the reliability of nuclear energy. Chernobyl and Fukushima clearly sealed the fate of the German nuclear industry, but the nuclear industry itself also contributed by giving insufficient information to the authorities and public; and by making strategic mistakes in technological decisions and investments.¹¹⁷

But Radkau's implication that deficits in nuclear technology were the main reason for people's mistrust towards it as a source of energy, and the industry's eventual decline, appears incomplete in that it does not explain why these anti-nuclear attitudes were especially strong in Germany, while countries like France continued to favour nuclear energy. One explanation Radkau offers for this continuity in the German anti-nuclear movement was a constant interaction between the protests, media, and authorities over political, judicial and scientific matters.¹¹⁸ This study assumes that other answers may also be found in the debates that were had in the federal parliament itself.

As briefly mentioned above, German sociologists and political scientists have seen the German anti-nuclear movement as having its basis in the much wider context of other citizens' movements in the 1960s and 1970s that criticised political institutions and structures. Ronald Roth and Dieter Rucht, for example, question the attempts by historians to analyse single movements or campaigns exclusively, because even though these movements concerned a wide range of themes, they nevertheless all demanded greater democratisation, whatever the issue. From this perspective, the German anti-nuclear movement was at first against single power plants, but later on demanded democratic control of technological development and criticised the mixing of political and economic interests that this often involved.¹¹⁹ Dieter Rucht has also gone on to point out that even though the most important explanation for the emergence of the anti-

¹¹⁶ Radkau 1983, 434, 456-461.

¹¹⁷ Radkau & Hahn 2013, 331-335, 365.

¹¹⁸ Radkau 2011a, 12.

¹¹⁹ Roth & Rucht 2008, 14, 15, 29.

nuclear movement was the fundamental dangers associated with nuclear technology, people were also objecting to the fact that it required exceptional protection and supervision by the state.¹²⁰ But Rucht and Jochen Roose also make it clear that the German anti-nuclear and environmental movements of the 1990s were not only organised along different lines, but they also had quite different attitudes towards radicalism.¹²¹

Studying nuclear energy discourse at the parliamentary level in this period confirms that the conflict did indeed concern these more abstract questions, but the actual connection between problems with nuclear technology and the role of the state in the context of actual historical situations deserves closer observation. The work by Peter Wagner offers a closer discussion how the West German anti-nuclear movement in the late 1970s was linked to criticism of state institutions. In his opinion, anti-nuclear activists saw themselves engaged in a struggle against a dense and heavily implicated network of pro-nuclear actors and institutions, which on behalf of an authoritarian state, favoured the long-term interests of capital over those of its citizens. Wagner suggests that Willy Brandt's programme of modernisation tried to answer criticisms expressed by the student movement and 'extra-parliamentary opposition' in the 1960s - that there was no real means of opposing the government at the institutional level - by passing state of emergency amendments to the federal constitution. This programme was not enough to quell the opposition, since the agenda of the Social Democrats was still dominated by the trade unions, which meant that participation remained restrictive and exclusive.¹²² A conceptual analysis of parliamentary debates offers more profound historical evidence to complement the still rather loose interpretation by Peter Wagner about how the German nuclear energy discourse and historical development of German polity were interconnected from the 1990s onwards.

Other interpretations emphasise how the German nuclear energy debate was a conflict of 'values', but just what these values were needs further clarification. Barbara Wörndl suggests that dissenting definitions of the risks of nuclear technology were not so much a product of scientific findings, but of competing interests and values. She considers the German nuclear energy debate as a characteristically ideological conflict over changes in values and of how people saw themselves in a modern industrial society.¹²³ Jochen Roose believes the continuity of the German nuclear energy debate can be explained in terms of the importance of there being a leftist alternative for identities in a polarised society.¹²⁴ But both of these explanations remain at a very general level and do not discuss special characteristics of competing values in the anti-

¹²⁰ Rucht 2008, 245-266.

¹²¹ Rucht & Roose 1999, 72.

¹²² Wagner 1994, 265-267.

¹²³ Wörndl 1992, 11-33.

¹²⁴ Roose 2010, 79-103.

nuclear movement. Closer analysis of actual parliamentary policy debates offer more specific explanations.

Another general interpretation is offered by Miranda A. Schreurs. In her opinion, the German decision to phase out nuclear energy after Fukushima was probably caused by a combination of strong anti-nuclear sentiments and a vibrant civil society that formed in reaction to the country's wartime past, to its patriarchal and elitist decision-making structures, and its widespread environmental problems.¹²⁵ An even more tendentious 'sociocultural' argument (*kultursoziologische Erklärung*) has been proposed by Gerd Winter who explains the German decision to phase out nuclear energy after Fukushima as being a result of people's scepticism towards technology, which dates back to the German romanticism of the 18th and 19th centuries.¹²⁶ Winter's explanation, however, does not seem to account for Germany's position also, as one of the world's leading technological economies.

Thus Joachim Radkau's arguments (that it was the failings of nuclear technology which provided the fundamental source of conflict over nuclear energy) should be seen in this light - as a criticism and response to these more generalistic theories and models from sociology and political science. For Radkau, the anti-nuclear movement cannot be seen as a purely social phenomenon; theories about post-modern 'social movements' (*Wertewandel*) are only plausible in the context of a specific historical moment, but are not convincing when considered within the longer time frame and divorced from this moment. In other words, it is impossible to understand the anti-nuclear movement through abstract models, without thorough consideration being given to the practical aspects of what the movement was precisely about.¹²⁷

I agree with the approach of empirical-based analysis instead of constructing theories and models that dismiss the special features of historical cases and yet, as I mentioned earlier, Radkau's interpretation still does not seem to fully account for why the anti-nuclear movement persisted in Germany more than in other countries. Competing conceptions of nuclear safety certainly formed the basis for many other arguments, but it may be that these arguments might also help explain the unique case of Germany. This does not mean we should be conducting a comparative analysis with some other country here, but rather that we should investigate what other issues may have affected competing conceptions of nuclear safety in the parliamentary policy debates from the period 1991-2001 that were specific to the German nuclear energy debate.

Further analysis of the political arguments surrounding these conceptions provides historical evidence about how the use of nuclear energy was fundamentally connected with perceptions of 'democracy' or the role of the

¹²⁵ Schreurs 2012, 31-33.

¹²⁶ Winter 2012, 209-246.

¹²⁷ Radkau 2011a, 10-15.

state. These must not be overemphasised, of course, as the transition to reliance on alternative sources of energy has taken place only gradually and one must remember that Germany still has nuclear power plants in operation. This slow pace to policy changes has been largely ignored, but Wolfgang Rüdig does address it when discussing the nuclear energy policy of the red-green federal government. In his opinion, the red-green coalition faced difficulties in phasing out nuclear energy in 1998 because, at that time, Germany had powerful institutional, economic, and political interests defending nuclear energy and opposing its phasing out.¹²⁸ Analysis of policy debates thus also shows how pro-nuclear conceptions remained quite strong even during the red-green coalition, and that the actual change which took place was that, if anything, the parties for and against nuclear energy became less polarised in their positions on the issue.

This dissertation opens up new aspects for research by showing how the analysis of the dynamics of parliamentary debates from 1991-2001 can explain nuclear energy policy formulation and the gradual changes it went through. The task is to consider which elements were characteristic of anti-nuclear as well as pro-nuclear attitudes, and how the German nuclear energy discourse developed during the decade in question. Language-oriented methods for analysing parliamentary policy debates may offer new insights into German nuclear energy policy for the period in which there are currently few existing studies - i.e., the ten years immediately preceding the law that was eventually passed in 2001 to phase out nuclear energy.

1.4 Key Speakers in the Bundestag

In the German Bundestag, 'historical trajectories'¹²⁹ or continuities can be pinpointed from the language used in debates and persons involved. The origins of the political language used in earlier decades to discuss German nuclear energy have already been mentioned above, and it is clear that although certain vocabulary persisted, its semantic connotations were constantly evolving - to match the changing contexts it described and the positions of those who wielded it.

These historical continuities also become clearer when we take a closer look at the prominent people who took part in the parliamentary policy debates of the Bundestag. During the decade in question, there were certain key speakers who were involved, if not continuously, then at least for a large proportion of the time. Furthermore, many of these people had a longer personal history as active participants in the debate over nuclear energy within

¹²⁸ Rüdig 2000, 43-49.

¹²⁹ Ihalainen & Saarinen 2015, 30.

society at both the local government and federal levels. The following discussion will thus be about a ‘historical body’ of central figures who participated in the Bundestag policy discussions in 1991-2001; who brought their own experiences, values, and attitudes to the debate,¹³⁰ which in turn affected their standpoints in those discussions.

It is worth noting that many of these leading figures, like Gerhard Schröder (SPD), Joschka Fischer (Alliance 90/Greens), and Jürgen Trittin (Alliance 90/Greens) belonged to the generation that had, in their younger days, been part of the extra-parliamentary opposition protest movement (*außerparlamentarische Opposition, APO*) and social movements of the 1960s and 1970s. As well as having environmental and anti-nuclear sensibilities, these movements had expressed criticism of the existing political institutions and form of democracy practised in West Germany at the time.¹³¹ The first red-green federal government has also been described as a turning point in German political culture, as it marked a shift towards the generation born after the Second World War.¹³² So the generation that had once acted against the state and its political institutions through physical or symbolic acts had now joined those very same institutions of which they had once been so critical.

Gerhard Schröder (SPD) had a highly visible and central role in the discourse surrounding German nuclear energy. He was born in 1944, so his young adulthood was spent in the 1960s and 1970s. In 1979, as Chair of the SPD youth organisation, Schröder was already campaigning for nuclear technology to be abandoned, and as an educated jurist he defended anti-nuclear activists from *Republik Freies Wendland* against the nuclear energy corporations. From 1990 to 1998 he was Prime Minister for Lower Saxony, after which he became the German Chancellor until 2005. After resigning from the Bundestag at this point, he then took a post in the company Nord Stream AG, which went on to build a controversial German-Russian gas pipeline through the Baltic sea.¹³³ While Prime Minister for Lower Saxony, Schröder was one of the initiators of the ‘energy consensus discussions’ (see chapter 2), which gave him federation-wide visibility. Even though the official party line of the SPD was to support the phasing out of nuclear energy within ten years as decided after Chernobyl in 1986, Schröder was clearly not as outspoken in his criticism of the further use of nuclear technology as he had once been. This became evident in the ‘consensus discussions’, when he expressed a readiness to consider the further development and installation of nuclear power plants demanded by the CDU/CSU and FDP. In comparison, Harald B. Schäfer (SPD)¹³⁴ and Michael

¹³⁰ Boyd & Palviainen 2015, 59; Halonen, Ihalainen & Saarinen 2015, 17; Kotilainen 2015, 151; Wickström 2015, 175-176.

¹³¹ E.g., Gilcher-Holtey 2001; Richter 1998.

¹³² Reutter 2004, 4-10.

¹³³ Altenburg 2010, 101; Biografien der Abgeordneten; Kaspari 2008; Reutter 2004, 5-6.

¹³⁴ **Harald B. Schäfer** (SPD) was born in 1938 and died in 2013. He was a Bundestag member (1972-1992); a member of the AfUNR until 1992; and Minister for the Environment in Baden-Württemberg (1992-96).

Müller (SPD)¹³⁵ - among other members of the SPD that spoke about this in the Bundestag - were much more emphatic about phasing out nuclear energy. Schröder's cabinet eventually agreed to there being quite a delay before German nuclear power plants had to shut down, and these facts have given due cause for speculation as to whether Schröder's objections to nuclear energy were simply a case of him posturing for the elections in the 1990s. As Prime Minister for Lower Saxony, he was political leader of the state in which the interim storage facility, Gorleben, was located and where there were also mass demonstrations against nuclear power in the 1990s. A positive public image and visibility in the 'consensus discussion' must have thus been crucial to Gerhard Schröder in his power struggle with Oskar Lafontaine, the other prominent figure inside the SPD during that time.

Dr. Angela Merkel (CDU/CSU) was born in 1954 and educated as a physical chemist; and her contribution to German nuclear energy policy has been at least as decisive as Schröder's, if not more so, and certainly longer lasting. Merkel's personal background differed from the other prominent politicians of the 1990s that were involved in this discussion (Schröder, Fischer, and Trittin) in so far as she was from East Germany. She thus did not have the same background as the 'protest generation' of the 1960s and 1970s in West Germany. After unification, Chancellor Helmut Kohl took her into his cabinet, where she became Federal Minister for Women and Youth (1991-94), and then Federal Minister for the Environment (1994-98). She was also the Secretary General of the CDU (1998-2000), and then in 2000 she was elected Chair of the party. Since 2005, Angela Merkel has been the German Chancellor, and due to her educational background in physical chemistry, she has contributed strongly to political discussions about nuclear safety. During her years as the Federal Minister for the Environment, Nature Conservation, and Reactor Safety, Merkel argued continuously for there to be safe use of nuclear technology, and her positive attitude towards it remained in place until the Fukushima nuclear accident in 2011. Then she modified her views to make nuclear safety a matter of making the right technological advances and having sufficient systems of control in place.¹³⁶

The background of **Joseph 'Joschka' Fischer** (Alliance 90/Greens) was among the most radicals of the leading politicians. He was born in 1948, and he was an active participant of the student movement and aforementioned opposition protest movement -APO - in the second half of the 1960s. Until 1975, Fischer was a member of the leftist radical group *Revolutionärer Kampf*, participated in a number of violent incidents and got arrested. Later on, he was

¹³⁵ **Michael Müller** (SPD) was born in 1948, was Bundestag member for Düsseldorf (1983-2009). He also acted as Chair of the SPD's 'Environment, Nature Conservation, and Reactor Safety' working group (1992-98) and as the environmental spokesperson of this party group. He was also Chair for the 'Protection of People and Environment' Commission of Inquiry (1992-94), and a member of the AfUNR (1994-98).

¹³⁶ More about Angela Merkel, see e.g., Langguth 2010; Willner 2009.

a Bundestag member (1983-85) and he became the first Green MP to land a ministerial position as the Minister for the Environment and Energy in the Hesse Parliament in 1985. He then became the Minister for the Environment, Energy, and Federal Affairs (1991-94) in the same state; and spokesperson for the Alliance 90/Greens group in the Bundestag (1994-98). He then served as Foreign Minister and as Vice Chancellor of Germany in the cabinet of Gerhard Schröder from 1998 to 2005;¹³⁷ which altogether means that Joschka Fischer became one of the most prominent politicians of the Greens, who made speeches against nuclear energy in the Bundestag and Hesse Parliament. Because of his personal background, Fischer was also concerned with the principles of democracy and people's participation in decision-making. So it was felt that the post of Federal Minister for the Environment, Nature Conservation, and Reactor Safety was too controversial for him, so this was given to a fellow less 'radical' Green - Jürgen Trittin.

From the end of the 1970s, **Jürgen Trittin** (born in 1954) participated in student movements (e.g., *Göttinger K-Gruppen*), but his background was moderate compared to the more militant and violent activists. Trittin joined the Green party in 1980, and was Minister for Federal and European Affairs in Lower Saxony (1990-94); then spokesperson for the Alliance 90/Greens (1994-98); and finally Federal Minister for the Environment, Nature Conservation, and Reactor Safety in both of Gerhard Schröder's cabinets (1998-2005).¹³⁸ So, before the red-green federal government, Trittin and Schröder had already been working together. After the Bundestag election in 1998, Trittin was involved in negotiations with the energy sector, as Minister for the Environment, where he and the Federal Minister for Economics, Werner Müller (independent), expressed notably different standpoints regarding how long would be needed to phase out nuclear energy. Eventually, Trittin had to face the difficult task of explaining why the continued operation of nuclear reactors was required until the early 2020s - significantly longer than the voters had initially been promised.

When compared with the persons introduced above, **Werner Müller** (born in 1946) was rather exceptional, since his direct contribution to the Bundestag debate lasted for only one legislative term. This was when he was the Federal Minister for Economics in Schröder's first cabinet (1998-2002). After having some difficulty finding a suitable person for the Ministry, Schröder eventually settled on Werner Müller, whom he knew earlier from Lower Saxony. From the 1970s to the 1990s Müller had worked in a number of companies, e.g., in RWE AG, VEBA AG and Veba Kraftwerke Ruhr AG,¹³⁹ been a firm ally of Schröder for many years, and been closely involved in the 'energy consensus' discussions in the early 1990s. Werner Müller had originally promoted nuclear energy, but when he began as Federal Minister, he stipulated

¹³⁷ Archiv, Abgeordnete; Wikipedia.

¹³⁸ Archiv, Abgeordnete; Wikipedia.

¹³⁹ Wikipedia.

that it could no longer be pursued if it was against the public's wishes.¹⁴⁰ Because of his personal background and close connections to the energy industry, Müller's role in getting the bill to phase out nuclear energy in 2001 through the Bundestag clearly seems to have been to do so on the condition that nuclear power companies could continue operations for as long as possible. And inside the red-green cabinet, tensions between Müller and Trittin over nuclear energy policy soon became starkly apparent, as we shall see.

Angela Merkel's predecessor as Federal Minister for the Environment, Nature Conservation, and Reactor Safety was **Klaus Töpfer** from the CDU/CSU (1987-1994). Töpfer was born in 1938 and so he represented the older generation of politicians born before the war (albeit only just). He was also a member of the Bundestag in the period 1990-98.¹⁴¹ During his time as Federal Minister for the Environment, Germany began to take a leading role in international environmental cooperation, and Klaus Töpfer was strongly in favour of nuclear energy as a means to prevent climate change at both international and domestic levels. Töpfer also had visible role in the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992.

Alongside Klaus Töpfer, the CDU/CSU faction had several prominent representatives who constantly defended the use of nuclear energy in the Bundestag, but only a few of them are introduced here. **Kurt-Dieter Grill** (CDU/CSU) was born in 1943 and acted as Chair of the Gorleben Commission (1978-1991). He was a member of the Lower Saxony Parliament (1974-1994); a Bundestag member (1994-2005); a member of the AfUNR (1994-98); and led the Commission of Inquiry into 'Sustainable Energy' (2000-2002). He has also worked in the German section of the Club of Rome.¹⁴² **Dr. Paul Laufs** (CDU/CSU) was born in 1938, was a Bundestag member (1976-2002), and was Parliamentary Secretary of State to the Federal Minister for the Environment, Nature Conservation, and Reactor Safety (1991-93). He was also a member of the AfUNR (1994-98), and the Protection of People and Environment Commission of Inquiry.¹⁴³ **Dr. Klaus W. Lippold** (CDU/CSU) was born in 1943, was a Bundestag member for Offenbach (1983-2009); and was Chair (1990-94) for two Commissions of Inquiry - "Preventive Measures to Protect the Earth's Atmosphere" (*Vorsorge zum Schutz der Erdatmosphäre*) and "Protecting the Earth's Atmosphere" (*Schutz der Erdatmosphäre*). He was also a member of the AfUNR (1987-1998), and Chair of the CDU/CSU working group 'Environment, Nature Conservation, and Reactor Safety' (1994-2000).¹⁴⁴ **Dr. Peter Paziorek** (CDU/CSU) was born in 1948, was a Bundestag member (1990-2007), and took over from Lippold as Chair of the Environment, Nature Conservation, and

¹⁴⁰ Rüdiger 2000, 58.

¹⁴¹ Archiv, Abgeordnete.

¹⁴² Archiv, Abgeordnete.

¹⁴³ Archiv, Abgeordnete.

¹⁴⁴ Archiv, Abgeordnete.

Reactor Safety working group (2000-2005). He was also a member of the Committee of the Environment, Nature Conservation, and Reactor Safety (1994-98).¹⁴⁵

The SPD had many speakers dedicated to the phasing out of nuclear energy. For instance, **Monika Griefahn** (born in 1954) was a Bundestag MP (1998-2009), and before that Minister for the Environment in Lower Saxony (1990-98) under Gerhard Schröder's cabinet, where she worked to support renewable energy and the phasing out of nuclear energy. She was also a founding member of Greenpeace in Germany.¹⁴⁶ **Volker Jung** was born in 1942 and was also a Bundestag member (1983-2002), acting as the spokesperson of energy policy in his party faction; and he was also a deputy member of the AfUNR (1994-98).¹⁴⁷ **Michael Müller** was born in 1948, and was the Bundestag MP for Düsseldorf (1983-2009). He was also the Chair of the SPD working group on the Environment, Nature Conservation, and Reactor Safety (1992-98); spokesperson for the party's environmental policy; Chair for the Protection of People and Environment Commission of Inquiry (1992-94; and a member of the AfUNR (1994-98).¹⁴⁸

During the 1990s, until the Bundestag elections in 1998, the Federal Minister for Economics came from the FDP, and was thus very much for the continued use of nuclear energy. **Jürgen W. Möllemann** (1945-2003) held the office in 1991-93, and was also a long-standing MP in the Bundestag (1972-2000).¹⁴⁹ Möllemann's successor as Minister for Economics (1993-98) was **Dr. Günter Rexrodt** (1941-2004), and he remained a Bundestag member until 2004.¹⁵⁰ Another Bundestag member (1990-2013) from the FDP that constantly spoke in favour of nuclear energy was **Birgit Homburger**, who was born in 1965, and was the spokesperson for environmental politics in her party group. She was also a member of the AfUNR (1994-98), and the Protection of People and Environment Commission of Inquiry.¹⁵¹

Alongside Jürgen Trittin and Joschka Fischer two other representatives of the Alliance 90/Greens are also introduced here. **Ursula Schönberger** (Alliance 90/Greens) was born in 1962, and had a background in the peace (1980-85) and anti-nuclear movements (1985 until now). When she was a Bundestag member (1994-98), she was also the spokesperson on nuclear matters for the Alliance 90/Greens coalition and a vocal opponent of the plans to convert Schacht Konrad into a nuclear waste storage facility. In the Bundestag election of 1998, Ursula Schönberger was not re-elected and so **Michaele Hustedt** (Alliance 90/Greens) - previously responsible for other environmental

¹⁴⁵ Archiv, Abgeordnete.

¹⁴⁶ The Homepage of Monika Griefahn.

¹⁴⁷ Archiv, Abgeordnete.

¹⁴⁸ Archiv, Abgeordnete; Wikipedia.

¹⁴⁹ Archiv, Abgeordnete.

¹⁵⁰ Archiv, Abgeordnete.

¹⁵¹ Archiv, Abgeordnete.

issues - took over her position as spokesperson on nuclear matters.¹⁵² Hustedt was born in 1958 and was an active politician in Nordrhein-Westfalen before becoming a Bundestag member (1994-2005). She was a member of the Environment, Nature Conservation, and Reactor Safety working group (1994-98). Since 1975, Hustedt has been involved with the peace and environmental movements, and her education has lain in the fields of chemistry and biology. Hustedt is also a member of Friends of the Earth Germany (BUND) and Eurosolar.¹⁵³

The PDS representatives wanted nuclear energy phased out in the shortest time period possible. **Eva-Maria Bulling-Schröter**, for instance, was born in 1956, joined the Bundestag in 1994 and was the spokesperson for environmental politics for her party. She is currently an active advocate for *Energiewende* (revolutionising the energy industry).¹⁵⁴

Like other politicians in the Bundestag who participated in the policy discussions over nuclear energy, these people had a naturally different personal emphasis, which can be seen for example in the way that certain people commonly repeated the same arguments by preferring certain concepts time after time again. However, as discussed in the previous parts of this introduction, the speeches made in the Bundestag represented for the most part the official party line in the great majority of cases. Indeed, expressions of inter-party disagreement were extremely rare in the policy debates of the Bundestag.

¹⁵² Rüdig 2000, 60; Archiv, Abgeordnete.

¹⁵³ Archiv, Abgeordnete.

¹⁵⁴ The Homepage of Eva-Maria Bulling-Schröter.

2 CONSENSUS AND DISSENT

2.1 An Energy Policy for the Future?

The first chapter already discussed how German society and politics were clearly divided over the question of using nuclear energy from the second half of the 1970s onwards. The pro-nuclear political parties were the CDU/CSU and FDP, and they were the ruling coalition until 1998, while the anti-nuclear parties were the SPD, the Greens, and the PDS. Even though these were the two major camps in the Bundestag, there were different emphases between each of the parties over the future of nuclear energy policy. The Greens and PDS demanded a much more immediate phasing out of nuclear energy than the SPD, and within the SPD itself there were different opinions over this as well. This chapter looks more closely at the background for these differences between each political party's stance over future nuclear energy policy so as to provide a background for a more in-depth analysis of competing conceptualisations in later chapters.

Even though the Chernobyl accident in 1986 triggered a new cycle¹⁵⁵ of arguments in the nuclear energy debate, it should be kept in mind that the nuclear energy debate had already been causing tensions inside and between the above political parties earlier. At the end of the 1970s, during the massive demonstrations against the construction of nuclear power plants and storage facilities for radioactive waste, the political parties organised conferences to specifically address the question, and the SPD in particular already had a minority that objected to nuclear energy.¹⁵⁶ The establishment of the "Future Nuclear Energy Policy" Commission of Inquiry brought the disagreement over nuclear energy into parliament at the end of the 1970s.¹⁵⁷ The political situation

¹⁵⁵ Boyd & Palviainen 2015, 64, 69, 73.

¹⁵⁶ Rucht 1994, 446, 450, 453.

¹⁵⁷ Altenburg 2012, 262-263; Radkau 2011a, 12.

then came to a head during the 1980s, when the state governments of Nordrhein-Westphalia, Hesse, Schleswig-Holstein, Lower Saxony, and Baden-Württemberg started to question the legitimacy of nuclear plants and storage facilities within their borders.¹⁵⁸ Construction of the nuclear reprocessing plant at Wackersdorf in Bavaria was cancelled by the end of the 1980s due to heavy resistance and economic reasons which, among others, illustrated just how difficult it was to invest in nuclear energy. Because of the breakdown in plans for a domestic reprocessing plant, the spent fuel elements of the German nuclear power plants were thus sent to foreign reprocessing plants in La Hague in France, and Sellafield in the UK.

In the Bundestag, the first bill proposals against nuclear energy were introduced in the 1980s. In 1984, the Greens proposed a “Bill to Legislate for the Immediate Shutdown of Atomic Plants in West Germany”. The SPD, in turn, introduced in 1986 and then again in 1987 a “Bill to Legislate Against the Use of Nuclear Technology in the Energy Industry and for its Safe Handling During the Period of Transition”.¹⁵⁹ The titles of the bill proposals are enough to reveal the different emphases between the Greens and Social Democrats in their demands - the Greens supported the immediate closure of nuclear facilities whereas the SPD wanted them gradually wound down. The tensions surrounding the question of using nuclear energy and the disposal of radioactive waste in German society were so significant that they inspired Radkau to observe in 1987, that the disagreement over nuclear energy was the widest and the most fundamental public discourse in the history of the FRG.¹⁶⁰

This chapter looks more closely at these tensions in German society and how politics made demands on the German energy industry, so that from the early 1990s onwards a cross-party consensus about energy policy was sought so that future investments in research and development could be made. Gerhard Schröder especially, first as the Prime Minister of Lower Saxony and then as German Chancellor, was most keen on consensus between the political parties and energy industry about how nuclear power would be gradually phased out in Germany. On 23 November 1992, the Chairmen of VEBA (Klaus Plitz) and RWE (Friedhelm Gieske) wrote a letter to Chancellor Helmut Kohl highlighting the necessity of finding a consensus to energy questions. And indeed, as we mentioned above earlier, energy consensus discussions did take place in 1993 between members of the federal and individual state governments, and representatives of the political parties, unions, environmental organisations, and energy industry to globally discuss the issues of nuclear energy, climate

¹⁵⁸ Radkau & Hahn 2013, 341-345. See Appendix 2.

¹⁵⁹ Winter 2012, 214. “Entwurf eines Gesetzes über die sofortige Stilllegung von Atomanlagen in der BRD”; “Entwurf eines Gesetzes zur Beendigung der energiewirtschaftlichen Nutzung der Kernenergie und ihrer sicherheitstechnischen Behandlung in der Übergangszeit”.

¹⁶⁰ Radkau 1987, 397.

change, and coal policy.¹⁶¹ This was the first of three attempts in the 1990s to find a cross-party consensus about energy - the other two being in 1995 and then in 1998 (after the change of federal government). After the 1993 and 1995 attempts failed to find any agreement, the CDU/CSU and FDP government of the time introduced amendments to the Atomic Energy Act (in 1994 and 1997) to ensure the continued use of nuclear energy. But this process was 'reversed' by the red-green federal government in 1998, as it began negotiations to phase out nuclear energy in 'consensus' with the energy industry.

This chapter looks more closely at the position of the political parties towards the future of nuclear power in the context of these consensus discussions; and the analysis shall be deepened by looking at which expressions the political parties repeatedly used to get their points across in the context of three amendments of the Atomic Energy Act (1994, 1997, and 2001).

2.2 Finding 'Consensus' and the Atomic Energy Act Amendment (1993-94)

From the early 1990s onwards the idea that a general consensus should be found over the basic blueprint for a future energy policy cropped up time and again in the press, in the energy industry, and among politicians. The expressions were variations of the same thing: "a new consensus in energy policy"; "a new cross-party consensus"; and "a new energy consensus" for example.¹⁶² Consensus discussions were therefore organised for the first time in 1993, and resulted in the federal government introducing an amendment to the existing Atomic Energy Act in 1994 which ensured the continued role of nuclear technology in energy production for the foreseeable future.

The initiative to convene meetings to achieve this energy policy 'consensus' came chiefly from Schröder, when he was Prime Minister for Lower Saxony, and chief executives in the energy industry. The German press highlighted that it was the energy industry that was demanding a 'consensus' between political parties so that they could make realistic profitable future investments, without the fear of losing any money due to legislation prohibiting certain kinds of construction. For instance, in the first years of the 1990s there

¹⁶¹ Radkau & Hahn 2013, 350.

¹⁶² SZ 19.12.1992, Auftrag Kohls zu Konsens in der Energiepolitik; SZ 27.1.1993, VEBA-Chef Piltz wirbt für energiepolitischen Konsens; SZ 9.2.1993, Nach März an Verhandlungen über künftigen Einsatz von Atomstrom. Von Energiekonsens weit entfernt. ; SZ 3.3.1993, Der Energiekonsens - eine Utopie. Von Thomas Fröhlich, Bonn; SZ 22.1.1993, BDI für Konsens zugunsten der Kernenergie; SZ 9.2.1993, Skepsis vor den Konsens-Gesprächen; SZ 24.2.1993, Gespräche über Energiekonsens. Für Grüne nur Ausstieg aus Atomkraft ein Thema. "einen neuen energiepolitischen Konsens"; "einen neuen parteiübergreifenden Konsens"; "einen neuen Energiekonsens"

was speculation as to whether the Greifswald and Stendal nuclear reactors in the former DDR should be replaced with new nuclear reactors or left inactive. In April 1991 the SZ newspaper reported that Jürgen Möllemann, as Federal Minister for Economics, was willing to support reconstruction of nuclear power plants in the east, but before committing to this kind of investment, the executives of RWE, PreussenElektra and Bayernwerk wanted a cross-party consensus to confirm that this pro-nuclear stance would last longer than one legislative term.¹⁶³

Interestingly, these speculations about the reconstruction of nuclear power plants in the east were soon dropped from the political agenda as seemingly more important issues came along that required cross-party consensus. The joint Franco-German project by Siemens and Framatome had begun in 1989 to develop an EPR reactor (European Pressurized Water Reactor), and in 1991 the French utilities company, Électricité de France (EDF) decided to also join the project. The EPR reactor decreased the probability of core meltdown happening, and it improved the overall capability of reactor containment (in the event of an emergency).¹⁶⁴ For the energy industry and pro-nuclear parties, it was thus crucial for this project to be able to continue, as we shall see below.

During the early 1990s, the idea of 'consensus' was understood in a much wider sense than it would eventually come to signify. For a start, broader segments of society were represented in the discussion, and the topics included more general questions about energy policy in general - not just nuclear. In the 1993 discussions, politicians from the CDU, CSU, SPD, FDP and Greens were there, along with representatives of the utility companies, the energy industry, trade unions, and environmental organisations. Participants included the Federal Minister for the Environment, Klaus Töpfer (CDU); the Minister for the Environment in Bavaria, Peter Gauweiler (CSU); the Federal Minister for Economics Günter Rexrodt (FDP); the Prime Minister of Lower Saxony, Gerhard Schröder; the Prime Minister of Hesse, Hans Eichel (SPD); and the Minister for the Environment in Hesse Joseph Fischer (Greens).¹⁶⁵ Later on in the spring of 1993, however, the Greens left the discussions.¹⁶⁶ The discussions had the additional task of coming to an agreement over a wide variety of other difficult issues regarding energy policy, particularly regarding the use of domestically produced coal.

¹⁶³ SZ 12.4.1991, p. 27, Ein Konsens für die Kernenergie? Die Forderungen der Stromunternehmen und die Realität. Von Thomas Fröhlich.

¹⁶⁴ Olkiluoto 3 in Finland, which constructions were licensed in 2005, and Flamanville 3 in France, which constructions were licensed in 2007, are equipped with the EPR reactor.

¹⁶⁵ FAZ 19.3.1993, p.1, Gespräche der Parteien über einen Energiekonsens beginnen. Auch die Grünen sind dabei. Hauptstreitpunkt: die Haltung zur Kernenergie.

¹⁶⁶ E.g., SZ 2.7.1993, p.2, Auch nach dem Ausstieg der Grünen. SPD setzt Energie-Gespräche fort. Schröder: Konsens zu wichtig, um die Brocken hinzuwerfen.

It seemed clear from the outset that the participants would probably come to an agreement over all the other energy policy issues except the future use of nuclear energy.¹⁶⁷ This was because the energy industry was clearly of the general opinion that nuclear energy would form a necessary part of the future energy supply.¹⁶⁸ In December 1992, Klaus Piltz, the Chair of Veba AG (Düsseldorf), was asking the parties involved to come to an agreement that would include a “nuclear power option”,¹⁶⁹ while the German branches of Friends of the Earth (BUND), International Physicians for the Prevention of Nuclear War (IPPNW), and Greenpeace made clear that the discussions about “a new consensus in energy policy” should really be about finding a new cleaner alternative to nuclear power.¹⁷⁰

The federal government also spoke about constructing new nuclear power plants, and their target in the consensus discussions was thus to maintain this option for the future. By October 1993, however, it was patently clear that no solution could be agreed on by all parties. The Federal Minister for Economics Günter Rexrodt (FDP) felt obliged to remind participants of the aims of the discussion.

May I remind you that the starting point for these discussions was the question posed by the energy industry and EVU [electricity suppliers] as to whether a consensus could be found that would be supported beyond the coalition and by important groups in society - including the opposition or parts of the opposition - so that a new and safer generation of nuclear power plants can be installed.¹⁷¹

Rexrodt clarified that the main question in the discussions had been to settle on an “option for the later use of nuclear energy”, and he argued that a model reactor was required if Germany was to remain at the forefront of nuclear technology.¹⁷² This speech act by the Federal Minister for Economics revealed

¹⁶⁷ E.g., FAZ 20.3.1993, p.1, Gespräche der Parteien über eine „Energiekonsens“; SZ 22.3.1993, Energiekonsens im Nebel; SZ 21.4.1993, Erste Gesprächsrunde über einen Energiekonsens. Keine Annäherung im Streit um die Kernkraft. Umweltschützer: Regierung verhindert Ausstieg/ Stromkonzerne räumen Versorgungssicherheit auch ohne Atomenergie ein.

¹⁶⁸ SZ 24.3.1993, Industrie nimmt Stellung zu Energiekonsens-Gesprächen: Keine Alternative zur Atomkraft. Verhandlung durch „ideologische Selbstblockade“ behindert.

¹⁶⁹ SZ 2.12.1992, Veba hofft auf neuen Kernenergie-Konsens. Für Nutzung bis zum Betriebsende/ Abbau von 7000 Stellen/ Wieder 12 DM Dividende. „Option Kernkraft“

¹⁷⁰ SZ 19.4.1993, Umweltverbände fordern den Einstieg in grundlegend neue Energiepolitik. „Langzeitgefahren der Kernkraft unterschätzt“/ Am Montag neues Gespräch über Konsens. *„einen neuen energiepolitischen Konsens“*

¹⁷¹ Deutscher Bundestag, 12. Wahlperiode, 186. Sitzung, 29.10.1993, 16130. *„Ich darf Ihnen in Erinnerung rufen, dass Ansatzpunkt für diese Gespräche die Frage der EVUs und auch der elektrotechnischen Industrie war, ob für die Entwicklung und die Installation einer neuerer, einer sicheren Generation von Kernkraftwerken nicht ein Konsens möglich sei, der über die Koalition hinausreicht und wichtige gesellschaftliche Gruppen, auch die Opposition oder Teile der Opposition, einschließt.“*

¹⁷² Deutscher Bundestag, 12. Wahlperiode, 186. Sitzung, 29.10.1993, 16130. *„Option für die spätere Nutzung der Kernenergie“*

that option of developing a new generation of reactors was in the interests of the federal government as well. We should notice that this 'option' did not refer to some hypothetical development of nuclear technology in the future, but to the very concrete and ongoing EPR project by Siemens, Framatome, and EDF. In other words, the federal government was clearly of the opinion that nuclear energy had to be maintained in Germany.

The Greens and the PDS were the parties most insistent on the phasing out of nuclear energy. Indeed, the Greens were not willing to consider any solution unless it involved the complete removal of nuclear energy from Germany. This attitude was evident when, in May 1993, Ludger Volmer, the spokesperson for the Alliance 90/Greens group, stated that the party wanted to close down every German nuclear power plant immediately and that the Greens could not be party to any kind of "atomic consensus".¹⁷³ This conceptual description of defining the supposed outcome of the discussions as an *atomic* consensus shows how the Greens were of the opinion that the attempt to find consensus was a farce, as the government's real target was not to discuss future energy policy, but simply to ensure the future use and development of nuclear technology so that big business could safely invest in the government's plans, and the government could rely on the support of business. In other words, the Greens were heavily critical of the motives for the discussions, which they saw as a brazen attempt to cement the further use and development of nuclear energy. On 29 October 1993, Joschka Fischer (Minister for the Environment, Energy and Federal Affairs in Hesse) thus stated in the Bundestag that what was needed, was indeed "an energy consensus, but one that excluded atomic energy rather than continuing it with a new generation of reactors".¹⁷⁴ The Green party was thus not willing to make concessions about the immediate phasing out of nuclear energy.

The PDS/Linke Liste did not participate in these consensus discussions. Instead they asked for a parliamentary inquiry (*Grosse Anfrage*) in the Bundestag, demanding for the immediate closure of all nuclear power plants and criticising the pretext for the so-called "energy consensus discussions".¹⁷⁵ After the so-called consensus discussions had come to an end, Bernd Henn (PDS/Linke Liste)¹⁷⁶ again reiterated (on 29/10/93) that his party was demanding the immediate phasing out of nuclear energy, quoting a headline from 'Taz' (*Die Tageszeitung*) published the previous year on 5 December - "Atomic Power now Transitional Energy Source".¹⁷⁷ Although it did flash up

¹⁷³ SZ 24.5.1993, Auf Kernenergie-Kongress der Grünen in Köln. Volmer: Mit uns kein Atomkonsens. Partei will in künftigen Koalitionen Sofortausstieg. "Atomkonsens"

¹⁷⁴ Deutscher Bundestag, 12. Wahlperiode, 186. Sitzung, 29.10.1993, 16151. "Wir brauchen einen Energiekonsens, aber unter Ausschluss der Atomenergie, und nicht einen, mit einer Fortführung einer neuen Reaktorgeneration."

¹⁷⁵ Deutscher Bundestag, Drs. 12/5383. "Energiekonsensgesprächen"

¹⁷⁶ Wikipedia. Bernd Henn (PDS/Linke Liste) (born in 1946) was a Bundestag member in 1990-1994.

¹⁷⁷ Deutscher Bundestag, 12. Wahlperiode, 186. Sitzung, 29.10.1993, 16139.

on a few occasions, nuclear power as a form of ‘transitional energy’ was not at this point a widely-used term among the Bundestag MPs. Speakers from the SPD in particular - Harald B. Schäfer (Offenburg), Dietmar Schutz, and Hans Georg Wagner - pointed out that after Chernobyl, Chancellor Kohl and the ruling CDU/CSU/FDP coalition had been describing nuclear power as a form of “transitional energy”,¹⁷⁸ but otherwise it did not feature much in Bundestag discussions.

The SPD, itself, was significantly split over whether there should be continued use of nuclear energy or not, yet this is not so apparent from analysis of the Bundestag debates alone. As mentioned in the first chapter, the Bundestag debates contained speeches that mainly represented only the official party line and so inner-party disagreements were rarely brought up - in the plenary debates for example. A number of the SPD insisted on phasing out nuclear energy as this had been agreed at the party conference in 1986. In April 1993, for instance, Harald B. Schäfer (SPD), Baden-Württemberg’s Minister for the Environment¹⁷⁹ reminded his colleagues that a key pillar of SPD policy had been to prohibit the construction of any new nuclear power plants, and to begin the phasing out of atomic power.¹⁸⁰ On the other hand, other SPD members, such as Schröder, were more flexible in their attitudes. Indeed, the Lower Saxony PM was the chief instigator of the consensus discussions in the first place, and he was clearly ready to discuss the possibility of a new generation of reactors as well.¹⁸¹ In October 1993, the SPD leadership thus clarified the official party line by confirming that the phasing out of nuclear energy was necessary, but that if total closure of all nuclear power plants could not happen immediately, then it should be agreed to happen within a reasonable time frame.¹⁸² This meant that the SPD were officially rejecting the further development of nuclear technology that the energy industry and federal government were advocating, but were nevertheless willing to delay the closure of all nuclear facilities. Although the original ‘option’ that the federal government had wanted to be considered had thus been rejected, Schröder made a speech in the Bundestag on 29 October 1993 in which he redefined the target of these discussions. Now the goalposts had shifted and the objective was,

¹⁷⁸ Deutscher Bundestag, 12. Wahlperiode, 23. Sitzung, 25.4.1991, 1538-1554; Deutscher Bundestag, 12. Wahlperiode, 193. Sitzung, 25.11.1993, 16803. “*Übergangsenergie*”

¹⁷⁹ Wikipedia. **Harald B. Schäfer** (SPD) (1938-2013) was a Bundestag member in 1972-1992. He was a member of the AfUNR until 1992. In 1992-1996 Harald B. Schäfer acted as the Minister for the Environment in Baden-Württemberg.

¹⁸⁰ SZ 17.4.1993, Suche nach nationalem Energiekonsens geht weiter. SPD beharrt: Ausstieg aus Atomkraft. Stuttgarter Umweltminister Schäfer wirft Bonn Schlafmützigkeit vor.

¹⁸¹ E.g., SZ 25.10.1993, p.4, Wieder ein einsamer Kampf. Des niedersächsischen Ministerpräsidenten Schröders Bemühen um den Energiekonsens. Von Ulrich Deupmann.; SZ 27.10.1993, p.4, Keine Option - kein Energiekonsens. Meinungsseite.

¹⁸² SZ 27.10.1993, p.2, Vor Verhandlungen mit der Bundesregierung über einen Energiekonsens. SPD-Präsidium besteht auf Ausstieg aus der Atomkraft. Bau eines Reaktor-Prototyps abgelehnt/ Koalition: Sozialdemokraten zu verantwortungsvoller Politik nicht fähig.

instead, to come to an agreement about the time frame required for an orderly closure of nuclear facilities.¹⁸³

The press and the federal government saw the internal divisions inside the SPD as the prime reason for the failure to come up with the hoped for national consensus about energy policy. Thomas Fröhlich wrote in the SZ, for instance, on 16 October 1993, that “Chernobyl II” was currently more likely to happen than finding a consensus in energy policy, because of divisions in the SPD.¹⁸⁴ Chapter 3 will discuss more precisely how Chernobyl was used as a symbol and metaphor in the nuclear energy debate, but for now, this use of “Chernobyl II” was simply expressing frustration at the inability of the SPD and the political class in general to come to an agreement about energy policy.

In 1994, the federal government nevertheless introduced an amendment to the Atomic Energy Act, entitled ‘Bill to Secure the Use of Coal in Power Generation and to Amend the Atomic Energy and Electricity Feed Acts’.¹⁸⁵ As its name revealed, it connected subsidised domestic coal production with the use of nuclear energy in the sense that if the government was to continue subsidising coal production, then nuclear energy would also have to continue. The amendment confirmed that the “option for future nuclear power plants” would thus be maintained in Germany and that “the peaceful use of nuclear energy and the technical development of its safety are one of the future options being considered in German energy policy”. The amendment thus brought two central changes to nuclear energy policy. Firstly, it ordered additional safety requirements for the future nuclear power plants with the target of preventing the spread of radiation in case of nuclear accidents. Secondly, it allowed for the final storage of nuclear waste and reprocessing to happen on German soil, i.e., operators were allowed to choose between direct final storage of nuclear waste or the reprocessing of it.¹⁸⁶ The Bundesrat, whose formal approval the amendment nevertheless did not require, decided they would have turned the bill down, because it only talked about ‘hard coal’, and not lignite, which thus ruled out much of the former DDR.¹⁸⁷

The contents of the amendment meant that in practice the federal government wanted the further development of nuclear technology to be politically accepted in the concrete form of the EPR project supported by Siemens, Framatome and EDF. The federal government were strongly in favour of the amendment, because it allowed for the nuclear energy option. On 4

¹⁸³ Deutscher Bundestag, 12. Wahlperiode, 186. Sitzung, 29.10.1993, 16132-16135.

¹⁸⁴ SZ 16.10.1993, p.4, Politischer Schacher statt Energie-Konsens. Die parteiübergreifenden Gespräche über die Energiepolitik sind gescheitert. Von Thomas Fröhlich.

¹⁸⁵ *Gesetz zur Sicherung des Einsatzes von Steinkohle in der Verstromung und zur Änderung des Atomgesetzes und des Stromerzeugungsgesetzes*

¹⁸⁶ Deutscher Bundestag, Drs. 12/6908. “Option für künftige Kernkraftwerke”; “[D]ie friedliche Nutzung der Kernenergie und deren sicherheitstechnische Fortentwicklung eine der energiepolitischen Zukunftsoptionen für Deutschland ist”.

¹⁸⁷ Bundesrat, Drs. 896/93.

February 1994, the Federal Minister for Economics, Günter Rexrodt stated in the Bundesrat that the government had “to keep the option open for new technology, which without a doubt requires that special attention be paid to safety standards”.¹⁸⁸ During the first reading of the bill on 3 March 1994, Rexrodt specified that an “energy supply for the future would need technology to be developed further, thus the option needed to be there to allow for the development of future-oriented technology.” He went on to argue that the federal government therefore meant to “keep the door actually open for the use of nuclear energy” and justified this by claiming that, in this case, “option” meant ensuring that investments would pay for themselves at some point.¹⁸⁹ Klaus Töpfer (the Federal Minister for the Environment, Nature Conservation, and Reactor Safety) added to this by saying that the government wanted “to keep the option open for a nuclear power plant to be built in 2005 or 2008.”¹⁹⁰ These speeches by the Federal Ministers further reinforced the pro-nuclear position of a government that was firmly backing the energy industry.

During the first half of the 1990s, the CDU/CSU and FDP thus supported nuclear energy, which meant they also supported taking concrete steps to help in the EPR project. Meanwhile, the SPD were largely magnanimous, having nevertheless softened the previous anti-nuclear stance they held in the direct aftermath of Chernobyl; while the Greens and PDS remained firmly anti-nuclear, and argued for the immediate shutdown of nuclear facilities. The SPD’s position understandably caused the most controversy, as officially the party line called for all existing nuclear facilities to be closed down within a certain time period and for no nuclear power plants to be renewed; yet Gerhard Schröder was showing a more flexible attitude towards extending the operation time of existing nuclear power plants indefinitely and even allowing for nuclear technology to be developed further.

2.3 Quest for ‘Consensus’ Continues, but Dissens Remains (1995-97)

After the mid-nineties, political uncertainty about the continued use of nuclear energy increased. There had been significant protests against the transportation

¹⁸⁸ Bundesrat, 665. Sitzung, 4.2.1994, 31-34. *“Wir müssen die Option für eine Zukunftstechnologie offenhalten, die einer besonderen Zuwendung in den Sicherheitsstandards ohne jeden Zweifel bedarf.”*

¹⁸⁹ Deutscher Bundestag, 12. Wahlperiode, 213.Sitzung, 3.3.1994, 18438-18440. *“Energieversorgungsstrukturen auf die Zukunft ausrichten heißt auch, Technologien weiterzuentwickeln, heißt, zumindest die Option für die Entwicklung zukunftsorientierter Technologie offenzuhalten.” “die Tür für die Kernenergienutzung tatsächlich offenbleibt”.*

¹⁹⁰ Deutscher Bundestag, 12. Wahlperiode, 213.Sitzung, 3.3.1994, 18452-18455. *“Wir wollen die Option erhalten, dass man im Jahr 2005 oder 2008 wirklich sagen kann, es kann wieder ein Kernkraftwerk gebaut werden.”*

of nuclear waste to the interim storage facility at Gorleben, Lower Saxony (discussed further in chapter 5); and in the Bundestag elections of 1994, the energy industry continued in its demands for a political consensus so that the profitability of making future investments in the new technology could be ensured.¹⁹¹

'Consensus discussions' thus restarted in 1995, but spluttered to a stop in June that same year in yet another stalemate. This second attempt to find a consensus had involved far fewer interested parties than in 1993 - in the hope that this might make it easier to achieve the desired goal (for instance, the Green Party was not involved). However, it did not work, and controversies remained - not only over the question of nuclear energy, but also coal subsidies. Another contributing factor to the failure of these talks must also have been the first transportation of radioactive waste to Gorleben, which effectively retriggered the anti-nuclear movement. Nuclear energy was thus a significantly more sensitive subject than it had been in 1993, yet at the same time the pro-nuclear lobby were starting to find support in environmental arguments. As we shall see in chapter 4, the first conferences for the United Nations Framework Convention on Climate Change (UNFCCC) were being organised in Berlin in the very same year as these talks (1995), and nuclear energy was being considered as one way to reduce CO₂ emissions.

The federal government thus continued to support the future use and development of nuclear energy. The Federal Minister for Economics, Günter Rexrodt, again clarified on 26 April 1995, how the word "option" referred to the very concrete possibility of using nuclear power (i.e., EPR reactors). "When we are speaking about the option, we do not mean any theoretical option, but an option that can be truly fulfilled".¹⁹² Meanwhile, the SPD remained internally split between those who wanted the immediate phasing out of nuclear power, and those who were for the phasing out to happen gradually.¹⁹³ It should be noted at this point that the party conference decision taken in 1986 had in fact been to phase out nuclear power within 10 years, and so in this sense it was outdated, even if some members evidently interpreted this to now mean they should call for the immediate closure of nuclear facilities. So it was that, on 26

¹⁹¹ E.g., SZ 10.10.1994, p.26, Kein Verzicht auf die Kernenergie-Option. Ein Energiekonsens muss langfristig verantwortbare Entscheidungen herbeiführen. Von Ulrich Hartmann; FAZ 22.10.1994, p.14, IG-Bergbau-Vorsitzende für große Koalition. Weitere Arbeitszeitverkürzung. Energiekonsensgespräche fortsetzen; FAZ 27.10.1994, p.16, Atomforum fordert Energiekonsens; SZ 27.10.1994, p.20, Die Stromwirtschaft mahnt den Energie-Konsens an; SZ 28.10.1994, p.32, Auch die Industrie fordert einen Energie-Konsens.

¹⁹² Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2534. "Wenn wir über die Option sprechen, meinen wir keine theoretische Option, sondern eine, die auch wirklich ausgefüllt werden kann."

¹⁹³ E.g., SZ 21.6.1995, p.2, Beim Einstieg in den Ausstieg Vertrauen eingebüßt. Die Schwierigkeiten der SPD mit der Strategie ihres Verhandlungsführers Schröder bei den Energie-Konsensgesprächen. Martin E. Süskind; SZ 21.6.1995, p.20, Gerhard Schröder: Konsens nur mit Klimaschutz und Energiesparen.

April 1995, Anke Fuchs (representing Cologne for the SPD)¹⁹⁴ pointed out that the original target for phasing out nuclear energy was now woefully unrealistic, and that the remaining operation time of reactors should henceforth be taken into account.¹⁹⁵ And in June 1995, Schröder, who was also leader of the SPD, even expressed a further readiness to consider the continued development of nuclear energy technology as well.¹⁹⁶

After the discussions had again failed to achieve the wished-for consensus, the CDU/CSU and FDP called for an *Aktuelle Stunde* ('further question time') on 23 June 1995 to properly discuss the topic "Bring the energy consensus discussions to a conclusion"¹⁹⁷. The ruling parties essentially wanted to lay the failure to achieve consensus at the door of the SPD, pointing out that it was the disagreement between those who supported Gerhard Schröder's positive flexibility towards a new generation of reactors, and those who could not accept this - especially Harald Schäfer and Michael Müller - that had made it impossible to find any agreement.¹⁹⁸ Günter Rexrodt maintained that the discussions had been aimed at "keeping our options open", so this did not mean making any immediate decisions over whether a new nuclear power plant would be constructed, since the earliest such a decision could be made, he assured his listeners, would be during the course of the next decade.¹⁹⁹ This speech act by the Federal Minister for the Environment thus postponed the concrete aspect of the issue that had been looming during the first consensus talks (in the form of the EPR reactors). Now the 'option' meant just having the possibility to make this decision later on.

Thus in October 1997, the federal government introduced an amendment to the Atomic Energy Act entitled 'Bill to Amend the Atomic Energy Act and Establish a Federal Office for Radiation Protection'²⁰⁰. At the same time the federal government also introduced a bill about subsidising coal production, but in contrast to the amendment from 1994, there were now two separate bills instead of one. There were three central elements in the part concerned with nuclear energy. Firstly, it specified the conditions necessary for carrying out directive 92/3/EURATOM (9.2.1992) concerning the supervision and control of transporting radioactive waste from one member state to another within the European Community. Secondly, it introduced safety improvements for

¹⁹⁴ Archiv, Abgeordnete. **Anke Fuchs** (Cologne) (SPD) (born in 1937) was a Bundestag member in 1980-2002. Since October 1998 until October 2002 she hold the Vice Presidency of the German Bundestag. She is educated as jurist.

¹⁹⁵ Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2535-2537.

¹⁹⁶ SZ 20.6.1995, p.2, Am Mittwoch Fortsetzung der Gespräche mit der Regierung. SPD-Spitze will Energiekonsens. Aber Aufforderung aus der Partei, Verhandlungen abzuberechen.

¹⁹⁷ "Beendigung der Energiekonsensgespräche"

¹⁹⁸ E.g., Deutscher Bundestag, 13. Wahlperiode, 45. Sitzung, 23.6.1995, 3673-3677.

¹⁹⁹ Deutscher Bundestag, 13. Wahlperiode, 45. Sitzung, 23.6.1995, 3680. "Offenhaltung der Option"

²⁰⁰ "Entwurf eines Gesetzes zur Änderung des Atomgesetzes und des Gesetzes über die Errichtung eines Bundesamtes für Strahlenschutz"

existing nuclear power plants and procedures to ensure the further development of nuclear safety measures. Thirdly, it established the Federal Office for Radiation Protection.²⁰¹ The Bundesrat decided to throw out the bill and justified this, among other things, by highlighting that the majority of states in the FDR were against the further use of nuclear energy because of safety risks and the unresolved issue of radioactive waste disposal;²⁰² however, yet again, the bill did not require the formal approval of the Bundesrat to get passed.

The speeches by members of the ruling coalition show that with the second amendment, the federal government were preparing the ground for the continued use of nuclear power. According to Heinrich L. Kolb (Secretary of State for the Federal Ministry for Economics),²⁰³ the bill was passed to ensure that the option for nuclear energy and the development of safety technology would remain.²⁰⁴ Walter Hirche (Secretary of the State for the Federal Ministry of the Environment, Nature Conservation, and Reactor Safety)²⁰⁵ went one step further to state on 9 October 1997 that the bill was passed to ensure that the option remained open for future nuclear reactors - especially EPR - to be built. Hirche illustrates here how the pro-nuclear parties made a connection between the 'option' for further development of nuclear technology with 'safety' conception. Chapter 3 shall discuss this conception of 'safety' more precisely, but the main idea was that nuclear safety was a matter of constant and dynamic technological progress; and this becomes patently clear in Hirche's speech act, which confirmed that the target of the bill was not only to ensure that German nuclear reactors were up to date, but that German industry could also help in the modernisation of nuclear reactors in former Eastern Bloc countries.²⁰⁶ If we make a short excursion forward in time to a Bundestag debate on 20 January 2000, the connection between this concept of 'safety' and a future for nuclear power by the pro-nuclear parties became more evident. At that time, the CDU/CSU were in opposition, and they introduced a motion that proposed further political support for developing EPR reactors.²⁰⁷ In this debate, Paul Laufs (CDU/CSU) claimed that the EPR project was a fundamental cornerstone in the ongoing process of developing the "highest possible safety standards". German scientists and power plant operators had traditionally had the leading

²⁰¹ Deutscher Bundestag, Drs. 13/8641.

²⁰² Bundesrat, Drs. 610/97.

²⁰³ Archiv, Abgeordnete. **Dr. Heinrich L. Kolb** (FDP) (born in 1956) was a Bundestag member in 1990-2013. He acted as parliamentary secretary of state for the Federal Ministry for Economics in 1992-1998.

²⁰⁴ Deutscher Bundestag, 13. Wahlperiode, 197. Sitzung, 9.10.1997, 17824; Deutscher Bundestag, 13. Wahlperiode, 203. Sitzung, 13.11.1997, 18311.

²⁰⁵ Archiv, Abgeordnete. **Walter Hirche** (FDP) (born in 1941) was a Bundestag member in 1994-2002 and 1998-2002 the deputy Chair of the FDP Bundestag group. Earlier he was active politician in Lower Saxony (e.g., Minister for Economics, Technology, and Transport in 1986-1990). In 1994-1998 he acted as parliamentary secretary of state at the Federal Minister for the Environment, Nature Conservation, and Reactor Safety.

²⁰⁶ Deutscher Bundestag, 13. Wahlperiode, 197. Sitzung, 9.10.1997, 17826-17828.

²⁰⁷ Deutscher Bundestag, Drs. 14/1212.

role in this field, he argued, and EPR technology “ruled out” the possibility of meltdown; so “the option of using nuclear energy had to remain open in Germany too”, Laufs maintained.²⁰⁸

Internal divisions within the SPD became particularly visible in the Bundestag during the Atomic Energy Act amendment discussions in 1997. As Dietmar Schütz (SPD member for Oldenburg)²⁰⁹ stated on 9 October 1997, the bill basically meant extending the operation of existing nuclear power plants and granting permission for a new reactor line to be produced at a later date, and this was clearly not what the SPD had officially agreed as its official party line. Schütz went further in his criticism of the bill, pointing out that the federal government wanted to maintain the option for nuclear energy because of the German-French EPR project even though the majority of German states and their citizens were firmly against the continuing use of nuclear power.²¹⁰ The speech acts of Hans Berger (SPD) in the plenary debate, however, on 13 November 1997 deserve special attention. In this he declared himself as standing apart from the majority of his party, when it came to “the nuclear energy option”. Berger had been the Chair of IG Bergbau und Energie (1990-97),²¹¹ and so he was not against nuclear energy. From his background in the energy industry, he was of the opinion that the plans to achieve secure supplies of energy without using nuclear technology were unrealistic, and he argued for the need improve ways of saving energy and to have a mix of energy sources available; such as German coal and lignite, biomass, renewable, and nuclear. Reliance on any one single source was not a good idea.²¹²

But tensions over nuclear facilities were growing as well in society at large, and not just in the Bundestag. In 1996-97 there were large anti-nuclear demonstrations (see chapter 5) linked to the second and third transports of radioactive waste to the interim storage facility at Gorleben. Thus there were speculations at this time among politicians and the wider public as to whether a new round of discussions might in fact be necessary with the target of finding a consensus over *specific* aspects of energy policy (such as nuclear waste disposal) rather than any broader consensus on energy questions.²¹³ But even this modest

²⁰⁸ Deutscher Bundestag, 14. Wahlperiode, 81. Sitzung, 20.1.2000, 7525-7526. “höchstmöglichen Sicherheitsstandards”; “Die Option der Kernenergienutzung muss auch für Deutschland offen gehalten werden.”

²⁰⁹ Archiv, Abgeordnete. **Dietmar Schütz** (Oldenburg) (SPD) (born in 1943), educated as jurist, was a Bundestag member in 1987-2001. In 1994-1998 he was a member of the AfUNR. He is a member, e.g., in the BUND.

²¹⁰ Deutscher Bundestag, 13. Wahlperiode, 197. Sitzung, 9.10.1997, 17821-17822.

²¹¹ Archiv, Abgeordnete. **Hans Berger** (SPD) (born in 1938) was a member of the Bundestag in 1990-1998. Berger was the Chair of IG Bergbau und Energie in 1990-1997.

²¹² Deutscher Bundestag, 13. Wahlperiode, 203. Sitzung, 13.11.1997, 18313. “Kernenergieoption”

²¹³ SZ 17.5.1996, p.4, Energiekonsens- aber wie? Leserbriefe Von Hendrik Munsberg, Bonn; SZ 23.11.1996, p.32, Bonn zu neuen Gesprächen über Energiekonsens bereit. Sz-Gespräch mit Wirtschaftsminister Günter Rexrodt zum Vorschlag des SPD-Vorsitzenden Lafontaine.

goal of trying to come to an agreement over nuclear disposal was not achieved. Gerhard Schröder, who was now the SPD candidate for the chancellorship, stated that without a political change at the top in Germany, there would be no further discussions, even though he was willing to negotiate after the Bundestag election.²¹⁴

2.4 The 'Consensus' to Phase Out Nuclear Energy (1998-2001)

The Bundestag elections in 1998 were perhaps a turning point in German political history. The continuity of West German political culture, embodied in the Chancellor Helmut Kohl, came to an end after 16 years;²¹⁵ the Greens became a party of government for the first time; and a generation of politicians that had grown up after the war took over most of the positions of power. The new Chancellor, Gerhard Schröder, was born in 1944; the Federal Minister for the Environment, Nature Conservation, and Reactor Safety, Jürgen Trittin, was born in 1954; and the Federal Minister for Foreign Affairs, Joschka Fischer, was born in 1948. The latter had also been personally involved in the student radicalism of the 1960s and the anti-nuclear movement of the 1970s.²¹⁶

After this change of government in 1998 it was far from clear what would happen in terms of nuclear energy policy. The new red-green government committed itself to phasing out nuclear energy in the coalition agreement, but the precise details of this remained controversial; with different opinions as to how long this phasing out would take, and an energy industry that was clearly against dropping nuclear technology completely. Within the Greens too, there was increasing internal divisions between the more anti-nuclear factions and some of the party's bureaucrats and experts.²¹⁷ Chancellor Schröder had made it clear that he was not going to pay compensation to the energy companies, which meant that the phasing out of nuclear energy would only be able to take place with the consent of the utility companies.²¹⁸ The target was therefore to come to an agreement with the industry about the optimal time

²¹⁴ SZ 25.3.1997, p.1, Gespräche über Energie-Konsens vertragen; FAZ 25.3.1997, Nr. 71/13, p.1, Keine Einigung bei Gesprächen über Energiekonsens. Weiteres Treffen nach Ostern/ Schröder: Unterschiede bei Entsorgung nicht unüberwindbar; SZ 4.7.1997, p.5, Koalition kündigt Novelle des Atomgesetzes an. SPD: Energiekonsens-Gespräche beendet. Ohne Machtwechsel geht nichts mehr, sagt Niedersachsens Regierungschef Schröder; SZ 5.8.1998, p.1, Pläne für Ausstieg aus der Atomenergie. Schröder und Stromkonzerne wollen Konsens. Energieversorger RWE nennt Übereinkunft zwischen Politik und Wirtschaft eine „dringende Hausaufgabe“. Der Kanzlerkandidat versichert: Verträge werden eingehalten/ CSU wirft Schröder Inkonsequenz vor.

²¹⁵ Helmut Kohl was Chancellor in 1982-1998.

²¹⁶ Reutter 2004, 4-10.

²¹⁷ Rüdig 2000, 56.

²¹⁸ Rüdig 2000, 57.

frame for phasing out within 100 days; and this was stated in the coalition agreement - there was no longer any talk of immediate closure. Nevertheless, there were significant controversies inside the cabinet, especially between the Federal Minister for Economics, Werner Müller (independent), and the Green ministers. Before initiating discussions, Müller had made it clear that he considered the further use of nuclear energy as feasible,²¹⁹ and in fact he was quite vocal in his criticisms of the idea to phase out nuclear energy, especially when these ideas came from the Greens.²²⁰

Discussions between the federal government (Schröder, Müller, and Trittin), and the representatives of the energy industry started in January 1999, but an agreement was only reached well after 100 days in June 2000, and signed in June 2001. In the newspapers, the discussions were called, for example, "consensus discussions about the phasing out of nuclear energy" or "nuclear energy-consensus discussions".²²¹ The agreement between the federal government and the energy industry, that was finally signed in June 2001, became known as the "atomic consensus".²²² As we can see from this label, the discussions generally became seen as an attempt to agree on the exact terms for phasing out nuclear energy, rather than negotiating about energy policy in general as had been more the case during the discussions in 1993 and 1995.

The electricity industry (E.ON, RWE, Vattenfall and enBW) argued for the vital role of nuclear energy in keeping the production of electricity stable and competitively priced. And it is thought this pressure from the industry was the main reason for the relatively long delay given to shutting down nuclear reactors.²²³ The Chairman of Bayernwerks AG, Otto Majewski, stated in October 1998 that the discussions should not only concern how and when the phasing out of nuclear energy would take place, but should be a comprehensive "energy consensus" instead of a "consensus of phasing out".²²⁴ In this respect, the energy industry was arguing that the outcome of the discussions should not be decided beforehand. The industry wanted to participate in the political process

²¹⁹ E.g., SZ 23.11.1998, p.22, Ohne Friedenspflicht keinen Konsensgespräche. Wenn das Vorschaltgesetz wesentlich Veränderungen bringt, dass haben Verhandlungen keinen Sinne. Knackpunkt Restlaufzeiten.

²²⁰ SZ 16.12.1998, p.5, Streit über Ausstieg aus der Atomenergie. Müller greift Trittin an. "Grünen-Politiker vergiftet Klima bei Konsensgespräch".

²²¹ SZ 20.1.1999, p.1, Vor Beginn der Konsensgespräche. Schröder trifft sich mit Atom-Managern; SZ 25.1.1999, p.19, Was diese Woche bringt: Konsensgespräch über den Kernkraft-Ausstieg; SZ 7.9.1999, p.23, Strom aus Paris belastet Konsensgespräche. RWE-Chef Kuhnt: EdF-Einstieg in Baden-Württemberg würde Kernkraftwerke festschreiben. "Konsensgespräche über einen Ausstieg aus der Kernenergie"; "Kernenergie-Konsensgespräche"

²²² E.g., FAZ 11.6.2001, p.5, Ohne überzeugenden Entsorgungskonzept. Vor der Unterzeichnung des Atomkonsens. Zwischenlager als verkappte Endlager? Von Reiner Burger; FAZ.NET 11.6.2001, Kernenergie. Atomkonsens ist unterschrieben. Von Karten Polke-Majewski. "Atomkonsens"

²²³ Schreurs 2012, 34.

²²⁴ FAZ 16.10.1998, p.1, Keine sofortige Stilllegung von Kernkraftwerken. SPD und Grüne wollen mit Betreibern verhandeln. Eine Frist von einem Jahr. Schadenersatz-Forderung befürchtet. Industrie gegen "Ausstiegskonsens". "Ausstiegskonsens"

of defining the actual concept of 'energy consensus' rather than simply make it a question of nuclear energy. The Christian democrats also continued to ask for a different consensus - one which would include an "option for the future use of nuclear energy"²²⁵ - again still referring to the EPR reactor by Siemens and Framatome.

Perhaps the most controversial topic in these discussions was agreeing on the length of time reactors would be allowed to carry on before being shut down. At the beginning of the discussions, the industry considered 40 years the minimum, which meant 2030 would be the earliest possible date for closure, whereas the Greens could not accept more than 30 years.²²⁶ In December 1999 the parliamentary group of Alliance 90/Greens decided with a large majority to support the policy line of the party chair, according to which the remaining operation time of nuclear power plants should be limited to thirty years with the first nuclear power plant closed down in that current legislative period.²²⁷

However, in the eventual agreement between the federal government and energy industry, this period became 32 years, which meant in practice that all the German nuclear reactors would have stopped working, according to the agreement, by the first years of the 2020s at the latest. On 29 June 2000, the federal government made a declaration in the Bundestag called "Phasing out nuclear energy - the chance to reach a social consensus on energy policy"²²⁸ during which the Chancellor Gerhard Schröder defined the agreement as "a fair compromise" and stated that the federal government and energy industry had agreed to "phase out nuclear energy in an orderly fashion".²²⁹ This phrasing

²²⁵ E.g., FAZ 7.5.1999, p.18, Die Union sucht neuen Energiekonsens. Die Bedeutung der erneuerbaren Energie. Atomkraft als Option. "Option zur zukünftigen Nutzung der Kernenergie"

²²⁶ SZ 27.1.1999, p.1, Ergebnis des ersten Konsensgesprächs. Es bleibt vorerst bei der Wiederaufarbeitung. Schröder: Energiewirtschaft hat überzeugend gezeigt, dass geplanter Stop zum 1. Januar 2000 nicht machbar ist. Bundeskanzler nennt keinen neuen Termin für Ausstieg/ Umweltminister Trittin spricht von erfreulichem Ergebnis; SZ 18.12.1999, p.28, "Die Ausstiegspolitik ist falsch". VDEW-Präsident Klinger: Unter 35 Vollastjahren kein Konsens/ Haushaltsstrom wird noch billiger. ; SZ 3.2.2000, p.26, SZ-Gespräch mit Bayernwerk-Chef Otto Majewski. "Unter 35 Vollastjahren kein Konsens". Energieversorger bei den Laufzeiten für Atomkraftwerke einigt/ Interesse an Flexibilisierung; SZ 17.6.2000, p.25, Grüne wollen Skalps präsentieren. Rechenspiele nach dem Energiekonsens. Es gibt verschiedene Szenarien dafür, wann das erste deutsche Kernkraftwerk abgeschaltet wird. Von Alexander Hagelüken; FAZ 7.2.2000, p.17, Konsens bei Atom-gesprächen bis Ende Februar gesucht. Restlaufzeiten umstritten. Regierung: Notfalls Alleingang. Widerstand von CDU und FDP. Bayern prüft Klage; FAZ 24.5.2000, p.4, Noch kein Konsens beim Ausstieg; SZ 26.1.1999, p.2, Klimapflege mit Koalitionskrach. Schröder verprellt Trittin, um die Konsensgespräche mit der Stromwirtschaft zu retten. Von Alexander Hagelüken.

²²⁷ FAZ 15.12.1999, p.1, Grüne beschließen Vorschlag zum Verzicht auf Kernenergie. "Größtmögliche Geschlossenheit". Gesamtlaufzeit von 30 Jahren. Interessen an Konsens mit der Industrie

²²⁸ "Ausstieg aus der Kernenergie - Chance für eine Energiepolitik im gesellschaftlichen Konsens"

²²⁹ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10423. "einen fairen Kompromiss"; "die Nutzung der Kernenergie geordnet zu beenden"

was a deliberate verbal act, which the red-green federal government used to give the impression that the relatively long time that the reactors would remain in operation would allow for enough time to develop other sources of energy to replace nuclear power. Interestingly, the amendment of the Atomic Energy Act also included the phrase ‘orderly’.²³⁰ Therefore, the use of this word was a micro-level speech act which was meant to cast the lengthy remaining operation time of the nuclear power plants in a favourable light, even though it was in fact significantly longer than the Greens, for instance, had promised for the voters.

In the Bundestag the CDU/CSU and FDP criticised the agreement and declared that it supported the further use of nuclear energy. On 29 June 2000, Angela Merkel (CDU/CSU) went so far as to present the “peaceful use of nuclear energy” as a responsible way to meet energy demands.²³¹ For Peter Paziorek (CDU/CSU) too, “the nuclear power option” had to be kept open for future generations.²³² The representatives of the PDS criticised the agreement as well, but their claim was that the agreement did not phase out nuclear energy fast enough. Eva-Maria Bulling-Schröter (PDS), the spokesperson for the environment of her party group,²³³ argued that the “agreement between the federal government and the EVU [electricity suppliers] is for there to be no phasing out”, since the agreement essentially meant that there would be further production of nuclear electricity and waste.²³⁴ In other words, the PDS were essentially accusing the red-green federal government of being disingenuous, as “phasing out” in this context seemed to put as much emphasis on nuclear plants continuing operations as on them stopping.

The title of the bill that did eventually make its way through parliament was ‘Bill for the Orderly End to the Use of Nuclear Energy in Commercial Electricity Production’²³⁵. It was introduced by the red-green coalition shortly after signing the agreement with the energy industry, and its content was roughly equivalent to that agreement. But perhaps because of criticisms such as Bulling-Schröter’s of the obscurity of terms such as “phasing out”, the amendment’s title was now talking about an “orderly end”, as if mentioning the words “orderly” and “end” were enough to reinforce the government’s anti-nuclear credentials. In practice, the nuclear reactors were to be closed down

²³⁰ Deutscher Bundestag, Drs. 14/6890.

²³¹ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10426. “Die friedliche Nutzung der Kernenergie”.

²³² Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10447-10448. “Die Kernkraftoption”

²³³ The Homepage of Eva-Maria Bulling-Schröter. **Eva-Maria Bulling-Schröter** (PDS) (born in 1956) has been a Bundestag member since 1994 and the spokesperson for environmental policy for her party. She is especially engaged in environmental protection, social justice, and promoting the *Energiewende*.

²³⁴ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10437. “Die Vereinbarung zwischen der Bundesregierung und den EVUs ist kein Ausstieg.”

²³⁵ “Gesetz zur geordneten Beendigung der Kernenergienutzung zur gewerblichen Erzeugung von Elektrizität”

after having produced a certain amount of electricity, after which point each power station's operation license would expire. In the meantime, no new licenses would be issued, and there would be safety tests for all existing nuclear power plants. Concerning radioactive waste, the bill only allowed for its disposal (i.e., direct final storage); reprocessing was forbidden from July 2005 onwards. While looking for a final storage facility, the bill ordered the establishment of interim storage facilities in each region near to the power plants. Finally, the bill ordered increased precautions to be taken in general.²³⁶

For the energy industry, this amendment was evidently seen in a negative light. However, in the context of a decade of lasting uncertainty about the wisdom of investments in the face of politicians pulling the plug at a later date, this was at least acceptable, and business plans could be made around these dates. At the same time, the attitudes of the Christian democrats and Liberals in opposition left hope that there may be a more nuclear-friendly political atmosphere in the future.

Representatives of the ruling parties emphasised the fact that by introducing the bill, the federal government was effectively stopping the use of nuclear energy - albeit gradually. During the first reading of the bill on 27 September 2001, Federal Minister for the Environment, Nature Conservation, and Reactor Safety, Jürgen Trittin, described the difference between the previous Atomic Energy Act and the one introduced by the red-green federal government by saying that

The old atomic energy law specified that these plants would operate permanently; whereas as the new Act will ensure the gradual closure of these plants in an orderly fashion.²³⁷

Furthermore, Trittin stated that the federal government would be preventing the construction of new nuclear power plants and had limited the maximum operation time of any reactor to be 32 years dating from when it was first commissioned. "This means that in the year 2010, half of the existing plants will be out of operation, and by 2020 we hope that the problem will be finally solved", he added.²³⁸ This speech act must be seen as a deliberate attempt to reassert that the amendment was putting an end to nuclear energy, even if it was a gradual one. In this speech, the Federal Minister defined 'gradual closure' as the direct opposite of 'permanent operation' that previous amendments had guaranteed thus far. Other speakers of the governing parties also highlighted the difference between this amendment and earlier versions. For example,

²³⁶ Deutscher Bundestag, Drs. 14/7261; Deutscher Bundestag, Drs. 14/6890.

²³⁷ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18569. "*Das alte Atomgesetz diente dem unbefristeten Betrieb der entsprechenden Anlagen. Das neue Atomgesetz dient der geordneten Beendigung der Nutzung dieser Anlagen.*"

²³⁸ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18569. "*Das heisst, im Jahre 2010 wird die Hälfte der bestehenden Anlagen vom Netz gegangen sein und im Jahre 2020 hoffen wir, das Problem endgültig gelöst zu haben.*"

Horst Kubatschka (SPD)²³⁹ called it “a radical change in atomic politics,” and “a 180° turn” after the previous Atomic Energy Amendment which supported nuclear energy. In contrast, he added, “the red-green coalition will be ending atomic energy in the medium term”.²⁴⁰

Later on, during the second and third readings of the bill on 14 December 2001, Jürgen Trittin clarified the government’s position.

Atomic energy is a concept from the past. We should no longer be looking at questions from the past, we should be facing the future. The future is renewable, efficient and decentralised. *Energiewende* is the model for the future.²⁴¹

With this utterance the Federal Minister was aiming to depoliticise²⁴² the question about the future of nuclear energy by declaring it an outdated issue that had finally been resolved. Nuclear energy had required large centralised power plants, whereas *Energiewende* included the idea of a revolution in the structure of energy production and it was forward-looking. The phasing out of nuclear power had to happen gradually so that the *Energiewende* could be set up for the long-term, not as a short-term fix. Chapter 4 looks more closely at this concept of ‘energy reform’ that the red-green federal government brought in to distinguish their *Energiewende* energy policy from the previous government’s and which had a semantic pedigree dating back to the 1970s.

Again, the PDS were sceptical of this “phasing out”, even if it was now an “orderly end”. The facts remained the same, Eva Bulling-Schröter argued, the “amendment is simply a guarantee of conversion into electricity of atomic energy for the EVU [electricity suppliers]. This guarantee of conversion is valid for decades; and so there is no ending happening here.” She made it clear that there had to be “a faster atomic phase out”.²⁴³

Interestingly, even though the representatives of the CDU/CSU and FDP criticised the bill, they explicitly avoided talking about their own attitudes

²³⁹ Archiv, Abgeordnete. **Horst Kubatschka** (SPD) (born in 1941) was a Bundestag member in 1990-2005. He has studied chemistry and belongs, e.g., to the Bund Naturschutz. In 1994-1998 he was a deputy member of the AfUNR.

²⁴⁰ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18582-18583. “*ein radikaler Wechsel in der Atompolitik [...] eine 180-Grad-Drehung[...]. Die rot-grüne Koalition wird die Atomenergienutzung mittelfristig beenden.*”

²⁴¹ Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20724. “*Die Atomenergie ist ein Konzept der Vergangenheit. Wir sollten uns nicht mehr mit Fragen der Vergangenheit auseinandersetzen, wir sollten uns der Zukunft zuwenden. Die Zukunft ist erneuerbar, sie ist effizient, sie ist dezentral. Deswegen ist die Energiewende das Modell der Zukunft.*”

²⁴² Steinmetz & Haupt 2013, 25-26. Following the definition by the ‘Bielefeld group’ depoliticisation might have taken place by declaring a question as non-political, but this has been rarely effective. Rather, effective depoliticisation had taken place in a slow and unobtrusive way.

²⁴³ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18577. “*Diese Novelle ist lediglich eine Atomstromverstromungsgarantie für die EVUs. Diese Verstromungsgarantie gilt für Jahrzehnte; von Ausstieg kann deshalb keine Rede sein.*”; “*ein schneller Atomausstieg*”

towards nuclear energy. Nevertheless, clearly many of them believed it was important to maintain the 'option' to use nuclear energy in the future if needed. As Birgit Homburger, spokesperson for the environment in the FDP, put it in December 2001, "while the question of constructing further nuclear power plants in Germany is not applicable at the moment, the option for the future use of nuclear energy should not be ruled out". Indeed she was referring here to the idea of nuclear energy as a form of "transitional energy", to be used temporarily before moving on towards some other form of energy. In this 'need for energy' argument, Homburger used the concept to argue that there was no other alternative than "to use nuclear power in Germany as a transitional source of energy"²⁴⁴. In September 2001 she had also defined it in this way as a form of "transitional energy" (*Übergangsenergie*).²⁴⁵ Her speech acts gave the impression that nuclear energy was not the only possible alternative, and that she was willing to consider alternatives, but that the red-green federal government had failed as yet to introduce any serious alternative ideas for energy.

Horst Kubatschka (SPD) criticised Birgit Homburger's use of the phrase "transitional energy" since, according to him, the FDP were doing no such thing as considering other forms of energy; they were quite happy to wait indefinitely and in the meantime use and develop nuclear energy.²⁴⁶ Kubatschka, himself, had supported the idea of nuclear being a 'transitional energy', so perhaps that is why it particularly grated for him to hear Homburger twist the same term to different ends. On 6 May 1999, he wanted to make it clear that the prospects for nuclear energy in Germany were not good, and so he was clearly using the term "transitional" to mean that these were literally its final years, before being phased out completely.²⁴⁷ This was the meaning it had when he used it on 7 October 1999, faced with the "Bill for an Amendment to the Atomic Energy Act"²⁴⁸ proposed by the PDS, even though the phasing out was not as immediate as the PDS would have liked.²⁴⁹

On 20 January 2000, Kubatschka and Homburger had another disagreement over using the term 'transitional' to describe nuclear power. Kubatschka pointed out that the further development of nuclear technology, i.e., the EPR project, was unjustified as "atomic power is only transitional energy". He reminded his colleagues that, after Chernobyl, the Christian democrats had

²⁴⁴ Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20716. "Auch wenn die Frage des Baus weiterer Kernkraftwerke in Deutschland derzeit nicht akutell ist, muss die Option zur künftigen Nutzung der Kernenergie offen gehalten werden." "die Kernenergie in Deutschland als Übergangsenergie weiterhin zu nutzen."

²⁴⁵ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18575.

²⁴⁶ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18582. "Übergangsenergie"

²⁴⁷ Deutscher Bundestag, 14. Wahlperiode, 39. Sitzung, 6.5.1999, 3342.

²⁴⁸ Deutscher Bundestag, Drs. 14/841. "Entwurf eines Gesetzes zur Änderung des Atomgesetzes"

²⁴⁹ Deutscher Bundestag, 14. Wahlperiode, 61. Sitzung, 7.10.1999, 5497.

also talked about nuclear power being “transitional”, but later on they started to act against this idea by supporting further use and development of the technology.²⁵⁰ Homburger responded by claiming that “transitional energy” required a clear compensatory concept that would fulfil the demands of security of supply and CO₂ reductions that nuclear power had provided, and until such concrete plans for renewable energy sources could be provided, then this meant nuclear power should continue to be used. For her the red-green conception of ‘transitional’ needed to fully take into account the advantages that nuclear power provided, before it could find an adequate replacement.²⁵¹

These quotes illustrate how the parliamentary policy debates were a fundamental struggle over the definitional power of words and concepts.²⁵² Speakers from both sides of the debate were saying that nuclear energy was ‘transitional’, but what they meant was different. Homburger was stressing that it meant that the government needed to find a better alternative (that really took into account all the advantages of nuclear power) before it could be replaced, while Kubatschka was arguing that transitional meant coming to an end, and so the pro-nuclear parties could not justifiably use the term if they were content to keep using it only until something better came along. In this sense, this was a deliberate rhetorical move on the part of Homburger to look like the FDP was open to alternative solutions, while making out that the ruling red-green coalition were just going to phase out nuclear power without anything adequate to replace it.

In the Bundesrat it became clear that the attitudes of the *Länder* towards the amendment of the Atomic Energy Act varied significantly. On 19 October 2001, the Minister Claus Möller (Schleswig-Holstein) described the bill as a milestone on the road to the “urgent and necessary phasing out of atomic energy”;²⁵³ while on 1 February 2002, Dr. Werner Schnappauf (Bavaria)²⁵⁴ claimed that it was necessary to keep the option of using nuclear energy open for the foreseeable future.²⁵⁵

2.5 Conclusions

The central task of this chapter has been to point out and discuss some of the concepts that the political parties used when presenting their views on whether

²⁵⁰ Deutscher Bundestag, 14. Wahlperiode, 81. Sitzung, 20.1.2000, 7529. “*Atomkraft ist nur eine Übergangsenergie.*”

²⁵¹ Deutscher Bundestag, 14. Wahlperiode, 81. Sitzung, 20.1.2000, 7530.

²⁵² Ilie 2016, 134.

²⁵³ Bundesrat, 768. Sitzung, 19.10.2001, 579. “*dringend notwendigen Ausstieg aus der Atomenergie*”

²⁵⁴ Wikipedia. **Werner Schnappauf** (Bavaria) (CSU) (born in 1953) acted as the Minister for the Environment, Health and Consumer Protection in Bavaria in 1998-2007.

²⁵⁵ Bundesrat, 772. Sitzung, 1.2.2002, 13.

or not to continue using nuclear energy. Not only did this clarify more sharply the position of the parties on this issue, but it also shows how crucial semantic shifts occurred which would have macro-level implications on the German nuclear energy debate as a whole. The most central concepts were 'option' (*Option*), 'phasing out' (*Ausstieg*), 'orderly' (*geordnet*) and 'transitional energy' (*Übergangsenergie*).

During the whole of the decade in question (1991-2001), the pro-nuclear CDU/CSU and FDP emphasised the importance of keeping the 'option' open for nuclear technology. It did not refer to some hypothetical notion either; by using 'option', the pro-nuclear parties were expressing political support for the very real EPR project that was already being funded by Siemens, Framatome and EDF. Therefore, the term 'option' was very much a pro-nuclear expression in that it meant supporting the development of new nuclear technology. However, even though this fundamental meaning of the conception 'option' remained during the whole of this period, we should notice that, when the time went on, the pro-nuclear speakers started to underline that this 'option' did not concern an immediate decision of constructing new reactors, but maintaining the possibility of making this decision later on. In addition, the use of the phrase 'transitional energy' alongside with the 'option' was a concessive rhetoric act, which was used to show a positive and open-minded attitude towards possible alternative energy structures. There were references that right after the Chernobyl nuclear accident the pro-nuclear parties and Chancellor Helmut Kohl had favoured this idea of nuclear energy being only 'transitional', but in the Bundestag this was not prominently expressed at any point during the first half of the 1990s.

By using the term 'phasing out' when referring to nuclear power and related expressions such as 'abandoning' or 'ending the use of', the anti-nuclear SPD, Alliance 90/Greens, and the PDS, were actually demanding significantly different things. For the SPD, the official position after Chernobyl was for the phasing out of nuclear energy. The actual meaning of this 'phasing out' (and the aforementioned 'option') caused disagreements within the party. One part of the SPD supported a strict definition which meant the shutting down of existing nuclear power plants and rejecting the 'option' of developing nuclear technology any further; while the other, notably including Gerhard Schröder, meant a more flexible attitude towards giving existing nuclear power plants time to shutdown and even allowing for the 'option' of developing the technology further. Meanwhile for both the Greens and the PDS, 'phasing out' meant the rapid closure of existing nuclear power plants and calling a halt to any future nuclear developments.

After the 1998 elections, under Chancellor Schröder's first cabinet, the differences in the way certain concepts were interpreted and used by the SPD and the Alliance 90/Greens revealed some of the difficulties the parties faced over nuclear policy. Because 'phasing out' meant significantly different things to each, and because nuclear energy policy caused internal disagreements within each party and in the cabinet, the final agreement with the energy sector,

and the amendment to the Atomic Energy Act (2001) that followed this, guaranteed a longer remaining operation time for the nuclear power plants than had originally been planned by the government. At this point the red-green coalition launched the concept of an 'orderly' end (or phasing out), which was used to convey the continued use of nuclear power as a positive measure while alternative energy sources were being mobilised. Similarly, the concept of 'transitional' was employed to justify the continuation of the use of nuclear energy during a limited time period while the energy system was being reorganised. By using 'orderly' and 'transitional' the speakers from the red-green coalition were emphasising that this gradual process was nonetheless an integral part of *Energiewende*, which was a complete overhaul of the energy policy of their predecessors, and a cornerstone of red-green energy policies.

Thus, during the years 1991-2001, at the macro-level of the nuclear energy debate two interweaving notions were especially important. Firstly, the SPD and the Greens had to moderate their demands so that the phasing out of nuclear energy would not be happening as quickly as originally planned, and thus red-green conceptualisations tended henceforth to emphasise the idea that nuclear power plants would still be needed for some time yet. The pro-nuclear parties, in their turn, increasingly started to make speeches that expressed a more open-minded attitude towards developing alternative ways of producing energy, and they also acknowledged the temporary nature of nuclear power (just as they had in the direct aftermath of Chernobyl). Thus the second notion is that, by becoming more moderate, the pro-nuclear and anti-nuclear conceptions of the political parties in the Bundestag were gradually moving closer together on the macro-level.

3 NUCLEAR SAFETY - A FUNDAMENTAL SOURCE OF DISAGREEMENT?

3.1 Introduction

The previous chapter shed light on how the pro-nuclear and anti-nuclear arguments evolved at the conceptual level between 1991 and 2001. The aim of this chapter is to analyse more precisely the content of parliamentary policy debates by looking closer at the different conceptualisations of nuclear safety. Joachim Radkau especially has, throughout his work, emphasised that the main reason for the strong and continuous anti-nuclear movement in Germany was to do with flaws in nuclear safety which slowly became apparent and led to the eventual decline of the nuclear industry in Germany.²⁵⁶ This interpretation challenges the sociological one which puts the anti-nuclear movement alongside other simultaneously occurring movements by emphasising the rational nature of anti-nuclear concerns, i.e., the well-known dangers of nuclear technology.²⁵⁷ It is this topic of nuclear safety that I will be focusing on here; as it provided the basis for some of the most fundamental conceptions of the anti-nuclear and pro-nuclear parties in the Bundestag.

The central claim of this chapter is that the parliamentary policy debates about nuclear safety concerned much more concrete questions than one might at first expect. This was no abstract, hypothetical discussion, as new topical questions arose in the day-to-day running of the nuclear industry that became instantly politicised as a part of the ongoing debate, and which also explains the vital and durable nature of this topic in the Bundestag. The first subchapter thus discusses how Chernobyl featured in political arguments; and this is followed by a description of the competing concepts of nuclear safety regarding reactor

²⁵⁶ Radkau & Hahn 2013; Radkau 2011a; Radkau 1983.

²⁵⁷ Radkau 2011a, 10-15.

safety in former Eastern Bloc countries - a subject that remained extremely topical throughout the 1990s in the Bundestag. Finally, I shall draw links between the three amendments to the Atomic Energy Act (1994/1997/2001) described in the last chapter, and the competing concepts of nuclear safety described in this.

3.2 Symbolic Chernobyl

The Chernobyl nuclear accident (1986) had far-reaching effects on the dynamics of policy debates in the Bundestag, since it polarised opinions between the political parties. Alongside the Greens, the SPD started to demand the phasing out of nuclear energy, although with a slightly different emphasis (as we saw in the last chapter). The overwhelming majority of the West German public started to say they were opposed to nuclear power. In December 1986, 75% of the public favoured an instant or gradual nuclear phase out,²⁵⁸ and a remarkable number of experts also started to consider this might be the best idea.²⁵⁹ Chernobyl significantly weakened people's trust in the ability of politicians and the government to protect the people against the possible dangers of nuclear energy. The information policy was thought to be insufficient and crisis management was weakly coordinated. As we have seen, the federal government reacted to this situation by establishing the Ministry of Environment, Nature Conservation and Reactor Safety six months after the accident.²⁶⁰ The changes to people's assumptions of the risks now involved with nuclear power caused Helmut Kohl's cabinet to reconsider their position towards nuclear energy, which, from the early 1980s onwards, had been largely favourable.²⁶¹ Chernobyl had suddenly made the civil use of nuclear energy a key election theme for the parties.²⁶² This was clearly one reason why, as chapter 2 pointed out, the pro-nuclear parties also began to use the expression 'transitional energy' to describe the use of nuclear power right after the accident; but by the 1990s, keeping the nuclear 'option' open had become far more prominent.

To Matthias Jung, who discussed the semantic evolution of the German nuclear energy discourse from the aftermath in 1986 up to the early 1990s, Chernobyl was like a catalyst in the debate as it made it more public and emotive. According to his interpretation, 'Chernobyl' (*Tschernobyl*) referred not only to the actual physical place in the Ukraine, but symbolically represented a

²⁵⁸ Joppke 1993, 179.

²⁵⁹ Radkau & Hahn 2013, 309, 349.

²⁶⁰ Saretzki 2001, 208-209.

²⁶¹ Radkau & Hahn 2013, 347-348.

²⁶² Jung 1995, 638-655.

‘modern giant catastrophe’ that some had perhaps been expecting to happen.²⁶³ Indeed, Melanie Arndt goes further to suggest that Chernobyl expressed people’s distrust of technological ‘progress’ and the reliability of technology. In her study about the consequences of Chernobyl for the FDR and for the DDR, Arndt shows how Chernobyl was used in phrases together with concepts such as, for example, ‘risk society’ (*Risikogesellschaft*), ‘atomic age’ (*Atomzeitalter*), ‘industrial and environmental catastrophes’, and the ‘end of the Soviet Union’. In other words, ‘Chernobyl’ had significantly negative and deterministic connotations, which the Green party soon leapt on and began to use in the slogan ‘Chernobyl is everywhere’ (*Tschernobyl ist überall*).²⁶⁴ The slogan was used in demonstrations against nuclear energy later on during the 1990s.²⁶⁵ Chernobyl thus became politicised, the focus for a deliberate use of language, and a rallying cry for the anti-nuclear movement.

The following discussion thus concerns the pragmatic function of Chernobyl in the parliamentary policy debates, and how its symbolic significance was used differently by both pro-nuclear and anti-nuclear groups in the Bundestag. The political meaning of Chernobyl was not unequivocal: on the one hand it meant nuclear energy in general was a dangerous and irresponsible political commitment; while on the other, it was used as an indicator that German nuclear expertise was needed to ensure that this kind of accident did not happen again in former Eastern Bloc countries where the technology was falling into disrepair. Most importantly, the accident focused the parliamentary debate on conceptions of ‘philosophy of safety’ (*Sicherheitsphilosophie*), ‘MCA’ (*GAU*) and ‘residual risk’ (*Restrisiko*).

The SPD, Greens, and PDS, emphasised the anti-nuclear interpretation of Chernobyl, which was that the hypothetical catastrophe had now happened in reality, as had been warned. From this perspective, Chernobyl marked a starting point for closing down nuclear reactors not only in Eastern Europe, where Soviet-designed models were still in operation and evidently a major risk, but also in Germany because the *real* cost of a nuclear accident had been made clear, and no amount of nuclear power was worth that cost. In April 1991, the SPD also brought this argument up in the discussions about building and reconstructing nuclear power plants in the former DDR, by calling for an *Aktuelle Stunde* which struck the point home that the government were planning to build new nuclear power plants in the Eastern *Länder* on “the fifth anniversary of the nuclear catastrophe at Chernobyl”. Harald B. Schäfer (SPD), who represented the more overtly anti-nuclear wing of his party, described the devastating consequences of the accident in his speech with the clear purpose of making the building of further nuclear reactors an emotive issue. He tellingly pointed out that this would be “the first time new nuclear power plants will

²⁶³ Jung 1995, 638-655; Jung 1994, 120.

²⁶⁴ Arndt 2011, 5, 69.

²⁶⁵ E.g., FAZ 22.4.1990, p.2, Erinnerung an Tschernobyl; FAZ 9.2.1996, “Wir blicken nur nach vorn und nie zurück”.

have been constructed in Germany since Chernobyl".²⁶⁶ In this speech act, as well as the call for the *Aktuelle Stunde* itself, the Chernobyl accident was explicitly mentioned and described. However, they were not just talking about the event itself now, but also the negative connotations cemented to it at the macro-level, as indicated by Jung and Arndt above.

From the perspective of conceptual analysis, the use of the German acronym 'GAU' in the context of Chernobyl shows just how this radical and unexpected real-world event catalysed the political debate, since anti-nuclear speakers now emphasised the interpretation that the accident was physical evidence of their argument in the German nuclear energy debate. The abbreviation *GAU* (*grössten anzunehmenden Unfall*) was adapted from the American term 'MCA' (maximum credible accident). In the German context, MCA was first used by experts in the 1950s to define the heaviest disruption that nuclear power plants could tolerate without releasing harmful radioactivity into the atmosphere. It served originally as a technical concept in the process of licensing, but instead of guaranteeing 100% protection against accidents, it was used to determine the largest possible accident that could feasibly be permitted. The growing anti-nuclear movement seized on this in the second half of the 1970s, but misinterpreted it (probably wilfully) to refer to an accident which *did* have devastating consequences. Thus, whereas MCA was originally used only as a technical concept to gauge safety in the process of licensing, it had now been assigned the new semantic macro-level meaning of dangerous and unsafe. As far as the anti-nuclear argument went, the nuclear establishment were simply hiding the well-known implicit dangers and risks involved with nuclear power in the concept of MCA. The idea of a Super MCA (*Super-GAU*), which also began to feature in more radically anti-nuclear arguments illustrates this further, in so far as it showed that even more devastating accidents might occur if nuclear power plants were allowed to continue operating. It also reflects similar fears to those expressed earlier about atomic weapons - the nuclear establishment were not to be trusted.²⁶⁷

MCA (*GAU*) was thus a term that featured in the discourse before Chernobyl, but by the 1990s, speakers in the Bundestag were now most often using it to refer to the Chernobyl nuclear accident, and thus in its new semantic guise. The accident was a crystallisation of the semantic shift that had occurred: *GAU* now referred to an actual accident, which provided concrete evidence of the dangers of nuclear technology, rather than some imaginary and hypothetical risks. On 25 April 1991, for instance, Klaus-Dieter Feige (Alliance 90/Greens) used the term to describe Chernobyl, which in his opinion proved that there was "no such thing as atomic safety". Feige may have conceded that plans to construct nuclear power plants in Stendal and Greifswald would no

²⁶⁶ Deutscher Bundestag, 12. Wahlperiode, 23.Sitzung, 25.4.1991, 1537-1538. "die unbefristete Nutzung der Kernenergie." *Erstmals, [...] , seit der Katastrophe von Tschernobyl sollen wieder neue Kernkraftwerke in Deutschland gebaut werden.*"

²⁶⁷ Jung 1995, 638; Jung 1994, 70-71, 89; Radkau 2011a, 10.

doubt use the safest technology that German industry could offer;²⁶⁸ but at the micro-level, he was using MCA with the opposite meaning to that originally intended in the licensing process. In his usage, the term merely reinforced the impossibility and non-existence of nuclear safety, as all that the nuclear industry could offer was a minimum level of safety, and this - as had been proven by Chernobyl - was not enough. Similarly, Joschka Fischer (Green Minister for Hesse) denied the original hypothetical meaning of MCA by stating that a Super MCA had occurred in the Ukraine even though previously nobody had considered such an event as possible.²⁶⁹ Adding the prefix 'Super' to the concept henceforth became common in the nuclear energy debate, and it conveyed the sense that Chernobyl was more serious than had could ever have been planned for theoretically.

By using the concept of MCA when speaking about Chernobyl, the anti-nuclear parties were giving the 1986 accident greater political resonance. On 25 April 1995, a motion by the Alliance 90/Greens called Chernobyl a "super MCA", and the party group insisted that phasing out nuclear energy was "a worldwide task". The demand was justified, the motion went on: "based on the current knowledge about the possibility and results of reactor catastrophe, the federal government had no more right to place its citizens under this risk".²⁷⁰ The phrasing showed that Chernobyl was being used to draw attention to the very real risks the government were taking with nuclear power plants within Germany as well. The following parts of this chapter go deeper into how the concept of MCA formed a fundamental part of the political argumentation and was used in both pro-nuclear and anti-nuclear arguments.

Another concept used in the context of Chernobyl was the aforementioned 'residual risk' (*Restrisiko*). Again, both sides in the debate had been using the term (from the 1970s onwards). Like 'MCA', 'residual risk' was originally a concept used by experts, who introduced the concept to describe the hypothetical risk of a nuclear accident, which implied that the German nuclear power plants were in fact safe. In the experts' discourse, technological breakthroughs were seen as the answer that would prevent this 'residual risk' from actually materialising. Again, when the anti-nuclear movement adopted this expression, it lost its hypothetical meaning and assumed a very real concrete meaning instead²⁷¹ - Chernobyl had caused the previously hypothetical 'residual risk' to become a very real risk which required immediate political action to be avoided.

On 28 February 1991, Ulrike Mehl (SPD) criticised the federal government for maintaining the unrealistic illusion of there being continuous economic growth, when it was at the expense of using a form of energy that

²⁶⁸ Deutscher Bundestag, 12. Wahlperiode, 23. Sitzung, 25.4.1991, 154. "[es] keine atomare Sicherheit gibt."

²⁶⁹ Deutscher Bundestag, 12. Wahlperiode, 23. Sitzung, 25.4.1991, 1544.

²⁷⁰ Deutscher Bundestag, Drs. 13/1195.

²⁷¹ ung 1995, 636; Jung 1994, 74-75.

was known to have a “residual risk” (*Restrisiko*) instead of acknowledging it for what it really was and, as a consequence, reduce energy consumption instead. According to her argument, this risk was now common knowledge after the Chernobyl incident.²⁷² On 25 April 1996, Volker Jung (the SPD member for Düsseldorf) stated that Chernobyl was the reason for his party had “decided ten years earlier to phase out this technology, because a reactor catastrophe cannot be ruled out with any real certainty anywhere in the world”. According to him, “absolute safety” (*absolute Sicherheit*) was impossible even in the German context, since “a residual risk exists and nobody cannot seriously doubt this”. His point was that this ‘residual risk’ should not even be taken because of the devastating consequences of a possible accident (such as Chernobyl).²⁷³ A similar interpretation of ‘residual risk’ was also made a few years earlier (3 February 1993) by Horst Kubatschka (SPD) when he politicised the recent disruptions at the Brunsbüttel nuclear power plant in Schleswig-Holstein. He stated that “100% safety” could not be assured by the experts and thus, despite the “high safety standards” of German nuclear power plants, “residual risk remains”. He then made a reference to Harrisburg and Chernobyl nuclear accidents to imply that this ‘residual risk’ was thus larger than had earlier been imagined.²⁷⁴ Later, on 27 January 1995, Kubatschka went further to diminish the credibility of keeping the nuclear “option” open by saying that there was “always residual risk” and that this was not good enough. “We cannot afford to live with the residual risk if the consequences are as enormous as Chernobyl”.²⁷⁵

As these speech acts illustrate, the Chernobyl nuclear accident had become the concrete manifestation of this ‘residual risk’. In this sense, the concept had become somewhat simplified as the opposite of ‘absolute safety’ and used in the anti-nuclear argument to show that all nuclear technology - including the EPR project - had ‘residual risk’ and because this meant it was not 100% safe, then it had to be dropped.

Even if the pro-nuclear lobby did not agree with all of the above, they did agree that reactor safety in the former Eastern Bloc was a paramount concern; especially as many of these ageing reactors were situated geographically quite close to Germany. But opinions about just what to do about this varied greatly as we shall see in the next subchapter on Germany’s

²⁷² Deutscher Bundestag, 12. Wahlperiode, 12. Sitzung, 28.2.1991, 538.

²⁷³ Deutscher Bundestag, 13. Wahlperiode, 101. Sitzung, 25.4.1996, 8933. “Wir Sozialdemokraten haben vor zehn Jahren beschlossen, aus dieser Technologie auszusteigen, weil eine Reaktorkatastrophe bis zum heutigen Tag nirgendwo auf der Welt mit Sicherheit ausgeschlossen werden kann.“ “Es gibt ein Restrisiko, das von niemandem ernsthaft bestritten wird.“

²⁷⁴ Deutscher Bundestag, 12. Wahlperiode, 136. Sitzung, 3.2.1993, 11805. “100 prozentige Sicherheit”; “einen hohen Sicherheitsstandard”; “Es bleibt das Restrisiko.”

²⁷⁵ Deutscher Bundestag, 13. Wahlperiode, 16. Sitzung, 27.1.1995, 1019. “Wir haben immer ein Restrisiko.“ “Wir können es uns nicht leisten, mit diesem Restrisiko, mit den enormen Auswirkungen, die wir in Tschernobyl gesehen haben, zu leben.“

policy towards the other Soviet-type reactors.²⁷⁶ This issue became particularly acute when Chernobyl's reactor 2, caught fire in October 1991. The Alliance 90/Greens brought the topic up in the Bundestag by calling an *Aktuelle Stunde* with the title "Powder barrel Chernobyl: an immediate standstill required for all dangerous Eastern European reactors - conclusions to be drawn for German energy policy"²⁷⁷. The party demanded, as Klaus-Dieter Feige (Alliance 90/Greens)²⁷⁸ put it, the closure of Chernobyl and other similar reactors with western help.²⁷⁹ Alliance 90/Greens thus politicised the fire in reactor 2 to show how important it was to close down at least some of the reactors in the former Eastern Bloc, *and* to reconsider the energy policy in Germany.

From 1991 to 1998, the anti-nuclear parties would often demand that Germany and the international community pressure and support the former Eastern Bloc countries to actually decommission their nuclear power plants; and *not* to modernise them as the federal German government was then advocating.²⁸⁰ In the Bundestag policy debates of the 1990s they argued that there was a very real threat of an MCA or other equally devastating nuclear accident happening again. The reactor fire in October 1991 had now given Chernobyl the symbolic significance of a "super-accident",²⁸¹ and it continued to feature in arguments many years later.²⁸² Below is an example of one such argument from Klaus Kübler (SPD)²⁸³ made on 16 October 1992, which shows how politicians rhetorically connected the idea of nuclear safety to political stability.

You [the federal government] are not able or willing to learn from Chernobyl, or 15 other possible Chernobyls, or 30 other nuclear reactors containing time bombs. [...] The issue of safety surrounding Eastern European and CIS²⁸⁴ nuclear power plants refers to the basic problem of nuclear energy use. Already in highly developed and stable societies, the use of nuclear energy brings a permanently unjustifiable high risk. In less stable societies - of which the number is unfortunately growing - the continued use of nuclear energy is clearly irresponsible.²⁸⁵

²⁷⁶ E.g., PA-DBT 3121 A12/17-Prot. 19, 7-15.

²⁷⁷ *Pulverfass Tschernobyl: Sofortige Stilllegung aller Gefahren-Reaktoren Osteuropas - Folgerungen für die Energiepolitik in Deutschland*

²⁷⁸ The Homepage of Dr. Klaus-Dieter Feige. **Dr. Klaus-Dieter Feige** (Alliance 90/Greens) (born in 1950) was a Bundestag member in 1990-1994 and was a member of the AfUNR. Klaus-Dieter Feige was a founding member of the Green Party in DDR.

²⁷⁹ Deutscher Bundestag, 12. Wahlperiode, 49. Sitzung, 16.10.1991, 4053-4054.

²⁸⁰ Deutscher Bundestag, 12. Wahlperiode, 74. Sitzung, 24.1.1992, 6190-6194; Deutscher Bundestag, Drs. 12/4783; Deutscher Bundestag, Drs. 13/4442; Deutscher Bundestag, 13. Wahlperiode, 101. Sitzung, 25.4.1996, 8929.

²⁸¹ Deutscher Bundestag, 12. Wahlperiode, 49. Sitzung, 16.10.1991, 4059, 4060.

²⁸² Deutscher Bundestag 12. Wahlperiode, 74. Sitzung, 24.1.1992, 6198.

²⁸³ Wikipedia. **Klaus Kübler** (SPD) (1936-2007) was a Bundestag member in 1980-1992 and is educated as jurist.

²⁸⁴ Commonwealth of Independent States (formed between Russia and some former Soviet Republics after breakup of USSR).

²⁸⁵ Deutscher Bundestag, 12. Wahlperiode, 114. Sitzung, 16.10.1992, 9702-9703. "Sie [die Bundesregierung] können oder wollen aus Tschernobyl und 15 weiteren möglichen

When Kübler mentioned “15 other possible Chernobyls”, he was referring to the use of nuclear technology in the former Eastern Bloc countries that were seen to be undergoing political upheaval in the aftermath of the break up of the USSR. But it was the pro-nuclear parties that emphasised this connection between nuclear safety and political stability even more. Kübler was drawing attention to the east to further underline the need to stop nuclear power sooner, but the pro-nuclear parties used the situation in the east to argue that it was an opportunity for German nuclear expertise to be used there to help (wherever it was possible) in renovating the older generation of reactors for the future.

Indeed, the viewpoint of the pro-nuclear federal government was that it was not possible to renovate the older RBMK-reactors,²⁸⁶ i.e., the ‘Chernobyl-type’. These had to be closed down, but most of the other Soviet-designed reactors could be modernised with western help and continue to be in service.²⁸⁷ On 16 October 1991, Ulrich Klinkert (CDU/CSU) described the fire at Chernobyl as “a wake-up call for judging nuclear safety”, but his party considered the closure of every Soviet-designed reactor as unrealistic because this would cause a serious shortfall in electricity supply for those countries. Klinkert nevertheless highlighted the gravity of the situation when he asked his colleagues, “I hope you share my view that currently the bad Soviet reactors are a greater threat to Europe than Soviet atomic weapons”. He also went on to say that, although it was too early to say for sure, that the fire in reactor 2 at Chernobyl had probably turned into “a new super MCA”.²⁸⁸ A few months later, on 24 January 1992, Klinkert again warned that a “new Chernobyl” was possible in Central and Eastern Europe because of the “catastrophic safety standards” of nuclear power plants, “insufficient technology” and “unforeseen political developments” there.²⁸⁹ These speech acts reveal some of the meanings the Christian democrats assigned to Chernobyl. The chief difference between this interpretation of Chernobyl, and the anti-nuclear one, was that it implied that the ultimate priority was to update the nuclear power stations in the former Eastern Bloc (discussed more fully in the next subchapter), and that German nuclear expertise in this matter was vital. In Klinkert’s usage, the symbolic ‘super MCA’ nature of Chernobyl had no implications for Germany’s

Tschernobyls und 30 anderen Kernreaktoren, die Zeitbomben enthalten, nicht lernen. [...] Die Frage der Sicherheit der osteuropäischen und GUS-Kernkraftwerke verweist auf das Grundproblem der Nutzung der Kernenergie. Schon in hochindustrialisierten und stabilen Gesellschaftsordnungen bringt die Nutzung der Kernenergie ein auf Dauer unvermeidbar hohes Risiko. In Gesellschaften, die nicht über vergleichbar stabile Ordnungssysteme verfügen - deren Zahl nimmt leider eher zu als ab -, ist es unverantwortlich, an der Nutzung der Kernenergie festzuhalten.“

²⁸⁶ Reaktor Bolshoy Moshchnosti Kanalnyi, “High Power Channel-type Reactor”

²⁸⁷ Deutscher Bundestag, Drs. 12/1906.

²⁸⁸ Deutscher Bundestag, 12. Wahlperiode, 49. Sitzung, 16.10.1991, 4054. “Der Brand in Tschernobyl hat ein neues Alarmsignal zur Beurteilung der atomaren Sicherheit gesetzt.“ “Ich hoffe, Sie teilen meine Einschätzung, dass derzeit von den sowjetischen Schrottenreaktoren eine grössere Gefahr für Europa ausgeht als von den sowjetischen Atomwaffen.“; “einem erneuerten Super-GAU“

²⁸⁹ Deutscher Bundestag, 12. Wahlperiode, 74. Sitzung, 24.1.1992, 6189-6190.

own domestic nuclear power industry, as this was what would provide the expertise to resolve the situation further East.

In this sense, the CDU/CSU and FDP were using the 'philosophy of safety' as a counter concept to 'MCA' and 'residual risk'. The 'philosophy of safety' described the perceived safety of nuclear power plants operating in Germany in contrast to those in the east, and overruled the relevance of using 'MCA' and 'residual risk' in the way the anti-nuclear lobby had been in the German context. Originally in the 1960s and 1970s, this 'philosophy of safety' was the technological answer to the demands for inherently safe reactors, which meant absolute risk-free nuclear technology, and was introduced to justify the construction of nuclear power plants despite conceivable hypothetical risks. Connecting this concept of a 'philosophy' to the issue of reactor safety was another Americanism, which was also used in connection to other 'new technologies'. Its use by the experts and pro-nuclear parties was meant to distract attention from any discussion of concrete risks and to keep it instead in the comfortable realm of the abstract. It also served, not only to legitimise nuclear energy in critical public debates, but also as a practical concept in the licensing process so that certain fields of risk could be ruled out.²⁹⁰

Indeed, if we go back to the *Aktuelle Stunde* launched by the anti-nuclear parties on 25 April 1991, against the construction of new nuclear reactors in the former DDR, Klaus Harries (CDU/CSU)²⁹¹ was using this "philosophy of safety"²⁹² as an abstract argument to resolve the supposed worldwide dangers of nuclear technology without endangering the German nuclear industry - like many others would do in the debate as we shall see.

At the international level, the discussion about Chernobyl culminated in April 1996, ten years after the actual accident, when the International Atomic Energy Agency (IAEA), World Health Organisation (WHO) and EU organised a conference in Vienna to prepare a statement concerning its causes and consequences.²⁹³ A similar process was happening in the Bundestag at the same time, with the government (arguing for nuclear power) and the opposition (arguing against) preparing their own statements about nuclear safety based on a Chernobyl report. A working group that had been set up by the federal government in September 1986 concluded that the accident at Chernobyl was caused by deficiencies in the nuclear technology that were further compounded by an inefficient political system.²⁹⁴ It was thus caused both by serious lacks in the 'inherent safety' of the reactor technology as well as problems in external

²⁹⁰ Radkau, 1988, 110-116; Radkau 1983, 364, 367, 441.

²⁹¹ Wikipedia. **Klaus Harries** (CDU/CSU) (born in 1929) was a Bundestag member in 1987-1994. He was a member of the AfUNR as well as in the Commission of Inquiry "Protecting the Earth's Atmosphere". Harries was reporter of questions concerning nuclear energy in his party group and was a member in the investigating committee "Transnuklear".

²⁹² Deutscher Bundestag, 12. Wahlperiode, 23.Sitzung, 25.4.1991, 1538-1539.

²⁹³ SZ 10.4.1996, p.2.

²⁹⁴ Deutscher Bundestag, Drs. 13/4453.

safety factors, the working group concluded. This implicitly meant that a similar such accident could not occur in Germany, whereas the anti-nuclear parties argued that Chernobyl represented the risks and dangers of nuclear energy in general. In an extensive Bundestag debate on 25 April 1996, Michael Müller (SPD), spokesperson on the environment in his party group, defined Chernobyl as “an example of risks for the whole technology” From this perspective, phasing out nuclear energy was the only politically tolerable solution.²⁹⁵ He argued further that

Those who have reduced the Chernobyl catastrophe to one single reactor have not understood that it was about a very complex, risky relationship between technology, knowledge, and possible human mistakes.²⁹⁶

The Federal Minister for the Environment, Nature Conservation, and Reactor Safety Angela Merkel (CDU/CSU) made a speech in the same Bundestag debate on 25 April 1996 in which she separated the use of nuclear energy in Germany from the Soviet kind by using the concepts of ‘safety concept’ and ‘safety culture’.

There were serious lacks in the construction of the Chernobyl reactors. The management and operating arrangements expected too much from the personnel, and supervision was completely lacking. The fundamental causes were on the political and organisational level, which failed right down the line. This meant very serious deficiencies in the ensemble that is understood as safety culture in Germany [...] the safety concept of German nuclear power plants differs fundamentally from that which existed in Chernobyl, so conclusions concerning the safety of German nuclear power plants cannot be made based on the accident.²⁹⁷

Just as with the ‘philosophy of safety’ discussed earlier, ‘safety culture’ here included traditionally significant positive connotations in German political language. By using this concept, Merkel meant sufficient technology used responsibly. In this sense, rather than being an example of deficiencies common across the whole industry, Chernobyl was being used to demonstrate the consequences of having no ‘safety culture’. Merkel described failures on “the political and organisational level” as being one of the central causes for the

²⁹⁵ Deutscher Bundestag, 13. Wahlperiode, 101.Sitzung, 25.4.1996, 8908-8909. “[...]dass Tschernobyl nur beispielhaft für die Risiken einer ganzen Techniklinie steht.”

²⁹⁶ Deutscher Bundestag, 13. Wahlperiode, 101.Sitzung, 25.4.1996, 8908-8909. “Wer die Katastrophe von Tschernobyl auf einen einzelnen Reaktor reduziert, hat nicht begriffen, dass es stets um ein sehr komplexes, riskantes Verhältnis zwischen Technik, Wissen und möglichem menschlichen Versagen geht.”

²⁹⁷ Deutscher Bundestag, 13. Wahlperiode, 101.Sitzung, 25.4.1996, 8905-8906. “[...]sich die Sicherheitskonzeption deutscher Kernkraftwerke grundlegend von denen des Tschernobyl-Typs unterscheidet und dass deshalb für die Sicherheitskonzeption deutscher Kernkraftwerke aus dem Unfall keine Konsequenzen zu ziehen sind [...] Diese sind gravierende Mängel in der Konstruktion des Tschernobyl-Reaktors, eine Betriebsführung und Bedienungseinrichtungen, die das Personal überfordert haben, und eine völlig unzulängliche Aufsicht. Die tieferliegende Ursache lag im politischen und organisatorischen System, das auf der ganzen Linie versagt hat, also in einem ganz gravierenden Mangel dessen, was wir Sicherheitskultur nennen.”

accident, and her party colleague Kurt-Dieter Grill (CDU/CSU) described the incident as a symptom of wider issues to do with the “political system and development of democracy”.²⁹⁸ Chernobyl was thus also being used to represent the failures of socialism, and the concept of ‘democracy’ was a significant element that was being recommended in these arguments when it came to nuclear safety. The following subchapters will show how that this definition of ‘democracy’ was often equated wider conceptualisations of nuclear safety by the CDU/CSU and FDP. The other side of the debates emphasised competing conceptualisations of ‘democracy’.

Chernobyl thus had significant symbolic importance for many parliamentarians in their debates in the Bundestag, and it was used to relate to a wide range of subjects - some more examples of which will be discussed in the following parts of this work.

3.3 The Case of the Former Eastern Bloc

The question of nuclear reactor safety in the countries of the former Eastern Bloc was constantly on the agenda of the Bundestag during the whole of 1991-2001. The obvious reason was the collapse of the political system there, and increased public concern that another Chernobyl might occur with one of the other nuclear power plants designed by the Soviets and have dire consequences for Germany. Even though the debates were explicitly about reactor safety in the former Eastern Bloc and German policy towards them, they were clearly relevant to the political debate about the domestic use of nuclear energy too as politicians were conceptualising nuclear safety in a wider sense to justify their standpoint towards the further use and development of nuclear technology in Germany - with all the repercussions it would entail for the German energy industry.

In the Bundestag debates, a wide variety of expressions was used to describe the countries and area where the Soviet-designed nuclear reactors operated, but in nearly every case they designated the countries that had once been part of the Eastern Bloc. Parliamentarians talked about “Central and Eastern Europe” (*Mittel- und Osteuropa*), “Eastern Europe” (*Osteuropa*) or the “CIS-countries” (*GUS-Staaten*) as we shall see. Similarly, the newspapers used expressions like “Eastern Europe” when they actually meant the former Eastern Bloc countries.²⁹⁹ Thus, for analytical purposes the most practical concept to use

²⁹⁸ Deutscher Bundestag, 13. Wahlperiode, 101.Sitzung, 25.4.1996, 8910-8912. “[...]die Frage des politischen Systems, die Frage der Entwicklung einer demokratischen Ordnung.”

²⁹⁹ SZ 4.7.1992, Osteuropas Atomkraftwerke bleiben gefährliche Zeitbomben. IAEA: Die bisherigen Anstrengungen haben nicht viel gebracht. Sanierungshilfe ist schlecht koordiniert; FAZ 8.7.1992, p. 11, Gemeinsamer Fonds zur Sicherung der Kernkraftwerke in Osteuropa. Noch keine Entscheidung über die Höhe der Mittel. Vor allem Japan zögert.

here for former Eastern Bloc countries in the cases where it is not possible to indicate more precisely what the parliamentarian was speaking about. The fact that the politicians and the press preferred other expressions to 'Eastern Bloc' was an intriguing feature of the policy debates from at least from two perspectives. Firstly, it might have been a deliberate attempt to stress the ending of the Cold War and avoid appearing politically incorrect or insulting neighbouring countries. Secondly, by using terms such as 'Central and Eastern Europe' and 'Eastern Europe' to distinguish its otherness, Bundestag MPs were making a statement that unified Germany was firmly part of Western Europe.

The Soviet-designed reactors debated in the Bundestag included a wide variety of different reactor types. An interesting detail to observe is whether the speakers in the Bundestag recognised such variety between types of nuclear reactors in their speeches, or if they described every Soviet-designed reactor in general as dangerous. In this respect, anti-nuclear parties tended to emphasise that all reactors were equally dangerous, whereas the pro-nuclear parties highlighted the differences by using the exact name of reactors in their speeches. This anti-nuclear tendency to generalise on this subject ties in with their fundamental argument that deficiencies in reactor safety required the phasing out of all nuclear energy. In contrast, the pro-nuclear parties were illustrating that nuclear safety was a question of dynamic development of specialist expertise and technology in the right political conditions.

The speech act by Klaus Töpfer, the Federal Minister for the Environment, Nature Conservation, and Reactor Safety (CDU/CSU) in September 1991 was one instance of such an attempt to point out the heterogeneity of the Soviet-designed reactors. He specified that there were currently 10 reactors of the type WWER 440/230, 14 WWER 440/213s, and 16 WWER 1000s operating in Central and Eastern Europe; with a further 15 RBMK reactors operating in the Soviet Union. He pointed out that the WWER 440/230 was similar to the older type of reactor used at the Greifswald nuclear power plant, the WWER 440/213 resembled the newer kind at Greifswald, and the WWER 1000 was like the unfinished Stendal nuclear power plant. Meanwhile Töpfer called the RBMK reactors the "Chernobyl-type".³⁰⁰ By separating these different reactors into groups, he was defining the political meaning of the question in two ways. Firstly, he was aiming to show that the political debate should not be about one group of equally dangerous Soviet-designed reactors, but about a range that varied in their technological deficiencies. This might not have been so self-evident straight after the Cold War period, when fears of 'a new Chernobyl' were still strong. For example, the FAZ wrote in April 1991 that "more than 60 Soviet reactors are operating in the Soviet Union, Bulgaria, Czechoslovakia, Hungary, Finland, and the former DDR";³⁰¹ and the SZ ran an

³⁰⁰ Deutscher Bundestag, 12. Wahlperiode, 43. Sitzung, 25.9.1991, 3592-3593.

³⁰¹ FAZ 10.4.1991, N1, Fünf Jahre nach Tschernobyl. Nachrüstung der Reaktoren im Osten/Merk Simulatoren für das Training des Personals. "Mehr als 60 sowjetische

article in July 1992 with the title “Eastern European atomic power plants remain dangerous time bombs”.³⁰² Secondly, Töpfer was using the commonly known concrete examples of Greifswald, Stendal and Chernobyl to illustrate what the technical names of the different reactor types actually meant. The speech act thus included the idea that the debate about these reactors did not concern the nuclear reactors currently operating in Germany, since all the reactors in the Greifswald nuclear power plant in the former DDR had been shutdown after German unification and the Stendal nuclear power plant was never commissioned.

Helmut Kohl’s cabinet and the ruling coalition emphasised that international support was needed to improve the safety level of these reactors and drew attention to the need to resolve the difficult energy situation in former Eastern Bloc countries.³⁰³ For example, on 24 January 1992, Ulrich Klinkert stressed the importance of these reactors for the economic recovery of the countries in “Central Europe” (*Mitteleuropa*). “The catastrophic safety standard of nuclear power plants in Central Europe could cause a new Chernobyl any day now”.³⁰⁴ By talking about Central Europe, Klinkert was emphasising that if another Chernobyl happened, this time it would be much closer to the German border. Thus pro-nuclear parties were also talking about a nuclear threat in the early 1990s, but so as to draw attention for the need to update existing nuclear technology.

During the time frame 1991-1998, there were three nuclear power plants especially that were constantly mentioned alongside Chernobyl: Kozloduj (Bulgaria), Temelin (Czech Republic) and Mochovce (Slovakia). Then, after 1998 two others joined this list: Khmelnitsky 2 (K2) and Rivne 4 (R4) in the Ukraine. The central reason for the political relevance of the first three, was that in defining the German policy towards these particular nuclear power plants, the Bundestag MPs were also defining the operational environment for the German energy industry as well, as there was the possibility that German businesses take part in renovating the nuclear facilities in these countries. If we look closer at these three power stations in more detail, it will become apparent why this was so.

The first explicitly politicised case in the Bundestag was the Kozloduj plant in Bulgaria, which had four reactors of the VVER 440/230 design in

Reaktoren arbeiten in der Sowjetunion, in Bulgarien, der Tschechoslowakei, Ungarn, Finnland und in der DDR“

³⁰² SZ 4.7.1992, Osteuropas Atomkraftwerke bleiben gefährliche Zeitbomben. IAEO: Die bisherigen Anstrengungen haben nicht viel gebracht/ Sanierungshilfe des Westens ist schlecht koordiniert.

³⁰³ E.g., Deutscher Bundestag, 12. Wahlperiode, 43. Sitzung, 25.9.1991, 3586.

³⁰⁴ Deutscher Bundestag, 12. Wahlperiode, 74. Sitzung, 24.1.1992, 6189-6190. “*Der katastrophale Sicherheitsstandard der Kernkraftwerke in Mitteleuropa, der jeden Tag zu einem neuen Tschernobyl führen kann, Reaktoren.*“

operation and two reactors of the VVER 1000 design.³⁰⁵ The safety measures in place for reactors 1-4 caused worries at the international level and the IAEA called for a safety analysis to be undertaken, which recommended modernisation.³⁰⁶ Kozloduj was providing about 40% of Bulgaria's total electricity demand,³⁰⁷ and Klaus Töpfer that although he wanted the power station to be decommissioned because of the lack of safety measures, there was the issue of where 40% of Bulgaria's energy needs would then come from.³⁰⁸ As mentioned above, he compared the problematic VVER 440/230 reactors to the ones that had been used in Greifswald, and the Bundestag debate turned to the practical possibilities of exporting spare parts from Greifswald to improve the safety of Kozloduj.³⁰⁹

The construction of Temelin nuclear power plant (Czech Republic) had started in 1987, but its two VVER 1000/320 type reactors only came into action in 2002 and 2003.³¹⁰ The original reactor design was Russian, but during the construction, technologies from the east and west were combined, especially with regard to the instrumentation, control system, and fuel. The operator, ČEZ, cooperated with many Czech and foreign contractors during the construction, with the German companies AEG AG, and Sempel being two of the most important.³¹¹ Meanwhile, construction of the Mochovce nuclear power plant (Slovakia) started in 1983, but was suspended in 1993. In 1996, construction of the first two VVER 440/312 reactors was resumed and they were up and running by 1998 and 2000; while the construction that had been suspended on two other reactors in 1993 was also resumed in 2009.³¹² The Mochovce nuclear power plant was operated by Slovenské Elektrárne A.S., but Framatome from France and Siemens from Germany were also involved in completing the plant - as EUCOM.³¹³

Therefore, all of the three cases above had a special significance for the German energy industry, and became important issues for discussion in the Bundestag. Temelin and Mochovce were unfinished when the Iron Curtain fell, and both received funding from the EU and western countries on the condition

³⁰⁵ IAEA PRIS Power Reactor Information System. The Database on Nuclear Power Reactors.

³⁰⁶ IAEA Country Nuclear Power Profiles 1998, Bulgaria, 81-82; IAEA Country Nuclear Power Profiles 2002, Bulgaria, 144.

³⁰⁷ IAEA Country Nuclear Power Profiles 1998, Bulgaria, 78-81. The % is from the years 1994 and 1995.

³⁰⁸ FAZ 11.7.1991, p. 2, Töpfer: Kraftwerk Kozloduj abschalten; SZ 30.7.1991, p. 2, Europäische Energie-Charta soll Probleme im Osten lösen. Töpfer gegen „Umwelt-Billigstandard“. Minister hält Umstrukturierung der gesamten Versorgung für nötig.

³⁰⁹ IAEA PRIS Power Reactor Information System. The Database on Nuclear Power Reactors.

³¹⁰ IAEA PRIS Power Reactor Information System. The Database on Nuclear Power Reactors.

³¹¹ The IAEA Country Nuclear Power Profiles 2003, Czech Republic, 254.

³¹² IAEA PRIS Power Reactor Information System. The Database on Nuclear Power Reactors.

³¹³ The IAEA Country Nuclear Power Profiles 1998, Slovakia, 226.

that they would be “modernising these reactors with German and western technology”. In the public debate, the interest in these reactors was therefore quite intense as well. For example, in January 1991, President of the German Atomic Forum (*Deutschen Atomforum*), Claus Berke recommended that the federal government participate in safety research together with the Soviet manufacturers.³¹⁴

Anti-nuclear parties in the Bundestag were sceptical of the CDU/CSU and FDP government’s real intentions for getting involved in such ‘safety research’ though. In January 1992, for instance, Dagmar Enkelmann (PDS/Linke Liste) argued that the investments in Central and Eastern Europe were less in the interests of nuclear safety, than in providing new contracts for the German nuclear industry.³¹⁵ In this particular speech act she was not referring to any specific reactor project, but there was more specific criticisms made of the investment proposals for Mochovce and Temelin. For example, on 27 January 1995, Wolfgang Behrendt (SPD) interpreted the EBRD and European Investment Bank plans to finance the work in Mochovce as being based on the fact that

[l]ucrative markets estimated at being worth roughly 100 billion Deutschmarks would be opened up for the Western European atomic industry in Central and Eastern Europe.³¹⁶

Indeed, the anti-nuclear group held on to this argument that the government (1991-1998) was really only involved in investing in nuclear projects in the east because it would bring greater business for the German energy industry.

The previous subchapter pointed out how conceptions of nuclear safety and political order were combined in arguments to explain Chernobyl in terms of a lack of nuclear safety that was directly proportional to the level of democracy in the USSR. Now, when debating about the suitable policy to take towards Soviet-designed reactors still operating in the east of Europe, the CDU/CSU and FDP continued in the same vein, by equating the likelihood of another nuclear catastrophe with the fragility of the nascent democracies in the former Eastern Bloc (particularly in the early 1990s). The conservative and liberal politicians thus generally described political development towards a more open and democratic system as a means to ensure nuclear safety; and they took this

³¹⁴ FAZ 30.1.1991, p. 13, Verlagerung von Kraftwerken ins Ausland? Im Bau befindlichen Reaktoren im Osten unwirtschaftlich.

³¹⁵ Deutscher Bundestag, 12. Wahlperiode, 74. Sitzung, 24.1.1992, 6197.

³¹⁶ Deutscher Bundestag, 13. Wahlperiode, 16. Sitzung, 27.1.1995, 1011. “[e]s hier auch darum geht, ob der westeuropäischen Atomindustrie ein lukrativer Markt in Mittel- und Osteuropa mit einem geschätzten Volumen von immerhin 100 Milliarden DM eröffnet wird.”

to be self-evident. Harald Kahl (CDU/CSU)³¹⁷ pointed out on 25 September 1991, for instance, that “the political situation in Eastern Europe opens up big possibilities for us to become more active both in supplying energy and increasing the safety standards there”. He then mentioned a joint declaration made between Germany, Belgium, France, and the UK to coordinate their efforts in increasing the safety of Soviet era nuclear reactors to meet the same standards as those in Western Europe.³¹⁸ On 16 October 1991, Ulrich Klinkert (CDU/CSU) added to this by saying that for safety standards to improve, “an actual *Perestroika* in international reactor safety” was required. He suggested that the safety of each Soviet era reactor be assessed so as to determine whether it was worth modernising them, or better to just shut them down.³¹⁹ In this speech act, Klinkert was using the highly politically charged Soviet concept of ‘*Perestroika*’, that was very much linked to the end of the Cold War as a pretext for restructuring nuclear safety internationally. Similarly, Klaus Töpfer, Minister for the Environment, Nature Conservation, and Reactor Safety, expressed hopes that the political changes happening in Europe would have a positive influence on nuclear safety, by opening up the possibility of having some kind of administrative authority (that had not existed in Soviet times) for licensing and controlling nuclear power plants more thoroughly.³²⁰

These politicians were thus also equating levels of democracy with levels of nuclear safety on another level by using terms such as ‘standards’, ‘level’ and ‘analyses’, which conveyed the sense that it was a technological matter that could be best improved within an effective political and administrative system (i.e., western-style democracy). These arguments also show how the recently united Germany strongly wanted to identify itself as one such democratic western country, in which nuclear safety standards were operating at the optimal level.

In March 1991, the CDU/CSU and FDP government were advocating that problems with nuclear safety in the east of Europe should be resolved via international and bilateral cooperation and western technological and financial assistance.³²¹ The government also wanted Germany to take a leading role in this cooperation, as they believed the German conception of safety and reliability should be capitalised upon and used to improve its standing internationally. Thus it was that, on 25 September 1991, Klaus Töpfer spoke about the German initiative to draw international attention to the situation in

³¹⁷ Archiv, Abgeordnete. **Dr. Harald Kahl** (CDU/CSU) (born in 1941) was a Bundestag member in 1990-2002. In 1994-1998 he was a member of the AfUNR.

³¹⁸ Deutscher Bundestag, 12. Wahlperiode, 43. Sitzung, 25.9.1991, 3583-3584. “[d]ie politische Lage in Osteuropa eröffnet uns allen die großen Chance, im Prozess der Energieversorgung und der Verbesserung der Sicherheitsstandards der Staaten Osteuropas aktiv zu werden.”

³¹⁹ Deutscher Bundestag, 12. Wahlperiode, 49. Sitzung, 16.10.1991, 4054. “[e]ine tatsächliche Perestroika der internationalen Reaktorsicherheit”

³²⁰ PA-DBT 3121 A12/17-Prot. 19, 7-15.

³²¹ Deutscher Bundestag, Drs. 12/179.

Kozloduj for the need to bring safety standards there up to an international level.³²²

Reactor safety in the former Eastern Bloc was thus a key issue for the pro-nuclear parties too. But from their perspective, to be able to effectively contribute to nuclear safety on an international level, it would be necessary to maintain an active domestic nuclear energy policy too, not only to ensure long-term investment, but also to have sufficient expertise.³²³ On 16 October 1992, Klaus Harries (CDU/CSU) was effectively making this point when he said that it was “in the safety interests of our citizens” to guarantee the “safety of the energy supply in CIS countries, and the safety of the 50 so-called pressurised water reactors from St.Petersburg to Kozloduj”.³²⁴ Harries was capitalising here on the commonly shared fear that another nuclear accident was simply waiting to happen, but this time nearer to Germany. He also pointed out the need to maintain positive public opinion about nuclear energy, so that it could continue to be produced domestically.

[W]e also consider it necessary not to abandon nuclear energy in the future. It is totally clear: if another catastrophic accident was to happen in the CIS, the already volatile attitude of our citizens towards nuclear energy would clearly turn against it, and this would plunge the country into an energy crisis.³²⁵

This speech act reveals the government were already aware that support for nuclear energy in Germany was already at a significantly weak level and so its further use would depend on there not being any more accidents in the CIS or Eastern Europe. Interestingly, the concept of ‘energy crisis’ is used here as a counter concept against the phasing out of nuclear energy. This speech is significant in so far as it forms a key element in the historical context to the Fukushima accident in 2011. During that time, between March and June 2011 Merkel’s cabinet finally conceded that the government could no longer support nuclear energy, as a large-scale nuclear accident had occurred in a what was generally regarded as stable democracy with a similar level of nuclear technology to Germany.³²⁶ In the previous quote by Klaus Harries, he had specifically drawn the connection between the level of nuclear safety and level of democracy, but Fukushima proved this assumption to be wrong.

In the 1991-1998 period, the anti-nuclear opposition (SPD, Alliance 90/Greens and the PDS) also used the deficiencies of Soviet-type reactors to

³²² Deutscher Bundestag, 12. Wahlperiode, 43. Sitzung, 25.9.1991, 3592-3593.

³²³ E.g., PA-DBT 3121 A12/17-Prot. 19, 7-15.

³²⁴ Deutscher Bundestag, 12. Wahlperiode, 114. Sitzung, 16.10.1992, 9701-9702

³²⁵ Deutscher Bundestag, 12. Wahlperiode, 114. Sitzung, 16.10.1992, 9701-9702. “[w]ir es für notwendig halten, auch in Zukunft auf die Kernenergie nicht zu verzichten. Es ist völlig klar: Wenn ein weiteres dramatisches Ereignis, ein katastrophaler Unfall in den GUS-Staaten einträte, würde die ohnehin schwankende Akzeptanz in unserer Bevölkerung weiter sinken, und wir kämen in einen Energienotstand.“

³²⁶ Deutscher Bundestag, 17. Wahlperiode, 96. Sitzung, 17.3.2011, 10884-10886; Deutscher Bundestag, 17. Wahlperiode, 114. Sitzung, 9.6.2011, 12960, 12964, 12967, 12973, 12983.

further their arguments, but instead of advocating improvement, they maintained that the problems east of the border underlined the need to shut down all reactors, including those in Germany. They claimed that even with western nuclear technology, accidents remained possible. There had been, for example, the disruptions at the 'Biblis A' nuclear power station in Germany, not to mention the 1979 accident on Three Mile Island in the US.³²⁷ So it was that, on 24 January 1992, Klaus Lennartz (SPD)³²⁸ justified demands to close down rather than renew nuclear reactors in Eastern Europe by comparing the situation with what had happened to Greifswald (in the former DDR) after unification:

Those who had to shut down Greifswald because of serious safety deficiencies that proved too costly to eliminate, must surely come to a similar conclusion about all the reactors still operating in Eastern Europe and the CIS.³²⁹

Lennartz was using the decision to close down Greifswald nuclear power plant in the former DDR as evidence that all Soviet-designed reactors should have the same done to them. As we have already seen, later that year, on 16 October 1992, Klaus Kübler (SPD) also went on to claim that a stable political system was no guarantee of nuclear safety. These utterances seemed also to assume that western safety standards were superior, but the difference was that the anti-nuclear parties thought that the problems with the Soviet era reactors were so grave that the only solution was to close them down. Indeed, on 25 September 1991, Jutta Branbandt (PDS/Linke Liste)³³⁰ was implicitly arguing that western standards would be an impossibly high target to meet, since if spare parts were sent from Greifswald to Kozloduj, it would still cost 2 billion DM on top of this to repair the VVER 440 reactors. She also pointed out that Ukrainian experts had warned that the safety of VVER 440/230 reactors could not be improved with western technology. Indeed, it was for the very same economic and safety reasons that similar reactors at Greifswald had been shut down.³³¹ Branbandt was arguing that if the same kind of reactor had already been shut down in Germany, it seemed a bit hypocritical to let this one continue operating in Bulgaria. Indeed, if this was allowed to happen, she envisaged a large-scale nuclear accident (or MCA) occurring.

The safety risks at Kozloduj are so serious that they cannot be repaired with the spare parts from Greifswald or with expensive and costly modernisation measures. A

³²⁷ E.g., Deutscher Bundestag, 12. Wahlperiode, 49. Sitzung, 16.10.1991, 4056-4057.

³²⁸ Archiv, Abgeordnete. **Klaus Lennartz** (SPD) (born in 1944) was a Bundestag member in 1980-2002. In 1994-1998 he was a member of the AfUNR.

³²⁹ Deutscher Bundestag, 12. Wahlperiode, 74. Sitzung, 24.1.1992, 6190-6194. "*Wer Greifswald stilllegen muss, weil gravierende Sicherheitsmängel bestehen, die nicht zu adäquaten Kosten beseitigt werden können, muss auch bei allen in Osteuropa und der GUS laufenden Reaktoren zu ähnlichen Konsequenzen kommen.*"

³³⁰ Wikipedia. **Jutta Branbandt** (PDS/Linke Liste) (born in 1949) was a Bundestag member in 1990-1992 and active in the citizens' right movement in the DDR.

³³¹ Deutscher Bundestag, 12. Wahlperiode, 43. Sitzung, 25.9.1991, 3582-3583.

study by Soviet scientists of the International Atomic Energy Agency, which has been available since the beginning July, shows that the risk of a Super MCA, [...that is an] uncontrollable maximum credible accident, is at least roughly 55 times greater than for western plants. [...] Kozloduj must be immediately closed down for good.³³²

This speech act was once again an attempt to concretise meaning usually assigned to an abstract key concept - namely, 'maximum credible accident' (originally used to refer to a hypothetical accident). Now MCA was being used to refer to the more concrete real-world threat of a devastating accident at Kozloduj in Bulgaria.

Similar arguments were also put forward by the anti-nuclear parties concerning the power stations at Mochovce and Temelin too. In March 1995, Wolfgang Behrendt (SPD) argued in a committee meeting that western safety standards (*Sicherheitsstandards*) could not be met at the Mochovce nuclear power plant.³³³ Meanwhile, on 27 January 1995, Halo Saibold (Alliance 90/Greens)³³⁴ pointed out that the work on Temelin was on the same kind of "Soviet-type reactor as had been planned for use in Stendal in the former DDR", and yet work on Stendal was stopped after reunification, because the "previous Atomic Minister, Töpfer, was convinced that this type of reactor could not be built even with the help of western know-how and safety standards". Saibold also went on to use a car-based metaphor to illustrate the impossibility of the task; by saying that just like "a Trabi could never be a Mercedes even with the best mechanic", nor could Temelin ever be improved upon.³³⁵ These speech acts were not disputing the superiority of western nuclear technology or know-how; but by using the images of a 'Trabi' and Mercedes as symbols of achievement by east and west respectively, the representatives of the SPD and the Alliance 90/Greens were saying the difference between the two was unbridgeable. This was the general line of the anti-nuclear parties.

After the Bundestag election in 1998 the debates about the safety of Soviet-designed nuclear power plants continued, but now the reactors

³³² Deutscher Bundestag, 12. Wahlperiode, 43. Sitzung, 25.9.1991, 3582-3583. "*Die Sicherheitsrisiken in Kozloduj sind jedoch so gravierend, dass sie sich weder mit Ersatzteilen aus Greifswald, noch mit teuren und aufwendigen s beheben lassen. Eine seit Anfange Juli der Internationalen Atomenergiebehörde vorliegende Studie sowjetischer Wissenschaftler beweist, dass das Risiko eines Super-GAU, eines [...] nicht beherrschbaren, Größten Anzunehmenden Unfalls, mindestens um den Faktoren 55 höher liegt als der entsprechende Wert für westliche Anlagen. [...] Kozloduj muss sofort, und zwar endgültig, stillgelegt werden.*"

³³³ PA-DBT 3121 A13/16-Prot. 7, 9-10.

³³⁴ Archiv, Abgeordnete. **Halo Saibold** (Alliance 90/Greens) (born in 1943) was a founding member of the Green party in Bavaria and federation. She was a Bundestag member in 1987-1990 and 1994-1998.

³³⁵ Deutscher Bundestag, 13. Wahlperiode, 16. Sitzung, 27.1.1995, 1008. "[e]inen Reaktortyp sowjetischer Bauart, wie er auch in Stendal in der ehemaligen DDR errichtet werden sollte." "[d]er damalige Atomminister Töpfer davon überzeugt war, dass mit diesem Reaktortyp auch unter Zuhilfenahme von westlichem Know-how ein westlicher Sicherheitsstandard niemals erreicht werden kann." "[a]us einem Trabi selbst mit der besten Technik kein Mercedes gemacht werden kann."

discussed were in the Ukraine - Khmelnytsky 2 (K2) and Rivne 4 (R4). The question of finishing these two reactors came about because the 'Memorandum of Understanding' between the G7 countries, the Commission of the European Communities, and the Ukrainian Government agreed in 1995 that the Chernobyl nuclear power plant had to be completely closed down by the year 2000. So finishing the K2 and R4 reactors was considered the best way to make up for the energy deficit that would be caused by shutting down the remaining Chernobyl reactors in use. The Federal Minister for Economics and Technology, Werner Müller, clarified the red green government's support for the completion of K2 and R4 on 17 June 1999 when he said that the question was not *if* these reactors would be finished, but *when*, since they would be finished anyway, and "*how safe* the operation of reactors would be later".³³⁶ This speech act is one example of how the arguments of the red-green federal government no longer had the same emphases shown by the SPD and Alliance 90/Greens. In 1991-1998, when they were in opposition, the parties commonly argued against the possibility of reaching sufficient level of safety at the Kozloduj nuclear power plant, the Temelin nuclear power plant and the Mochovce nuclear power plant even with western involvement. Yet once they were in government, they were expressing political support for an equivalent project. As mentioned earlier, however, we must remember that Werner Müller, the Federal Minister for Economics and Technology was not affiliated to any party, and his standpoint was significantly more economically oriented and critical of phasing out nuclear energy than the official party policies of either the SPD or Alliance 90/Greens.

The issue of financing the construction of K2 and R4 was thus already causing some tensions inside the ruling SPD and Alliance 90/Greens coalition government, when the Bundestag came to debate the policy of the federal government towards these reactors on 22 April and 17 June in 1999. Some speakers of the Alliance 90/Greens and the SPD suggested that the government put pressure on the European Bank for Reconstruction and Development (EBRD) to offer finance for promoting other energy scenarios in the Ukraine. On 22 April, Monika Griefahn (SPD) argued

[w]e want to leave Chernobyl behind in the year 2000. But we want comprehensive phasing out, and replacing atomic power plants will not achieve this [...as] we all know that atomic power does not tolerate mistakes.³³⁷

³³⁶ Deutscher Bundestag, 14. Wahlperiode, 45. Sitzung, 17.6.1999, 3792. "[w]ie sicher die Reaktoren später im Betrieb sein werden."

³³⁷ Deutscher Bundestag, 14. Wahlperiode, 35. Sitzung, 22.4.1999, 2876. "Wir wollen das Aus von Tschernobyl im Jahre 2000. Aber wir wollen diesen Ausstieg ganz, also nicht mit Ersatzatomkraftwerken." "[w]ir wissen alle, dass die Atomkraft nicht fehlerfreundlich ist."

Later, on 17 June, Griefahn clarified that

[e]ven with the help of western technology it becomes clear every time that these eastern reactors cannot be modernised. Otherwise we would not have closed down Greifswald, and we would have completed the construction of Stendal.³³⁸

Once again, Griefahn was carrying on a particular line of argument held by the SPD in which Greifswald and Stendal were being used as concrete examples that Soviet-designed reactors could not meet sufficient safety standards and so had to be closed down.

The concept of MCA (GAU) was once again cropped up in these anti-nuclear arguments. Michaela Hustedt (Alliance 90/Greens) pointed out that because it was impossible to predict the political situation in the Ukraine after 10 or 20 years, then it was foolish to build any nuclear facilities there. Hustedt used MCA as a counter-concept to sovereignty, when she justified Germany's right to affect the Ukraine's sovereign decisions on the grounds that the "consequences of an MCA would influence our own sovereignty, since radioactive pollution does not respect borders and so we would also have to bear the consequences".³³⁹ Horst Kubatschka (SPD) used MCA in a similar way when he pointed out that on

One side is the sovereignty of these countries, while on the other are the cross-border consequences of MCA. We know since Chernobyl that these affect the whole of Europe.³⁴⁰

This use of MCA by anti-nuclear parliamentarians as a means to legitimise one state making quite extreme demands on another is highly interesting if we compare it to the use of the concept 'atomic state' (*Atomstaat*). As chapter 5 will discuss more precisely, when the anti-nuclear movement used 'atomic state' in the context of massive demonstrations against the transport of radioactive waste to the interim storage facility at Gorleben (1995-1997), they were protesting about how the state was wrongfully using its power to push through these unpopular policies and this was endangering democracy. Both these concepts (MCA and atomic state) relied on the gravity of nuclear issues necessitating the overruling of normal democratic decision-making. Yet,

³³⁸ Deutscher Bundestag, 14. Wahlperiode, 45. Sitzung, 17.6.1999, 3800-3801. "Trotz aller westlichen Technik ist immer wieder deutlich geworden, dass die östlichen Reaktoren nicht nachzurüsten sind. Sonst hätten wir doch Greifswald nicht abgestellt, sonst hätten wir Stendal nicht weitergebaut."

³³⁹ Deutscher Bundestag, 14. Wahlperiode, 35. Sitzung, 22.4.1999, 2878. "[w]erden die Auswirkungen eines GAU auch unsere Souveränität beeinflussen; denn radioaktive Strahlen kennen keine Grenzen, und auch wir werden die Folgen tragen müssen."

³⁴⁰ Deutscher Bundestag, 14. Wahlperiode, 35. Sitzung, 22.4.1999, 2881. "Auf der einen Seite steht die Souveränität von Staaten, auf der anderen Seite stehen die grenzüberschreitenden Auswirkungen von GAUs. Seit Tschernobyl wissen wir: Sie sind europaweit."

whereas *Atomstaat* was used in protest at the state's actions, MCA was used to legitimise them in the field of foreign affairs.

In opposition, the pro-nuclear CDU/CSU and FDP, justified the necessity of finishing the two reactors in the Ukraine with financial aid from the EBRD by claiming that this was a necessary part of the deal agreed on in return for closing down Chernobyl. On 17 June 1999, Ulrike Flach (FDP)³⁴¹ reminded the Bundestag members present that the

[T]arget that we want to unanimously pursue in the Ukraine is the closure of Chernobyl. Chernobyl is a worldwide symbol of catastrophe, the consequences of which are still being felt by many people and their children.³⁴²

This speech act thus framed the construction of the K2 and R4 reactors in terms of fully decommissioning Chernobyl, since nobody in the Bundestag could disagree with its closure being of the utmost urgency.

In September 1999, during Schröder's first cabinet, one further unexpected and sudden real-world event had an impact on the discussion. There was a critical accident at the Tokaimura nuclear facility in Japan, and this was politicised in the Bundestag on 7 October 1999. The debate concerned the effects and consequences of the accident, and was particularly significant in that it had occurred in a country as highly developed as Germany. This ruled out previous arguments that put nuclear accidents down to lower safety standards in less developed countries. Jürgen Trittin (Alliance 90/Greens), as Federal Minister for the Environment, Nature Conservation, and Reactor Safety described the accident as "the most challenging accident in an atomic plant since the reactor catastrophe of Chernobyl".³⁴³ Trittin then went on to question whether

[T]echnology that can cause such catastrophic consequences in case of human error really a technology fit for humans to use? In this case perhaps, the welfare that nuclear power produced was not worth the residual risk it involved³⁴⁴

The Tokaimura accident was thus given a political meaning that rendered it as one more concrete form of 'residual risk'.

Even though in this speech the event at Tokaimura was presented as the most serious accident since Chernobyl, noteworthy is that Jürgen Trittin did not

³⁴¹ Archiv, Abgeordnete. **Ulrike Flach** (FDP) (born in 1951) was a Bundestag member in 1998-2013. In 200-2005 she acted as Chair of the Committee of Education, Research and Technology Assessment.

³⁴² Deutscher Bundestag, 14. Wahlperiode, 45. Sitzung, 17.6.1999, 3797. "Das Ziel, das wir in der Ukraine erreichen wollen - da, denke ich, sind wir alle hier uns einig - ist die Abschaltung von Tschernobyl. Tschernobyl ist ein weltweites Symbol für eine Katastrophe, deren Auswirkungen die betroffenen Menschen und ihre Kinder immer noch spüren."

³⁴³ Deutscher Bundestag, 14. Wahlperiode, 61. Sitzung, 7.10.1999, 5438. "Es war der schwerste Unfall in einer atomaren Anlage seit der Reaktorkatastrophe von Tschernobyl."

³⁴⁴ Deutscher Bundestag, 14. Wahlperiode, 61. Sitzung, 7.10.1999, 5438. "Ist eine Technik, bei deren Betreiben menschliches Versagen solch katastrophale Folgen haben kann, eine menschenadäquate Technik? Oder anders gefragt: Ist das Restrisiko eigentlich mit dem Allgemeinwohl vereinbar?"

define the accident with the concept MCA, i.e., and so it was not given the same status of large-scale accident as Harrisburg or Chernobyl. In fact, only Eva-Maria Bulling-Schröter (PDS) talked of Tokaimura as an MCA by saying

[W]hen we take Harrisburg, Chernobyl and Tokaimura together, the result is certainty: after each MCA comes another. The conclusion that must be drawn from this is that only the fastest possible phasing-out can prevent other such catastrophes from happening.³⁴⁵

The PDS was thus demanding a faster halt to the use of nuclear energy than the red-green federal government itself was advocating, and Bulling-Schröter was placing Tokaimura as one in a long line of nuclear accidents that were going to keep on happening unless nuclear energy was phased out altogether. If we consider Tokaimura in the light of the Fukushima nuclear accident that occurred in 2011, the central difference was that, though also in Japan, Fukushima was commonly interpreted as 'a (Super) MCA' in the parliamentary policy debates,³⁴⁶ whereas back in 1999 Tokaimura was evidently not.

Tokaimura thus had a significantly weaker influence on the views of the political parties towards nuclear energy. There were a few cases in the Bundestag, however, when Tokaimura was mentioned alongside Chernobyl and Harrisburg to stress the concrete dangers of nuclear technology. Horst Kubatschka (SPD), for instance, favoured the use of Tokaimura in his speeches as yet another concrete example of the risks of nuclear technology.³⁴⁷ The CDU, however, denied the significance of the Tokaimura accident and continued to distinguish the German 'philosophy of safety' and 'safety culture' from the rest of the world's. Paul Laufs (CDU/CSU), for instance, expressed viewpoint that what happened in Tokaimura should certainly stimulate new discussions about safety at the national and international level, but then his speech thereafter implicitly conveyed the idea that the use of nuclear energy in Germany was safe. In addition, he argued that the only way nuclear safety could be improved would be by developing nuclear technology further and promoting the German 'philosophy of safety' worldwide - not by phasing it out.

The question that we must ask ourselves, and with increasing urgency since the incident in Tokaimura, is about the culture of safety in our technological civilisation [...] Safety culture must be at a high level worldwide now and constantly improved on [...]. Without wanting to sound arrogant, we must face the fact that not everywhere has the same philosophy of safety as we do in our country [...]. Phasing

³⁴⁵ Deutscher Bundestag, 14. Wahlperiode, 61. Sitzung, 7.10.1999, 5444. "[f]assen wir Harrisburg, Tschernobyl und Tokaimura zusammen, so bleibt die Gewissheit: Nach dem GAU ist vor dem GAU. Die Konsequenz, die zu ziehen ist, muss lauten: Nur der schnellstmögliche Ausstieg kann solche Katastrophen ausschließen."

³⁴⁶ E.g., Deutscher Bundestag, 17. Wahlperiode, 96. Sitzung, 17.3.2011, 10883-10889.

³⁴⁷ Deutscher Bundestag, 14. Wahlperiode, 98. Sitzung, 6.4.2000, 9203; Deutscher Bundestag, 14. Wahlperiode, 103. Sitzung, 12.5.2000, 9683; Deutscher Bundestag, 14. Wahlperiode, 153. Sitzung, 16.2.2001, 14997.

out nuclear energy will not serve our country as well as improving the technological culture of safety worldwide.³⁴⁸

Ulrich Klinkert (CDU/CSU) made a similar point about safety, by highlighting that Germany had a stricter “culture of safety”, which meant that “Japan and not Germany has to improve the safety measures in place in its nuclear facilities”.³⁴⁹

The purpose of this subchapter was to show how the parliamentary policy debates about Soviet-designed reactors were also debates about conceptions of nuclear safety in general. The main findings were that most parties both for and against nuclear power in the Bundestag seemed to see nuclear safety as being possible only with western nuclear technology in a democratically stable society. However, there were some that did not agree with this.

3.4 Amendments to the Atomic Energy Act and Definitions of Nuclear Safety

The amendments to the Atomic Energy Act in 1994, 1997, and 2001 included changes regarding the regulation and control of nuclear safety (among others). As discussed in chapter 2, the 1994 amendment was made so the go-ahead could be given for the EPR project. The phrasing of the law required that any further nuclear reactors built should meet additional stringent safety requirements that would prevent the spread of radiation in the event of an accident.³⁵⁰ The 1997 amendment introduced increased safety measures for existing nuclear power plants and established a procedure for the further development of safety technology.³⁵¹ Finally, the 2001 amendment introduced the gradual phasing out of nuclear energy and ordered safety tests to be conducted at all the nuclear power plants.³⁵²

This subchapter continues the discussion of the various competing conceptions of safety by analysing just how nuclear safety was defined in the

³⁴⁸ Deutscher Bundestag, 14. Wahlperiode, 61. Sitzung, 7.10.1999, 5439-5440. *“Die Frage, mit der wir uns eigentlich ständig und nach dem Vorfall in Tokaimura mit neuer Intensität beschäftigen müssen, ist die Frage nach der Sicherheitskultur in unserer technischen Zivilisation. [...] Es geht um eine Sicherheitskultur, die weltweit auf ein hohes Niveau gebracht und immer weiter verbessert werden muss. [...] Ohne jede Überheblichkeit können wir feststellen, dass nicht überall der gleichen Sicherheitsphilosophie gefolgt und die Verbesserung der Sicherheitstechnik sowie die der Betriebsweisen als ständige, äußerst wichtige Aufgabe gesehen wird, so wie das in unserem Land der Fall ist. [...] Nicht der Ausstieg dient unserem Land, sondern die Verbesserung der technischen Sicherheitskultur weltweit.“*

³⁴⁹ Deutscher Bundestag, 14. Wahlperiode, 61. Sitzung, 7.10.1999, 5447. *“Japan und nicht Deutschland muss seine Sicherheitsmassnahmen bei kerntechnischen Anlagen verbessern.“*

³⁵⁰ Deutscher Bundestag, Drs. 12/6908.

³⁵¹ Deutscher Bundestag, Drs. 13/8641.

³⁵² Deutscher Bundestag, Drs. 14/7261; Deutscher Bundestag, Drs. 14/6890.

context of these amendments. The amendments of 1994 and 1997 expressed the ruling coalition's positive attitude towards the EPR project and conceptions of safety in which nuclear technology was part of ensuring that safety, while the 2001 amendment redefined the safest option to be the gradual phasing-out of nuclear technology, as was made clear from the wording of the title - "To Secure the Use of Coal in Power Generation and to Amend the Atomic Energy and Electricity Feed Acts"³⁵³. There was also a very clear message, as in the previous amendment, that nuclear power plants had to be equipped with a technology that would prevent the spread of radiation in the event of an accident.³⁵⁴ This 'inherently safe' reactor was the target of the German-French EPR project, but the technological feasibility of catastrophe-free reactors was doubted by many in the Bundestag, and was the source of much tension in debates. The anti-nuclear supporters argued that the requirements of the amendment were unrealistically impossible to fulfil.

In the Bundesrat too, on 4 February 1994, the Minister for Lower Saxony, Monika Griefahn (SPD), emphasised the need to phase-out nuclear facilities as quickly as possible, claiming that "inherently safe reactors" (*inhärent sicheren Reaktors*) were not technologically possible and the bill was not enough to rule out a "super MCA" from happening. In her speech act, she concretised her claims about the dangers of nuclear energy with references to previous accidents. "Harrisburg showed that western atomic technology can also go out of control" and "Biblis demonstrated that not even German atomic technology is controllable in every situation".³⁵⁵ In other words, Griefahn was denying that the EPR reactors would usher in a new era of 'inherently safe reactors'.³⁵⁶

Thus the amendment debate in 1994 continued this discussion about the prospects and limits of technologically improving reactors without the risk of any serious accidents, i.e., towards 'absolute nuclear safety'. On 3 March 1994 Volker Jung (SPD member for Düsseldorf) let it be known that he doubted "a catastrophe-free reactor" would ever be possible.³⁵⁷ Later, on 29 April 1994, Volker Jung described how experts too had also disagreed over whether "such a catastrophe-free reactor" could ever be realised in technological terms.³⁵⁸ Meanwhile, in April 1994, Dagmar Enkelmann (PDS/Linke Liste)³⁵⁹ said that the bill for nuclear safety should be one which showed that "risks will no longer be ruled out, but instead recognised and accepted by the federal government".

³⁵³ *Gesetz zur Sicherung des Einsatzes von Steinkohle in der Verstromung und zur Änderung des Atomgesetzes und des Stromeinspeisungsgesetzes*

³⁵⁴ Deutscher Bundestag, Drs. 12/6908.

³⁵⁵ Bundesrat, 665. Sitzung, 4.2.1994, 30-31. "Harrisburg hat bewiesen, dass die Atomtechnik, auch die westliche, durchaus außer Kontrolle geraten kann." "Biblis hat gezeigt, dass auch die deutsche Atomtechnik eben nicht in jeder Situation beherrschbar ist."

³⁵⁶ Radkau 1988, 110-116.

³⁵⁷ Deutscher Bundestag, 12. Wahlperiode, 213. Sitzung, 3.3.1994, 18440-18443.

³⁵⁸ Deutscher Bundestag, 12. Wahlperiode, 226. Sitzung, 29.4.1994, 19547-19549.

³⁵⁹ Archiv, Abgeordnete. **Dagmar Enkelmann** (PDS/LinkeListe) (born in 1956) was a Bundestag member in 1990-1998 and 2005 onwards. She was a deputy member of the AfUNR (in 1994-1998).

She saw the targets of the EPR project as being unrealistic, since limiting an accident to the vicinity of the power plant in which it occurred was impossible.³⁶⁰ Dietmar Schütz (SPD) also wanted to make it clear that the SPD was still very much against the continued use of nuclear energy.

It will come as no surprise to know that the social democrats still intend to phase out nuclear energy, since it will always be the case that reactor catastrophes will happen and that they cannot be ruled out with total certainty; that the disposal of atomic waste is still not secure worldwide; and the dangers of accumulating and trading weapons-grade nuclear fuel increases every year. After Chernobyl [...], the eighth anniversary of which takes place this week, the majority of our citizens consider that the risks involved no longer warrant the use of atomic power.³⁶¹

All of these speakers aimed at dismissing the legitimacy of further development of nuclear energy and the EPR project in particular by arguing that it was impossible to be 100% certain of safety, and yet because the issue involved the disastrous consequences of a nuclear accident, the stakes were too high to allow for even the tiniest margin of error. No amount of technological development could provide that 100% assurance of 'inherent safety'.

Klaus W. Lippold (CDU/CSU member for Offenbach) directly answered the above speech by Schütz by emphasising the technological achievements of German know-how and the country's global responsibility to help improve nuclear safety.

You speculate about the fears of Chernobyl. This is precisely the keyword; those who want to do something about the safety of nuclear power in the world have to approve this law which puts Germany in the vanguard of an international movement. It also develops our international position a world leader in safety technology.³⁶²

In the Bundesrat, on 4 February 1994, Otto Wiesheu (the State Minister for the Free State of Bavaria)³⁶³ brought up the bill claiming that even though Bavaria supported the further use of nuclear energy, the formulation concerning the

³⁶⁰ Deutscher Bundestag, 12. Wahlperiode, 226. Sitzung, 29.4.1994, 19552-19554. *“Ein Risiko wird nicht mehr ausgeschlossen, sondern von der Bundesregierung als real anerkannt und akzeptiert.“*

³⁶¹ Deutscher Bundestag, 12. Wahlperiode, 226. Sitzung, 29.4.1994, 19565-19567. *“Ich sage Ihnen nichts Neues, was die Position der Sozialdemokratie angeht, wenn ich betone, dass wir an dem Ziel des Ausstiegs aus der Kernenergie festhalten, weil immer noch gilt und weiter gelten wird, dass Reaktorkatastrophen nicht mit Sicherheit ausgeschlossen werden können, dass die Entsorgung des Atommülls weltweit weiterhin nicht gesichert ist und dass die Gefahren durch Anhäufung und Handel mit waffenfähigen Kernbrennstoff wachsen. Nach Tschernobyl, [...], dessen achten Jahrestag wir in dieser Woche gedacht haben, erscheint für eine große Zahl von Bürgern die Inkaufnahme atomarer Risiken nicht mehr begründbar.“*

³⁶² Deutscher Bundestag, 12. Wahlperiode, 226. Sitzung, 29.4.1994, 19570-19572. *“Herr Kollege Schütz. Sie spekulieren auf die Angst mit Tschernobyl. Das ist genau das richtige Stichwort. Wer etwas für die Verbesserung der Kernkraftsicherheit tun will, muss diesem Gesetz zustimmen, das sich an die Spitze der internationalen Bewegung setzt, das unseren international fortschrittlichsten Standort noch weiter voranbringt. Wir stehen an der Spitze der Sicherheitstechnik.“*

³⁶³ **Otto Wiesheu** (Bavaria) (born in 1944) acted as the Minister for Economics, Infrastructure, Transport and Technology in Bavaria in 1993-2005.

safety requirements of the next generation of reactors was impossible to fulfil. Wiesheu acknowledged that the EPR project would improve nuclear safety, but none could essentially precisely fulfil the terms of the bill.³⁶⁴

There was speculation about the impact of the EPR project on nuclear safety in the press too. For instance, on 17 December 1992, Gerd Rosenkranz wrote in the SZ that the new German-French pressurised water reactor would reduce the possibility of nuclear meltdown and would contain any contamination in the event of an accident to the immediate area of the nuclear facility;³⁶⁵ On 1 June 1993, in the same newspaper, Professor Dr. Kurt Kugeler (Director of the Jülich Research Centre) made it clear that although an “absolutely safe reactor” was not possible, the EPR project would deliver “freedom from catastrophe for the surrounding area”.³⁶⁶

For the representatives of the ruling parties, the 1994 amendment demonstrated the fundamental priority of safety, while at the same time it gave the go-ahead for the German nuclear industry to contribute further to the development of nuclear power at the international level. Günter Rexrodt, especially - the Federal Minister for Economics - brought up the argument time and again that only by participating in nuclear developments could Germany effectively have some say over the nuclear safety of Central and Eastern Europe. He also highlighted attempts to develop nuclear safety as a major reason to keep developing new technology. “By introducing additional safety targets, the federal government sends a further signal that safety is the highest priority in nuclear energy investments”.³⁶⁷ By defining safety as the “highest priority”, Rexrodt was implicitly denying that economic aspects were the primary reason for the government’s interest in the EPR project. This proved to be a central feature of the parliamentary policy debates about nuclear energy. Even though nuclear energy was clearly an economic question it seemed to be politically impossible to justify pro-nuclear policy simply by using economic-related arguments.

The 1997 amendment had the title “Bill to Amend the Atomic Energy Act and Establish the Federal Office for Radiation Protection”³⁶⁸. The 1994 amendment had concerned safety requirements for future nuclear power plants,

³⁶⁴ Bundesrat, 665. Sitzung, 4.2.1994, 25-28.

³⁶⁵ SZ 17.12.1992, Atommeiler ohne Super-GAU-Risiko? Kernschmelzunfälle kann man unwahrscheinlich und mit „revolutionären Konzepten“ sogar unmöglich machen. Gerd Rosenkranz.

³⁶⁶ SZ 1.6.1993, p. 902, Sicherer Atommeiler? Professor Dr. Kurt Kugeler, Direktor am Forschungszentrum Jülich, zur Frage künftiger Kernkraftwerke. “*absolut sicheren Reaktor*”; “*Katastrophenfreiheit für die Umgebung*”

³⁶⁷ Bundesrat, 665. Sitzung, 4.2.1994, 31-34 “*Mit der Einführung eines zusätzlichen Sicherheitsziels setzt die Bundesregierung ein weiteres Zeichen bei ihrer Politik, nach der beim Kernenergieeinsatz Sicherheit das oberste Gebot ist.*”; Deutscher Bundestag, 12. Wahlperiode, 213. Sitzung, 3.3.1994, 18438-18440.

³⁶⁸ *Entwurf eines Gesetzes zur Änderung des Atomgesetzes und des Gesetzes über die Errichtung eines Bundesamtes für Strahlenschutz* (Achstes Gesetz zur Änderung des Atomgesetzes)

but this bill also brought in additional safety requirements for existing nuclear power plants too.³⁶⁹ The ruling parties presented nuclear safety as a dynamic process in need of constant developments, and this bill was part of it. Ulrich Klinkert (CDU/CSU) described the bill as a means to bring existing nuclear power stations up to date with state-of-the-art safety measures.³⁷⁰ According to Walter Hirche (FDP), the bill would provide the legal possibilities for an ongoing constant development of nuclear safety measures for both German reactors and those operating in the former Eastern Bloc.³⁷¹ On 13 November 1997, Heinrich L. Kolb (FDP) also joined in this line of argument by stressing that this bill was needed if technological updates were going to be made to improve the nuclear safety of power stations in the former Eastern Bloc.³⁷²

As the previous part of this chapter discussed, the target of affecting reactor safety in the former Eastern Bloc countries was commonly shared in the Bundestag, since the fear of a new devastating accident near the German borders constantly overshadowed the nuclear energy debates. The speakers of the CDU/CSU and FDP continued to hold to the idea that only by constantly developing nuclear technology in Germany could the country fulfil its global responsibility to contribute to nuclear safety. In November 1997, Angela Merkel (CDU/CSU) justified the bill too by saying that the “further development of safety technology in the field of nuclear energy is needed so that we can protect the people better” and “It is fundamental that the FDR takes part in increasing the overall safety in Central and Eastern Europe and other parts of the world”.³⁷³ This speech act implied that because of Germany’s position as the most powerful state in Europe, it was the only one that could really push for the necessary steps to be taken to secure nuclear safety in the countries of the former Eastern Bloc.

The 1997 amendment caused less tension in the Bundestag than in 1994, or the one that was to follow in 2001. The latter was introduced by the red-green federal government and had the title “Bill for the Orderly End to the Use of Nuclear Energy in Commercial Electricity Production”³⁷⁴. It included proposals to end the use of nuclear energy in commercial electricity production, to discontinue the commissioning of any new nuclear power plants, and to conduct safety tests on all nuclear facilities still in operation.³⁷⁵

³⁶⁹ Deutscher Bundestag, Drs. 13/8641.

³⁷⁰ Bundesrat, 716. Sitzung, 26.9.1997, 403-405.

³⁷¹ Deutscher Bundestag, 13. Wahlperiode, 197. Sitzung, 9.10.1997, 17826-17828.

³⁷² Deutscher Bundestag, 13. Wahlperiode, 203. Sitzung, 13.11.1997, 18311.

³⁷³ Deutscher Bundestag, 13. Wahlperiode, 203. Sitzung, 13.11.1997, 18323-18325. “Die Weiterentwicklung der Sicherheitstechnik auf dem Gebiet der Kernenergie ist dafür ausschlaggebend, inwieweit wir Menschen besser schützen können.“ “ Wir als Bundesrepublik Deutschland sollten in Mittel- und Osteuropa und in anderen Teilen der Welt ein elementares Interesse daran haben, für mehr Sicherheit, als wir heute haben, zu sorgen.“

³⁷⁴ Gesetz zur geordneten Beendigung der Kernenergienutzung zur gewerblichen Erzeugung von Elektrizität

³⁷⁵ Drs. 14/7261, Drs. 14/6890.

Representatives of the ruling SPD and Alliance 90/Greens coalition justified the bill by claiming that the only way one could be 100% certain of having no further nuclear accidents was to simply stop using nuclear energy. On 29 June 2000, Michael Müller (SPD member for Düsseldorf) justified the phasing out of nuclear energy by stating that even though the probability of a nuclear accident was far lower than, for example, a car accident, the knock-on effects of one such accident would be so devastating that it was not worth taking even the tiniest risk.³⁷⁶ In December 2001, the same Müller referred to the military origins of nuclear technology, as if the government were putting a bad episode in history behind them. "We have reached the end of a road that began with the bomb".³⁷⁷ Volker Jung (another SPD member for Dusseldorf) drew attention to the loss of public trust in nuclear energy after the "super MCA at Chernobyl" (*Super-GAU in Tschernobyl*) and the "near MCA at Harrisburg" (*Beinahe-GAU in Harrisburg*).³⁷⁸ According to Horst Kubatschka (SPD) "residual risk" (*Restrisiko*) was permanent feature of nuclear energy, and "no matter how minimal that residual risk was, the resulting possible accident had maximal consequences". Kubatschka went on to add that an "absolutely safe or inherent reactor is still an engineer's dream, which cannot be realised".³⁷⁹

By referring to past nuclear accidents and the military origins of nuclear technology, these speakers were showing that the 2001 amendment would finally get round the problem of the impossibility of an 'inherently safe' reactor, the untenable risks of nuclear technology, and the decades of fear that the nuclear threat had caused by simply phasing out nuclear energy altogether. The Alliance 90/Greens put forward similar arguments, but in September 2001 their Federal Minister for the Environment, Nature Conservation, and Reactor Safety (Jürgen Trittin) pointed out that since the bill ruled out the continuous operation of nuclear power plants for an indefinite time period, the current generation had fulfilled their responsibility by bequeathing a nuclear/radiation-free future to their children.³⁸⁰ The idea of having responsibility towards future generations has been a key feature of environmental discourse as we shall see in chapter 4. In addition, the Alliance 90/Greens also referred implicitly to the significantly longer remaining operation time of the nuclear power plants than the Green voters had justifiably expected. The speech by Trittin clarified that the amendment to the Atomic Energy Act no longer allowed nuclear power plants to operate for an "indefinite" time period. Michael Hustedt (Alliance 90/Greens) brought up

³⁷⁶ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10436.

³⁷⁷ Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20718. *"Wir sind am Ende eines Weges, an dessen Anfang die Bombe stand."*

³⁷⁸ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10448.

³⁷⁹ Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20707. *"Dieses Restrisiko ist zwar minimal, aber ein etwaiger Unfall hat eine maximale Auswirkung." "Der absolut sichere oder inhärente Reaktor ist nach wie vor ein Traum der Techniker, der sich nicht erfüllen wird."*

³⁸⁰ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18569.

this aspect by saying that even though the risk of nuclear technology could not be totally removed, the energy policy of the red-green federal government made it lower step by step.³⁸¹ In other words, the Alliance 90/Greens had the purpose of proving that the bill was reaching towards absence of risks of nuclear accident even though the process took longer than intended.

Besides the fundamental target of removing the risks of nuclear energy altogether, the red-green coalition showed how the safety of nuclear power plants would be secured during the remaining operation time. According to a speech Chancellor Schröder made on 29 June 2000, nuclear power stations in Germany would have “to carry on operating at a very high international level of safety” and the agreement with the energy industry in the amendment would increase the safety level of nuclear facilities currently in operation, as it ordered that additional regular safety tests be carried out. “Closing down the older plants increases the safety level of those still operating”³⁸² was another argument that Schröder used. Meanwhile, in September 2001, as Minister for the Environment, Nature Conservation, and Reactor Safety, Trittin added that the regular safety tests (*Sicherheitsüberprüfung*) in the bill would provide for the “dynamic development of science and technology”.³⁸³

These quotes from Schröder (SPD) and Trittin (Alliance 90/Greens) show that similar conceptions about nuclear safety were shared with both the CDU/CSU and FDP. They saw nuclear safety in Germany as being at a high level when compared internationally, and the safety level could only be improved by developing better technology and control systems. At the same time, these utterances did not overrule the viewpoint traditionally emphasised by the SPD and Alliance 90/Greens, which was that the risk of a nuclear accident was a permanent feature of nuclear technology, and the only way to stop this would be to get rid of nuclear energy altogether, albeit through an ‘orderly phasing out’.

Representatives of the CDU/CSU and FDP objected to the bill, claiming that nuclear safety had already been at a sufficient level and that in the future, if the bill were to go through, the level of nuclear safety would decline both in Germany and across the world. Merkel made the first point on 29 June 2000:

When I look at this agreement, I have to assume that for all the years you argued that the safety of nuclear power stations, transports, and interim storage facilities was inadequate, you were obviously wrong. This is because you have agreed with the German atomic energy industry to continue these operations as usual for the next 32 years. [...] The philosophy of safety is not touched upon in any single point in this

³⁸¹ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18580.

³⁸² Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10424-10425. “Kernkraftwerke müssen in Deutschland weiterhin auf einem auch international gesehen sehr hohen Sicherheitsniveau betrieben werden.” “Wenn ältere Anlagen abgeschaltet werden, erhöht dies insgesamt betrachtet auch das Sicherheitsniveau der noch bestehenden, der laufenden Anlagen.”

³⁸³ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18569. “sich dynamisch entwickelnden Stand von Wissenschaft und Technik.”

agreement. But it has proved itself so far and will continue to do so for the next 30 years.³⁸⁴

Merkel was implying here that by allowing for the orderly closure of nuclear facilities over the next 30 years, the red-green federal government was implicitly admitting that the 'philosophy of safety' practised by the former government was in fact sufficient. Walter Hirche (FDP) made similar point the same month arguing that because they had not ordered for the immediate closure of nuclear facilities, the red-greens were showing that they had "always maintained the political lie that there are 'safety risks' with nuclear power plants".³⁸⁵

In the same speech on 29 June 2000, Merkel also argued that it was a mistake to do away with German nuclear knowledge and expertise when there were "15 Chernobyl-type reactors operating in Russia". According to her, a consequence of the bill would be having "to live with the fact that our influence over helping improve the safety of Russian nuclear power plants will be lost" and that further development of safety standards at the international level would be left to France and the US.³⁸⁶ As discussed earlier, in 1997 Merkel had also spoken out about the necessity for Germany to contribute to international cooperation and share its safety know-how with the rest of the world to ensure that nuclear accidents could be avoided anywhere in the world. She was arguing that the red-green government was weakening Germany's international position, because this advantage would be lost and Germany would henceforth have to rely on the US and France for their 'nuclear safety'.

Merkel's party colleague, Peter Paziorek (CDU/CSU) presented a similar argument in June 2000 as well, but with a more moderate choice of words. As he saw it, the phasing out of nuclear energy was an ethical problem since Germany with its "philosophy of safety" would then be leaving the international discussion.³⁸⁷ This highlighted the CDU/CSU idea that Germany had a responsibility as a leader in safety issues to have an international role.

³⁸⁴ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10426-10427. *"Wenn ich mir die von Ihnen getroffene Vereinbarung anschau, dann muss ich feststellen, dass die von Ihnen über Jahre vorgebrachte Argumentation, dass die Sicherheit der bestehenden Kernkraftwerke, die Sicherheit der Transporte und die Sicherheit der Zwischenlager nicht gewährleistet seien, offensichtlich falsch war. Denn Ihre Vereinbarung mit der deutschen Atomenergiewirtschaft lautet, dass der Betrieb von Kernkraftwerken, die Lagerung von Atommüll und alles, was dazugehört, in den nächsten 32 Jahren vertretbar bzw. verantwortbar sind. [...] Die Sicherheitsphilosophie wird in dieser Vereinbarung in keinem einzigen Punkt angetastet. Sie hat sich bewährt und deshalb wird sie auch noch 30 Jahre reichen."*

³⁸⁵ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10433. *"Die Vorwürfe hinsichtlich angeblicher Sicherheitsrisiken bei Kernkraftwerken waren immer eine politische Lüge von Rot-Grün."*

³⁸⁶ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10428. *"Sie werden damit leben müssen, dass unser Einfluss gerade hinsichtlich der Verbesserung der Sicherheit russischer Kernkraftwerke nachlässt."*

³⁸⁷ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10446. *"Sicherheitsphilosophie"*

Equally, Klaus W. Lippold (the CDU/CSU representative for Offenbach) pointed out in December 2001 that the “power plants with the highest safety will be closed down [...] whereas those around us with significantly lower safety standards will remain in operation”. Lippold then asked the rhetorical question, “what kind of contribution is this to an international philosophy of safety?”³⁸⁸

In her speech in September 2001, Birgit Homburger (FDP) also expressed fears that domestic nuclear know-how would be lost if nuclear energy was phased out. “It is important to maintain and develop an internationally exemplary level of nuclear safety technology in the operation of atomic plants”, she claimed. Homburger was convinced that phasing out would mean that people would no longer be trained in this expertise, and so Germany would lose its international influence over the safety of nuclear power plants at the international level.³⁸⁹ The FDP wanted to prove that without a domestic industry, and the training that went with this, the whole sector would wither away.

During the last autumn of Schröder’s first cabinet, the terrorist attacks in New York took place on 11 September 2001. In the Bundestag, these shocking events were politicised in the context of the ongoing debates about the bill to phase out nuclear energy. Terrorism as such was not any new argument in the nuclear energy debate, since already in the 1970s possible terrorist attacks on nuclear power plants had caused fears in public debates especially after the ‘Red Army Faction’ (RAF/ Bader-Meinhof Gang) attacks. The fear of terrorism was a part of everyday life during that time.³⁹⁰ Still, the references to this earlier terrorism were rare in the Bundestag in the period we are looking at (1991-2001). One reference to terrorism after the attacks on New York was made by Winfried Wolf (PDS).³⁹¹ On 14 December 2001 he stated that the terrorist attacks were no new phenomena, since in 1975 and 1976 there had been bomb attacks on French nuclear power plants, and in 1972 there was an attempt in the US to drive a vehicle into a nuclear power plant.³⁹²

The representatives of the SPD and the Alliance 90/Greens, however, argued that it did have an impact on the German nuclear energy debate, since it would force the government to re-evaluate the risks of the technology and whether German nuclear power stations might be able to resist similar attacks. The concept of ‘residual risk’ was thus once again used in the context of a real-world dramatic and catastrophic event with the purpose of concretising the

³⁸⁸ Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20710. *“Was für ein Beitrag zur internationalen Sicherheitsphilosophie ist das?”*

³⁸⁹ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18575-18576. *“Es gilt auch das international vorbildliche Niveau Deutschlands bei der Kernkraftsicherheitstechnik beim Betrieb von Atomanlagen zu erhalten und weiterzuentwickeln.”*

³⁹⁰ E.g., Altenburg 2012, 249; Altenburg 2010, 49, 134, 145-146.

³⁹¹ Archiv, Abgeordnete. **Dr. Winfried Wolf** (PDS) (born in 1949) was a Bundestag member in 1994-2002. He worked a author and journalist.

³⁹² Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20717.

risks of nuclear technology. The terrorist attacks were thus used as one more reason to phase out nuclear energy, and sooner rather than later. During the first reading of the bill, on 27 September 2001, Jürgen Trittin (the Federal Minister for the Environment, Nature Conservation, and Reactor Safety) presented an argument stressing how the terrorist attacks in New York on 11 September had upped the stakes on using nuclear energy even further, as “hopefully nobody would now ever trivialise airplane crashes as a residual risk again”.³⁹³ Horst Kubatschka (SPD) was also of the opinion that “after the horrible terrorist attacks of 11th September this year we have to redefine residual risk”, as previously terrorist attacks had not been taken into account in nuclear safety assessments.³⁹⁴ In contrast, Homburger (FDP) argued that to close all nuclear power stations because of the terrorist attacks, would simply be a victory for terrorism and not what Germany should do.³⁹⁵

As the discussion in this subchapter has illustrated, the safety discussion in the context of the three amendments to the Atomic Energy Act concerned mainly the question of whether the technology itself was safe and if it should be developed further or not, especially with regard to Germany’s expertise in nuclear safety technology.

3.5 Conclusions

The overall task of this chapter was to discuss the competing conceptions of nuclear safety and to show that, despite the fact that the origins of the safety discussion and the semantic background of key words in the debate evidently went back a few decades, it was being constantly updated and tightly confined by real-world events. Fears of another Chernobyl happening were also strong in the aftermath of the Cold War and they featured in the policy debates throughout the decade in question.

The central conclusion concerning the macro-level development of the safety discourse in German parliamentary policy debates during the decade in question, is that it was not only related to hypothetical and abstract questions about nuclear safety, but also to the real backdrop of concrete events that cropped up during the course of the decade. These new topics and questions were constantly being politicised in the debates and the original macro-level semantic meanings of the central concepts - ‘MCA’, ‘residual risk’, and ‘philosophy of safety’ - gradually evolved and changed as Bundestag MPs deliberately twisted them for their own political purposes in micro-level speech

³⁹³ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18569. *“Nach dem 11. September dieses Jahres wird hoffentlich nie wieder jemand den Absturz eines Flugzeugs auf ein Atomkraftwerk als Restrisiko verniedlichen.”*

³⁹⁴ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18583.

³⁹⁵ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18575-18576.

acts. Earlier events were of course also used - most importantly the nuclear accidents at Chernobyl (1986), and Harrisburg (1979), and the disruptions at Biblis A. These still represented the concrete risks of nuclear technology, and so they remained pertinent to the debate about nuclear power. But there were also more recent events that the anti-nuclear SPD, Alliance 90/Greens, and the PDS capitalised on in particular: the questionable safety of Soviet-designed reactors in the former Eastern Bloc; the Tokaimura nuclear accident (1999); and the terrorist attacks in the US on 11 September 2001. The micro-use of language to discuss these concrete topics above shifted the semantic meanings of 'MCA' and 'residual risk'. By using them it was now possible to refer to a wide variety of actual real-life cases rather than using the concepts purely speculatively. Yet, if we compare the political situation in the decade 1991-2001 to the post-Fukushima situation in 2011, it was evident that these real experiences of mishaps with nuclear technology still left some leeway for credible political arguments about continuing to develop nuclear technology in Germany.

To try and answer the question that is the title of this chapter; it seems as if both the parties for and against nuclear energy, made a connection between well-functioning democracy and nuclear safety, since it was a commonly shared viewpoint that this stability would guarantee the development of the most advanced control systems and management practice. This notion that democracy was a prerequisite for the safe use of nuclear energy was not ever really challenged in the Bundestag. Nevertheless, the anti-nuclear parties did often argue that even in a fully functioning democracy, the level of nuclear safety was still insufficient, while the pro-nuclear parties were saying that nuclear safety could be improved by the ongoing research and development of nuclear technology through German participation in international nuclear safety cooperation. The anti-nuclear parties may not have questioned this assumption that Germany had a high level of nuclear expertise either, but they were still of the opinion that the consequences of just one accident were too great to warrant further development of the technology. The anti-nuclear parties were thus denying the technological possibility of there being an 'inherently safe reactor', which was the argument used in favour of keeping the EPR project going.

The SPD, Alliance 90/Greens, and PDS deliberately promoted their anti-nuclear safety conceptions to widen the political and semantic meaning of nuclear energy so that it be understood quite simply as a dangerous and irresponsible form of energy, which would justify phasing it out. In 1991-1998, when the Alliance 90/Greens were in opposition, they objected to any attempts to make decisions about nuclear energy policy that rested upon economic considerations over safety aspects; but during the red-green federal government, their representatives had to make concessions and let the phasing out of nuclear energy take longer than they had initially intended. This was justified by pointing out that the act would also limit the risks related to the temporary use of nuclear energy until that date. Even though the SPD's anti-nuclear policy line was less clear-cut (due to the different emphases inside the

party as discussed above in chapter 2), they held similar views to their green colleagues on nuclear safety when in opposition (1991-98). But after the Bundestag elections the speeches made by the Chancellor Schröder show that he had moderated his position towards the further use and development of technology. For their part, the conceptions of nuclear safety offered by the CDU/CSU and FDP were tightly connected with showing political support for the Franco-German EPR project - with all the economic prospects it promised for the German energy industry.

The following chapters will argue that it was not just conceptualisations of nuclear safety that formed the focus of disagreement between supporters of nuclear energy and its critics. As we have briefly touched on in this chapter, there was the more complex question of the relationship between democracy and the use of nuclear energy, which chapter 5 looks at more closely. From what we have gathered in this chapter, most politicians took it as a self-evident truth that democracy was the ideal context for effective nuclear safety; but this concept became significantly more complex when, from 1995 onwards, the transport of radioactive waste to Gorleben and the demonstrations against this began to be discussed in the Bundestag. At this point, the anti-nuclear speakers argued that the use of nuclear energy endangered the democratic role of the state, and to keep on using nuclear energy was thus politically intolerable in a truly democratic society.

4 THE PARADOX OF NUCLEAR ENERGY AS A FORM OF ENVIRONMENTAL PROTECTION

4.1 Introduction

From the environmental perspective one might think that nuclear energy was simply an environmental hazard - what with the risk of a 'super-MCA' happening (as discussed in chapter 3) and nuclear waste that does not just conveniently disappear, but must be stored for many years. Nevertheless, it has also been championed as an environmentally friendly form of energy production (in carbon dioxide terms). Especially, in the decade in question (1991-2001), it was seen as one answer to the demands for sustainable development and climate protection. Indeed, these were shared political targets for most of the parties in the Bundestag, but the attitudes over whether nuclear energy had the credentials for this or not differed wildly, and we will be looking at these in this chapter; in relation to the concepts of *Energiemix* and *Energiewende*.

The 'modern environmental discourse' is thought to have really begun in the 1960s and 1970s. It differed from earlier concerns about nature in so far as from this point on it now related to global environmental concerns, and how people destroyed the environment through technological development.³⁹⁶ In Germany, this process was reflected in both the institutions and language used in the political discussion about nuclear energy. The establishment of different ecological groups for local elections at the end of the 1970s culminated in the founding of the German Green Party in 1980 - thus institutionalising environmental concerns at the parliamentary level. Also the interests of the 'traditional' political parties towards environmental questions grew and by the

³⁹⁶ Carter 2008, 4. Modern environmentalism includes the growing public concern about the state of planet, new political ideas about the environment and a mass political movement.

Bundestag election of 1983, at the latest, environmental questions became an essential topic for the 'traditional' parties too.³⁹⁷ Through gaining representation in the federal and state parliaments via the Green party, the ecological movement gained new financial resources and began to influence political terminology and language used in the press. At the same time the older parties adopted and adapted the ideas that had originally come from the environmental movement.³⁹⁸ Indeed, as we shall see below, by 1991-2001, environmental concerns and their associated terminology had become a general part of everyday policy debates.

Nevertheless, the topics covered by the environmental discourse developed only gradually. At the beginning of the 1980s, the pollution of forests (*Waldsterben*) caused intensive and long-lasting public debates in Germany.³⁹⁹ Later on in the decade, and especially after 1986, terms such as the 'greenhouse effect' (*Treibhauseffect*) and 'ozone layer' (*Ozonloch*), which had been used by the press already in the 1970s, now became key concepts of the debate and far more widely applied;⁴⁰⁰ and in the decade focused on in this work, the notion of 'sustainable development' had become a dominant environmental issue. Climate change became an internationally recognised challenge when it was addressed at the World Climate Program conference in Austria (1985). The conference resulted in confident scientific conclusions that increased carbon dioxide concentrations in the atmosphere would lead to global warming. The Toronto conference in 1988, attended by leading scientists and policymakers from many countries, recommended a 20% reduction in CO₂ emissions by 2005. And in Germany, Chancellor Helmut Kohl had in March 1987 already declared global warming to be the most pressing environmental problem.⁴⁰¹ At around the same time, sustainable development was being hotly discussed at the international level. The concept had been used earlier with different meanings, but it was not until Gro Harlem Brundtland's World Commission on the Environment and Development published its report *Our Common Future* in 1987 that the dominance of the concept was sealed at the international level. Among other things, the report suggested over-dependence on fossil fuels must end, and that the way forward was to focus on energy efficiency and renewable energy sources. At the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992, the discourse on sustainable development reached its zenith;⁴⁰² and Germany's leading role in the Rio conference did not go unnoticed in the Bundestag.

Sustainable development, as a concept, should be taken as series of overlapping discourses about, for instance, the environment, the economy, and

³⁹⁷ Graichen 2002, 3, 213.

³⁹⁸ Jung 1995, 652.

³⁹⁹ E.g., Saretzki 2001, 208-209.

⁴⁰⁰ Jung 1995, 651.

⁴⁰¹ Mendonca 2007, 26.

⁴⁰² Baker 2005, 23, 27; Dryzek 2005, 147-160.

political development as its meaning has been highly contested. Similar to abstract concepts such as democracy, liberty and social justice, sustainable development is a popular political idea, and as such it is hotly contested (beyond the core notion). The core notion is that economic growth should be promoted, but guided in ways that are both environmentally benign and socially just, not only from the present perspective, but also for future generations. The key metaphors and rhetorical devices for sustainable development have included 'organic growth', 'nature as capital', a connection to progress, and reassurance in the sense that both economic growth and environmental protection are possible in conjunction. After the Brundtland report and Rio conference, sustainable development established itself as the leading transnational discourse of environmental concern at global, regional, national, and local levels. The Brundtland Commission recommended establishing safe and sustainable sources of energy, ensuring that economic growth is less energy-intensive, developing alternative energy systems, and increasing energy efficiency through technological developments and pricing policies.⁴⁰³

The political parties in the Bundestag shared the view that climate concern was the most acute issue in terms of making decisions about environmental and energy policy. In addition, all the parties supported the German target of reducing CO₂ emissions 25-30% by the year 2005 from its 1990 level, but just how to achieve this was the cause of some disagreement. Structural changes in energy policy were evidently necessary, but they disagreed in particular about the future role of nuclear energy. The CDU/CSU and FDP, defined nuclear energy as an essential ingredient if the country wanted to reduce CO₂ emissions. This was the *Energiemix* solution, which included nuclear energy as part of the economic and environmental solution. In contrast, the opposition parties - the SPD, Alliance 90/Greens and PDS - required structural changes (albeit with different emphases as to how long this should take) to protect the climate and achieve sustainable development.

As noted above, this solution became known as *Energiewende* in the parliamentary policy debates. '*Die Energiewende*' was originally adapted by the leftist and green minorities from the title of a prognosis by the Institute for Applied Ecology,⁴⁰⁴ published in 1980, that addressed the subject of phasing out nuclear energy. During the 1990s, the term's use in parliamentary policy debates significantly increased, and it started to be used as an umbrella term to express the demands of the Alliance 90/Greens, SPD and PDS to phase out nuclear energy (in spite of their various differences). After the Bundestag

⁴⁰³ Baker 2005, 23, 27; Dryzek 2005, 147-160; Vanhala 2010.

⁴⁰⁴ The Institute for Applied Ecology (*Öko-Institut e.V.*) (founded in 1977) is German research and consultancy institution working for a sustainable future. Cornelia Altenburg states that there were clear relation between the anti-nuclear protests in Whyl and establishment of the Institute for Applied Ecology in Freiburg. (Altenburg 2010, 67.)

election in 1998, the red-green federal government then continued to use *Energiewende* as the guideline concept behind their energy policy of gradually phasing out nuclear energy and reorganising the energy industry to accommodate this change. The following discussion shall therefore pay closer attention to the way in which *Energiewende* started to become more frequently used by the social democrats, the Greens and the political left in the federal parliament. This process was a key part of the historical backdrop to the Fukushima accident when it happened in 2011, and when Chancellor Merkel's cabinet finally committed itself to carrying out '*die Energiewende*'.⁴⁰⁵ At this point, *Energiewende* had become a concept used by all the political parties, so that even Christian democrats and liberals were using it to promote their own political views. What was originally supposed to represent a 'turn' or 'reform' (*Wende*), was now something far less extreme, and used across the political spectrum.

4.2 Sustainable Development and Climate Conservation, 1991-1998

In November 1990, the federal government declared that Germany had committed itself to reduce carbon dioxide emissions by 25-30% by the year 2005. The Chancellor Helmut Kohl reannounced this target at the Rio Summit in 1992. The climate policy target combined with the growing discourse about sustainable development determined the focus of energy policy from the 1990s onwards and culminated in discussions which covered environmental, social, and economic policy matters. In addition, the emissions reduction target, which was again confirmed at the United Nations Framework Convention on Climate Change in Berlin in 1995, put Chancellor Kohl and Germany in the position of international frontrunner in climate conservation.⁴⁰⁶

Politicians emphasised the idea that Germany was not only searching for its own national energy solutions to meet the demands of climate conservation targets and sustainable development, but that it was also setting an example for other countries so that the international community could also meet these challenges. But though political parties commonly shared the viewpoint that climate conservation and sustainable development required a new energy policy, there were disagreements over the best way to achieve this. The use of nuclear energy was a particularly thorny issue because of its ambiguous relationship with environmental protection. On the one hand, it offered an opportunity to reduce CO₂ emissions significantly, by replacing carbon-

⁴⁰⁵ E.g., Deutscher Bundestag, 17. Wahlperiode, 114. Sitzung, 9.6.2011, 12964; Deutscher Bundestag, 17. Wahlperiode, 117. Sitzung, 30.6.2011, 13369.

⁴⁰⁶ Saretzki 2001, 210.

intensive fossil fuels; on the other hand nuclear energy entailed its own risks as discussed in the previous chapter.

According to the arguments of the CDU/CSU and FDP, energy policy was a key part of the economically oriented *Standort* policy, and *Energiemix* - an ensemble of different energy sources including nuclear energy - was the right conception for German energy policy. The fact that Chancellor Helmut Kohl's cabinet had introduced ambiguous climate conservation targets and the speakers of the CDU/CSU and FDP considered risks of climate catastrophe as an actual threat, and a greater threat than another large-scale nuclear accident, shows how mainstream environmental discourses had become in German parliamentary policy debates already in the early 1990s. The CDU/CSU and FDP argued that if nuclear energy was phased out as demanded by the opposition, it would either prevent Germany from fulfilling its climate conservation targets or increase the price of electricity; plus it would harm Germany's economy and threaten its leading international role in climate conservation policy. The SPD, Alliance 90/Greens and PDS, in their turn, stressed the necessity of larger structural changes in energy policy in order to meet the demands of climate conservation targets and principles of sustainable development; although each party had different ideas of the time scale required for the phasing out. The following discussion shows how the conception of *die Energiewende*, i.e., reorganising the energy supply so that nuclear energy could be dispensed with, started to gradually achieve space in parliamentary policy debates before the Bundestag election in 1998 even though it remained far from the dominant concept in German energy policy.

In 1991-1998 the CDU/CSU and FDP put forward three main environmental arguments to support the use of nuclear energy. Firstly, fossil fuels were seen as the only realistic alternative to nuclear energy, but that went against the target of reducing carbon dioxide emission. Secondly, they argued that it was impossible to meet the demands of CO₂ reductions just through improved energy efficiency and renewable energy sources, because it would require massive financial support and increase electricity prices significantly. This would then cause immediate burden for the consumers. The CDU/CSU and FDP did nevertheless heavily promote wind and solar power in the early 1990s. Their main point, however, was that the further use of nuclear energy was essential to meet the demands of climate conservation with reasonable price for the consumers and industry.

The speech act by the Federal Minister for Economics, Jürgen W. Möllemann (FDP), on 12 December 1991, regarding the government's overall energy policy plan illustrates this further. He argued that

[T]he attitude towards nuclear energy defines the restrictions and costs the citizens have to bear because of energy savings, the continued use of fossil fuels, and the need to support renewable energy.⁴⁰⁷

The federal government and the FDP were essentially stressing the extremely negative consequences of nuclear phase-out; because it would increase household electricity prices, require the state to subsidise renewable energy sources, and have a negative effect on climate conservation if it led to the increased use of fossil fuels. This line of argument thus highlighted the need for policymakers to prioritise the short-term economic interests of the consumers of electricity.

The concept of *Energiemix* provided the guideline concept for a nuclear-friendly energy policy, and it was presented as the suitable answer for meeting the demands of economic growth and the environment. On 30 September 1993, the Federal Minister for Economics, Günter Rexrodt (FDP), stressed the positive effects of *Energiemix* - an ensemble of coal, oil, gas, renewable energy, energy savings and nuclear energy for the German economy. This was seen as the prerequisite for Germany's economic development- in other words it affected Germany's international economic position.⁴⁰⁸ Heinrich Seesing (CDU/CSU)⁴⁰⁹ illustrated this on 30 September 1993 when he presented an argument concerning the necessity of nuclear energy for Germany's economic development - *Standort Deutschland* - and emphasised the conception of *Energiemix*, i.e., lignite, coal, petroleum, nuclear energy and renewable energy, as the solution for maintaining and promoting economic growth.⁴¹⁰

The amendment of the Atomic Energy Act in 1994 - "*Bill to Secure the Use of Coal in Power Generation and to Amend the Atomic Energy and Electricity Feed Acts*" - which secured the 'option' for a future generation of reactors, the EPR project, and safety requirements for future nuclear power plants (see chapters 2 and 3) was further justified by the ruling parties. They clarified that nuclear energy was a comprehensive part of *Energiemix*. On 3 March 1994, the Federal Minister for Economics, Günter Rexrodt (FDP), justified the amendment to the Atomic Energy Act by emphasising that energy could be produced cheaply, that CO₂ could be reduced, and that technological research and development (*Technologiestandort*) could solve the issue.⁴¹¹ According to Kurt Falthäuser, the spokesperson for finance policy for the CDU/CSU group, and its Vice

⁴⁰⁷ Deutscher Bundestag, 12. Wahlperiode, 67. Sitzung, 12.12.1991, 5727. "*Von der Haltung zur Kernenergie hängt ab, wie viele Einschränkungen und Kosten wir den Bürgern bei der Energieeinsparung zumuten könnten, welche Rolle wir den fossilen Energieträgern noch zubilligen können, wie stark wir erneuerbare Energien voranbringen müssen und können.*"

⁴⁰⁸ Deutscher Bundestag, 12. Wahlperiode, 179. Sitzung, 30.9.1993, 15485-15488.

⁴⁰⁹ Wikipedia. **Heinrich Seesing** (CDU/CSU) (1932-2004) was a Bundestag member in 1983-1994.

⁴¹⁰ Deutscher Bundestag, 12. Wahlperiode, 179. Sitzung, 30.9.1993, 15477-15480.

⁴¹¹ Deutscher Bundestag, 12. Wahlperiode, 213. Sitzung, 3.3.1994, 18438-18440.

Chairman,⁴¹² the bill was a “clear yes to nuclear energy” as one part of “a rational energy mix” consisting of coal, oil, nuclear energy, natural gas, and renewable energy. The economic relevance of nuclear energy was also highlighted in this speech with the expression “*Standort Deutschland*”. Kurt Faltlhauser wanted to show that the demands to phase out nuclear energy were unrealistic according to an estimation which predicted that it was only possible to increase the share of renewable energy by a maximum of up to 8% during the next decade, which would not cover the 34.2% that nuclear energy presently provided.⁴¹³ Earlier, Kurt Faltlhauser had pointed out that the share of nuclear energy in electricity production was 67% in Hesse, 66% in Bavaria, 87% in Schleswig-Holstein, and 30% in the whole of Germany.⁴¹⁴

In sum, both the speakers from the CDU/CSU and FDP cited nuclear energy as being a significant contributor to Germany’s (short-term) economic and technological status. However, as chapter 3 showed, the safety aspects had priority over these economic claims (as much for the pro-nuclear parties as the anti-nuclear), so it was politically impossible for the CDU/CSU and FDP to justify nuclear power purely on the basis of these economic claims alone. As a consequence, they justified the amendment to the Atomic Energy Act in 1994, by pointing to the safety advantages that the EPR project would confer (as discussed in the previous chapter) rather than highlighting any of the economic advantages.

The economic argument was still there though, in terms of whether Germany would maintain its economic and technological lead or consciously give it up by phasing out nuclear energy. In this sense, phasing out nuclear energy was contrasted with maintaining and improving economic growth. But according to the SPD, using nuclear energy was not the only way to secure the Germany’s economic position. For example, Volker Jung (SPD member for Düsseldorf) argued that it was not simply about the ‘development of Germany’ (*Standort Deutschland*) but rather about how the energy sector should be organised for it.⁴¹⁵

Energiemix also featured the argument that nuclear energy was a carbon-free energy form and thus a key source of energy when trying to reduce CO₂ emissions. In December 1991, Dr.-Ing. Karl-Hans Laermann (FDP)⁴¹⁶ argued that nuclear energy was essential until another comparable environmentally friendly and inexpensive energy source with an equivalent reliability of supply

⁴¹² Archiv, Abgeordnete. **Kurt Faltlhauser** (CDU/CSU) (born 1940) was a Bundestag member 1980 onwards. In 1994-1995 he was a parliamentary secretary of the state in the Federal Ministry of Finance.

⁴¹³ Deutscher Bundestag, 12. Wahlperiode, 226. Sitzung, 29.4.1994, 19545-19547. “*ein klares Ja zur Kernenergie*”, “*ein sinnvoller Energiemix*”

⁴¹⁴ Deutscher Bundestag, 12. Wahlperiode, 213. Sitzung, 3.3.1994, 18443-18444.

⁴¹⁵ Deutscher Bundestag, 12. Wahlperiode, 226. Sitzung, 29.4.1994, 19547-19549.

⁴¹⁶ Archiv, Abgeordnete. **Dr. Karl-Hans Laermann** (FDP) (born in 1929) was a Bundestag member in 1974-1998. He acted as the Federal Minister for Education and Science in 1994. In 1994-1998 he was a deputy member of the AfUNR.

was developed.⁴¹⁷ The ruling parties therefore aimed to prove that the greater threat was not a nuclear accident but global warming. In December 1991, Peter Paziorek (CDU/CSU) talked of the “greenhouse effect” (*Treibhauseffekt*) as a global phenomenon and quoted German physicist and philosopher Carl Friedrich von Weizsäcker, who had said that when compared with the climate problem, the fear of nuclear energy seemed like the fear of a mouse.⁴¹⁸ According to Heinrich Seesing (CDU/CSU) in December 1991, Germany’s target to reduce CO₂ emissions by at least 25% by the year 2005 would require the further use of nuclear energy while making energy savings elsewhere, larger investments in renewable energy, and restricting the burning of fossil fuels.⁴¹⁹ On 3 March 1994, Klaus Beckmann (FDP) justified the amendment to the Atomic Energy Act by highlighting that the 20 German nuclear reactors that were in operation at the time produced around 160 billion kilowatt-hours of electricity, which would have created 160 million tons of carbon dioxide had fossil fuels been burnt to produce the same amount of power, i.e., 16% of the whole amount in Germany.⁴²⁰

This argument gained support from the scientists and experts as well. The topic was discussed in a committee meeting in September 1992, and Prof. Dr. Alfred Voss from the Institute for Energy Economics and the Rational Use of Energy at the University of Stuttgart, estimated that Germany had the technological potential to achieve the target of reducing CO₂ emissions by 25-30% if it supported both nuclear and renewable energy sources, both of which he described as carbon-free energy sources.⁴²¹ Prof. Dr. Hans Michaelis, a member of the Commission of Inquiry, “Preventive Measures to Protect the Earth’s Atmosphere”, put it quite bluntly - either give up on the CO₂ reduction targets or invest in nuclear energy.⁴²² Earlier in a newspaper article in the FAZ on 27 October 1990, Michaelis had argued that limiting the greenhouse effect required nuclear energy since there were no coherent reduction scenarios anywhere worldwide which did not feature nuclear power.⁴²³ A bit later, I shall show how opinion was in fact divided among experts over whether nuclear power had a beneficial role to play in the reduction of CO₂ emissions. However, the disagreements which were voiced in the Bundestag, concerned more the means to meet the demands of climate conservation rather than disputing climate change in any way.

The dominance of the climate issue grew from the mid-nineties onwards, when the binding targets of reducing emissions were negotiated at the

⁴¹⁷ Deutscher Bundestag, 12. Wahlperiode, 67. Sitzung, 12.12.1991, 5718-5720.

⁴¹⁸ Deutscher Bundestag, 12. Wahlperiode, 67. Sitzung, 12.12.1991, 5744.

⁴¹⁹ Deutscher Bundestag, 12. Wahlperiode, 67. Sitzung, 12.12.1991, 5716-5718.

⁴²⁰ Deutscher Bundestag, 12. Wahlperiode, 213. Sitzung, 3.3.1994, 18444-18447.

⁴²¹ PA-DBT 3121 A12/17-Prot. 37, page 74-75.

⁴²² PA-DBT 3121 A12/17-Prot. 37, page 78.

⁴²³ FAZ 27.10.1990, page 15, Wer im Treibhaus sitzt. Die Energieversorgung gerät zunehmend in Konflikte mit der Umweltqualität/ Sparen allein ist keine Lösung/ Optionen und Akzeptanzen. Von Hans Michaelis.

international level. On 20 January 1995 the Bundestag discussed the proposals of the CSU/CDU and FDP with regard to the UNFCCC that was about to happen in Berlin later the same year in March and April⁴²⁴ as well as the resolution “Protecting the Earth’s Atmosphere” that had been proposed by the Commission of Inquiry in answer to the theme entitled “A Better Future for the Earth - Sustainable Energy Policy and Climate Protection”.⁴²⁵ In this debate, the incumbent Federal Minister for the Environment, Nature Conservation, and Reactor Safety was Angela Merkel; and she again pointed out that, from the perspective of climate protection, it would be patently ludicrous follow through the SPD’s plans to scrap nuclear energy at that point in time, as this would increase CO₂ emissions by 10%.⁴²⁶ Peter Paziorek (CDU/CSU) added that “sustainable reductions in CO₂” would require a significant use of nuclear energy in electricity production.⁴²⁷ On 16 March 1995, the Federal Minister for Economics, Günter Rexrodt, went some ways further to describe nuclear energy as “the only form of energy operating fully without CO₂ emissions”.⁴²⁸ In these three speech acts the ‘environmental credentials’ of nuclear energy were clearly being championed by the government.

So it was that Germany came to host the first conferences of the UNFCCC in Berlin. After it was over, on 26 April 1995, Angela Merkel claimed, as Federal Minister for the Environment that the “peaceful use of nuclear energy was responsible and necessary in terms of sustainable development”. In addition, Merkel stated “the use of nuclear energy contributes significantly to climate protection” and “we cannot reach our climate target by the year 2005 without using nuclear energy”.⁴²⁹ Merkel was thus very much for constructing a new generation of nuclear power plants,⁴³⁰ based on the EPR reactors. In the same debate, the Federal Minister for Economics, Günter Rexrodt added that nuclear energy was also necessary to meet energy needs worldwide, since he did not think that energy savings and renewable energy would be enough on their own to replace coal, oil, gas, and nuclear energy worldwide. In a meeting of the AfUNR Committee in January 1996 Ulrich Klinkert even claimed that trying to phase out nuclear energy whilst also trying to reduce CO₂ emissions was a contradiction in terms.⁴³¹ In October 1997 Kurt-Dieter Grill (CDU/CSU)

⁴²⁴ Deutscher Bundestag, Drs. 13/232.

⁴²⁵ Deutscher Bundestag, Drs. 12/8600. *Mehr Zukunft für die Erde - Nachhaltige Energiepolitik für dauerhaften Klimaschutz.*

⁴²⁶ Deutscher Bundestag, 13. Wahlperiode, 13. Sitzung, 20.1.1995, 813.

⁴²⁷ Deutscher Bundestag, 13. Wahlperiode, 13. Sitzung, 20.1.1995, 805. *“eine nachhaltige CO₂ Reduktion“*

⁴²⁸ Deutscher Bundestag, 13. Wahlperiode, 27. Sitzung, 16.3.1995, 1884. *“die einzige Energieform ist, die völlig ohne CO₂ Emissionen arbeiten kann“*

⁴²⁹ Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2517. *“Die Nutzung der Kernenergie trägt wesentlich zum Klimaschutz bei.“ “Ohne die Nutzung der Kernenergie werden wir unser gestecktes Klimaziel bis zum Jahr 2005 nicht erreichen.“ “die friedliche Nutzung der Kernenergie für verantwortbar und notwendig im Sinne einer nachhaltigen Entwicklung“*

⁴³⁰ Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2516.

⁴³¹ PA-DBT 3121 A13/16-Prot. 25, page 12.

used Sweden as an example of a country that had to reconsider its nuclear energy policy in the light of needing to reduce CO₂ emissions.⁴³²

The CDU/CSU and FDP thus presented nuclear energy as an environmentally friendly form of energy, and because of its already large share in electricity production, nuclear energy was considered the only realistic choice for replacing fossil fuels. Even though renewable energy sources were in theory supported by the CDU/CSU and FDP ruling coalition, they still saw nuclear energy as a vital ingredient for meeting the demands of climate conservation.

In comparison, the anti-nuclear parties argued for the need to make more radical changes to the already existing structures in energy production, as neither fossil fuels or nuclear were seen as sustainable or future-oriented solutions for the climate issue. The key to these major structural changes was to phase out nuclear power and to stimulate investment in renewable energy sources and, as we have seen, the term *Energiewende* was given to this.

A speech made on 12 December 1991 by Harald B. Schäfer (SPD member for Offenburg) deserves a mention here. Within his party, Schäfer took a stricter line against nuclear energy than Gerhard Schröder. The speech was made during a debate over a motion put forward by the Alliance 90/The Greens proposing an end to the use of nuclear energy,⁴³³ “*Energiewende - Foundation for Sustainable Development*”⁴³⁴ H.B. Schäfer argued for the necessity of “a radical change” by stressing how the current energy system was harming the environment and climate; and this change would be the precondition for achieving “a new consensus in energy policy”, as discussed in chapter 2 here.⁴³⁵

Nuclear energy is not a solution for the global ecological crisis. The idea of replacing one global risk, greenhouse effect, with risks of radiation is cynical and we social democrats are not going to accept it. Besides, the construction of nuclear energy would require worldwide funding that should be used for investing in renewable energy - especially solar energy. Every DM handed out worldwide for solar energy is a more effective contribution against climate change than using it to build more nuclear energy facilities. Everybody knows this. Ending the nuclear energy option within a limited time period is ecologically as well as economically more reasonable. We social democrats are not going to support any constructions or replacement constructions of nuclear power plants.⁴³⁶

⁴³² Deutscher Bundestag, 13. Wahlperiode, 197. Sitzung, 9.10.1997, 17820.

⁴³³ Deutscher Bundestag, Drs. 12/1490.

⁴³⁴ *Energiewende - Grundstein für eine dauerhafte Entwicklung*
⁴³⁵ Deutscher Bundestag, 12. Wahlperiode, 67. Sitzung, 12.12.1991, 5714-5716. “*eine radikale Umkehr*”; „*einen neuen energiepolitischen Konsens*“

⁴³⁶ Deutscher Bundestag, 12. Wahlperiode, 67. Sitzung, 12.12.1991, 5716. “*Die Kernenergie ist keine Option zur Lösung der globalen ökologischen Krise. Die Vorstellung, wir könnten ein globales Risiko, den Treibhauseffekt, gegen das Risiko der Radioaktivität austauschen, ist Zynismus und für uns Sozialdemokraten jedenfalls nicht akzeptabel. Im übrigen würde der weltweite Ausbau der Kernenergie gerade die Mittel binden, die weltweit gebraucht werden für Investitionen in regenerierbare Energie, insbesondere in Solarenergie. Jede Mark, weltweit in Solarenergie gesteckt, ist ein wirksamerer Beitrag gegen die drohenden Klimagefahren, als dieses Mark in den Kernenergieausbau zu stecken. Das weiß jeder. Es ist nicht nur*

This quote brought out three central notions: firstly, there was the threat of climate change, which required large structural changes to energy production as a response; secondly, phasing out nuclear energy would release the capital and dynamic needed for new investments in renewables; thirdly, these structural changes would have a positive economic impact as well. Altogether, this speech act revealed how anti-nuclear speakers were also stressing the economic aspects of energy policy by emphasising the long-term benefits of economic development that nuclear phase-out would provide, rather than dwelling only on the immediate economic ramifications. Furthermore, when talking about the “risks of radiation”, Schäfer was also referring to the costly safety measures required, not only in the daily operation of nuclear power plants, but also to ensure the safe transport and secure long-term storage of radioactive waste which would then remain a risk for generations. By identifying and objectifying these risks in such a manner, Schäfer was thus implying that the nuclear-friendly policy in place at the time would cause an unacceptable economic burden for future generations, and that this must also be taken into account when considering the problem in ‘economic’ terms.

Debates in the Bundestag were thus a deliberate struggle over the political meaning of such central concepts. For example, a speech by Klaus-Dieter Feige (Alliance 90/Greens) in the same debate in December 1991 challenged the conceptual choices by the pro-nuclear parties by pointing out that the ruling parties were using the concepts of environment and climate change with the barely concealed purpose of promoting the further use of nuclear energy. As Feige put it,

“externally there is, as always, baggage of beautiful words like ‘climate change’, ‘greenhouse effect’ and ‘greatest challenge’, but internally there is nothing more than radioactive atomic waste”.⁴³⁷

Although there was, as mentioned earlier, differences between the demands of the parties since the time frame for phasing out varied among others, all the opposition parties did share the basic idea that the current structures were insufficient to meet the demands of climate change. In this context, the concept of *Energiewende* was seen as the solution for protecting the environment.

A motion by the Alliance 90/Greens group in 1991 titled “*Energiewende - a Foundation for Lasting Development*”⁴³⁸ made the most coherent attempt promote the concept of *Energiewende* as a solution to climate change, although it

ökologisch, es ist auch ökonomisch sinnvoller, mit der Option Kernenergie in einer überschaubaren Zeit Schluss zu machen. Mit uns Sozialdemokraten ist ein Zubau oder Ersatzbau von Kernkraftwerken nicht machbar.“

⁴³⁷ Deutscher Bundestag, 12. Wahlperiode, 67. Sitzung, 12.12.1991, 5721.“ *Außen herum gibt es, wie immer, viel Verpackung mit so schönen Worten wie “Klimakatastrophe”, “Risiken des Treibhauseffekts” und “größte Herausforderung”, und innen ist dann nichts anderes als radioaktiver Atom Müll.*“

⁴³⁸ Deutscher Bundestag, Drs. 12/1794. *Energiewende - Grundstein für eine dauerhafte Entwicklung.*

was eventually dismissed on 30 September 1993 with a majority of the votes.⁴³⁹ *Energiewende* promoted renewable energy sources, and energy efficiency etc., but the following section concentrates on the structural changes it advocated which involved the phasing out of nuclear power.

The threats of global warming and the progressive destruction of our natural livelihood show clearly that only a structural change in the economic dependency on fossil and finite energy sources can ease the dangers of the greenhouse effect and other environmental and health damaging effects of burning fossil fuels. [...] The further operation or even expansion of atomic energy is no defensible alternative for this. On the contrary, only the phasing out of the centrally large structures, which are a prerequisite for the use of atomic power, will allow for the necessary efficiency revolution.⁴⁴⁰

This motion was debated in the Bundestag on 12 December 1991 and on 30 September 1993. In the latter session, Kurt-Dieter Feige (Alliance 90/Greens) went on to describe *Energiewende* as a concept which met the needs of both an economically and ecologically viable policy, by solving “the threat of global warming, creeping radioactive contamination of our land, and progressive destruction of our natural livelihood”. Feige claimed that abandoning nuclear energy was an essential part of *Energiewende* since the large nuclear facilities that already existed were not making this development possible.⁴⁴¹ Feige had also promoted the Green concept of *Energiewende* earlier on 13 November 1992, when he described it as “a new ecologically oriented framework for initiating the intensive structural change our energy system needs to achieve sustainability”.⁴⁴²

However, in the period 1991-1994 the representatives of the Alliance 90/Greens very rarely used the concept of *Energiewende* in the Bundestag debates, and it emerged only in a few other speech acts.⁴⁴³ The main reason for this was the fact that it was only the East German wing of the Alliance 90/Greens that got elected to the Bundestag in 1990, as the West German Greens had only got elected to the *Länder* level. For example, on 7 September 1994, the Minister for Hesse, Joschka Fisher (Greens) stressed the urgent need to

⁴³⁹ Deutscher Bundestag, 12. Wahlperiode, 179. Sitzung, 30.9.1993, 15506.

⁴⁴⁰ Deutscher Bundestag, Drs. 12/1794. “Die drohende Erwärmung der Erdatmosphäre und die fortschreitende Zerstörung unserer natürlichen Lebensgrundlagen zeigen deutlich, daß nur eine strukturelle Veränderung der wirtschaftlichen Abhängigkeit von fossilen und endlichen Energieträgern die Gefahren des Treibhauseffektes und anderer umwelt- und gesundheitsschädigender Auswirkungen der fossilen Verbrennung mildern kann. [...] Im Gegenteil, erst der Ausstieg aus den zentralen Großstrukturen, die Voraussetzung für die Nutzung der Atomkraft sind, setzt eine Grundbedingung für die dringend notwendige Effizienzrevolution frei.”

⁴⁴¹ Deutscher Bundestag, 12. Wahlperiode, 179. Sitzung, 30.9.1993, 15483-15485. “[d]ie drohende Erwärmung der Erdatmosphäre, die schleichende radioaktive Verseuchung unseres Landes und die fortschreitende Zerstörung unserer natürlichen Lebensgrundlagen.”

⁴⁴² Deutscher Bundestag 121. Sitzung, 13.11.1992, 10297. “[e]inen neuen ökologisch orientierten Gesamtrahmen, der den nötigen tiefgreifenden Strukturwandel unseres Energiesystems nachhaltig anbahnt.”

⁴⁴³ E.g., Deutscher Bundestag, 12. Wahlperiode, 182. Sitzung, 21.10.1993, 15681.

carry out ecological *Energiewende* reforms in a Bundestag budget debate.⁴⁴⁴ And Fisher's party was not alone, as the SPD and PDS also promoted this concept. On 30 September 1993, Volker Jung (SPD member for Düsseldorf) recommended that the sooner *Energiewende* begins, "the faster ecological modernisation begins, the sooner the energy saving economy gains meaning and Germany gains a technological head start and share in world markets". According to Volker Jung, the SPD promoted the target of abandoning nuclear energy, because there was already too many investments tied up in it, and so this was "blocking the necessary funding of research, development, and marketing of renewable energy - the energy sources of the future".⁴⁴⁵ Later in October 1993, Bernd Henn (PDS/Linke Liste) defined *Energiewende* by saying that its preconditions required a consensus on phasing out nuclear energy (referring to the consensus discussions of chapter 3), securing the mining sector and promoting energy saving and efficient use of energy.⁴⁴⁶

In the period 1994-1998, the concept *Energiewende* was more often used in the Bundestag debates. In January 1995, Monika Ganseforth (SPD)⁴⁴⁷ put forward the argument that *Energiewende* avoided the necessity of having to make a choice between either nuclear energy or coal since there was now solar energy and rational energy consumption that came into the equation.⁴⁴⁸ In this respect, *Energiewende* was a conciliatory alternative even though the content of the concept actually included rather radical propositions. On 23 June 1995, Michael Müller (SPD member for Düsseldorf) argued that *Energiewende* would be the best way to avoid "the dangers of Chernobyl" and "the ecological catastrophe" that was a result.⁴⁴⁹ The Prime Minister of Saarland, Oskar Lafontaine, also made a speech in the Bundestag on 1 February 1996 in which he called *Energiewende* a vision of the Social democrats.⁴⁵⁰

The Alliance 90/Greens were also equally in favour of *Energiewende*. For instance, Kerstin Müller (Cologne) argued, on 30 March 1995, that the concept proposed renewable energy sources like solar energy, wind, water and biogas, as a solution to "the threatening climate catastrophe" (*die drohende*

⁴⁴⁴ Deutscher Bundestag, 12. Wahlperiode, 242. Sitzung, 7.9.1994, 21431.

⁴⁴⁵ Deutscher Bundestag, 12. Wahlperiode, 179. Sitzung, 30.9.1993, 15475-15477. "Ausserdem blockiert der hohe staatliche und auch der private Aufwand notwendige Finanzierungsmittel zur Erforschung, Entwicklung und Markteinführung von erneuerbaren Energien, den Energiequellen der Zukunft." „Je schneller die ökologische Modernisierung in Angriff genommen wird, desto eher wird eine Energiesparwirtschaft an Bedeutung gewinnen und desto grösser wird unser technologischer Fortschritt und damit unser Anteil am Weltmarkt sein.“

⁴⁴⁶ Deutscher Bundestag, 12. Wahlperiode, 186. Sitzung, 29.10.1993, 16139-16140.

⁴⁴⁷ Archiv, Abgeordnete. **Monika Ganseforth** (SPD) (born in 1940) was a Bundestag member in 1987-2002. She is a member in Bund für Umwelt, Naturschutz Deutschland (BUND).

⁴⁴⁸ Deutscher Bundestag, 13. Wahlperiode, 13. Sitzung, 20.1.1995, 796.

⁴⁴⁹ Deutscher Bundestag, 13. Wahlperiode, 45. Sitzung, 23.6.1995, 3676. "die Gefahren von Tschernobyl"; "die ökologische Katastrophe"

⁴⁵⁰ Deutscher Bundestag, 13. Wahlperiode, 83. Sitzung, 1.2.1996, 7221.

Klimakatastrophe).⁴⁵¹ On 25 April 1996 Ursula Schönberger (Alliance 90/Greens) joined in calling *Energiewende* the only possible way of act against “climate catastrophe” whereas keeping on using nuclear energy cemented the current structures.⁴⁵²

In this period, there were many more representatives of the SPD and Alliance 90/Greens who also used *Energiewende* in their arguments: Michael Hustedt (Alliance 90/Greens),⁴⁵³ Joschka Fischer (Alliance 90/Greens member for Frankfurt),⁴⁵⁴ Michael Müller (SPD member for Düsseldorf),⁴⁵⁵ Werner Schulz (Alliance 90/Greens member for Berlin),⁴⁵⁶ Horst Kubatschka (SPD),⁴⁵⁷ and Ursula Schönberger (Alliance 90/Greens)⁴⁵⁸ used the concept in quite a range of contexts which shows how the concept was becoming more frequently used in policy debates, although at this point, *Energiewende* was largely absent from the arguments of the other political parties. On 18 January 1996, for instance, Birgit Homburger (FDP) used *Energiewende* to describe the policy of the Greens.⁴⁵⁹ Indeed, it is worth of highlighting that the concept of *Energiewende* was far from dominant during these years in the first half of the 1990s. The anti-nuclear parties certainly spoke about the need to make structural changes as the following examples illustrate, but in most cases they used other expressions than *Energiewende*.

On 29 April 1994 Dietmar Schütz (SPD) objected to the amendment of the Atomic Energy Act that the government was proposing by arguing that they were using “climate catastrophe” as an argument in favour of nuclear energy; thus merely replacing one life-threatening risk with another - which made no sense.⁴⁶⁰

In the context of the first conference on the UNFCCC in Berlin in March and April 1995, the representatives of the SPD, Alliance 90/Greens and PDS argued against attempts to justify the further use and development of nuclear energy in the name of fighting carbon emissions. From their perspective, the pro-nuclear parties were deliberately galvinising people’s fears towards the threat of climate catastrophe and making them more real than nuclear

⁴⁵¹ Deutscher Bundestag, 13. Wahlperiode, 31. Sitzung, 30.3.1995, 2345-2346. “*die drohende Klimakatastrophe*”

⁴⁵² Deutscher Bundestag, 13. Wahlperiode, 101. Sitzung, 25.4.1996, 8915.

⁴⁵³ Deutscher Bundestag, 13. Wahlperiode, 18. Sitzung, 9.2.1995, 1139; Deutscher Bundestag, 13. Wahlperiode, 128. Sitzung, 10.19.1996, 11602; Deutscher Bundestag, 13. Wahlperiode, 6. Sitzung, 24.11.1994, 209; Deutscher Bundestag, 169. Sitzung, 17.4.1997, 15224; Deutscher Bundestag, 13. Wahlperiode, 213. Sitzung, 15.1.1998, 19403.

⁴⁵⁴ Deutscher Bundestag, 13. Wahlperiode, 27. Sitzung, 16.3.1995, 1873; Deutscher Bundestag, 13. Wahlperiode, 51. Sitzung, 6.9.1995, 4239.

⁴⁵⁵ Deutscher Bundestag, 13. Wahlperiode, 27. Sitzung, 16.3.1995, 1889.

⁴⁵⁶ Deutscher Bundestag, 13. Wahlperiode, 10. Sitzung, 16.12.1994, 529.

⁴⁵⁷ Deutscher Bundestag 13. Wahlperiode, 97. Sitzung, 17.4.1996, 8641.

⁴⁵⁸ Deutscher Bundestag, 13. Wahlperiode, 147. Sitzung, 11.12.1996, 13295.

⁴⁵⁹ Deutscher Bundestag, 13. Wahlperiode, 80. Sitzung, 18.1.1996, 6998.

⁴⁶⁰ Deutscher Bundestag, 12. Wahlperiode, 226. Sitzung, 29.4.1994, 19565-19567.

technology.⁴⁶¹ For example, in January 1995 Horst Kubatschka (SPD) expressed criticism against interpreting nuclear energy as a necessity because of climate worries by saying “the greenhouse effect is a sign of hope for the nuclear energy lobbyist, because they hope that fears of a climate catastrophe might overshadow fears of a new Chernobyl”.⁴⁶² Michaele Hustedt (Alliance 90/Greens) interpreted the investments in nuclear technology in Mochovce and China as examples of how growing fear of climate change was being used to make nuclear energy seem more acceptable. According to her, there was a strong lobby against the “ecological sea change” emphasised by the Greens. Her speech act also revealed the priority of phasing out nuclear energy for the Greens, as she emphasised the need to “bring about a complete turnaround in climate and energy policy”, which would require the Chancellor to use as much courage as had been shown bringing about reunification.⁴⁶³ According to Dagmar Enkelmann (PDS) the industry were influencing governmental decision-making by proposing nuclear energy as a panacea for climate change.⁴⁶⁴

The anti-nuclear parties also wanted to make it clear that nuclear energy was *not* a carbon-free source of energy as many were arguing on the other side,⁴⁶⁵ and experts backed this up - if the whole nuclear energy production process was properly taken into account. In a letter to the editor of the SZ in April 1993, Dipl.-Ing. Axel Horn, a supporter of renewable energy sources (especially solar energy), stated that using nuclear energy in electricity production also caused greenhouse gases, as there was the processing, transportation, and disposal of used fuel to consider. According to Horn, “using nuclear energy causes at least the same greenhouse effect as burning natural gas”.⁴⁶⁶ Council Chair of the Ecological Democratic Party,⁴⁶⁷ Prof. Dr. habil. Klaus Buchner, pointed out in a letter to the editor of the SZ in May 1994 too, that “like most other forms of electricity, nuclear energy produced significant amounts of CO₂”.⁴⁶⁸ Other experts pointed out that nuclear energy had its own

⁴⁶¹ E.g., Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2554, 2561-2562.

⁴⁶² Deutscher Bundestag, 13. Wahlperiode, 13. Sitzung, 20.1.1995, 817-818. “Für die Kernenergielobby ist der Treibhauseffekt ein Hoffnungszeichen. Sie hofft, dass die Angst vor der Klimakatastrophe grösser wird als die Angst vor einem neuen Tschernobyl.”

⁴⁶³ Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2524-2526. “die ökologische Wende”; “die Durchsetzung der klima- und energiepolitischen Wende”

⁴⁶⁴ Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2530-2531.

⁴⁶⁵ E.g., Deutscher Bundestag, 12. Wahlperiode, 67. Sitzung, 12.12.1991, 5720-5721.

⁴⁶⁶ SZ 10.4.1993, Atomstrom verursacht ebenso Treibhauseffekt. Leserbriefe. Von Axel Horn, Dipl.-Ing- FH Buchenstrasse 38 8029 Sauerlach. “der Verbrauch von Atomstrom wenigstens den gleichen Treibhauseffekt verursacht wie die Verbrennung von Erdgas”

⁴⁶⁷ Ecological Democratic Party (Ökologisch-Demokratische Partei, ÖDP) is a small party established in 1982. The most central policy fields for the party are environment policy and social policy.

⁴⁶⁸ SZ 24.5.1994, p.43, Atomkraft erzeugt viel Kohlendioxid. Zum Artikel „Stoiber setzt auf Kernenergie“ von 12./13.3. Leserbriefe. Von Prof. Dr. Dr. habil. K. Buchner Ökologischer Rat der ÖDP Strassenbergerstrasse 16 80809 München. “Durch die Atomkraft wird jedoch ebenso wie bei den meisten anderen Arten der Stromerzeugung sehr viel CO₂ erzeugt.”

environmental issues. Back in September 1992, for instance, Klaus P. Masuhr from Prognos AG, “*Europäisches Zentrum für angewandte Wirtschaftsforschung Basel*” described nuclear energy, in a committee meeting in the Bundestag, as a technology with other environmental risks and argued that the problem of increasing the level of CO₂ in the atmosphere could not be solved through increased use of nuclear energy.⁴⁶⁹

4.3 The Red-Green *Energiewende*, 1998-2001

The victory in the Bundestag election in 1998 opened up an opportunity for the newly elected red-green federal government to finally promote ‘*die Energiewende*’ at the federal level instead of via only individual state legislation.⁴⁷⁰ According to Chancellor Schröder’s government declaration in 1998, the ruling coalition would, instead of talking directly about phasing out nuclear energy, move towards a “sustainable energy supply”.⁴⁷¹ Chapter 2 showed here that the red-green coalition faced challenges in finding an agreement about the precise logistics of phasing out nuclear energy. The result was the ‘orderly phasing out’ of nuclear energy, i.e., a relatively long remaining operation time until the early 2020s. Executing the phasing out of nuclear energy was thus one of the main challenges of the red-green government, so while this was being slogged out in the Bundestag, they got on with taxation issues and legislating to support renewable sources during this period.⁴⁷²

The red-green government emphasised that they were carrying out structural changes, to ensure climate conservation and sustainability. The speakers of the ruling parties emphasised the viewpoint that phasing out nuclear energy had a central role in this process since it freed the resources to make the structural changes possible. It is clear from the speeches made in the Bundestag among the coalition, that there were dissenting views as well; particularly between Jürgen Trittin (the Alliance 90/Greens Federal Minister for the Environment, Nature Conservation, and Reactor Safety), on the one hand, and Chancellor Gerhard Schröder (SPD) and Werner Müller, the non-party Federal Minister for Economics and Technology on the other.

Jürgen Trittin argued for the need to phase out nuclear energy in order to achieve sustainable development in the energy sector. In a committee meeting held in January 1999, he gave a political report on the environment for the 14th legislative period, noting that a key element to sustainability was having an “environmentally responsible energy supply” an elementary content of

⁴⁶⁹ PA-DBT 3121 A12/17-Prot. 37, page 56.

⁴⁷⁰ Saretzki 2001, 214.

⁴⁷¹ Saretzki 2001, 214.

⁴⁷² E.g., Jacobsson & Lauber 2006, 267.

“sustainability”.⁴⁷³ As the following quote shows, Trittin put forward the argument that the best way the federal government could do this would be to carry out comprehensive reforms in energy policy and phase out nuclear energy.

Through phasing out nuclear energy, we are fundamentally going about reorganising the energy economy. In partnership with the energy sector we want to set the course for a new, sustainable energy mix without nuclear energy. If we stop using it, we will not be faced with climate catastrophe, but the challenge instead of improving energy efficiency and the use of renewable energy. The clear signal given by phasing out nuclear energy, is that we are making major structural changes in favour of cogeneration, natural gas and the use of renewable energy.⁴⁷⁴

An interesting point here is how he redefines the CDU/CSU/FDP pro-nuclear concept of *Energiemix* to mean the opposite - that sustainability required the exclusion, not inclusion, of nuclear energy. Later on in a committee meeting in September 1999, Trittin went even further on this point.

Phasing out nuclear energy is an essential cornerstone of modern, sustainable energy policy. The high risks of operation and disposal are not the only reason. There is also the need to reduce over capacity. The options are simple - either we have to close down these inefficient power plants or the backbone of a modern energy supply will remain weak. If we want to prevent Germany from becoming a net importer of electricity, we must ensure that this phasing out happens! The use of nuclear energy prevents the urgent structural transformation of our energy economy that is required because of the overcapacity of inexpensive electricity produced by the old power plants which goes against an effective climate policy.⁴⁷⁵

On 16 December 1999, during the first reading of the Renewable Energy Bill, introduced by the government,⁴⁷⁶ Trittin again pointed out that in the current

⁴⁷³ PA-DBT 3121 A14/16-Prot. 4, Anlage 1, page 2. “*einer umweltgerechten Energieversorgung*“; “*Nachhaltigkeit*”

⁴⁷⁴ PA-DBT 3121 A14/16-Prot. 4, Anlage 1, page 3. “*Mit dem Ausstieg aus der Atomkraft leiten wir eine grundsätzliche Neuorientierung der Energiewirtschaft ein. Wir wollen gemeinsam mit der Energiewirtschaft die Weichen für einen neuen, zukunftsfähigen Energiemix ohne Atomkraft stellen. Die Alternative zur Kernenergie ist nicht die Klimakatastrophe, sondern Effizienzverbesserung und Nutzung erneuerbarer Energien. Das klare Signal zum Ausstieg aus der Kernenergie markiert zugleich den Einstieg in eine Veränderung von Strukturen etwa zugunsten der Kraft-Wärme-Kopplung, Erdgas und der Nutzung erneuerbarer Energien.*”

⁴⁷⁵ PA-DBT 3121 A14/16-Prot. 18, Anlage 6, page 7-8. “*Der Ausstieg aus der Atomenergie ist wesentlicher Eckpunkt einer modernen, zukunftsfähigen Energiepolitik. Dies ist nicht nur wegen ihrer hohen Betriebs- und Entsorgungsrisiken. Es geht dabei auch um den Abbau von Überkapazitäten. Die Alternative ist schlicht: Sollen abgeschriebene ineffiziente Kraftwerke stillgelegt werden, oder soll das Rückrad einer modernen Energieversorgung zerbrochen werden. Wer verhindern will, dass Deutschland zu einem reinen Stromhandelsland wird, muss dafür sorgen, dass es zu einem Ausstieg kommt! Die Atomenergienutzung behindert durch das Überangebot billigen Stroms aus längst abgeschriebenen Altanlagen den dringend notwendigen Strukturwandel in der Energiewirtschaft. Sie steht damit auch im Gegensatz zu einer wirksamen Klimapolitik.*”

⁴⁷⁶ Deutscher Bundestag, Drs. 14/2341. Gesetzes zur Förderung der Stromerzeugung aus erneuerbaren Energien (Erneuerbare-Energien-Gesetz - EEG) sowie zur Änderung des Mineralölsteuergesetzes

situation both nuclear and particularly coal power plants took the markets from otherwise more efficient and sustainable plants. Phasing out nuclear energy was a key precondition for a new energy policy since nuclear was not only “inefficient, but also an extremely risk-prone form of technology”.⁴⁷⁷ When representatives of the Bundestag and energy sector met on 29 June 2000 to discuss Germany’s energy future, Trittin made it quite clear that “climate conservation and phasing out nuclear energy” should not be seen as “contradictory” or mutually exclusive in any way. He added that “only if we reduce nuclear overcapacity will renewable energy and intelligent, efficient technology have a chance in the market”. The minister also commented on threats by the opposition that they would later overrule the decision to phase out by saying that “once we have begun another energy policy, it makes reversing the phasing out of nuclear energy practically impossible”.⁴⁷⁸

As we can see, Trittin’s main argument for the government’s intended energy policy, was that it was the best way to meet the needs of sustainable development. Firstly, phasing out nuclear energy was a key prerequisite; secondly, it would not result in climate catastrophe as the opposition seemed to think, but instead release the resources and incentives necessary for industry to really kick-start the renewable energy economy.

Werner Müller (the non-party Federal Minister for Economics and Technology) also talked about introducing changes in energy policy towards more sustainable structures. However, he saw these happening as part of a long-term process which would still require nuclear energy in the short-term to begin with. He was still arguing that nuclear energy be phased out, as it was effectively preventing the development of other forms of energy, but he seemed to be making some concessions to the existing status quo. On 16 December 1999, Müller described the bickering over nuclear energy as preventing “a truly sustainable and future oriented concept for energy and the environment” and he saw the task of the government to “begin a truly sustainable, climate-friendly energy policy and to phase out nuclear energy”.⁴⁷⁹ Müller saw this, however, as a long-term process which would simultaneously depend on the progress of a parallel setting up of more environmentally friendly energy supply structures.⁴⁸⁰ So it was that, on 23 March 2000, he assured the Bundestag that “using nuclear energy will be eventually ended, not on a short-term basis,

⁴⁷⁷ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7268. *“ineffizienten und darüber hinaus extrem risikobehafteten Technologien”*

⁴⁷⁸ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10431-10432. *“Klimaschutz und Atomausstieg nicht in Widerspruch zueinander stehen.” “Der Einstieg in eine andere Energiepolitik macht den Ausstieg aus der Atomenergie tatsächlich unumkehrbar.”*

⁴⁷⁹ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7242. *“Einstieg in ein nachhaltiges, klimaverträgliches Energiekonzept und Ausstieg aus der Kernenergie”*

⁴⁸⁰ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7244.

but as part of a long-term transition".⁴⁸¹ Thus long before the red-green federal government eventually agreed to a long remaining operation time for nuclear power plants, Werner Müller was already speaking in favour of such a policy.

When the federal government and representatives of the energy sector finally got down to the details of how nuclear energy would be phased out, on 29 June 2000, Werner Müller stressed that new energy infrastructure would still be required even if Germany were to continue using nuclear energy. Reducing CO₂ emissions by about 40% by the year 2020 would clearly not be achieved by using nuclear energy alone, as it was only providing 10% of the total German energy supply at the time. "If you want to reduce CO₂ emissions by 40%," the minister added, "then you have to have a revolution in efficiency too". This would mean increasing economic growth with a minimum of energy consumption. "Thus we need to have the necessary infrastructure in place", Müller pointed out, noting that this should be possible, since during the coming four years nuclear energy capacity was not going to go down by that much.⁴⁸² Indeed, Müller's attitude towards nuclear phase-out had been, as we have seen, rather lukewarm to begin with, and these speech acts dispel that. After all, he was arguing how structural changes in energy policy would be necessary anyway for the sake of the environment whether or not nuclear energy was still being used. Müller was thus emphasising the gradual 'orderly phasing out' discussed in chapter 2. The idea was that nuclear energy would be necessary for a few more years while other procedures, especially energy efficiency, were established.

Meanwhile, on 29 June 2000, Chancellor Gerhard Schröder (SPD) commented in the Bundestag on the agreement that had just been reached between the federal government and energy sector. It was called "The Phasing out of Nuclear Energy - Opportunity for an Energy Policy in Consensus with Society"⁴⁸³. Schröder argued that phasing out nuclear energy was economically necessary since "[e]very kilowatt hour produced by nuclear energy requires at least double as much investment as energy from other sources" and therefore, "the 'energy model for Germany' can not be secured or developed through nuclear energy".⁴⁸⁴ As the following quote demonstrates, Schröder's speech act aimed at justifying a longer operation time for nuclear power plants by

⁴⁸¹ Deutscher Bundestag, 14. Wahlperiode, 95. Sitzung, 23.3.2000, 8737-8740. "die Nutzung der Kernenergie wird irgendwann beendet, aber nicht kurzfristig, sondern in einem Übergangsprozess."

⁴⁸² Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10453. "Wenn Sie 40 Prozent der C2O-Emissionen einsparen wollen, müssen Sie eine richtige Effizienzrevolution hinbekommen." "Dafür müssen wir die erforderlichen Strukturen festlegen."

⁴⁸³ *Ausstieg aus der Kernenergie - Chance für eine Energiepolitik im gesellschaftlichen Konsens*

⁴⁸⁴ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10423. "Der Investitionsbedarf je Kilowattstunde liegt bei der Kernenergie mindestens doppelt so hoch wie bei anderen Energieträgern." "Den Energiestandort Deutschland werden wir mit der Kernenergie nicht sichern oder gar entwickeln können."

presenting it as making better economic sense for Germany (and for the energy companies).

The Federal government and energy industry will be working together to maintain and develop an environmentally sustainable and competitive energy supply. This consensus will enable industry to optimise their investments, to secure jobs, and make a smooth transition to using a new mix of energy sources. [...] First of all we are facing the challenge of making a competitive energy economy compatible with the requirements of climate conservation. [...] Most crucial to the future of our energy economy is something which in this country we call the "efficiency revolution". By applying modern technology throughout we should be able to reduce energy demands by about one third within 20 years.⁴⁸⁵

Chancellor Schröder did not speak about any radical changes, but gradual ones instead towards meeting the demands of climate conservation and economic development with lower energy consumption. Similarly to Trittin, Gerhard Schröder was redeploying the opposition's concept of *Energiemix* in a different way. One should also bear in mind that, since the nineties, Schröder had continuously expressed a more flexible attitude towards the further use of nuclear energy than the SPD officially tolerated.

The other aspect worth noticing when discussing the different opinions inside the ruling coalition was the question of the domestic mining sector, which was very important to the SPD - coal and lignite had to have place in future energy production as well. For example, Ernst Schwanhold (SPD)⁴⁸⁶ commented on future energy production on 16 December 1999, by saying that the

[p]hasing out of nuclear energy requires a long-term combined policy of energy efficiency, alternative production, renewable energy sources, and strengthening domestic sources in the energy mix.⁴⁸⁷

And indeed, when Chancellor Schröder went through the agreement drawn up with the energy sector on 29 June 2000, he also noted that investments would be

⁴⁸⁵ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10425. *"Gemeinsam werden Bundesregierung und Energiewirtschaft daran arbeiten, eine umweltverträgliche und wettbewerbsfähige Energieversorgung zu erhalten und weiterzuentwickeln. Der gefundene Konsens ermöglicht den Unternehmen die wirtschaftliche Optimierung ihrer Anlagen, die Sicherung der Arbeitsplätze und einen gleitenden Übergang in einen neuen Mix der Energieträger. [...] Vor allem stehen wir vor der Herausforderung, die Erfordernisse des Klimaschutzes und einer wettbewerbsfähigen Energiewirtschaft miteinander vereinbar zu machen. [...] Für die Zukunft wird es aber entscheidend sein, dass wir hier in unserem Land etwas tun, was man im Bereich der Energiewirtschaft "Effizienzrevolution" nennt. Mit dem Einsatz moderner Technik können wir in 20 Jahren die Nachfrage nach Energieträgern um ein Drittel vermindern."*

⁴⁸⁶ Archiv, Abgeordnete. **Ernst Schwanhold** (SPD) (born in 1948) was a Bundestag member in 1990-2000. In 1993-1994 he acted as the Chair in the Commission of Inquiry for protection of People and Environment. In 1994-1998 he was a deputy member of the AfUNR". Since 1995 he was the speaker of economic policy of his party group.

⁴⁸⁷ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7254.

made in coal and lignite power plants which had less of an environmental impact.⁴⁸⁸

However, the common feature of the speeches by federal ministers, the Chancellor and other representatives of the ruling parties on 29 June 2000 was that the agreement with the energy sector meant that the way had been opened up for structural changes since it ended the stand-off about nuclear energy. Michael Müller (SPD member for Düsseldorf), for instance, argued that the ruling coalition had now opened up the way for future technology, an efficiency revolution, solar technology, energy savings, and decentralist structures, since due to the agreement “we have overcome and finally ended the paralysing debate that has blocked reorganising our energy infrastructure for years”.⁴⁸⁹ They were also generally agreed on the idea that a sustainable energy policy and competitive economic development could be achieved simultaneously. Michael Hustedt (Alliance 90/Greens) went on to add that the use of nuclear energy was not any precondition for the economy since “there are many highly developed countries, which have flourishing economy without nuclear energy”.⁴⁹⁰

One interesting metaphor which cropped up in the debate and in the newspapers⁴⁹¹ was of ‘lights going out’ (*Lichter werden ausgehen*). This was originally used by nuclear supporters in the 1970s and 1980s to describe what would happen if there was no nuclear energy. The anti-nuclear movement referred to the same metaphor to argue that scrapping nuclear would not affect electricity production. For example Ulrike Mehl (SPD)⁴⁹² stated in December 1999 that “phasing out nuclear energy will not cause the lights to go out, and nor will we be marching towards climate catastrophe”.⁴⁹³ As in previous years, anti-nuclear parliamentarians, such as Christoph Matschie (SPD), pointed out that nuclear energy was not actually CO₂-free if the whole process was taken into account.⁴⁹⁴

⁴⁸⁸ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10426.

⁴⁸⁹ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10435-10436. “Wir überwinden und beenden endlich eine lähmende Debatte, die die Neuordnung der Energieversorgung über Jahre blockiert hat.”

⁴⁹⁰ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10445. “Es gibt viele hochindustrialisierte Länder, die ohne Atomkraft eine florierende Wirtschaft haben.”

⁴⁹¹ E.g., SZ, 17.10.1998, p.40, Auch bei einem Ausstieg aus der Kernkraft. Die Lichter gehen nicht aus. Wirtschaftsministerium: Strom würde wesentlich teurer. Von Christian Schneider; SZ 16.6.2000, p.2, Ausstieg aus der Kernenergie. Alle Lichter bleiben an. Der endgültige Ausstieg wird weder Strommangel noch einen starken Anstieg der Energiepreise zur Folge haben. Von Alexander Hagelüken.

⁴⁹² Archiv, Abgeordnete. **Ulrike Mehl** (SPD) (born in 1956) was a Bundestag member in 1990-2005 and in 1994-1998 she was a member of the AfUNR. Mehl has an active background in the BUND.

⁴⁹³ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7270. “Mit dem Ausstieg aus der Atomenergie werden weder die Lichter ausgehen, noch werden wir in die Klimakatastrophe marschieren.”

⁴⁹⁴ Deutscher Bundestag, 14. Wahlperiode, 95. Sitzung, 23.3.2000, 8756-8759.

Experts were divided in their opinions about phasing out nuclear energy too. For example, in May 1998 Christof Timpe - from the *Freiburger Ökoinstitut* - envisioned a scenario in which Germany would have enough reserve capacity to fully phase out nuclear energy. By 2005, he estimated that emissions could be cut by about 25% through using an *Energiewende* mix of renewable energy sources like wind, sun, and biomass without any additional cost. On the other hand, Alfred Voss, Director of the Institute of Energy Economics at the University of Stuttgart, suggested that reaching the CO₂ target without the help of nuclear energy would cost an extra 30 billion marks every year.⁴⁹⁵ There were also some experts who fell somewhere between these two extremes. In a committee meeting in June 2000, for instance, Prof. Dr. Eckard Reh binder, Member of the German Advisory Council on the Environment, claimed that although nuclear power was currently providing two thirds of the base load for power plants, replacing it and simultaneously CO₂ emissions at the same time would be difficult but nevertheless still possible.⁴⁹⁶

When the “Bill for the Orderly End to the Use of Nuclear Energy in Commercial Electricity Production”⁴⁹⁷ was debated in the Bundestag, the speakers of the SPD and Alliance 90/Greens described it as both a precondition of an *Energiewende* policy as well as a part of it. The Federal Minister for the Environment, Nature Conservation, and Reactor Safety, Jürgen Trittin (Alliance 90/Greens) described *Energiewende* as the current task of the federal government. And the phasing out of nuclear energy was one of the important components of it. He also highlighted the benefits that *Energiewende* would bring in the form of new employment prospects for Germany.

Energiewende, climate conservation and nature conservation are large-scale projects. Climate conservation will be the theme of the next decade. [...] We are truly undergoing a revolution (*eine Wende*) in energy policy. ... Alongside with the successful entrance in renewable energy, energy savings and energy efficiency phasing out of nuclear energy is the third important field of the *Energiewende*. ... The policy of *Energiewende* with all the phasing out and initiating required will create new jobs. In the field of renewable energy more than 70,000 people are working today, which is more than in the atomic industry. In just the wind-power industry alone, some 30,000 people are working. If we continue at this rate [...], we will have created 200,000 jobs by the year 2020.⁴⁹⁸

⁴⁹⁵ SZ 28.5.1998, p.17, Technisch möglich, ökologisch sinnvoll? Für den Fall eines Regierungswechsels in Bonn diskutiert Fachleute und Politiker Folgen eines Ausstiegs aus der Kernkraft. Von Jeanne Rubner.

⁴⁹⁶ PA-DBT 3121 A14/16-Prot. 38, page 11.

⁴⁹⁷ Deutscher Bundestag, Drs. 14/6890. *Fraktionen der SPD und des BÜNDNISSES 90/DIE GRÜNEN eingebrachten Entwurfs eines Gesetzes zur geordneten Beendigung der Kernenergienutzung zur gewerblichen Erzeugung von Elektrizität.*

⁴⁹⁸ Deutscher Bundestag, 14. Wahlperiode, 190.Sitzung, 27.9.2001, 18568-18569. *“Energiewende, Klimaschutz und Naturschutz sind die grossen. Projekte. Der Klimaschutz wird das Thema der nächsten Jahrzehnte. [...] Wir haben bei der Energiepolitik wirklich eine Wende erreicht. [...] Neben dem erfolgreichen Einstieg in erneuerbare Energien, in Energiesparen und in Energieeffizienz ist für uns der Ausstieg aus der Atomenergie das dritte wichtige Feld der Energiewende. [...] Die Energiewende mit Ausstieg und Einstieg, so*

The representatives of the Alliance 90/Greens made out that the bill was a long-awaited victory over the question of using nuclear energy in the future. For example, Michael Hustedt made it clear that to phase out nuclear energy was the founding theme of the Green Party, and even though phasing out was only favoured by a minority of society to begin with, it now had the support of the majority of people since Chernobyl. According to the Alliance 90/Greens, *Energiewende* would involve greater investment in renewable energy and energy efficient structures, decentralised administration, and less (if not zero) dependence on importing oil and gas.⁴⁹⁹

On 14 December 2001, Bill Horst Kubatschka (SPD) defined the relationship between phasing out nuclear energy and *Energiewende* by saying that one could not exist without the other. Phasing out nuclear energy was a precondition for *Energiewende*, but at the same time, nuclear energy could only be abandoned if *Energiewende* was simultaneously adopted.

Phasing out nuclear energy within a medium-term time frame also offers the possibility of carrying out *Energiewende* at the same time. We have to create a new infrastructure for our energy supply based on the three pillars of 'energy savings, rational energy consumption, and renewable energy'. We have already used the first three years of this red-green government to get *Energiewende* underway before phasing out nuclear energy. In political terms, this direction won't be easy [...]. We will however create jobs and make our energy supply sustainable.⁵⁰⁰

The relationship between phasing out nuclear energy and climate conservation targets was one of the most disputed in the Bundestag. On 25 January 2001, Michael Müller (SPD member for Düsseldorf) referred to current evidence which showed that global warming was happening faster than had been originally forecast. According to Michael Müller the ruling parties had already begun "the energy policy reform", which included ending the policy of securing high capacity and low prices, phasing out nuclear energy, and integrating energy markets in Europe.⁵⁰¹ In the same debate, Jürgen Trittin (Federal Minister for the Environment, Nature Conservation, and Reactor Safety) added

wie wir sie auf den Weg gebracht haben, schafft neue Arbeitsplätze. Im Bereich der erneuerbaren Energien sind heute schon mehr als 70 000 Menschen - mehr als in der Atomindustrie - beschäftigt. Allein 30 000 Menschen arbeitet in der Windbranche. Klimaschutz und Energiewende werden - wenn wir unseren Weg weitergehen - bis zum Jahre 2020 200 000 zusätzliche Jobs entstehen lassen."

⁴⁹⁹ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18579-18580.

⁵⁰⁰ Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20709. "Das Auslaufen der Kernenergie in einer mittelfristigen Zeitspanne bietet aber auch gleichzeitig die Möglichkeit und die große Chance, die Energiewende bei uns zu vollziehen. Mit dem Dreiklang „Energiesparen, rationeller Energieeinsatz und erneuerbare Energien“ müssen wir die Energieversorgung bei uns auf neue Füße stellen und neue Strukturen schaffen. Wir haben die drei rot-grünen Regierungsjahre bereits genutzt, um vor dem Ausstieg aus der Kernenergie den Einstieg in die Energiewende auf den Weg zu bringen. Dieser Weg wird politisch nicht einfach sein.[...] Wir werden damit aber Arbeitsplätze schaffen und unsere Energieversorgung nachhaltig machen."

⁵⁰¹ Deutscher Bundestag, 14. Wahlperiode, 146. Sitzung, 25.1.2001, 14272-14274. "die energiepolitische Wende"

to this argument by noting that “power stations like, for example, nuclear power plants, which have an efficiency of less than 40%, are not sustainable for the future.” The answer, in his opinion, was thus “the reorganisation of structures”.⁵⁰²

At this point, before going into the concepts of the opposition parties, we should note that the PDS was different to the others. It supported phasing out nuclear energy, but in a much more radical sense than the red-green federal government was able or willing to do. The PDS emphasised the ‘revolution’ aspect of *Energiewende*, insisting that it would require much wider changes than the federal government was willing to carry out. The PDS were especially critical of the delay in shutting down Germany’s nuclear power stations that the government had agreed to with the industry - it was far too long, and the PDS introduced a motion to that effect, that the proposed closures happen much faster (within 5 years maximum).⁵⁰³ So it was that in March 2000, Eva Bulling-Schröder (PDS) asked that “the still expected *Energiewende*” be carried out without any more time wasting.⁵⁰⁴

But the central arguments of the CDU/CSU (and FDP) concerned the viewpoint that the red-green federal government failed to introduce a comprehensive energy policy concept that truly met the demands of climate conservation, economic growth, and security of supply. The representatives of the CDU/CSU argued that the federal government had failed to introduce a comprehensive plan of how the energy currently produced from nuclear would be replaced, underlining its current importance as a major source of energy. This ‘replacement argument’ was used time and again by the opposition - for example, Dagmar Wöhr (CDU/CSU)⁵⁰⁵ used words to this effect in December 1999.⁵⁰⁶ It also surfaced in the press when, for example, Wolfgang Roth wrote in the SZ on 16 June 2000 that even though phasing out nuclear energy was, in his opinion, very much justified, the federal government had not yet really come up with an adequate energy system to take its place.⁵⁰⁷

The CDU/CSU thus introduced motions which gave alternative political meanings to ‘sustainable energy policy’ that were more sympathetic to their cause, in so far as they included the further exploitation of nuclear energy. The CDU/CSU thus introduced a motion: “Energy Policy for the 21st century - Establishing a Sustainable, Climate-Friendly Energy Supply Which will not

⁵⁰² Deutscher Bundestag, 14. Wahlperiode, 146. Sitzung, 25.1.2001, 14289. “Anlagen wie zum Beispiel Atomkraftwerke, die eine Effizienz von weniger als 40 Prozent haben, sind nicht nachhaltig zukunftsfähig. Deswegen brauchen wir, wenn wir das Klimaschutzziel erreichen wollen, einen Umbau in der Struktur.”

⁵⁰³ Deutscher Bundestag, Drs. 14/841.

⁵⁰⁴ Deutscher Bundestag, 14. Wahlperiode, 95. Sitzung, 23.3.2000, 8745-8746. “der noch ausstehenden *Energiewende*”

⁵⁰⁵ Archiv, Abgeordnete. **Dagmar Wöhr** (CDU/CSU) (born in 1954), educated as jurist, is a Bundestag member since 1994.

⁵⁰⁶ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7261.

⁵⁰⁷ SZ 16.6.2000, p.4, Der lange Ausstieg. Von Wolfgang Roth.

Require the Phasing out of Nuclear Energy".⁵⁰⁸ On 16 December 1999, Peter Paziorek (CDU/CSU) raised the point that changes in energy policy were required to meet the demands of sustainable development and went on to give nuclear energy a key role in this future by saying

It is totally without dispute that we can only speak about sustainable development in energy policy sector as long as we succeed in shaping a progressive renewal process for essential and important sectors of our energy production and energy consumption. [...] [P]hasing out nuclear energy does not promote the development of more environmentally sustainable energy structures; it means there is still a danger that fossil fuels will be used for a substantial amount of energy production.⁵⁰⁹

The representatives of the CDU/CSU justified their motion by claiming that phasing out nuclear energy would increase the cost of electricity, increase the amount of CO₂ emissions, and have a negative impact on the economy and employment. Kurt-Dieter Grill (CDU/CSU) claimed in December 1999 how the federal government failed to find a climate-friendly and economic replacement for the 22,000 megawatts produced by nuclear energy. Phasing out nuclear energy would thus mean a massive increase in CO₂ emissions in Germany, especially if coal and gas were presented as alternatives to nuclear energy (bearing in mind that the SPD were also supporting the coal and gas industries); while other climate-friendly solutions would cost an extra 20 billion DM per year.⁵¹⁰ Gunnar Uldall (CDU/CSU)⁵¹¹ argued that the government plans would not suffice, since one third of all German electricity came from nuclear energy, while its share of base load for all power plants was over 60%. Uldall claimed that "the gap caused by the closure of these power plants will be very difficult to replace with wind turbines, gas power, and simply increasing energy efficiency". He then went on to argue that if the 'option' of nuclear energy was maintained in Germany then 40,000 jobs in the nuclear energy sector would be secured, as would be 150,000 jobs in metal, chemistry, and paper manufacturing industries.⁵¹² This economic thread to his argument also touched on the country's balance of trade.

⁵⁰⁸ Deutscher Bundestag, Drs. 14/543. *Energiapolitik für das 21. Jahrhundert - Einstieg in ein nachhaltiges, klimaverträgliches Energiekonzept statt Ausstieg aus der Kernenergie*

⁵⁰⁹ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7265. "Es ist wohl auch völlig unbestritten, dass wir von einer nachhaltigen Entwicklung im Bereich der Energiapolitik nur dann sprechen können, wenn es uns gelingt, in wesentlichen und wichtigen Bereichen unserer Energieerzeugung und des Energieverbrauchs einen schrittweisen Erneuerungsprozess zu gestalten. [...] Der übereilte Ausstieg aus der Kernenergie fördert nicht den Aufbau umweltgerechter neuer Energiestrukturen; er beschwört vielmehr die Gefahr herauf, dass zum Beispiel die fossilen Energieträger nach wie vor einen hohen Anteil an der Energieerzeugung haben."

⁵¹⁰ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7246.

⁵¹¹ Archiv, Abgeordnete. **Gunnar Uldall** (CDU/CSU) (born in 1940) was a Bundestag member in 1983-2001.

⁵¹² Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7255-7256. "Die Lücke, die durch die Abschaltung der Kraftwerke entsteht, durch Stromersparung, Windräder oder Gaskraft zu schliessen wird sehr schwer möglich sein."

Phasing out nuclear energy will upset domestic and foreign investors. Creating new jobs will be difficult, since investors in Germany are increasingly looking elsewhere. Within a short period of time we have become a net importer of high technology instead of exporter [...]. As long as the safety of German nuclear power plants can be guaranteed, then these plants should continue to operate. We are responsible to the next generation for keeping the option of nuclear energy open in Germany.⁵¹³

The FDP, in its turn, introduced a motion - "A Sustainable Energy Policy for the *Standort Deutschland*"⁵¹⁴ - which was debated on 16 December 1999 in the same session as the CDU/CSU's motion. Walter Hirche (FDP) criticised the government's energy policy for not meeting the demands of climate conservation or sustainable development as laid out in the UNCED Rio Summit in 1992.

We need a strong economy to finance the restructuring of the energy sector. Therefore your acts are against principles of Rio [...]. You are giving up the priority of climate conservation policy with your attacks against nuclear energy. [...] Those who make climate conservation a priority cannot phase out nuclear energy for many decades.⁵¹⁵

Just by having *Standort Deutschland* in the title, it is clear that the motion proposed by the FDP for Germany's energy policy had an economic bias. In support of it, Ulrich Flach (FDP) described the use of renewable energy sources as being an unrealistic solution for areas like Nordrhein-Westfalen, where 83% of electricity was being currently produced by coal, and in the Eastern Ruhr area, where it was coming from the Lingen nuclear power plant.⁵¹⁶ Flach claimed that rather than leading "Germany to a green-red *Energiewende*", the government was in fact "recklessly endangering one third of our energy supply".⁵¹⁷ On 25 January 2001, Walter Hirche (FDP) described reducing CO₂ emissions as the most important target and recommended that the question that

⁵¹³ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7256-7257. "Der Ausstieg aus der Kernenergie verunsichert in- und ausländische Investoren. Die Schaffung neuer Arbeitsplätze wird erschwert, da Investitionen in Deutschland zunehmend ausbleiben werden. Wir werden innerhalb kürzester Frist von einem Exporteur von Spitzentechnologie zu einem Importeur dieser Technologie werden. [...] Solange die Sicherheit der deutschen Kernkraftwerke gewährleistet ist, sollten diese weiterbetrieben werden dürfen. Wir sind der nächsten Generation schuldig, die Option Kernenergie in Deutschland offenzuhalten."

⁵¹⁴ Deutscher Bundestag, Drs. 14/2364. *Zukunftsfähige Energiepolitik für den Standort Deutschland*

⁵¹⁵ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7258-7259. "Wir brauchen eine leistungsfähige Wirtschaft, um den Umbau der Energiewirtschaft zu finanzieren. Deswegen verstößt das, was Sie tun, gegen den Grundsatz, der nach Rio heißen muss: Gleichberechtigung der drei Ansätze wirtschaftlich, sozial und umweltverträglich. [...] Sie geben mit Ihren Attacken auf die Kernenergie den Vorrang für Klimaschutzpolitik in Deutschland auf. [...] Wer Klimaschutz als Priorität will, kann auf viele Jahrzehnte nicht auf Kernenergie verzichten."

⁵¹⁶ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7249.

⁵¹⁷ Deutscher Bundestag, 14. Wahlperiode, 79. Sitzung, 16.12.1999, 7250. "Sie führen Deutschland nicht in eine grünrote *Energiewende*, sondern sie taumeln haltlos in den Verlust eine Drittels unserer Energieversorgung."

markets and consumers should be asking themselves which energy forms should make up the future energy mix.⁵¹⁸

The debate over the parliamentary enquiry (*Grosse Anfrage*) into an “Energy Policy for the 21st Century” by the CDU/CSU⁵¹⁹ group on 23 March 2000 illustrates further how they were redefining the concepts of sustainability, climate conservation, and economy in energy policy. In Dr. Klaus W. Lippold’s opinion, for instance,

Energy policy should protect the environment, create the basis for an efficient energy supply for the country at internationally competitive prices, and it should focus on the long-term so that future generations would be able to build on our political initiative.⁵²⁰

Lippold stipulated that a 25% reduction in CO₂ emissions by the year 2005 would be necessary to maintain Germany’s credibility within the international context and he argued that with the growing global demand for energy, and the need to combat global warming at the same time, Germany would need to make a 70-80% reduction in its CO₂ emissions by the 2050s.⁵²¹ Another CDU/CSU member, Ulrich Klinkert, argued that the nuclear policies proposed by the red-green federal government would cause a disaster for Germany’s *Energiestandort*, as the whole of Europe would be waiting for the opportunity to import electricity to Germany, as soon as nuclear energy had been phased out.⁵²²

On 29 June 2000, a debate was had about the agreement made between the federal government and representatives of the energy industry. The following quote by Peter Paziorek (CDU/CSU) summarises the central arguments of the CDU/CSU concerning the phasing out of nuclear energy. Firstly, the Christian democrats believed it would damage German research and development, which would have a knock-on effect on Germany’s international trade relations. Secondly, phasing out nuclear energy would make climate conservation goals harder to meet.

The agreed atomic consensus has dealt a heavy blow [...] to research and development in Germany. Phasing out means Germany will lose its position as a world leader in the technology involved with nuclear safety. This will, in the long run, damage German competitiveness in this special field of technology, as the

⁵¹⁸ Deutscher Bundestag, 14. Wahlperiode, 146. Sitzung, 25.1.2001, 14279-14281.

⁵¹⁹ Deutscher Bundestag, Drs. 14/676; Deutscher Bundestag, Drs. 14/2656. *Große Anfrage der Abgeordneten Kurt-Dieter Grill, Gunnar Uldall, Dr. Klaus W. Lippold (Offenbach), weiterer Abgeordneter und der Fraktion der CDU/CSU: Energiepolitik für das 21. Jahrhundert - Energiekonzept der Bundesregierung für den Ausstieg aus der Kernenergie.*

⁵²⁰ Deutscher Bundestag, 14. Wahlperiode, 95. Sitzung, 23.3.2000, 8734-8737. “*Es sollte eine Energiepolitik sein, die die Umwelt schont, die in unserem Land die Grundlage für eine effizient Energieversorgung zu international wettbewerbsfähigen Preisen schafft und die auf Dauer so ausgerichtet ist, dass auch zukünftige Generationen auf dem aufbauen können, was wir politisch vorentschieden haben.*”

⁵²¹ Deutscher Bundestag, 14. Wahlperiode, 95. Sitzung, 23.3.2000, 8734-8737.

⁵²² Deutscher Bundestag, 14. Wahlperiode, 95. Sitzung, 23.3.2000, 8759-8760.

industry will have difficulties explaining why other countries should buy its safety technology when German nuclear power plants are shutting down. [...] By phasing out we become, in the long run, a net importer of technological know-how instead of an exporter, and this will eventually lead to international isolation. [...] Mr Chancellor, Germany will have great difficulty fulfilling the climate conservation targets. Controlling worldwide CO₂ emissions in order to stabilise the world's climate is the largest environmental challenge facing our generation. Within this context we must not simply restrict ourselves to the national target of 2005. Eventually we will also have to meet the 12% reduction target agreed at Kyoto. The reduction policy therefore has to go beyond 2005.⁵²³

Angela Merkel also underlined the importance of meeting climate conservation targets when she pointed out that during the election campaign in Nordrhein-Westfalen Gerhard Schröder had pointedly assured workers from the mining industry that phasing out nuclear energy would be a good thing for their profession. But "for the targets of climate conservation" Merkel observed, this was "surely not good". In addition, she considered that being able to find a "climate-friendly, CO₂-free replacement for the 30% share of electricity currently provided by nuclear energy" after phasing out would be highly problematic. Merkel argued that she could not see how Germany's *Energiestandort* could be maintained and that it was taking place "at the expense of technological prowess, climate conservation, training in expertise, and the whole of the professional field in the FDR". She concluded that all the energy intensive industries would leave Germany, as secure investment conditions would be lacking.⁵²⁴ Kurt-Dieter Grill (CDU/CSU) pointed to Denmark, where cogeneration was used in energy production to cover the share originally provided by the Barsebäck nuclear power plant in Sweden that had been closed down, noting that "the Danish CO₂ emissions are some of the highest in Europe,

⁵²³ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10446-10447. "Der vereinbarte Atomkonsens ist ein schwere Niederlage - [...] - für den Forschungs- und Entwicklungsstandort Deutschland. Durch den Atomausstieg wird Deutschland international auf sicherheitstechnische Einflussnahme verzichten müssen. Dies wird langfristig die deutsche Wettbewerbsfähigkeit auf diesem speziellen Technologiegebiet beschädigen; denn die Wirtschaft eines Landes, das seine Kernkraftwerke abschaltet, wird im Ausland Schwierigkeiten haben, zu erklären, warum man gerade deren Sicherheitstechnik kaufen soll. [...] Wir werden durch den Atomausstieg langfristig von einem Exporteur zu einem Importeur von technischem Know-how. Das wird uns langfristig international in die Isolation führen. [...] Deutschland wird erhebliche Schwierigkeiten haben, Herr Bundesumweltminister, seinen Klimaschutzverpflichtungen nachzukommen. Die Eindämmung der weltweiten CO₂ Emissionen zur Stabilisierung des Weltklimas ist die größte umweltpolitische Herausforderung unserer Generation. In diesem Zusammenhang darf man nicht nur auf das nationale Ziel 2005 verweisen. Schließlich müssen wir auch noch das Ziel von Kyoto - minus 12 Prozent - erfüllen. Die Reduktionspolitik muss nach 2005 weitergehen."

⁵²⁴ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10427-10428. "Für das Klimaschutzziele ist er mit Sicherheit nicht gut." "Diese Vereinbarung geht zulasten des Klimaschutzes, zulasten der Ausbildungskapazitäten und ganzer Berufsweige sowie zulasten des technologischen Fortschritts in der Bundesrepublik Deutschland."

namely 14 tons of CO₂ per capita per year".⁵²⁵ The Minister for Bavaria (*Staatsminister*), Otto Wiesheu (CSU), defined a secure energy supply as being fundamentally necessary for the *Industriestandort Deutschland* and argued that a policy of phasing out nuclear energy would necessitate a stronger input of coal, gas, and oil, and therefore an increase in CO₂.⁵²⁶

On 25 January 2001, Klaus W. Lippold (CDU/CSU member for Offenbach) went so far as to bolster his argument with 'scientific evidence' when he declared that "without nuclear energy policy we cannot achieve middle or long-term climate conservation policy, which is now especially important according to the warnings in this IPCC report". The report, he was arguing, confirmed the Club of Rome's verdict that the risk of "a climate catastrophe" happening was higher than a nuclear accident.⁵²⁷ On 5 November 2001, there was a public committee hearing for the Bill to Phase Out Nuclear Energy. Professor Dr. (Wolfgang) Pfaffenberger, Director of the Bremen Institute of Energy, gave a similar verdict that CO₂ reductions might have to be larger than previously thought to meet the targets required to prevent global warming, and that nuclear energy (as a CO₂-free source) should be used for as long as possible to achieve this. In Pfaffenberger's opinion, "limiting the operation time of nuclear power stations made Germany an exception to other countries".⁵²⁸

Towards the end of the same year (December 2001), Lippold made another criticism of the government's policy, arguing that *Energiewende* and energy efficiency would not be enough to reduce CO₂ by 100 million tons after the phasing out of nuclear energy.⁵²⁹ Similar comments had also been made by Christian Ruck (CDU/CSU)⁵³⁰ in September 2001 when he indicated that Schröder and Trittin would have to rely on "imported coal" after scrapping nuclear energy, which would invalidate Germany's middle and long-term climate conservation efforts. Ruck argued that nuclear energy was saving 160 million tons of CO₂ emissions every year if it was compared with fossil fuel energy sources.⁵³¹ By December 2001, Ruck was now adding that the reduction targets of 2005 and 2012 were just the beginning and that it would be "impossible to manage this huge challenge nationally or internationally if

⁵²⁵ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10449. "Die dänischen Werte beim CO₂ Ausstoss liegen an der Spitze Europas, nämlich 14 Tonnen CO₂ pro Kopf und Jahr."

⁵²⁶ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10442-10443.

⁵²⁷ Deutscher Bundestag, 14. Wahlperiode, 146. Sitzung, 25.1.2001, 14274, 14277. "Klimakatastrophe"

⁵²⁸ PA-DBT 3121 A14/16-Prot. 69, page 11. "Der deutsche Weg, die Laufzeit zu beschränken, ist international gesehen ein Sonderweg."

⁵²⁹ Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20710.

⁵³⁰ Archiv, Abgeordnete. **Dr. Christian Ruck** (CDU/CSU) (born in 1954) was a Bundestag member in 1990-2013. In 1990-1994 he was a member in the Commission of Inquiry for Protection of People and Environment.

⁵³¹ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18584-18585.

nuclear energy was phased out".⁵³² Paul Laufs (CDU/CSU) joined the criticism in December 2001 to add that climate conservation was a key aspect of sustainable development and that nuclear energy had to thus be taken seriously as an alternative energy source to fossil fuels, seeing as it was CO₂-free. In comparison, building more energy-efficient fossil fuel power plants would still increase CO₂ emissions by 74 million tons every year and massive governmental support for renewable energy would cost the country an additional 500 billion DM.⁵³³

There was even this kind of criticism from the FDP in September 2001, when Birgit Homburger described phasing out nuclear energy as doing climate conservation a disservice, since CO₂ emissions were going up in Germany and the federal government was supporting coal in the meantime.⁵³⁴ By December 2001 this argument had become a clear case of accusing the government of not having yet worked out a proper energy alternative to nuclear power:

The central question is how the red-green federal government aims to secure the energy supply needed for an industrial country like Germany while still simultaneously meeting climate conservation targets. This is not just a national question, but also international, because Germany has taken on international obligations with regard to climate conservation.⁵³⁵

4.4 Conclusions

This chapter looked at how the demands of climate conservation, sustainable development, and economic progress in energy policy affected the nuclear debate, as well as looking at the meaning these paradigms had for energy policy. Within these environmental discourses nuclear energy was often presented as a key form of energy that would meet the demands of climate conservation, sustainable development, and economic necessity on the one hand, and on the other, as a form of energy that stopped any major structural changes being made to Germany's energy policy. Chernobyl had demonstrated the massive consequences of a nuclear accident for people and the environment, and yet the issue of global warming which at this time became an urgent

⁵³² Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20726. "[d]ass wir diese gewaltige Herausforderung national und international mit einem Ausstieg aus der Kernenergie bewältigen können."

⁵³³ Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20722.

⁵³⁴ Deutscher Bundestag, 14. Wahlperiode, 190. Sitzung, 27.9.2001, 18576.

⁵³⁵ Deutscher Bundestag, 14. Wahlperiode, 209. Sitzung, 14.12.2001, 20714. "Im Zentrum steht die Frage, wie die rot-grüne Bundesregierung die Energieversorgung eines Industrielandes wie der Bundesrepublik Deutschland bei gleichzeitiger Erreichung des Klimaschutzziels sicherstellen will. Das ist nicht nur eine nationale, sondern auch eine internationale Frage, weil die Bundesrepublik Deutschland internationale Verpflichtungen beim Klimaschutz übernommen hat."

political topic made it possible to portray nuclear energy as an environmentally friendly form of energy.

The CDU/CSU and FDP thus proposed the pro-nuclear concept of *Energiemix*, which included nuclear energy among a range of other energy sources to combat global warming. *Energiemix* would reduce CO₂ emissions and increase sustainability, but there would be no need for any large structural changes. Meanwhile, *Energiewende* called for large structural changes, and a complete overhaul of Germany's energy policy. *Energiewende* was first used by the Greens, but it gradually became the policy paradigm for the red-green federal government too. *Energiewende* may have expressed the most radical demands in the Bundestag, but it did not automatically mean the immediate phasing out of nuclear energy, as it was used in a fairly wide context within the Bundestag, as we have seen. Phasing out was presented as the precondition for achieving and executing *Energiewende* since nuclear energy was seen as a stumbling block to other changes and development. *Energiewende* was used to express an ensemble of demands to which the best answer would involve major structural changes to meet the challenges of climate change and all-round environmental protection.

In the early 1990s, *Energiewende* was a radical, nuclear-free solution to meet climate conservation targets and the demands of sustainable development at the macro-level of debate. But as the use of the concept in arguments widened during the decade through deliberate speech acts at the micro-level, *Energiewende* began to refer more generally to the policy of phasing out nuclear energy, as it was liberally used by all the political parties despite their different emphases. During this discursive process, *Energiewende* thus lost its more radical semantic meaning and began to refer instead to more moderate and gradual changes in energy policy, and thus more of a generic concept in German energy policy rather than any one coherent solution.

Analysis of the Bundestag debates also illustrates how parliamentarians, when using either the concepts of *Energiewende* or *Energiemix*, were actually taking a stand on the questions of whose interests should form the basis for policy-making and which means should be used to promote economic growth. In this sense, *Energiewende* and *Energiemix* included rival understandings of the principles behind democratic decision-making. The anti-nuclear speakers justified their demands for the phasing out of nuclear energy by accusing the energy industry and their political supporters of putting short-term economic profits before the long-term costs of nuclear energy, which would be left for taxpayers to clear up at a later date. In this respect, anti-nuclear parties were arguing that nuclear was the most expensive form of energy in the long run, since securing the final storage (the topic of the next chapter) involved additional costs that would go on for centuries; and that this should thus be taken into account when calculating production costs. The pro-nuclear parties, however, emphasised that switching to renewable energy sources and phasing out nuclear energy (i.e., *Energiewende*) would immediately and significantly cause an increase in the price of energy for consumers. Thus there were tensions

between *Energiewende* and *Energiemix* over the fulfilment of democratic principles. In the former, the emphasis was laid on taxpayers' rights to have a say in democratic decision-making and highlighting the long-term risks of storing nuclear waste; while in the latter, the emphasis was on the short-term economic benefits for industry and electricity consumers.

5 NUCLEAR WASTE - CONFLICTING OPINIONS COME TO A HEAD

5.1 Introduction

A vigorous anti-nuclear movement re-emerged in Germany in the mid to late nineties when spent nuclear fuel elements started being transported to the interim storage facility in Gorleben, Lower Saxony. In April 1994, the Federal Office of Radiation Protection had given the authorisation for three transports of radioactive waste (*Castor-Transporte*) to take place in 1995, 1996, and 1997.⁵³⁶ The citizens' initiative to oppose this was called *Umweltschutz Lüchow-Dannenberg* and other associated anti-nuclear groups adapted slogans like "*Wir stellen uns quer*" to oppose the so-called Castor transports. Resistance against the transports continued to gain in strength throughout the nineties. The first transport, in April 1995, gathered demonstrations of just a few thousand people, whereas the third transport in March 1997 had tens of thousands demonstrators and thirty thousand police officers and Federal Border Guards there keeping the peace.⁵³⁷ Although most of the demonstration was not violent, there was stone-throwing, the sabotage of railway tracks, and the building of barriers in the streets; and police officers had use water cannons against the demonstrators.

These protests have been understood both by scholars and contemporaries to have been a new manifestation of the older anti-nuclear movement; the protests were newly directed at the transports of radioactive

⁵³⁶ The first transport was driven in April 1995 from the nuclear power plant Philippsburg, the second transport in Mai 1996 from the reprocessing plant La Hague, France, and the third in March 1997 from the nuclear power plants Neckarwesheim and Grundremmingen and from the reprocessing plant La Hague. In 1998 the Federal Minister for the Environment, Nature Conservation, and Reactor Safety Angela Merkel announced a transport stop, because of a so-called contamination scandal and the transports to Gorleben continued only three years later in 2001.

⁵³⁷ Edler 2001, 75, 81, 87; Stay 2011, 74.

waste, but the overall target was the older one of closing down all nuclear power plants.⁵³⁸ Dirk Jörke has described the events surrounding these transports as a sign of 'post-democracy' (*Postdemokratie*), in that it described a lack of confidence among German citizens towards their so-called democratic institutions, since the political process seemed to have taken place behind closed doors between the elected government and an economic elite.⁵³⁹ For left-wing extremists especially, this direct resistance to the transports was a way to fight against the state, since they considered that nuclear energy policy was maintaining a system in which the interests of the nuclear industry were promoted at the expense of the planet's and the general population's health.⁵⁴⁰ In terms of the linguistic expressions used in this conflict, it is clear that the media helped construct images of animosity or hostility to describe the illegitimate actions of both demonstrators and the state.⁵⁴¹

Jochen Stay, a German environmental and anti-nuclear activist, described the Gorleben dispute as an expression of a wider conflict that was happening in German society. "Gorleben was and is the place, where the relationship between citizens and the state, between ruler and ruled, is challenged and redefined again and again".⁵⁴² Even though this quote concerns events outside the Bundestag, the purpose of this chapter is to prove how Gorleben and events related to it were politicised within parliament and used to criticise the existing system within it, in so far as parliamentary policy debates around these events contain competing conceptions of German democracy - especially with regard to how it related to nuclear energy policy. The disagreement over transporting radioactive waste to the interim storage facility at Gorleben was used as concrete evidence that using nuclear energy endangered the freedom of the state's citizens, contravened certain basic democratic principles, and marked the emergence of an undemocratic 'atomic state'.

This chapter thus continues the discussion of conflicting conceptions of nuclear safety, as these were the fundamental source of the disagreement over Gorleben, that then manifested themselves at higher political levels. In this respect, the chapter gives some reasons for the continuity and relative success of anti-nuclear attitudes as the expression of a deeper political and cultural dissatisfaction.⁵⁴³ Chapter 3 concluded that tensions caused by competing conceptualisations of nuclear safety were one crucial element in the disagreement over nuclear energy in the Bundestag, but this chapter will go

⁵³⁸ Blank 1998, 200-201; Radkau & Hahn 2013, 310. See also Rucht 1980 and Ehmke 1991 about the earlier phases of the anti-nuclear demonstrations.

⁵³⁹ Jörke 2011, 13-18.

⁵⁴⁰ Blank 1998, 205-206.

⁵⁴¹ Edler 2001.

⁵⁴² Stay 2011, 74.

⁵⁴³ Roth & Rucht 2008; Rucht 2008; Rucht 1994.

further to show that another aspect which was at least as relevant was the disagreement over using nuclear energy ‘in a democratic state’.

In chapter 3, I illuminated how politicians in the Bundestag shared the viewpoint that democracy and a stable political system were key prerequisites for nuclear safety. But Gorleben signified a point at which anti-nuclear parties in the Bundestag, and especially the Greens, now saw that the relationship between the principles of democracy and using nuclear energy were actually quite the inverse to what those politicians had maintained. The two were actually the antithesis to each other; nuclear energy in fact endangered the very principles of democracy, because so many of the very practical details concerning what could be some of the most dire consequences for the general population were made behind closed doors (i.e., far away from democracy). The two were thus mutually exclusive, and for democracy to flourish, nuclear technology should be scrapped, as for the latter to exist, it needed a lack of transparency, and thus a lack of democracy.

Transporting radioactive waste to the interim storage facility Gorleben in the period 1995-2001 thus marked a peak in the continuum of the German anti-nuclear movement in the Bundestag. The demonstrations against Gorleben were seen as a symbol of a wider dissatisfaction of the people with the role of the state and the principles of parliamentary, representative democracy. Although Gorleben was evidently the most controversial disposal (*Entsorgung*) question of the 1990s, there was also the fuel element facility at Hanau and the storage facility at Morsleben which were also politicised in the Bundestag. These are relevant contextual cases to discuss before turning our attention towards the case Gorleben itself, since they illustrate the tensions surrounding various interpretations of German federalism and the attempts of certain German states (*Länder*) to push through their individual nuclear energy policies that went against the federation.

5.2 The Cases of Hanau and Morsleben

The Hanau fuel element facility in Hesse was a case where the tensions in the German federal system became apparent. When it came to nuclear energy matters, the federation held (and still holds) sway over individual states, and in licensing terms, the federation can execute its will over them by giving constitutional rulings (*Weisungen*). Until about 1980, the relationship between the federation and *Länder* in nuclear matters did not cause significant problems, since both the federal and state governments had a generally positive attitude towards nuclear energy. As the 1980s wore on, however, the situation started to become more complex.⁵⁴⁴ Hanau was in Hesse where the first Green minister

⁵⁴⁴ Radkau & Hahn 2013, 341.

elected to the state level was Minister for the Environment, Joschka Fischer. He challenged the policy and will of the Federal Minister Klaus Töpfer at this time, and eventually the older parts of the facility were permanently closed down while the newer parts never went into operation.⁵⁴⁵ The case demonstrates that, even though individual states were constitutionally obliged to obey the federal government's rulings, they could in practice defy them.

The tensions caused by the Hanau fuel element facility (operated by Siemens) featured in Bundestag debates during the first years of the 1990s. In February 1991 a report by the Federal Minister for the Environment about disruptions at the Hanau fuel element facility was heard on 12 December 1990 in a committee meeting. The report stated that a "flue scrubber" had exploded, and that two workers had been injured. According to the report by the Federal Ministry of the Environment and TÜV Bayern the cause of the accident was a chemical reaction and it was not critical.⁵⁴⁶ Later on, the question of continuing the operation of Hanau caused some debate about the principles behind the federal structure. On 6 November 1991 the Bundestag debated the situation in Hanau during a further question time (*Aktuelle Stunde*) called by the Alliance 90/Greens after Joschka Fischer had ordered Hanau to be closed down following the disruptions. Federal Minister for the Environment, Klaus Töpfer, had stipulated that, based on tests by the Reactor Safety Commission, Hanau was safe to continue operations,⁵⁴⁷ but Klaus-Dieter Feige (Alliance 90/Greens) argued that Töpfer was acting against democracy and the principles of German federalism.

He is trying to secure the continuation of nuclear operations by using central authority, but against the principles of the federal structures themselves. This ruling specifically affects people excluded from this process and therefore in my opinion it is thus against democracy. From this, it is clear that using atomic energy is only possible only at the expense of democratic rights.⁵⁴⁸

Klaus Harries (CDU/CSU) answered by arguing that it was the *Länder* that were working against the constitution, because the federal system could only work if the federation and constituent states acted constitutionally together. His opinion was that Hesse was not acting constitutionally, as it was working against the nuclear energy policy of the federation. He nevertheless conceded that federal rulings certainly caused negative political consequences as "rulings put a strain on our constitution, weighing down the relationship between the

⁵⁴⁵ Radkau & Hahn 2013, 343-344.

⁵⁴⁶ PA-DBT 3121 A12/17-Prot. 2, 57-65.

⁵⁴⁷ Deutscher Bundestag, 12. Wahlperiode, 53. Sitzung, 6.11.1991, 4428-4429.

⁵⁴⁸ Deutscher Bundestag, 12. Wahlperiode, 53. Sitzung, 6.11.1991, 4421-4422. "*Entgegen den Prinzipien des föderalen Staatsaufbaus versucht er per zentralistischem Weisungsrecht, den Fortbestand der Atomwirtschaft zu sichern. Diese Weisung richtet sich gegen die unmittelbar von Ort Betroffenen und somit meines Erachtens auch gegen die Demokratie. Sie macht offensichtlich, dass die Nutzung der Atomenergie nur auf Kosten demokratischer Rechte machbar ist.*"

federation and its constituent states, and thus the federal structure of Germany".⁵⁴⁹

In a committee meeting in February 1992, Federal Minister for the Environment Töpfer stated that he had contacted the Federal Constitutional Court because Hesse had not acted according to the ruling of the central government. By dismissing the ruling, Töpfer argued that Hesse was protesting against the constitution.⁵⁵⁰ Joschka Fischer argued that the ruling could not be executed since further operations required essential changes at the plant and "that due to the lack of safety and for legal reasons, the recommissioning of MOX-processing at the old plant was impossible in the foreseeable future".⁵⁵¹

The other issue - concerning the Morsleben storage facility for radioactive waste in Saxony-Anhalt - shows how parliamentarians questioned the legitimacy of the Kohl government's policy for the disposal of nuclear waste. Morsleben was in the DDR, and its operating license was extended after German unification. In December 1991, Federal Minister Töpfer gave a report on Morsleben in a committee meeting. The report stated that the license for Morsleben was now valid until 30.6.2000.⁵⁵²

In December 1993, however, the SPD called for an *Aktuelle Stunde* on the topic of the government's position towards the final storage of low and medium level radioactive waste at Morsleben (ERAM). Dietmar Schütz, Reinhard Weis (Stendal), and Siegrun Klemmer (all from the SPD) criticised the legitimacy of using Morsleben due to problems in long-term safety and the legality of storing the waste there. They therefore called for the immediate closure of Morsleben.⁵⁵³ Barbara Höll (PDS/Linke Liste) also argued for the closure of Morsleben, because the licensing process had not taken place under normal FDR legislation. For example, there had been no planning permission hearings, nor any public participation.⁵⁵⁴ These demands concerned the fundamental principles behind the democratic decision-making process and the direct participation of citizens in it.

The opposition was effectively arguing that the licensing of Morsleben had not been thorough enough to ensure operational safety. On 19 June 1995, Reinhard Weis (Stendal) again criticised the federal government for continuing to use Morsleben as a final storage facility even though there were now some experts who disagreed with officials. In his opinion, the licensing fiasco with

⁵⁴⁹ Deutscher Bundestag, 12. Wahlperiode, 53. Sitzung, 6.11.1991, 4422-4423. "*Weisungen strapazieren unsere Verfassung und belasten das Verhältnis zwischen Bund und Ländern und damit die föderale Struktur Deutschlands.*"

⁵⁵⁰ PA-DBT 3121 A12/17-Prot. 24, 20-26.

⁵⁵¹ PA-DBT 3121 A12/17-Prot. 24, 27-37. "*Aufgrund der hier aufgeführten gravierenden Sicherheitsdefizite und Rechtsgründe ist eine Wiederaufnahme der MOX-Verarbeitung in der Altanlage auf absehbare Zeit nicht möglich.*"

⁵⁵² PA-DBT 3121 A12/17-Prot. 19, 35-43.

⁵⁵³ Deutscher Bundestag, 12. Wahlperiode, 196. Sitzung, 2.12.1993, 17021-17022, 17028-17029, 17030-17032.

⁵⁵⁴ Deutscher Bundestag, 12. Wahlperiode, 196. Sitzung, 2.12.1993, 17024-17025.

Morsleben showed quite categorically that the federal government had given up on “the philosophy of safety” and instead adopted “the safety standards of the DDR”.⁵⁵⁵ In the same debate Wolfgang Behrendt (SPD)⁵⁵⁶ claimed that the fact that Morsleben even needed to be brought up again demonstrated the “bankruptcy” of the government’s disposal policy. This unresolved question of where nuclear waste would be finally stored was a prime reason for the SPD to demand the phasing out of nuclear energy. He argued that the burden of final storage should be shared between the *Länder*, and the ruling coalition should research the different kinds of geological formations that would be best suited to this.⁵⁵⁷ The Alliance 90/Greens also drew attention to the fact that the license for Morsleben had not followed the correct federal procedures, when on 30 November 1995, Ursula Schönberger (Alliance 90/Greens) claimed there had not been any planning permission required for the site by the Atomic Law, even though the federal government considered everything else in the DDR to be of an inferior safety standard. She described the Morsleben as being a discussion on “one of the largest scandals in the potentially utterly fatal history of nuclear energy”.⁵⁵⁸

Walter Hirche, Parliamentary Secretary to the Federal Minister for the Environment, answered to this criticism, on 29 June 1995, by arguing that “the German Bundestag, the most powerful institution in the federation, decided within the frames of Unification Treaty to continue with Morsleben” and that “the technical requirements for adequate safety would be completely maintained”. Hirche also pointed out that the SPD had signed this Unification Treaty, but was now not willing to bear the consequences.⁵⁵⁹

In February 1996, there was an *Aktuelle Stunde* concerning the interim storage of radioactive waste at Morsleben. The opposition parties pointed out that the situation in Morsleben was chaotic, and Ursula Schönberger (Alliance 90/Greens) claimed there was a lack of precise knowledge as to which material had been stored in Morsleben and what would eventually happen to this material after the interim, so this storage had to stop.⁵⁶⁰ Wolfgang Behrendt (SPD) continued by criticising the federal government’s ignorance of the way radioactive waste was being stored in Morsleben and “the potential danger” of highly radioactive waste. He argued that the chaos surrounding these facts was

⁵⁵⁵ Deutscher Bundestag, 13. Wahlperiode, 47. Sitzung, 29.6.1995, 3900-3901. “Sicherheitsphilosophie”; “Sicherheitsbewägungen der DDR”

⁵⁵⁶ Archiv, Abgeordnete. **Wolfgang Behrendt** (SPD) (born in 1938) was a member of the Bundestag in 1994-2002. In 1994-1998 he was a member of the AfUNR.

⁵⁵⁷ Deutscher Bundestag, 13. Wahlperiode, 47. Sitzung, 29.6.1995, 3902.

⁵⁵⁸ Deutscher Bundestag, 13. Wahlperiode, 74. Sitzung, 30.11.1995, 6573-6574. “[e]iner der größten Skandale in dieser durch und durch skandalträchtigen Geschichte der Nutzung der Atomenergie.”

⁵⁵⁹ Deutscher Bundestag, 13. Wahlperiode, 47. Sitzung, 29.6.1995, 3904. “[d]er Deutsche Bundestag, die erste Gewalt im Staate, im Rahmen des Einigungsvertrags beschlossen hat, Morsleben fortzuführen.” “Die sicherheitstechnischen Anforderungen werden vollständig eingehalten.”

⁵⁶⁰ Deutscher Bundestag, 13. Wahlperiode, 85. Sitzung, 7.2.1996, 7457-7458.

unacceptable and if they could not be established, then the reliability of the operating authority was seriously in question because of “the huge potential risk of the waste”.⁵⁶¹ Steffi Lemke (Alliance 90/Greens) pointed out that nuclear waste was thus being kept at Morsleben in “catastrophic final storage conditions”, especially when one considered that every other nuclear facility in the east dating from DDR times was closed down (e.g., Wismut, Bitterfeld, and Teersee Rositz).⁵⁶²

In 1998 the ruling CDU/CSU and FDP coalition even considered extending the operating license of Morsleben until 2005. Walter Hirche stated on the government’s behalf that the closure of Morsleben was certainly imminent, but he accused the opposition of “panic-mongering” and argued that there were no “objectively justifiable reasons for questioning the safety of people and the environment”. Safety was a public matter in Germany he added, noting that “no other country on Earth would be having a similar legitimate public discussion about the safety of (especially) nuclear power plants”.⁵⁶³

But on 16 November 2000, on behalf of the next (red-green) government, Jürgen Trittin criticised the previous incumbents for allowing the storage of radioactive waste in Morsleben even though geologists, environmental politicians, and environmental organisations had voiced doubts about the safety of final storage in Morsleben for years. Trittin criticised the former Chancellor, Helmut Kohl, and the predecessor in his post, Angela Merkel, because they had ensured that radioactive waste would be stored there until 2005, with the result that radioactive waste would continue to be stored long after their government had left office. According to Trittin “You did this even though you knew that this plant would never have had a license under West German law”.⁵⁶⁴

The above examples of how Hanau and Morsleben were politicised in the Bundestag also illustrate just how interpretations conflicted over fundamental notions concerning the constitution, federal structure, and the principles governing the process of legitimate democratic decision-making in Germany. The Green representatives in particular highlighted the need for citizens to be directly involved in decisions over policymaking at the local *Länder* level regarding the licensing of nuclear facilities. In general, the anti-nuclear parties

⁵⁶¹ Deutscher Bundestag, 13. Wahlperiode, 85. Sitzung, 7.2.1996, 7460-7461. “Gefahrenpotential”; “enormen Risikopotential der Abfälle”

⁵⁶² Deutscher Bundestag, 13. Wahlperiode, 85. Sitzung, 7.2.1996, 7464-7465. “katastrophale Endlagerungsbedingungen”

⁵⁶³ Deutscher Bundestag, 13. Wahlperiode, 231. Sitzung, 24.4.1998, 21240. “Es gibt keinen objektiv begründeten Anlass, die Sicherheit der Bevölkerung und den Schutz der Umwelt in Zweifel zu ziehen.” “Es gibt, glaube ich, kaum ein Land auf der Erde, in dem es - berechtigterweise - eine solche öffentliche Diskussion über Sicherheitsfragen gibt und in dem man sich insbesondere um die Sicherheit der Kernkraftwerke so sehr kümmert.”

⁵⁶⁴ Deutscher Bundestag 14. Wahlperiode, 133. Sitzung, 16.11.2000, 12820. “Sie taten dies, obwohl Sie wussten, dass diese Anlage nach bundesdeutschem Recht nie genehmigungsfähig gewesen wäre.”

argued that Hanau and Morsleben proved how the 'philosophy of safety' was not in fact being fulfilled or practised in Germany.

5.3 Gorleben - the Atomic State in Action?

As mentioned earlier, the events surrounding Gorleben (also known as *Wendland*) during the second half of the 1990s marked a rebirth of the German anti-nuclear movement, since the area had also always had a symbolic historical value for the movement. The region's prominence in the German nuclear energy debate began after the Prime Minister for Lower Saxony, Ernst Albrecht, announced in 1977 the plans for Gorleben to become the location for a comprehensive nuclear disposal centre (*Nuklearen Entsorgungszentrum, NEZ*). Massive protest demonstrations were organised and, in May 1980, a protest camp called '*Republik Freies Wendland*' was established at Gorleben to oppose the government storage plans and practise an alternative lifestyle. Eventually Albrecht concluded that the "reprocessing plant in Gorleben is politically impossible to enforce", but the salt dome at Gorleben remained a prospective final storage facility for highly radioactive waste.⁵⁶⁵

The protests (1995-97) against the transports of radioactive waste to Gorleben in many ways brought the anti-nuclear movement back to life, and under somewhat changed circumstances. The fundamental target of closing down all nuclear power plants remained, but the focus was on the toxic issue of nuclear waste storage. The tactics of the protesters were to make transports not only economically unprofitable, by increasing the costs incurred through a heavy police presence, but also politically unprofitable - by drawing the transports to the public's attention and thereby questioning the legitimacy of the state's actions.⁵⁶⁶ After Chernobyl, the visibility of the anti-nuclear movement had been declining, but the *Castor* issue in Gorleben reignited the movement. It was reminiscent of the direct actions that protesters had used in the 1970s, and it proved to be beneficial to the Green Party's agenda.⁵⁶⁷

The fact that Gorleben was seen by so many as an embodiment of deeper conflict in society highlights the difficult political situation in Germany. The protests were seen as part of a wider and more fundamental conflict caused by the use of nuclear energy as a whole - for instance, the unceasing production of nuclear waste, the unresolved question of disposal, and fears over the safety risks of nuclear technology.

The reason for interpreting Gorleben as a symbol of wider anti-nuclear attitudes is because the transports themselves feature relatively rarely as the

⁵⁶⁵ Radkau & Hahn, 2013, 304-306, 325; Radkau 2011a, 11; Stay 2011, 1, 74-75.

⁵⁶⁶ Blank 1998, 200-201.

⁵⁶⁷ Rüdig 2000, 50, 52.

subject of the arguments between politicians. In other words, the politicians saw the massive protests in 1995-1997 as being symptomatic of some greater issues that needed to be discussed. So, although there were certainly physical risks and dangers associated with the transports,⁵⁶⁸ Gorleben came to represent something of far greater political resonance than just a nuclear waste disposal site.

After being made Federal Minister for the Environment, Nature Conservation, and Reactor Safety in November 1994, Angela Merkel maintained that the safety of the transports was sufficient, and she supported licensing the interim storage facility at Gorleben, dismissing doubts over the technical safety and density of transports.⁵⁶⁹ In Merkel's opinion, the real safety risk was the violence of the demonstrations rather than the transports themselves.⁵⁷⁰ On 24 April 1995, Merkel argued that there was no rational justification for doubting the safety of nuclear energy or these transports, but that it was more of a threatening issue in the former Eastern Bloc countries. She probably made this last point as she gave the speech on the 9th anniversary of Chernobyl.

When faced with the real problems existing in our neighbouring countries, then these domestic concerns pale in comparison and seem absurd. [...] The castor-transport and especially what has occurred around it during the last few days are a dramatic example of deflecting attention away from the real problems in our country and elsewhere and declaring technically solvable issues as unsolvable. Everybody in the House who has considered this issue knows that this transport constitutes no potential danger for local residents, either around the transport routes or within the storage facility itself; and the containers themselves comply with the highest international safety standards.⁵⁷¹

Even though, in spite of Merkel's claims, politicians did in fact disagree about these safety aspects; the discussion surrounding the Gorleben transports did

⁵⁶⁸ Deutscher Bundestag, Drs. 13/6997; Deutscher Bundestag, Drs. 13/7085; Deutscher Bundestag, Drs. 13/7984.

⁵⁶⁹ E.g., FAZ 8.2.1995, Nr. 33/6, p.1, Frau Merkel droht Frau Griefahn bundesaufsichtliche Weisung an.

⁵⁷⁰ FAZ 26.4.1995, Nr. 97/17, p.1, Der Castor-Transport erreicht Gorleben Unterwegs gewalttätige Demonstrationen. Tausende Polizisten im Einsatz / In diesem Jahr wahrscheinlich noch drei ähnliche Vorhaben; FAZ 26.4.1995, Nr. 97/17, p.1, Castor lange Reise. Von Friedrich Karl Fromme; FAZ 26.4.1995, Nr. 97, p.3, Symbolischer Bürgerkrieg im Wendland. Von Stefan Dietrich; FAZ 27.4.1995, Nr. 98, p.4, 7600 Polizisten sicherten Castor-Behälter. Bilanz des Transports/ Grüne: Brutales Bürgerkriegsmanöver.

⁵⁷¹ Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2517-2518. "*[a]ngesichts der wirklichen Probleme, die es in unseren Nachbarländern gibt, muten die Schwierigkeiten und die Diskussionen, die wir in unserem Lande um die Entsorgung führen, geradezu absurd an. [...] Der Castor-Transport und vor allen Dingen das, was sich in seinem Umfeld in den letzten Tagen abgespielt hat, ist ein drastisches Beispiel dafür, wie man von den wirklichen Problemen in unserem und den anderen Ländern ablenkt und technisch lösbare Probleme für unlösbar erklärt. Jeder, der sich in diesem Hause damit befasst hat, weiß, dass dieser Transport keine potentielle Gefahr für die Anwohner an den Transportstrecken und des Zwischenlagers darstellt. Der Behälter entspricht strengsten internationalen Sicherheitsnormen.*"

seem to treat the issue more symbolically (as mentioned earlier), in so far as it demonstrated the fundamental controversies facing energy policies in the wider historical decades-long context of anti-nuclear demonstrations. On 27 February 1997, during the third transport to Gorleben, Federal Minister for the Interior, Manfred Kanther (CDU),⁵⁷² compared the current conflict over the issue with earlier massive conflicts in Brokdorf and Wackersdorf by saying that some specific safety aspects were “once again the focus of a fundamental fight against nuclear energy”.⁵⁷³ In the same Bundestag session, the Lower Saxony Minister for the Interior, Gerhard Glogowski (SPD),⁵⁷⁴ also shared this view, but added that the demonstrations in Gorleben were really about resisting the federal government’s energy policy.

[t]he castor has become a rallying point for those unhappy with the unresolved issue of Germany’s energy policy [...]. As in Wackersdorf, it is about the failed atomic policy of this federal government [...]. We have to recognise that there is a broad citizens movement both inside and outside Lower Saxony and the Lüchow-Dannenberg region. The resistance in Wendland goes back 20 years now [...]. An interim storage facility in the most symbolic place for the anti-nuclear movement is politically senseless. [...] The resistance against Gorleben is resistance against what it symbolises.⁵⁷⁵

This speech illustrates that politicians opposed to nuclear energy were particularly keen to show that Gorleben was symbolic of a much wider malaise concerning energy policy. The demonstrations in Gorleben were indicative of a need for radical changes in energy policy too. Arne Fuhrmann (SPD)⁵⁷⁶ summarised this argument on 27 February 1997, during the third transport when he said that

⁵⁷² Archiv, Abgeordnete. **Manfred Kanther** (born in 1939) was the CDU member for Lower Saxony, a member of the Hesse Parliament in 1974-1993, and a Bundestag member in 1994-2000. Kanther acted as the Federal Minister for the Interior in 1993-1998.

⁵⁷³ Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14325. “Es geht wieder um einen der vielen Schauplätze des grundsätzlichen Kampfes gegen die Kernenergie.”

⁵⁷⁴ **Gerhard Glogowski** (born in 1943) acted as the Minister for the Interior in Lower Saxony in 1990-1998 in Gerhard Schröder’s cabinet and was Prime Minister of Lower Saxony in 1998-1999.

⁵⁷⁵ Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14326, 14328. “[d]er Castor ist zum Symbol für den Widerstand gegen die ungelöste Probleme der Energiepolitik der Bundesrepublik Deutschland geworden. Hierfür ist nicht der Castor verantwortlich. Hierfür ist, wie auch bei Wackersdorf, die verfehlte Atompolitik dieser Bundesregierung verantwortlich. Wir müssen heute feststellen, dass es eine breite Volksbewegung innerhalb und außerhalb Niedersachsens und der Region Lüchow-Dannenberg gibt. Der Widerstand im Wendland hat eine 20jährige Tradition. [...] Ein Zwischenlager an dem symbolträchtigsten Ort der Anti-AKW-Bewegung ist politisch unvernünftig. [...] Der Widerstand gegen Gorleben ist der Widerstand gegen das Symbol Gorleben.”

⁵⁷⁶ Archiv, Abgeordnete. **Arne Fuhrmann** (SPD) (born in 1941) was a Bundestag member in 1990-2002. In 1994-1998 he was a deputy member of the AfUNR.

Gorleben symbolises not one, two, or even three castor transports, but the phasing out of nuclear energy. Gorleben is a symbol of peaceful resistance against the senseless and unnecessary transport of radioactive waste.⁵⁷⁷

Furthermore, the speakers of the opposition parties aimed at proving that the reason for the conflict was the federal government's energy policy and peace in society could only be achieved by changing this policy. During the second transport, Wolfgang Behrend (SPD) claimed on 9 May 1996 that "the federal government is responsible for Gorleben becoming a symbol of resistance against nuclear energy", and "this will not change until the federal government acknowledges that nuclear energy is not widely accepted in society".⁵⁷⁸ In the same Bundestag debate, Monika Ganseforth (SPD) argued that violence had emerged because of the federal government's mistakes in energy policy and the general unpopularity of nuclear energy in society. These were also the reasons the SPD's demands to phase out nuclear energy.⁵⁷⁹ During the third transport on 27 February 1997 Michael Müller (SPD member for Düsseldorf) argued that this reinvigorated dispute over the future of Germany's energy policy could only be resolved if a consensus with the general population could be found.⁵⁸⁰

The fact that the Gorleben transports of radioactive waste represented a fraction of all the transports of radioactive waste executed every year in Germany highlights the symbolic role Gorleben had in the German nuclear energy debate. None of the others had the same symbolic significance; for instance, transports of strong and weak radioactive waste to Ahaus in Münsterland, Nordrhein-Westfalen were debated on a significantly smaller scale. Wolfgang Roth, journalist at the SZ, observed this in an article on 20 March 1998, adding that this comparative lack of visibility is what made Ahaus logistically easier to use than a facility like Gorleben which was already too symbolically attached to the anti-nuclear movement.⁵⁸¹

Pro-nuclear supporters nevertheless drew attention to the fact that transports to Ahaus went practically unnoticed to show how the resistance surrounding the transports to Gorleben was irrational and absurd. So it was that Carl Graf Hohenthal, writing for the FAZ, argued in an article on 9 May 1996 that many in the anti-nuclear camp seemed to focus only on atomic

⁵⁷⁷ Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14358. *"Gorleben ist nicht ein Symbol für einen, zwei oder drei Castor-Transporte, sondern für den Ausstieg aus der Kernenergie. Gorleben ist ein Symbol für den friedlichen Widerstand gegen unsinnige und überflüssige Transporte von radioaktivem Abfall."*

⁵⁷⁸ Deutscher Bundestag, 13. Wahlperiode, 104. Sitzung, 9.5.1996, 9137. *"Durch die Schuld der Bundesregierung ist Gorleben zum Symbol für den Widerstand gegen die Kernkraft geworden." „Daran wird sich auch nichts ändern, solange die Bundesregierung nicht erkennt, dass es keine umfassende gesellschaftliche Akzeptanz für die Atomenergie gibt."*

⁵⁷⁹ Deutscher Bundestag, 13. Wahlperiode, 104. Sitzung, 9.5.1996, 9126-9127.

⁵⁸⁰ Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14353-14354.

⁵⁸¹ SZ 20.3.1998, p.2, Warum der Weg nach Ahaus führt. Verbrauchte Brennelemente können in den Kernkraftwerken nur begrenzte Zeit aufbewahrt werden. Von Wolfgang Roth.

transports from La Hague to Gorleben, when in fact 60 to 80 other transports went unnoticed without any protests every year in Germany.⁵⁸²

The role of the state in the transports to Gorleben was heavily criticised especially by the Alliance 90/Greens. They claimed that the conflict symbolised the fundamental defect in using nuclear technology - its use required the state to back down on its democratic principles and to use extreme power over its own citizens. Ursula Schönberger (Alliance 90/Greens) was one of the most vocal of these critics in the Bundestag, and she used the term 'atomic state' to describe the way the state was bypassing normal democratic procedures when it came to nuclear policy. 'Atomic state' (*Atomstaat*) was another concept that had a semantic pedigree that went back decades. It referred to the original form of nuclear technology - the atomic bomb - with all the negative connotations and fear that the dawn of the atomic age brought with it. Already in the 1950s, there was fiction speculating about democracy being endangered by the use of atomic technology.⁵⁸³ The book by Robert Jungk, *Der Atomstaat*, published in 1977, speculated about the consequences of large-scale technology being used by the state.⁵⁸⁴ From then on, the concept of 'atomic state' (*Atomstaat*) was thus tightly connected with the concept of '*Rechtstaat*' (the rule of law).⁵⁸⁵ After the first transport had reached the interim storage facility at Gorleben on 26 April 1995, Schönberger drew a parallel with Jungk's work.

Yesterday the atomic state (*Atomstaat*) foretold by Robert Jungk came true: 6500 police officers accompanied one transport, private land was occupied by the police, there were random arrests made. The right to demonstrate was withheld for days. Water cannons used against nonviolent demonstrators are the face of this atomic state. You have brought the first castor-transport to the interim storage facility, but at what price? Using the largest police escort ever used in the FRG at a cost of 55 million DM per castor, and going at a walking pace.⁵⁸⁶

A year later, on 9 May 1996, Schönberger argued that the resistance at Gorleben was not against a single atomic transport, but that it also stood "for the will of the people to finally draw their conclusions from Chernobyl and to phase out nuclear energy". Schönberger then drew attention to the state's use of force in

⁵⁸² FAZ 9.5.1996, Nr. 108, p.3, Jedes Jahr rollen 60 bis 80 Atom-Transporte unbehelligt durch Deutschland. Verträge mit Frankreich über die Rücknahme radioaktiver Abfälle. Castor-Behälter müssen hohe Sicherheitsauflagen erfüllen. „SPD will Verantwortung der Union zuschieben“. Von Carl Graf Hohenthal.

⁵⁸³ Jung 1994, 96, 103-104, 108; Radkau & Hahn 2013, 11.

⁵⁸⁴ Jungk 1977.

⁵⁸⁵ Jung 1994, 96 103-104, 108; Radkau & Hahn 2013, 11.

⁵⁸⁶ Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2543. "*Gestern ist der von Robert Jungk prognostizierte Atomstaat wieder lebendig geworden: 6500 Polizisten für einen Transport, Besetzung privaten Bodens durch die Polizei, willkürliche Beschlagnahmen. Seit Tagen ist das Demonstrationsrecht ausgesetzt. Wasserwerfen gegen gewaltlose Demonstrantinnen und Demonstranten sind die Gesichter dieses Atomstaats. Sie haben den ersten Castor-Transport ins Zwischenlager gebracht - doch zu welchem Preis? Mit dem größten Polizeieinsatz, des es je in der Bundesrepublik gegeben hat: 55 Millionen DM für einen Castor, im Schrittempo begleitet von einem Polizeispalier.*"

past few days by saying “The ‘atomic state’ means that those who favour nuclear energy, due to its potential risks, are forced to push it through with all the power a state can use against its own citizens”.⁵⁸⁷ In Schönberger’s opinion Gorleben represented the impossibility of continuing to use nuclear energy without changing the role of the state into something quite undemocratic - the atomic state.

The Greens (in particular) interpreted the massive demonstrations as a challenge to the legitimacy of the federal government’s energy policy. They expressed the viewpoint that there should be a more direct form of democracy to express the will of the electorate in other ways than through parliamentary elections over crucial policymaking decisions concerning such issues as the transport of nuclear waste. One illuminating example is the speech by the leader of the Alliance 90/Greens group, Joschka Fischer, on 9 May 1996, in which he formally defended the constitutional interpretation of democracy, but at the same time validated attempts to use civil disobedience to ensure that such democracy was in fact practised by the government. Fischer argued that people demonstrating peacefully and organising non-violent sit-ins were using “their fundamental right to demonstrate”) and should not be labelled “violent criminals”. He then went on to state the position of his party on this matter: “we Greens express wholehearted solidarity with the peaceful, democratic protesters in Wendland against the fatally flawed policy of the federal government”.⁵⁸⁸ As parliamentary group leader, Fischer explicitly condemned the use of violence in the demonstrations, yet he implicitly emphasised civil disobedience as a suitable means to achieve political targets and to safeguard real democracy.

For our party non-violence is a basic principle. Therefore we object to violence. [...] I speak as a person who you might well have justifiably called a “violent criminal” in the 1970s. So I know too well that violence is not an option and that abandoning constitutional principles can never be a democratic choice. [...] On the other hand, if we had not had these protests then the country would have a nuclear capacity twice as large, and there would be less democracy. [...] We have to phase out nuclear energy to end this division in the country. This country will not tolerate a hundred nuclear transports, it tolerates only a consensus, and this consensus will only come if we phase out nuclear energy.⁵⁸⁹

⁵⁸⁷ Deutscher Bundestag, 13. Wahlperiode, 104. Sitzung, 9.5.1996, 9123. *“Atomstaat heißt, wer sich für Atomenergie entscheidet, ist auf Grund des Gefahrenpotentials gezwungen, sie mit aller Gewalt auch gegen die eigene Bevölkerung durchzusetzen.”*

⁵⁸⁸ Deutscher Bundestag, 13. Wahlperiode, 104. Sitzung, 9.5.1996, 9132. *“von ihrem grundgesetzlich verbrieften Recht der Demonstrationsfreiheit”; “Gewalttäter”; “[w]ir Grüne solidarisieren uns ohne Wenn und Aber und mit allem Nachdruck mit dem friedlichen, demokratischen Protest der Menschen im Wendland gegen die fatal falsche Politik der Bundesregierung.”*

⁵⁸⁹ Deutscher Bundestag, 13. Wahlperiode, 104. Sitzung, 9.5.1996, 9132. *“Für unsere Partei ist Gewaltfreiheit ein Grundprinzip. Deshalb lehnen wir Gewalt ab. [...] Ich sage Ihnen das als jemand, den Sie in den siebziger Jahren zu Recht als einen dieser “Gewalttäter” bezeichnet hätten. Ich weiß nur zu gut, dass Gewalt keine Perspektive ist, dass das Verlassen*

This shows that even though the Alliance 90/Greens, among the other parties in the Bundestag, formally condemned the use of violence, they were nonetheless encouraging people to demonstrate. The party was, after all, formed originally to politically represent the anti-nuclear movement and other related environmental groups in 1980, and many leading figures of the party were former demonstrators themselves. In their opinion, the attempts by the ruling parties to criminalise the demonstrations needed to be challenged, criticised and condemned, as being able to demonstrate was one of the basic rights of German democracy. On 12 March 1997, for instance, Kerstin Müller (Alliance 90/Greens member for Cologne)⁵⁹⁰ argued that the federal government needed the “legend of violent anarchists only to legitimise the largest police operation in the history of the Federal Republic”, adding that the demonstrators were not criminals, but ordinary people like farmers, students, teachers, and housewives.⁵⁹¹ In the research literature, the notion of non-violence (*Gewaltfreiheit*) is understood as an umbrella concept to describe the various forms of resistance shown in the demonstrations, which came quite close to the more active notion of ‘civil disobedience’ (*zivile Ungehorsams*).⁵⁹²

But it was not just the Alliance 90/Greens who thought the demonstrations showed that the federal government’s energy policy had gone too far. Some of the SPD even went so far as to say that the demonstrations expressed the will of the majority of people, and so it needed to be respected. During the demonstrations against the third transport to Gorleben, on 27 February 1997, Dietmar Schütz (SPD) claimed that “the real conflict is between the majority in government acting on one political issue against citizens, the majority of whom are against the use of nuclear energy”. Schütz went on to argue that the police could not solve this conflict and the only way out of it was to begin phasing out nuclear energy for good.⁵⁹³

These speeches illustrate how the Alliance 90/Greens and the SPD saw the demonstrations as more representative of the will of the majority than the parliamentary majority elected via democratic elections. In the context of the

rechtsstaatlicher Grundsätze niemals eine demokratische Perspektive sein kann. [...] Aber umgekehrt sage ich Ihnen auch: Wir hätten in diesem Land mindestens das Doppelte an Atomkraftwerkskapazitäten, wir hätten in diesem Land eine andere, nämlich weniger Demokratie, wenn es diesen sozialen Protest nicht gegeben hätte. [...] [w]ir müssen aus der Atomenergie aussteigen, damit die Spaltung in diesem Land aufhört. Dieses Land wird nicht hundert Atomtransporte aushalten, sondern es hält nur einen Konsens aus, und diesen Konsens wird es nur geben, wenn wir aus der Atomenergie aussteigen.“

⁵⁹⁰ Archiv, Abgeordnete. **Kerstin Müller** (Cologne) (Alliance 90/Greens) (born in 1963) was a Bundestag member in 1994-2013. In 1994-1998 she was the speaker of her party group and in 1998-2002 the Chair of the party group. In 1990-1994 she acted as the Chair of the Greens in the state of Nordrhein-Westfalen. She is educated as jurist.

⁵⁹¹ Deutscher Bundestag, 13. Wahlperiode, 162. Sitzung, 12.3.1997, 14601-14602.

⁵⁹² Blank 1998, 202-203, 213.

⁵⁹³ Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14344-14345. “Der eigentliche Konflikt ist doch, dass seine Regierungsmehrheit bei einem politischen Einzelthema gegen die Bevölkerung agiert, die in ihrer Mehrheit gegen die Nutzung der Kernenergie ist.“

overall arguments put forward by the Greens (as discussed in this work) it implies an alternative understanding of democracy as involving the more direct participation of citizens; whereas for the SPD, these arguments were more likely a way to challenge the content of the policy than the parliamentary decision-making process itself.

The Greens in Lower Saxony were even clearer in advocating civil disobedience as suitable means of political expression, and they actively encouraged people to express their will through demonstrating. When the third castor-transport to Gorleben was underway in 1997, they called it a “fight against six castor-containers” (*Kampf gegen den Castor im Secherpack*). The Chair for the party, Meta Janssen-Kucz, declared that the Greens objected to the methods of a police state (*polizeistaatlichen Methoden*) and saw civil disobedience as a legitimate means to protest against inhumane policies.⁵⁹⁴ Lower Saxony’s Minister for the Interior, Gerhard Glogowski (SPD), responded in the Bundestag (27 February 1997) that Lower Saxony’s state constitution compelled it to enable the transports to happen and he was not so much worried about the huge financial costs of the police force, as by the social costs caused by the use of police force to carry out the policy.⁵⁹⁵

Representatives from the ruling parties argued that policymaking in representative institutions such as the Bundestag was legitimate, since the constitution defined that the German political system was a “representative democracy”. The CDU/CSU and FDP thus criticised the Greens for encouraging people to demonstrate, and questioned the party’s parliamentary credentials in general, if they were so keen to promote such extra-parliamentary means. On 9 May 1996, while the second transport to Gorleben was happening, Rudolf Seiters (CDU/CSU)⁵⁹⁶ accused the Greens of openly supporting infringement of the law (*Rechtsbruch*) and sanctioning the use of violence in demonstrations.⁵⁹⁷ In the same debate, Angela Merkel argued that the federal government did not disapprove of the demonstrations or the citizens’ initiative *per se*, but when it came to breaking the law, every Bundestag member had to clearly separate themselves from these perpetrators.⁵⁹⁸ On 27 February 1997,

⁵⁹⁴ FAZ 5.2.1997, Nr. 30, p.2, Zug mit Atombrennstäben entgleist. „Sicherheit gewährleistet“ / SPD warnt vor Verharmlosung; FAZ 18.2.1997, Nr. 41, p.49, „Einmalige atomare Sicherheitsbedrohung“. Atommüll-Transport: Bund Naturschutz warnt/ Strafantrag; FAZ 20.2.1997, Nr. 43, p.4, Kommunen verweigern sich der Polizei. „Landesunfreundliche Beschlüsse“ vor dem Castor-Transport; FAZ 25.2.1997, p.5, Demonstrationsverbot im Wendland; FAZ 26.2.1997, Nr. 48, p.4, Vor Castor-Transport Streit um Kundgebung und Turnhallen. Gerichtliche Auseinandersetzungen zwischen der Bezirksregierung und dem Kreis Lüchow-Danenburg.

⁵⁹⁵ Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14328-14329.

⁵⁹⁶ Archiv, Abgeordnete. **Dr. Rudolf Seiters** (CDU/CSU) (born in 1937), educated as jurist, acted as the Federal Minister for the Interior in 1991-1993 and the Vice President of the German Bundestag in 1998-2002. He was a Bundestag member in 1969-2002.

⁵⁹⁷ Deutscher Bundestag, 13. Wahlperiode, 104. Sitzung, 9.5.1996, 9124-9126.

⁵⁹⁸ Deutscher Bundestag, 13. Wahlperiode, 104. Sitzung, 9.5.1996, 9129.

Guido Westerwelle (FDP)⁵⁹⁹ condemned the Greens' decision to participate in the demonstrations and criticised the use of concepts such as *the 'atomic state'* and *'police state'* by the Greens, because it confused the youth's understanding of democracy and the constitutional state.⁶⁰⁰ Hans-Otto Wilhelm (CDU/CSU member for Mainz)⁶⁰¹ argued on 12 March 1997 that the Greens should define their relationship with violence unambiguously, because a party with such a history should stand more clearly on the side of justice.⁶⁰² On 12 March 1997, Walter Hirche (FDP) defined the "right to demonstrate" as a "core element of our political culture", and this was duly respected by the FDP, but he accused the Greens of showing condoning violence against "the constitutional state".⁶⁰³

The previous quotes from the ruling parties show them using terms such as "infringement of the law" and "law-breakers", which simply turns the demonstrations into criminal behaviour, which can then be conveniently depoliticised. However, these attempts to depoliticise the issue through verbal acts were evidently unsuccessful. The Federal Minister for the Environment, Angela Merkel did this, for example, on 26 April 1995, by saying that freedom of speech did not mean permission to use violence, highlighting that the state rightfully had the monopoly over using force, as it was the organ endowed with the responsibility of maintaining safety in society.⁶⁰⁴ On 27 February 1997, just before the third transport to Gorleben, Rupert Scholz (CDU/CSU)⁶⁰⁵ stipulated that "in our free and democratic state everyone has the right to express political opinions freely and to demonstrate", but it was clear that the "fundamental right to freely assemble in article 8, only applies to [...] demonstrating in a peaceful manner". Scholz argued that sabotage, or violent attempts to undermine the decisions of parliament could not be politically justified by an appeal to fundamental rights.⁶⁰⁶ The speech by Manfred Kanther, Federal Minister for the Interior, on 27 February 1997, goes further to explain this particular definition of 'democracy' (exclusive to parliamentarians).

⁵⁹⁹ Archiv, Abgeordnete. **Dr. Guido Westerwelle** (FDP) (born in 1961), educated as jurist, became a Bundestag member in 1994. In 1994-2001 he was the General Secretary of the FDP.

⁶⁰⁰ Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14334-14335.

⁶⁰¹ Archiv, Abgeordnete. **Hans-Otto Wilhelm** (Mainz) (CDU/CSU) (born in 1940) was a Bundestag member in 1994-2002. He was the Minister for the Environment and Health in Rheinland-Pfalz in 1987-1988.

⁶⁰² Deutscher Bundestag, 13. Wahlperiode, 162. Sitzung, 12.3.1997, 14600-14601.

⁶⁰³ Deutscher Bundestag, 13. Wahlperiode, 162. Sitzung, 12.3.1997, 14602-14603. "*Demonstrationsfreiheit*"; "*ein Kernelemente unserer politischen Kultur*"; "*Rechtsstaat*"

⁶⁰⁴ Deutscher Bundestag, 13. Wahlperiode, 33. Sitzung, 26.4.1995, 2517-2519.

⁶⁰⁵ Archiv, Abgeordnete. **Dr. Rupert Scholz** (CDU/CSU) (born in 1937), educated as jurist and with academic background, was a Bundestag member in 1990-2002. In 1998-2002 he acted as Chair in the Committee of Justice. In 1988-1989 he acted as the Federal Minister for Defence.

⁶⁰⁶ Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14330. "*In unserem freiheitlich demokratischen Staat hat jedermann das Recht, seine politische Meinung frei zu äußern und dafür auch frei zu demonstrieren. [...] [d]as maßgebende Grundrecht der Versammlungsfreiheit in Art. 8 garantiert freie Meinungsäußerung und freie Demonstration ausschließlich in friedlicher Form.*"

Democracy thrives on the open expression of political disagreements, which can sometimes be hard since it can often be polemical. Therefore, in this free country anyone who wants to can oppose the use of nuclear energy, and speak, write, correspond, and demonstrate against it. [...] But this debate about castor-transport is not just about that. The point here is more about how democracy not only thrives from acting out one's opinion, but at least as much from recognising the legal order of things. Infringing the law, [...] especially those that have been politically established, challenges democracy and the state protecting it. This legal order includes all its elements: compliance with international treaties, respecting the current energy law, and complying with laws that ensure security and protection from criminality. No people have the right to pick out those parts of this legal order which suit them and to disregard the rest. When the legal order is opposed with violence, then this challenges democracy.⁶⁰⁷

The parliamentary majority was thus the legitimate means for deciding policy lines and accepting commitments, the CDU/CSU and FDP argued; and this meant that the disposal policy had been legitimised via a democratic, parliamentary process. The message was that only by gaining a parliamentary majority inside the state's democratic institutions could a policy be changed.⁶⁰⁸ Therefore, the parliamentarians in the Bundestag disagreed over the question of whether it was the parliamentary majority or the citizens heard in the demonstrations who best represented the will of the people.

There was also the argument that international law obliged Germany to carry out these transports. Before the second transport to Gorleben, on 9 May 1996, Rudolf Seiters (CDU/CSU) claimed there were "clear commitments to transporting German fuel elements for reprocessing to France and back, based on contracts and international law".⁶⁰⁹

Concepts such as 'democracy', 'freedom of opinion', 'freedom to demonstrate', 'state monopoly over the use of force', and 'rule of law' were defined by the representatives of the ruling parties to argue their case that the actions of the (militant) anti-nuclear demonstrations were constitutionally

⁶⁰⁷ Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14323. "Die Demokratie lebt vom offenen Austrag politischer Gegensätze, deutlich, manchmal hart; das kann auch polemisch sein. Deshalb kann in diesem freien Land jeder, der es will, die Verwendung von Kernenergie ablehnen, dagegen reden, schreiben, senden, demonstrieren. [...] Denn um all dies geht es nicht, wenn wir heute das Thema Castor-Transporte erneut diskutieren müssen. Es geht vielmehr darum, dass die Demokratie nicht nur von diesem Ausleben der eigenen Meinung, sondern mindestens gleichwertig von der Beachtung ihrer Rechtsordnung lebt. Der Rechtsbruch, gar der organisierte, vor allem der politisch verbrämte, fordert die Demokratie und den Staat, der sie schützt, zentral heraus. Diese Rechtsordnung umfasst alle ihre Elemente: die Einhaltung internationaler Verträge, die Achtung des geltenden Energierechts und die Einhaltung der Straf- und Sicherheitsgesetze gleichermaßen. Niemand ist berechtigt, sich den Teil der Rechtsordnung herauszupicken, der ihm passt, und den Rest zu missachten. Die Spitze der Herausforderung für den demokratischen Staat ist erreicht, wenn der in Gesetzen ausgedrückten Rechtsordnung mit Gewalt entgegengetreten wird. Dies fordert die Demokratie frontal heraus."

⁶⁰⁸ See, e.g., Deutscher Bundestag, 13. Wahlperiode, 160. Sitzung, 27.2.1997, 14330, 14335.

⁶⁰⁹ Deutscher Bundestag, 13. Wahlperiode, 104. Sitzung, 9.5.1996, 9125. "Für die Transporte abgebrannter Brennelemente zur Wiederaufarbeitung in Frankreich und für die Zurücknahme der Abfälle nach Deutschland gibt es klare vertragliche und völkerrechtliche verbindliche Verpflichtungen."

illegitimate. To call this a ‘constitutional conflict’ seems like a bit of an exaggeration, since the political system was not really in any danger of collapsing, but there were elements of a constitutional conflict, in that politicians needed to redefine the basic concepts of political culture in the context of the massive demonstrations that were happening against the transports of radioactive waste to Gorleben.

Most importantly, the debate brought up the tension between competing definitions of ‘democracy’ as being either of the parliamentary representative kind, or the more direct. When debating the issue of Gorleben, representatives in the Bundestag were actually taking a stand on the following abstract-level questions, which had caused controversy political debates already since the Weimar Republic⁶¹⁰: who legitimately should represent the will of the people in German democracy; where policy truly gained its legitimacy; and what the meaning of basic democratic rights in the current controversial situation should be. In this sense the debate in the Bundestag was over what the fulfilment of democracy required and how this related to the use of nuclear energy.

5.4 Crisis of Confidence in the Spring of 1998

In late April 1998, the Environment Minister, Angela Merkel, announced that the French authorities had notified the German government that in some isolated cases, the limits set for acceptable levels of radiation in railway trucks and transport containers had been exceeded. The energy sector had not announced this information earlier even though operators of nuclear power plants had admitted later to having known about such cases as early as the mid-eighties.⁶¹¹ The following section shows how this ‘contamination scandal’ (as it became known) triggered a crisis of confidence in the Bundestag with regard to nuclear energy, to such a point that the status quo could no longer be easily defended.

The Federal Ministry of the Environment announced that transports of radioactive waste as well as the reprocessing of nuclear waste from German nuclear power plants in other countries would be stopped until it was clear as to how the railway trucks and transport containers had become contaminated. The Ministry expressed also criticised the information policy between countries, adding that the French and British authorities should have informed it

⁶¹⁰ Biefang & Schuz 2016.

⁶¹¹ FAZ 22.5.1998, Nr. 117/21, p.1, Vorerst keine Castor-transporte mehr. Energieversorger wussten seit zehn Jahren vom Überschreiten der Grenzwerte/ Opposition kritisiert Merkel.

earlier.⁶¹² The Federal Ministry of the Environment thus introduced a '10-point plan', among other things, to improve the control and information systems.

Many in the wider public debate and the Bundestag called for Merkel to claim political responsibility and resign from her post as Federal Minister of the Environment, Nature Conservation, and Reactor Safety. On 27 May 1998, the SPD made a resolution proposal, as did the Alliance 90/Greens group,⁶¹³ concerning the "Safety of Castor-transport" ⁶¹⁴ which both concluded that Merkel should resign. Both motions were dismissed in the voting, however,⁶¹⁵ and Merkel responded by pointing the blame at the nuclear industry and supervisory authorities instead. Outside the Bundestag, Merkel suggested that it was perhaps not so much about her taking responsibility, but about nuclear energy winning back people's confidence.⁶¹⁶ Even though transports to the reprocessing plant at La Hague had not caused any dangers to people's health and there was no binding obligation to inform the authorities, Merkel reasoned, such information was still nevertheless expected. In this respect, she held the supervisory authorities of the *Länder* and the Federal Railway Authority as being ultimately responsible for observing that radiation levels were within the correct limits.⁶¹⁷ In the Bundestag debate Merkel noted that the lack of information provided by energy companies, and their disregard of the limits had caused a "deep loss of confidence in society", and this had future implications as to how the government should henceforth deal with high technologies. They needed "clear limits and rules in order to prevent risks to safety or health".⁶¹⁸ Chancellor Helmut Kohl also expressed support for Merkel in his speech.⁶¹⁹

These speeches reframed the debate so that it was not so much about the actual dangers to health caused by exceeding radiation limits as such, but about the loss of confidence in nuclear energy. Other politicians in the ruling parties also denied that this had any wider implications concerning the continued use of nuclear energy. The solution to this 'scandal', they argued, was to simply conduct an investigation and draw the necessary conclusions concerning the sharing of information about technology. Ulrich Klinkert, for instance, argued on 24 June 1998 that Merkel's 10-point plan would determine the circumstances

⁶¹² FAZ 22.5.1998, Nr. 117/21, p.1, Vorerst keine Castor-transporte mehr. Energieversorger wussten seit zehn Jahren vom Überschreiten der Grenzwerte/ Opposition kritisiert Merkel.

⁶¹³ Deutscher Bundestag, Drs. 13/10813.

⁶¹⁴ Deutscher Bundestag, Drs. 13/10820.

⁶¹⁵ Deutscher Bundestag, 13. Wahlperiode, 237. Sitzung, 27.5.1998, 21796.

⁶¹⁶ FAZ 24.5.1998, Nr. 21, p.1, Kraftwerksbetreiber räumen Fehler bei Transporten ein. Merkel schließt Rücktritt aus/ SPD fordert Konsequenzen.

⁶¹⁷ FAZ 26.5.1998, Nr. 120/22, p.1, Merkel kritisiert mangelhafte Informationspolitik. „Wir hätten Meldungen erwartet“/ Atomforum: Schwerste Vertrauenskrise seit Tschernobyl.

⁶¹⁸ Deutscher Bundestag, 13. Wahlperiode, 237. Sitzung, 27.5.1998, 21773-21777. "einem tiefen Vertrauensverlust in der Bevölkerung"; "fordert klare Grenzwerte und Richtlinien zur Vermeidung von Sicherheits- bzw. Gesundheitsrisiken"

⁶¹⁹ Deutscher Bundestag, 13. Wahlperiode, 237. Sitzung, 27.5.1998, 21785-21786.

under which the transports could continue so as to restore trust, “because we do not want to or have to abandon the peaceful use of nuclear energy in the future”.⁶²⁰

The ruling parties also aimed at proving that ministers in the *Länder* had been aware of these radiation measurements earlier and they therefore had more political responsibility for the situation than Federal Minister Merkel. In a Bundestag debate on 24 June 1998, Ulrich Klinkert went further and accused ministers of having a conflict between their public and private interests. For instance, the Minister of Energy for Schleswig-Holstein Claus Möller had been informed about the measurements twice (in 1994 and 1996), Klinkert claimed, but he had not passed on the information since he was also a member of the board of directors at Preussen Elektra. According to Klinkert, this was the same story in Lower Saxony, where Monika Griefahn was also a member of a board.⁶²¹ Wolfgang Behrendt (SPD) agreed that these North German Ministers should be blamed, but added that there was also a member of the Bavarian parliament who already knew about the radiation limits being exceeded as early as 1986.⁶²² In a committee hearing on 17 June 1998, the Minister for Land Development and the Environment in Bavaria, T. Goppel, claimed that the governments of Hesse and Lower Saxony had been aware of exceeding radiation limits well before the spring of 1998,⁶²³ but a minister from the Hesse government, Priska Hinz, and the Minister for the Environment in Lower Saxony, Wolfgang Jüttner, denied Goppel’s accusations.⁶²⁴ Instead, the ministers tried to point out the much wider ramifications of nuclear safety limits being exceeded - it demonstrated the unreliability of an atomic industry that had recurrent problems. Priska Hinz described the main problem as being on a larger scale as one of the “reliability of operators”.⁶²⁵ Meanwhile, Wolfgang Jüttner described the real problem as being that there was now a public crisis in confidence generally towards the atomic energy industry.⁶²⁶

Leading figures in the energy sector announced publicly that they would take responsibility for the situation. The President of the German Atomic Forum (*Deutsches Atomforum*), Dr. Wilfried Steuer described the situation as the most serious crisis of confidence in nuclear energy the government had faced since Chernobyl.⁶²⁷ In May 1998, at the annual meeting of nuclear technology in Munich, Steuer apologised for all the political problems the nuclear industry

⁶²⁰ Deutscher Bundestag, 13. Wahlperiode, 244. Sitzung, 24.6.1998, 22781-22782. “[w]eil wir in Zukunft auf die friedliche Nutzung der Kernenergie weder verzichten wollen, nach verzichten müssen.“

⁶²¹ Deutscher Bundestag, 13. Wahlperiode, 244. Sitzung, 24.6.1998, 22781-22782.

⁶²² Deutscher Bundestag, 13. Wahlperiode, 244. Sitzung, 24.6.1998, 22782-22783.

⁶²³ PA-DBT 3121 A13/16-Prot. 78, pages 44, 45, 50.

⁶²⁴ PA-DBT 3121 A13/16-Prot. 78, pages 44, 45, 50.

⁶²⁵ PA-DBT 3121 A13/16-Prot. 78, pages 13-14. “Zuverlässigkeit des Betreibers”

⁶²⁶ PA-DBT 3121 A13/16-Prot. 78, pages 14-17.

⁶²⁷ FAZ 26.5.1998, Nr. 120/22, p.1, Merkel kritisiert mangelhafte Informationspolitik. „Wir hätten Meldungen erwartet“ / Atomforum: Schwerste Vertrauenskrise seit Tschernobyl.

had caused Angela Merkel, and stated that no police or personnel had been harmed by the incident.⁶²⁸ In June 1998, the President of the Voice of German Industry, Hans-Olaf Henkel, took responsibility on behalf of his fellow entrepreneurs for any radioactive contamination caused by transportation of atomic waste,⁶²⁹ and in an open committee hearing on 23 June 1998, Dr. Otto Majewski from *Bayernwerk AG* observed that

[N]uclear energy has suffered a general loss of credibility with the public [...]. We see therefore that we have a clear duty to make substantial improvements to our technical management, how information is shared, and in transport procedures so that people can once more trust nuclear energy again.⁶³⁰

Dr. Hans-Dieter Harig from *Preussen Elektra* wanted to make it clear, however, in the same committee hearing that though “though the target is that limits must be met [...], in radiation protection, you have to know that these limits are [...] legislated to be very low”.⁶³¹

The more critical voices in the public debate argued that the incident had proved the unreliability of the supervising authority and energy policy makers. The capital correspondent at the *SZ*, Alexander Hagelüken, argued on 9 May 1998, that if the Federal Railway Authority had instead conducted the tests on a regular basis (rather than randomly), then the above-limit radiation values would have been noticed earlier in Germany.⁶³² Martin Urban, chief science editor for the *SZ*, argued on 25 May 1998 that the central notion surrounding the incident was not so much a sense of relief that the radioactive fuel elements had left people unharmed, but more a sense that the credibility of nuclear energy had slumped irreparably, and that the government had been ignorant of matters that required extreme care. Urban was implying that Merkel had not known the necessary facts when giving out rulings (*Weisungen*) to the *Länder*. He stated that since Franz Josef Strauss had become the Atomic Minister, a necessary distance was needed to allow for a critical evaluation of energy policy, and this was lacking with the consequence that energy policy in Germany was decided upon by the electricity suppliers instead of by independent politicians.⁶³³

⁶²⁸ *SZ* 27.5.1998, p.5, Affäre um verstrahlte Transport-Behälter. Atomwirtschaft entschuldigt sich bei Merkel. SPD erwägt Entlassungsantrag gegen die Bundesumweltministerin.

⁶²⁹ *SZ* 10.6.1998, p.26, Schröder und BDI plädieren für Konsens. Henkel übernimmt im Namen der Industrie die Verantwortung für den Castor-Skandal.

⁶³⁰ PA-DBT 3121 A13/16-Prot. 80, pages 13-14. “Die Kernenergienutzung insgesamt hat in der Öffentlichkeit Schaden genommen.” [...]Wir sehen uns daher klar in der Pflicht, durch substantielle Verbesserungen unserer technischen Handhabung, unseres Informationsverhaltens und der Transportabläufe die Voraussetzungen dafür zu schaffen, dass der Kernenergie wieder Vertrauen entgegenbracht werden kann.“

⁶³¹ PA-DBT 3121 A13/16-Prot. 80, page 23.

⁶³² *SZ* 9.5.1998, p.1, Castor fährt in die Wissenslücke. Ursache für hohe Strahlung beim Atom-Transporten unbekannt. Von Alexander Hagelüken.

⁶³³ *SZ* 25.5.1998, s.4, Ahnungslose Ministerin. Von Martin Urban

Within the Bundestag, the opposition used the contamination incident to illustrate the more general problems with using nuclear energy. On 27 May 1998, Michael Müller (SPD member for Düsseldorf) argued that the situation challenged democracy and the legitimacy of the government's nuclear policy. Since the contamination had happened under the 'rule of law', it had destroyed the public's trust in the government's ability to be responsible for technology that was supposedly under its control. But in many ways he saw that the chief problem was the federal government was trying to execute an energy policy against the will of the majority of its citizens.⁶³⁴ In Müller's opinion, the "atomic waste scandal" (*Atomüllskandal*) was the last straw for the nuclear industry, and this was why the SPD wanted it phased out.⁶³⁵ On 24 June 1998, Wolfgang Behrendt (SPD) agreed that the best thing would be to phase out nuclear energy as soon as possible, as people now had little confidence in it, and this was also clearly the best solution for the nuclear waste disposal problem.⁶³⁶ Meanwhile, Rolf Köhne (PDS)⁶³⁷ said that the contamination scandal demonstrated that neither nuclear technology nor industry could be properly controlled.⁶³⁸

The meaning of this 'contamination scandal' for the whole nuclear energy debate should not be overemphasised, however, since it did not really lead to any wider political debate about nuclear safety or any other immediate political consequences, for that matter. However, what came up in the Bundestag time and again, regarding the scandal, was that people needed to be able to trust those involved in controlling nuclear energy matters, especially since nuclear technology required special attention and care. Another factor to bear in mind is that this scandal took place a few months before the Bundestag election in which the CDU/CSU and FDP lost to the red-green coalition, after 16 years in power. This might well have polarised the debate further than might have otherwise been necessary. In many ways, the 'contamination scandal' provided further fuel to the already strong arguments which cast doubt on whether nuclear power could be relied on as a form of technology that could in fact be effectively controlled and used responsibly.

⁶³⁴ Deutscher Bundestag, 13. Wahlperiode, 237. Sitzung, 27.5.1998, 21777-21779.

⁶³⁵ Deutscher Bundestag, 13. Wahlperiode, 244. Sitzung, 24.6.1998, 22790-22792.

⁶³⁶ Deutscher Bundestag, 13. Wahlperiode, 244. Sitzung, 24.6.1998, 22782-22783.

⁶³⁷ Archiv, Abgeordnete. **Rolf Köhne** (PDS) (born in 1951) was a Bundestag member in 1994-1998. He was a member of the AfUNR as well as the Commission of Inquiry for Protection of People and Environment.

⁶³⁸ Deutscher Bundestag, 13. Wahlperiode, 244. Sitzung, 24.6.1998, 22788-22789.

5.5 Disposal of Nuclear Waste during the Red-Green Federal Government

The amendment to the Atomic Energy Act that was finally accepted in the Bundestag in December 2001 (to phase out nuclear energy gradually) included significant changes in the concept of radioactive waste disposal. The changes had two main goals: one was to reduce the total number of nuclear waste transports; and the other was to share out the burden of storing radioactive waste between the *Länder* instead of putting the onus on just a few. To achieve these goals, the reprocessing of spent fuel elements would be abandoned from the end of June 2005 onwards; and disposal would stop for three to ten years at Gorleben.

In a speech on 29 June 2000, Chancellor Gerhard Schröder justified these changes (particularly the involvement of more *Länder* in disposal) by saying

[T]his is a classic ‘not in my back yard’ policy where one state takes all the credit while another does all the dirty work [...] and this cannot be allowed to happen.⁶³⁹

Schröder justified the plans to construct more interim storage facilities by pointing out that already in 1979 the heads of the *Länd* governments within the federation had agreed that further interim storage facilities would be necessary, and that it would mean fewer transports to Ahaus and Gorleben.

Most of all, the new rules mean a fairer sharing out of responsibilities between the *Bundesländer* making it clear that the disposal of radioactive waste concerns all the states of the federation and so this must be jointly shared.⁶⁴⁰

The federation was acknowledging its legal obligation to construct final storage facilities for radioactive material, Schröder added, and during the moratorium in Gorleben criteria for a final storage facility would be developed and tested out.⁶⁴¹ Jürgen Trittin (Federal Minister for the Environment, Nature Conservation, and Reactor Safety) described the changes in disposal policy as “ending plutonium production through prohibiting further reprocessing” and “drastically reducing the number of atomic transports”.⁶⁴² Since entering the

⁶³⁹ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10423-10424. “Das ist klaaaische Politik nach dem Sankt-Florians-Prinzip: Man hül die Fahne hoch, aber die Arbeit sollen die anderen machen. [...] Eine solche Politik zulasten anderer darfes nicht geben.”

⁶⁴⁰ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10425. “Vor allen Dingen bedeuten die neue Regelung auch eine faire Lastenverteilung zwischen den Bundesländern. Damit wird deutlich, dass die Entsorgung der radioativen Abfälle wirklich alle Bundesländer betrifft und nur in gemeinsamer Verantwortung aller Bundesländer getragen werden kann.”

⁶⁴¹ Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10425.

⁶⁴² Deutscher Bundestag, 14. Wahlperiode, 111. Sitzung, 29.6.2000, 10430. “Wir beenden die Produktion von Plutonium durch ein Verbot der Wiederaufarbeitung.” “[...]reduzieren wir die Zahl der Atomtransporte drastisch.”

Bundestag in 1983, the Green Party had expressed criticism that the ruling coalition did not actually carry out 'waste disposal' (*Entsorgung*) as such - after all it was either being reprocessed or still there. The only way nuclear waste would really go away was if the government got rid of nuclear energy.⁶⁴³

Both of the above-mentioned goals were initially aimed at ending the controversy over Gorleben. In other words, storing spent fuel elements in local interim storage facilities instead of transporting them first to foreign reprocessing plants and then back to the central interim storage facility at Gorleben meant in practice reducing the total amount of radioactive waste stored at Gorleben. In addition, the moratorium on storage there meant that the burden of the final storage of radioactive waste could be assigned to somewhere other than Gorleben in Lower Saxony.

However, from the very beginning of the red-green coalition's term in government it was already becoming clear that further transports from foreign reprocessing plants had to be made so that the halt to transports called by Trittin's predecessor - Angela Merkel - had to be revoked. All the parties in the Bundestag conceded that further transports were still needed, as it was also demanded by the French and British governments. Eventually, in October 2000 the French government refused to take German nuclear waste to the reprocessing plant La Hague and the French Minister for the Environment Dominique Voynet demanded that Germany take it back since La Hague was not "the atomic waste mound of Europe" (*die Atommüllhalde Europas*).⁶⁴⁴ Consequently, there were two further transports to Gorleben during the first red-green term in office - in March 2001 and November 2001.

The purpose of the following section is to prove that, despite the nominal changes in radioactive waste disposal ordered by the red-green federal government, disposal remained very much on the agenda of the nuclear energy debate. More precisely, the focus of this section is on the tension created by the decision to end the reprocessing of spent fuel elements in France and Britain and the consequent necessity to continue transporting radioactive waste back to Germany (i.e., Gorleben).

The red-green federal government had prepared for the changes in disposal policy by ending reprocessing and constructing local interim storage facilities nearer to the power plants instead, so that the total amount of waste was reduced and it did not have to travel so much. In an *Aktuelle Stunde* called by the CDU/CSU on 21 January 1999 - on the topic of prohibiting reprocessing without any compensation to France - the red-greens were obliged to justify their plans to stop reprocessing by the end of June 2005. The Federal Minister for Economics and Technology, Werner Müller, pointed out that "transportation is necessary because there are no interim storages at the power

⁶⁴³ Jung 1995, 648-649.

⁶⁴⁴ FAZ.NET 8.3.2001, Atomtransporte. Der Streit der Grünen um den Castor. Eine Chronik.

plants [...]. Consequently, we intend to construct interim storage facilities at the power plants.”⁶⁴⁵ The Environment Minister, Jürgen Trittin, justified the decision to end reprocessing by highlighting the significant burden it put on people and the environment and justified this claim by pointing out that there had been numerous disruptions at the Sellafield plant and cancer was a common disease among the workers. The Minister argued that reprocessing did not solve the question of disposal, but instead the “rubbish heap” was growing. Trittin justified the changes in disposal policy pursued by the federal government by saying

The phasing out of atomic energy and phasing out of the plutonium industry envisaged by the coalition should bring an end in the long-term not only to the production of highly toxic waste but also the atomic waste that is currently on a tour organised by your government across Europe.⁶⁴⁶

Horst Kubatschka (SPD) argued that even though reprocessing was a source of employment in France, one should not forget about the environment getting contaminated and the high level of leukaemia among children in the La Hague area.⁶⁴⁷

The red-greens went on to justify the necessity of further transports by speaking about a moral and political responsibility to take care of the legacy of the previous federal government and they clarified that further transports had a different meaning to previous ones. Further transports to Gorleben would happen because of Germany’s political commitments and the moral responsibility to receive German nuclear waste back from the foreign reprocessing plants. On 21 January 1999, Trittin argued that France and the UK had announced that they would respect the sovereign decisions of the FDR, but Trittin clarified that further transports would nevertheless be necessary because of the “political obligations to take back German atomic waste according to international law” as this could not be left “to other countries and societies”.⁶⁴⁸ At a Green Party conference in Frankfurt that same month, Trittin called the ending of reprocessing spent fuel elements as a necessary step to a nuclear-free future, and international law underlined Germany’s political and moral

⁶⁴⁵ Deutscher Bundestag, 14. Wahlperiode, 16. Sitzung, 21.1.1999, 1093-1094. “*Sie müssen transportieren, wenn Sie keine Zwischenlager am Kraftwerk haben. Infolgedessen sieht das Konzept den Bau von Zwischenlagern am Kraftwerk vor.*”

⁶⁴⁶ Deutscher Bundestag, 14. Wahlperiode, 16. Sitzung, 21.1.1999, 1088-1089. “*Der von der Koalition vorgesehene Ausstieg aus der Atomenergie und der Ausstieg aus der Plutoniumwirtschaft beenden langfristig nicht nur die Produktion hochgiftigen Mülls, sondern schrittweise auch den von Ihrer Regierung veranstalteten Atommülltourismus quer durch Europa.*”

⁶⁴⁷ Deutscher Bundestag, 14. Wahlperiode, 16. Sitzung, 21.1.1999, 1089.

⁶⁴⁸ Deutscher Bundestag, 14. Wahlperiode, 16. Sitzung, 21.1.1999, 1089. “*Wir stehen aber selbstverständlich zu unserer völkerrechtlichen und politischen Verpflichtung, deutschen Atommüll zurückzunehmen. Wir können unser atomares Erbe nicht zu Lasten anderer Länder und anderer Gesellschaften beseitigen.*”

obligation to take back its nuclear waste from Britain and France.⁶⁴⁹ In a public committee hearing on 29 November 1999 on the topic “*Nukleare Transporte - Abfälle*” the Chair, Christoph Matschie, stated that the task was to discuss Angela Merkel’s 10-Point Plan, as a precondition for approving the transports again. Matschie highlighted that some of the nuclear power plants had now reached their capacity and it was possible that these could be closed down that year if the transports could not continue or if new storage capacity at the power plants was lacking.⁶⁵⁰

In relation to the demands of the French government for Germany to take back its nuclear waste from La Hague, the FDP called an *Aktuelle Stunde* on 15 November 2000, entitled “The Attitude of the Federal Government to Taking Back German Nuclear Waste from the Reprocessing Plant at La Hague after the Franco-German Summit at Vittel”.⁶⁵¹ The red-greens blamed the previous federal government for having agreed to transport the waste to foreign reprocessing plants in the first place, and justified the coming transports as necessary for dealing with the ‘legacy’ left by the previous federal government. Jürgen Trittin spoke against reprocessing by clarifying that “reprocessing is absolutely not disposal [...] reprocessing leads to additional plutonium waste”. The further transports were thus an act of political responsibility, he told the opposition, and “we are obliged not only under international law to organise these transports back as soon as possible, but we also have political and moral obligations to stop sending atomic waste abroad as you have been doing”. Trittin acknowledged that “nuclear transports are always a risk” and so, “through reaching a consensus with the energy industry, the federal government has created conditions for reducing the number of transports to a third”.⁶⁵² And in a committee meeting on 7 March 2001, Trittin once more reiterated that Germany had political and legal obligations to take back radioactive waste from the foreign reprocessing plants.⁶⁵³

The CDU/CSU and FDP opposition thought that by stopping reprocessing, Germany had harmed diplomatic relations with France and the UK. Indeed, they placed the whole issue of reprocessing in the context of Germany’s foreign policy. In the *Aktuelle Stunde* (January 1999), some of them,

⁶⁴⁹ FAZ 24.1.1999, p.1, „Atomtransporte aussetzen“. Trittin: Friedenspflicht während der Konsensgespräche.

⁶⁵⁰ PA-DBT 3121 A14/16-Prot. 25.

⁶⁵¹ *Haltung der Bundesregierung zur Rücknahme von deutschem Atommüll aus der Wiederaufbereitungsanlage La Hague nach dem deutsch-französischen Gipfel in Vittel*

⁶⁵² Deutscher Bundestag, 14. Wahlperiode, 132. Sitzung, 15.11.2000, 12731-12732. “[D]ie Wiederaufarbeitung überhaupt keine Entsorgung ist. [...] Die Wiederaufarbeitung führt nämlich zu zusätzlichem Abfall an Plutonium. [...] Wir haben nicht nur die völkerrechtliche Pflicht, diesen Rücktransport so bald wie möglich zu organisieren, wir haben auch die politische und die moralistische Pflicht, die von Ihnen betriebene Verschiebung von Atommüll ins Ausland zu beenden. [...] Die Bundesregierung hat durch den Konsens mit der Energiewirtschaft die Voraussetzung dafür geschaffen, diese Transporte auf ein Drittel zu minimieren.”.

⁶⁵³ PA-DBT 3121 A14/16-Prot. 53, pages 17-18.

such as Peter Paziorek (CDU/CSU), argued that the red-green government had already harmed Germany's international standing.⁶⁵⁴ Dr. Günter Rexrodt (FDP) argued that voters had not realised that accepting the policy to phase out nuclear energy would isolate Germany internationally, but now there was a strain on the relationship between Germany, France and the UK. Rexrodt drew attention to "two binding contracts (under international law) from the years 1978 and 1991, in which the federal government declared "that there would not be any legal or administrative obstacles for delivering the irradiated fuel of German electricity producers to the reprocessing plants".⁶⁵⁵ Kurt-Dieter Grill (CDU/CSU), former Chair of the Gorleben Commission (1978-1991), argued that the federal government was acting "against constitutional law, European law and international law".⁶⁵⁶ Dr. Christian Ruck (CDU/CSU) argued also that Franco-German relations had also been unnecessarily tense during the last few months.⁶⁵⁷ Ulrich Klinkert (CDU/CSU) even pointed out that Trittin was forced to travel to the UK in the previous day to explain to international partners why Germany believed that contract could be broken.⁶⁵⁸

These utterances by the opposition showed that they believed the international contracts agreed upon during the previous parliamentary majority should be fulfilled, no matter how radical a policy change, as this was a matter of the continuity that was an intrinsic part of parliamentary democracy. This claim became evident in an *Aktuelle Stunde* on 15 November 2000 called by the FDP in relation to the French government's demand to continue the transports from La Hague. As Birgit Homburger (FDP) put it, "our French neighbours have been waiting three years for German atomic waste to be transported back here from the reprocessing plant", and had now refused to accept any more waste from Germany until the reprocessed waste still at La Hague was transported back. According to Homburger, in September 2000, the Federal Office for Radiation Protection confirmed that transports could take place again, but Homburger pointed out that "Germany still stores atomic waste abroad". Homburger described a situation where France required a signed document, rather than simply the word of Chancellor Schröder as a "devastating state of affairs for Federal Republic Germany".⁶⁵⁹ Walter Hirche (FDP) went back to

⁶⁵⁴ Deutscher Bundestag, 14. Wahlperiode, 16. Sitzung, 21.1.1999, 1087.

⁶⁵⁵ Deutscher Bundestag, 14. Wahlperiode, 16. Sitzung, 21.1.1999, 1090-1091. "Es gibt völkerrechtlich bindende Verträge aus den Jahren 1978 und 1991. In diesen Verträgen erklärten die Regierungen, "dass sie der Lieferung von bestrahlten Brennelementen deutscher Stromerzeuger an die Wiederaufarbeitungsanlagen [...]. [k]ein rechtliches oder verwaltungsmäßiges Hindernis entgegenzusetzen werden." "

⁶⁵⁶ Deutscher Bundestag, 14. Wahlperiode, 16. Sitzung, 21.1.1999, 1092. "[G]egen das Verfassungsrecht, gegen das Europarecht und gegen das Völkerrecht."

⁶⁵⁷ Deutscher Bundestag, 14. Wahlperiode, 16. Sitzung, 21.1.1999, 1100.

⁶⁵⁸ Deutscher Bundestag, 14. Wahlperiode, 16. Sitzung, 21.1.1999, 1101.

⁶⁵⁹ Deutscher Bundestag, 14. Wahlperiode, 132. Sitzung, 15.11.2000, 12728-12729. "Unsere französischen Nachbarn warten bereits seit drei Jahren darauf, dass der in der Wiederaufarbeitungsanlage gelagerte deutsche Atommüll zurücktransportiert wird. [...] Deutschland betreibt weiterhin faktisch Zwischenlagerung von Atommüll im Ausland. [...]E]in verheerender Zustand für die Bundesrepublik Deutschland."

redefining democracy by saying that the new political majority certainly had possibility to change opinions, but democracy also meant fulfilling previously agreed contracts;⁶⁶⁰ and in the same vein, Dr. Christian Ruck (CDU/CSU) argued that the current situation endangered “trust in our constitutional state”.⁶⁶¹

The red-green government aimed to justify the obligatory transports by emphasising the difference between those that had been made in the past, and these future ones. The future transports would be part of the phasing out policy which would end reprocessing altogether, whereas the previous transports had been part of policy oriented towards keeping the nuclear ‘option’ open. In the *Aktuelle Stunde* on 15 November 2000, Michael Hustedt (Alliance 90/Greens) defined the current situation as “illegal interim storing” and claimed that the reason the previous federal government had failed to transport the waste back was because their energy policy was against the “opinion of the majority of citizens”.⁶⁶² Hustedt also wanted to prove that the future transports would succeed where the previous ones had not, because they were part of an energy policy that had the backing of the majority of the population. Hans-Peter Kemper (SPD)⁶⁶³ backed Hustedt on this in the same Bundestag debate by saying that because the “phasing out of nuclear energy” and “reprocessing” had been agreed upon, then these last transports would be more easily “tolerated” by the electorate. In addition, he argued that the police escort required for the transports would not be so large as people knew that they were a part of a larger policy of phasing out nuclear energy.⁶⁶⁴

But like earlier, the transports of radioactive waste to the interim storage facility at Gorleben put the Greens in a difficult position. As a ruling party, the Greens (and their Alliance 90 partners) faced a contradictory situation as they were forced to go ahead with these transports, when previously they were the heart of the anti-nuclear movement.⁶⁶⁵ Markus Feldenkirchen pointed out in the *SZ* on 2 February 2001 that the leading Green politicians actually had quite

⁶⁶⁰ Deutscher Bundestag, 14. Wahlperiode, 132. Sitzung, 15.11.2000, 12737.

⁶⁶¹ Deutscher Bundestag, 14. Wahlperiode, 132. Sitzung, 15.11.2000, 12742. “*das Vertrauen in unseren Rechtsstaat*”

⁶⁶² Deutscher Bundestag, 14. Wahlperiode, 132. Sitzung, 15.11.2000, 12736. “*eine illegal Zwischenlagerung*”; “*gegen die Mehrheitsmeinung der Bevölkerung*”

⁶⁶³ Archiv, Abgeordnete. **Hans-Peter Kemper** (SPD) (born in 1944) was a Bundestag member in 1993-2005. In 1994-1998 he was a member in the Committee of Interior and in the Investigation Committee of Plutonium.

⁶⁶⁴ Deutscher Bundestag, 14. Wahlperiode, 132. Sitzung, 15.11.2000, 12737-12738. “*Der Ausstieg aus der Atomenergie ist beschlossen, der Ausstieg aus der Wiederaufarbeitung auch.*”

⁶⁶⁵ E.g., *SZ* 26.2.2001, p.7, Geplante Atommüll-Transporte. Umweltschützer blockieren Gleise. Aktionen auf der Strecke nach Gorleben und im Bahnhof Kehl; *SZ* 27.3.2001, p.8, Castor-Transport: Der Zug mit dem Atommüll rollt und der Widerstand formiert sich. Polizei räumt Gleise bei Lüneburg. Mehrere hundert Atomkraftgegner werden weggetragen. Wenige Demonstranten als erwartet. Von Arne Boecker; *SZ* 28.3.2001, p.1, Atom-Müll auf dem Weg nach Gorleben. Blockaden verzögern Castor-Transport. Proteste entlang der ganzen Strecke/ Demonstranten sitzen und liegen in Niedersachsen auf den Schienen. Von Arne Boecker.

different views about the agreement between Chancellor Schröder and the French Prime Minister, Lionel Jospin, about recommencing the transport of atomic waste between the countries. According to Feldenkirchen, for example, the Chair of the Greens Claudia Roth, and the Alliance 90/Greens leader, Kerstin Müller, showed understanding of the protests by highlighting the need for social pressure to implement the atomic consensus; whereas Rezzo Schlauch and the Federal Jürgen Trittin were against these kinds of expression by highlighting the need to respect the decisions made by the federal government.⁶⁶⁶ In addition, Karsten Polke-Majewski wrote in the online edition of FAZ that conflict between the Greens in Lower Saxony and the party's leaders escalated after the former had called for demonstrations and sit-ins against the atomic transports expected to take place at the end of March. The Chair of the Greens in Lower Saxony's parliament, Rebecca Harms, stated that these demonstrations would cause the necessary pressure on energy companies for as long as the question of final storage remained unsolved.⁶⁶⁷

Especially at the level of individual states, the Green politicians still approved of extra-parliamentary means for pushing through political goals. In Nordrhein-Westfalen the party council of the Greens announced in January 2001 that it would participate in the protests against castor transports to Ahaus in Westfalen, and called for "non-violent protests and demonstrations", but on 22 January 2001, the party council decided that the Greens should not participate in demonstrations against the transports, so as to show support for the commitments of the federal government to phasing out nuclear energy. At the same time, however, the party council also announced that the Alliance 90/Greens would advocate other extra-parliamentary means, when on 5 March 2001 it was announced that

[w]e won't call upon actions, demonstrations or sit-ins against the atomic consensus; but the Greens will participate in demonstrations concerning the transports, on the basis of supporting the atomic consensus for fastest possible phase out.⁶⁶⁸

In addition, the conference of the Greens in Stuttgart on 5 March 2001 concluded "We continue to promote the fastest possible phasing out of atomic energy via both parliamentary and extra-parliamentary means".⁶⁶⁹

⁶⁶⁶ SZ 2.2.2001, p.1, Atommüll-Fahrten werden im Frühjahr wieder aufgenommen. Castor-Transporte stürzen Grüne in Dilemma. Roth und Müller zeigen Verständnis für Proteste, sind aber gegen Blockaden /Trittin warnt Parte vor Widerstand. Von Markus Feldenkirche.

⁶⁶⁷ FAZ.NET 1.3.2001, Grüne. Zerreißprobe verhindern. Von Karsten Polke-Majewski.

⁶⁶⁸ FAZ.NET 8.3.2001, Atomtransporte. Der Streit der Grünen um den Castor. Eine Chronik. "Wir werden nicht zu Aktionen, Demonstrationen oder Blockaden aufrufen, die sich gegen den Atomkonsens wenden. Allerdings werden sich Grüne auch im Umfeld der Transporte an Demonstrationen beteiligen, die auf der Basis des Atomkonsenses für einen schnellstmöglichen Ausstieg eintreten."

⁶⁶⁹ FAZ.NET, 24.3.2001, Atomtransporte. Grüner Streit um Castor. Eine Chronik. "Wir setzen uns weiterhin für den schnellstmöglichen Ausstieg aus der Atomkraft ein, parlamentarisch und außerparlamentarisch."

In the Bundestag, the opposition brought up this contradictory position for the Greens. In November 2000, Gunnar Uldall (CDU/CSU) pointed out that people previously supporting the demonstrators, Jürgen Trittin and Monika Griefahn, now stood on the other side and had to calm people down, thus there had clearly been no factual reason for objecting to the transports in the first place, other than as part of an election campaign strategy.⁶⁷⁰ On 15 February 2001, the CDU/CSU group called an *Aktuelle Stunde* entitled “The Attitude of the Federal Government Concerning Protests Against the Resumption of Castor Transports Announced by the Anti-Nuclear Greens”.⁶⁷¹ Max Straubinger (CDU/CSU)⁶⁷² argued that the fears of Green activists about the risks of transports in the past were obviously unfounded since the safety standards of the future transports they had approved were the same as those used by the previous Minister for the Environment - Angela Merkel.⁶⁷³ Uldall made a similar point arguing that since nothing would be different in safety matters concerning the coming transports, then the previous transports must have been safe.⁶⁷⁴

The CDU/CSU and FDP were concerned that the Greens in government might act as ‘irresponsibly’ as they had when in opposition. Dr. Paul Laufs (CDU/CSU) pointed out, for example, that the Green representatives in the Bundestag, Elisabeth Altmann and Wolfgang Ehmke and Green MEP, Undine von Blottnitz had previously encouraged violent action against the transports, and Joseph Fischer, the Green spokesperson had failed to publicly condemn his colleagues for inciting the use of violence. Laufs argued that the federal government should now condemn all actions “that could lead to blockages, endangering the transports, or violence”. He said “Mr. Trittin, earlier you actively fought against this state. Now you have the obligation in your ministry to respect international law and legislation and defend the constitutional state.”⁶⁷⁵ Vera Lengsfeld (CDU/CSU)⁶⁷⁶ made a similar point by saying that the Greens were closely connected with many violent events before and after

⁶⁷⁰ Deutscher Bundestag, 14. Wahlperiode, 132. Sitzung, 15.11.2000, 12739.

⁶⁷¹ *Haltung der Bundesregierung zu den von grünen Kernkraftgegnern angekündigten Protesten bei Wiederaufnahme der Castortransporte*

⁶⁷² Archiv, Abgeordnete. **Max Straubinger** (CDU/CSU) (born in 1954) was a Bundestag member in 1994-2013. In 1994-1998 he was a member of the AfUNR.

⁶⁷³ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14868-14869.

⁶⁷⁴ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14873.

⁶⁷⁵ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14858-14859. “[D]ie zu Blockaden, Transportgefährdungen und Gewalt führen können [...] Herr Trittin, Sie haben diesen Staat früher aktiv und vehement bekämpft. In Ihrem Ministeramt sind Sie heute in der Pflicht, Völkerrecht und Gesetz zu achten und den Rechtsstaat zu verteidigen.”

⁶⁷⁶ Archiv, Abgeordnete. **Vera Lengsfeld** (born in 1952) was a Bundestag member in 1990-2005. Lengsfeld was a member of the Alliance 90/Greens until 1996 and since then the CDU/CSU. In 1994-1998 she was a member of the AfUNR. Lengsfeld was a member of the SED in 1975-1983, but resigned from the party because of she disagreed with the party’s attitude in question of atomic weapons.

reunification and named Wackersdorf and Brokdorf as examples of former activists who were presently Green members of the Bundestag.⁶⁷⁷

The representatives of the SPD answered by defining that people were entitled to use their basic rights. Arne Fuhrmann (SPD) specified “freedom of opinion, freedom of assembly, and the right to demonstrate” as being principal rights for everyone in Germany and argued that not every verbal or legal way of objecting to the decisions of parliament should be given the blanket definition of “infringing the law”.⁶⁷⁸ Horst Kubatschka (SPD) stated that “every German person has the right to assemble peacefully and unarmed without notification or permission”, and that the SPD objected to all use of violence.⁶⁷⁹

These definitions by Fuhrmann and Kubatschka showed their support for the basic but abstract right to demonstrate, whereas the Alliance 90/Greens were showing more specific support for the protests against transporting radioactive waste. Winfried Hermann (Alliance 90/Greens)⁶⁸⁰ argued that the Green Party was still siding with the majority of the population that considered nuclear energy “risky” and “dangerous” and that the party was still part of the anti-nuclear movement though only non-violent forms of protest were acceptable.⁶⁸¹ Hermann, like many of her fellow Greens, justified the continuity of transports by reminding the Bundestag that, though the transports had to continue, the policy behind them had changed fundamentally.

Amongst other things, these protests and the continual need to deploy police convoys to minimise the risks have led us to consider how to get out of this vicious circle, because it is obvious that local citizens do not accept this technology and when it is obvious that majority of citizens do not want to bear the risks that the nuclear industry demands we take, then we must find a way out of this situation.⁶⁸²

Jürgen Trittin, defined the current sticky situation for the government as follows: “the interim storage of German nuclear waste abroad is not allowed either under German or French law”. Trittin expressed support for the demonstrators when he said that “people in *Wendland* have the right to protest

⁶⁷⁷ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14866.

⁶⁷⁸ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14860. “*Meinungs-, Versammlungs- und Demonstrationsfreiheit [...] ein Gesetzesverstoss*”

⁶⁷⁹ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14874. “*Alle Deutschen haben das Recht, sich ohne Anmeldung oder Erlaubnis friedlich und ohne Waffen zu versammeln.*”

⁶⁸⁰ Archiv, Abgeordnete; The Homepage of Winfried Hermann. **Winfried Hermann** (Alliance 90/Greens) (born in 1952) acted as a Chair of the Greens in Baden-Württemberg in 1992-1997 and a Bundestag member in 1998-2011. He was a deputy Chair of the AfUNR in 1998-2002. His special interests included environment and sustainable development.

⁶⁸¹ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14868.

⁶⁸² Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14867-14868. “*Unter anderem haben diese Proteste und dauernden Aufmärsche bei der Polizei, die man gebraucht hat, um Risiken zu minimieren, dazu geführt, dass man nachgedacht hat, wie man aus diesem Teufelskreis herauskommt, wenn es offensichtlich ist, dass die Bevölkerung vor Ort diese Technologie nicht akzeptiert, wenn es offensichtlich ist, dass die Mehrheit der Bevölkerung das Risiko der Atomwirtschaft nicht tragen will. Den Ausweg daraus haben wir gesucht.*”

and demonstrate against this policy of ignoring facts.” However, he too indicated that these transports of nuclear waste were different from when they took place under the previous government. Then it had been “due to the unlimited operation of plants”; whereas now the transports were “the consequence of getting rid of atomic energy.”⁶⁸³ Dr. Reinhard Loske (Alliance 90/Greens)⁶⁸⁴ said that the central difference between the transports in the past and the ones to be made, was that previously they were a part of an endless policy, whereas under the stewardship of the red-green federal government, the transports were now part of the process of phasing out since “we want to phase out atomic energy as fast as possible, and so for us the best transports would be those that do not take place at all”. He stated that supporting the achieved consensus meant first having to accept these unpleasant transports back from La Hague first, and as a consequence regional interim storage centres had to be created.⁶⁸⁵ Monika Ganseforth (SPD) stressed a similar point when she observed that “nuclear transports are no longer a symbol of ideological support for the wrong energy policy [...], this is the crucial difference with your period of government”. She stated that the symbolic meaning of the protests has changed since “citizens no longer needed these transports as a symbol of the fight against atomic energy”.⁶⁸⁶

The PDS criticised the red-green federal government from the left, however, as they wanted an altogether more rapid phasing out of nuclear energy. Eva Bulling-Schröter (PDS) noted that

[m]any people are aware that these Castor transports are dangerous, no matter which parties are in government. These people will accept the transports only if actual phasing out will then follow. However, it won't follow for another 32 years, so there will still be long operation times, altogether 32 years.⁶⁸⁷

⁶⁸³ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14862-14863. *“Die Zwischenlagerung deutschen Atom Mülls im Ausland entspricht weder dem deutschen noch dem französischen Recht. [...] Gegen diese Politik des Faktenschaffens haben die Wendländer zu Recht protestiert und demonstriert. [...] Dieser Transporte dient, anders als Ihre Transporte, nicht dem unbegrenzten Betrieb von Anlagen. Dieser Transport ist Folge der Abwicklung der Atomenergie.”*

⁶⁸⁴ Archiv, Abgeordnete; The Homepage of Dr. Reinhard Loske. **Dr. Reinhard Loske** (Alliance 90/Greens) (born in 1959) was a Bundestag member in 1998-2007 and acted as speaker of environmental policy in his party. He has written several books, e.g., about climate policy and sustainability and has academic background.

⁶⁸⁵ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14872-14873. *“Wir wollen so schnell wie möglich aus der Atomenergie aussteigen; für uns sind die besten Transporte diejenigen, die gar nicht stattfinden müssen.”*

⁶⁸⁶ Deutscher Bundestag, 14. Wahlperiode, 152. Sitzung, 15.2.2001, 14870. *“Insofern sind die Atomtransporte kein Symbol mehr für eine ideologische Unterstützung einer falschen Energiepolitik. [...] Darin besteht der entscheidende Unterschied gegenüber Ihrer Regierungszeit. [...] Benötigen die Bürgerinnen und Bürger den Protest gegen diese Transporte nicht mehr als Symbol eines Kampfes gegen die Atomenergie.”*

⁶⁸⁷ Deutscher Bundestag, 14. Wahlperiode, 132. Sitzung, 15.11.2000, 12733. *“Es gibt eine ganze Menge Menschen, die wissen, dass diese Castortransporte gefährlich sind, egal, welche Fraktion die Regierung stellen. Die Menschen werden erst dann Castortransporte*

She justified the demand of ending reprocessing immediately with the arguments that reprocessing produced plutonium suitable for atomic bombs and that reprocessing plants at La Hague, Sellafield and Dounreay were already contaminating the Atlantic.⁶⁸⁸

On 29 March 2001, when the first transport of radioactive waste from France returned to the interim storage facility at Gorleben, the CDU/CSU group called for an *Aktuelle Stunde* on the topic of the “Responsibility of the Federal Government for the Circumstances Surrounding the first Red-Green transport”.⁶⁸⁹ By calling this “the first Red-Green transport” they were implying that it was the SPD and Alliance 90/Greens who had instigated the transport, even though the arrangement dated from the previous government and was organised by the German nuclear power plants - as Horst Kubatschka (SPD) was quick to point out in response.⁶⁹⁰

Dr. Peter Paziorek (CDU/CSU) claimed that although the demonstrations against the transport had started out peacefully, they then adopted some “illegal” (*rechtswidrig*) tactics. He argued that “the federal government and ruling coalition share in the responsibility for any escalation of violence”, because “the red-green coalition gave out the wrong signal earlier and now does not have the courage to openly confront the violent demonstrators”.⁶⁹¹ Walter Hirche (FDP) also claimed that such acts were illegal, even if they were justified with ethical reasons by saying “those who refer to noble motives and believe this would justify any action lead us back to the savage laws of the Middle Ages”. He criticised in particular what Federal Minister Trittin had said, and argued that in a parliament “we must not allow individual colleagues in this House to twist the sense of right and wrong and destroy the foundations of democracy”.⁶⁹² Franz Obermeier (CDU/CSU)⁶⁹³ brought up the argument that even though the red-green government claimed otherwise, they had not ended the conflict in society. Obermeier quoted the speech by the Chancellor Gerhard Schröder on 29 June 2000, when Schröder

akzeptieren, wenn tatsächlich ein Ausstieg erfolgt. Er erfolgt aber nicht, sondern durch die Konsensgespräche [...] wird es noch sehr lange Laufzeiten geben, insgesamt 32 Jahre.”

⁶⁸⁸ Deutscher Bundestag, 14. Wahlperiode, 132. Sitzung, 15.11.2000, 12733.

⁶⁸⁹ *Verantwortung der Bundesregierung für die Begleitumstände des ersten rot-grünen Castortransports*

⁶⁹⁰ Deutscher Bundestag, 14. Wahlperiode, 161. Sitzung, 29.3.2001, 15714.

⁶⁹¹ Deutscher Bundestag, 14. Wahlperiode, 161. Sitzung, 29.3.2001, 15710. “*Die Bundesregierung und die Regierungsparteien tragen eine grosse politische Mitverantwortung für die Eskalation durch die gewaltbreiten Täter.*” “*Doch Rot-Grün hat ein falsches Signal gegeben und hat jetzt nicht den Mut, den gewalttätigen Demonstranten eindeutig entgegenzutreten.*”

⁶⁹² Deutscher Bundestag, 14. Wahlperiode, 161. Sitzung, 29.3.2001, 15715-15716. “*Wer sich auf edle Motive beruft und glaubt, damit jede Handlung rechtfertigen zu können, führt inst Faustrecht des Mittelalters zurück. [...] Als Parlament dürfen wir nicht zulassen, dass einzelne Kollegen in diesem Hause das Rechtbewusstsein verdrehen und die Fundamente der Demokratie zerstören.*”

⁶⁹³ Archiv, Abgeordnete; Wikipedia. **Franz Obermeier** (CDU/CSU) (born in 1946) was a Bundestag member in 1998-2013 and acted as the Chair in the Commission of Inquiry “Nachhaltige Energieversorgung” in 1998-2002.

had claimed that the agreement reached with the energy sector had ended the long-lasting conflict in society. Obermeier noted that “[w]e have seen in the last few days what this ‘end of an era’ looks like - 25 injured, two seriously injured, and the deployment of 20,000 police officers”.⁶⁹⁴

There had indeed been continued demonstrations, and members of the red-green government had expressed varying degrees of tolerance towards them. As in previous years, Horst Kubatschka (SPD) noted that “the demonstrations show that large numbers of citizens object to the use of nuclear energy”. But Kubatschka encouraged people “to direct their full-throated protests at the electricity suppliers because the energy consensus is still not signed”.⁶⁹⁵ Meanwhile, Michaela Hustedt (Alliance 90/Greens) clarified that, whereas demonstrations were a good reason to be proud of German democracy, violence of any kind endangered it. She used the Ukraine and Russia as counter-examples to make her point.⁶⁹⁶ Meanwhile Jürgen Trittin argued, “[o]f course many people understand by civil disobedience the right to be on the streets”, but those people, he added, that were causing the transport to be delayed were “acting illegally and committing an infringement of the law”.⁶⁹⁷ When comparing this statement with what Trittin said during the years 1995-1998, his level of acceptance for civil disobedience was now noticeably lower. Meanwhile, Volker Beck (Alliance 90/Greens member for Cologne), whose personal interests included strengthening law, order, and civil rights⁶⁹⁸ insisted that although constitutionality (*Rechtsstaatlichkeit*) required the fulfilment of contracts, peaceful protests had caused the necessary pressure in society to force the energy industry to accept that nuclear energy would eventually be phased out.⁶⁹⁹

Heidi Lippmann (PDS),⁷⁰⁰ however, saw that the reason people were still demonstrating in Gorleben and Wendland was because the red-green federal government had allowed nuclear power plants to carry on operating for the next 32 years, and because the government did not yet have a proper solution

⁶⁹⁴ Deutscher Bundestag, 14. Wahlperiode, 161.Sitzung, 29.3.2001, 15726.

⁶⁹⁵ Deutscher Bundestag, 14. Wahlperiode, 161.Sitzung, 29.3.2001, 15714. “Die Demonstrationen machen aber auch klar, dass die Nutzung der Kernenergie in weiten Teilen der Bevölkerung abgelehnt wird. [...] Die Demonstranten befinden sich nur am falschen Ort [...] vor die Konzerne der EVUs zu ziehen und dort lauthals dagegen zu protestieren, dass der Energiekonsens immer nicht unterschreiben ist.”

⁶⁹⁶ Deutscher Bundestag, 14. Wahlperiode, 161.Sitzung, 29.3.2001, 15717.

⁶⁹⁷ Deutscher Bundestag, 14. Wahlperiode, 161.Sitzung, 29.3.2001, 15722. “Selbstverständlich verstehen viele Menschen unter zivilem Ungehorsam das Recht, auf der Straße zu sein. Dies bedeutet nicht automatisch Rechtsbruch [...] rechtswidrig verhalten und Rechtsbruch begangen haben”

⁶⁹⁸ The Homepage of Volker Beck. **Volker Beck** (Cologne) (Alliance 90/Greens) (born in 1960) has been a member of the Bundestag since 1994. His political activity started in the peace movement in 1980s. In the Bundestag, he has been especially interested in strengthening civil rights and law and order.

⁶⁹⁹ Deutscher Bundestag, 14. Wahlperiode, 161.Sitzung, 29.3.2001, 15732.

⁷⁰⁰ Archiv, Abgeordnete. **Heidi Lippmann** (PDS) (born in 1956) belonged originally to the Greens and was a member in Lower Saxony *Landtag* in 1994-1998. In 1998 she joined in the PDS and was a Bundestag member in 1998-2002.

for interim or final storage.⁷⁰¹ In November 2001, there were anti-nuclear demonstrators protesting against the transport to Gorleben, but they did not reach the same volume as the demonstrations which had taken place with earlier transports. In the SZ, Arne Boecker wrote that one reason for this was that the phasing out of nuclear energy was now finally in sight.⁷⁰² The speaker of the citizens' initiative in Lüchow-Dannenberg, Wolfgang Ehmke, said that they had expected about 6000 people, but only about half this number turned up. He stated that one reason was the war in Afghanistan had started a few weeks earlier, which meant that "atomic power is only a side issue";⁷⁰³ while a spokesperson for the initiative "Resist" (*Widersetzen*) also agreed that the demonstrations were less massive than in March because of the war in Afghanistan, but because of the fear of terrorist attacks, which also meant the police had a new strategy to dissolve demonstrations at a very early stage.⁷⁰⁴

So to recap, the red-green federal government were planning to end all nuclear reprocessing by 2005, which would mean less harm to people and the environment; and to build interim storage facilities nearer to the power plants instead to reduce the number of radioactive waste transports, which as we saw in the last chapter had also become the symbol of resistance to nuclear power. All parties in the Bundestag nevertheless agreed that further transports were still needed, under pressure from the nuclear industry and the French and British governments. The red-greens justified this by speaking about moral and political responsibility to take care of the "legacy of the previous federal government" and by defining that the further transports had different meaning than the previous ones. In the Bundestag but especially in the newspapers it became evident that the Greens faced the challenge of being in government, while at the same time having a background in the sometimes 'unconstitutional' anti-nuclear movement. The opposition parties in their turn warned that ending the reprocessing would have a negative impact on foreign affairs with France and the UK; so they put pressure on the red-green government to accept further transports.

⁷⁰¹ Deutscher Bundestag, 14. Wahlperiode, 161.Sitzung, 29.3.2001, 15718.

⁷⁰² SZ 3.11.2001, p.10, Eine zersplitterte Protestszene im Wendland: "Auf wechselseitige Berührungssängste wird hingewiesen". Die bunten Blüten des Widerstandes. Tag X, der Castor kommt, wieder einmal. Die AKW-Gegner sind weder so militant noch so geschlossen, wie es von aussen erscheint. Von Arne Boecker.

⁷⁰³ SZ 13.11.2001, p.6, Atom eben nur noch ein Randthema. Atommüll-Transport rollt nach Gorleben. Anschläge auf die Castor-Bahnstrecke vereitelt. Gelockerte Gleisschwellen und Betonblöcke unter dem Schotter entdeckt. Demonstranten in Polizei-Gewahrsam.

⁷⁰⁴ FAZ 15.11.2001, Nr. 266, p.6, Der Castor-Transport am Ziel Weniger Proteste als im März. "Offensives Einsatzkonzept" der Polizei erfolgreich/ Befürchtete Gewalttaten bleiben aus/ 103 Strafverfahren.

5.6 Competing Views Come to a Head

The debates about the transports of radioactive waste to Gorleben perhaps marked a watershed in the whole nuclear energy debate - a point at which the parties aimed at redefining the situation to clearly differentiate and strengthen their own party's position. For the SPD and the Greens, it was very important that nuclear waste turned into as large an issue as it eventually did. By politicising the questions related to nuclear waste at the macro-level, the anti-nuclear parties were clearly aiming to show the current conflict was a manifestation of the very real fears of an 'atomic state' that existed.

The symbolic meaning assigned to the disagreement over the transports of radioactive waste had twofold dimension as a continuum of the anti-nuclear movement. Firstly resisting the transports to Gorleben was seen as symbolically resisting the much bigger issue of a nuclear energy policy in general. Secondly, the conflict highlighted how the secrecy and risks involved with the use of nuclear technology meant that the state could act quite undemocratically. Politicians objecting to the use of nuclear energy argued that similar to the massive anti-nuclear demonstrations in previous decades, events in Gorleben forced the state to use extreme (and unnecessary) power over its citizens. In other words, Gorleben symbolically showed that the use of nuclear energy was a fundamental source of violence and danger, in which the state was prepared to suspend democratic rights and use violence against its citizens to ensure that its use was continued, and in spite of the known risks of devastating accidents.

The disagreement over Gorleben was the most prominent topic in the parliamentary policy debates in 1995-1998, and also to a certain degree after the Bundestag election in 1998. It marked a watershed in the nuclear energy debate since it forced politicians to discuss fundamental questions about the limits of democracy. Analysis of the Bundestag debates revealed that it was not just the anti-nuclear demonstrators that challenged the legitimacy of policymaking and other related questions, but also the Greens challenging the principles of parliamentary policymaking and representative democracy inside the Bundestag. This was the most visible conflict in the German nuclear energy debate and it could be one reason why the SPD and the Greens went on to win the federal election in 1998.

In 1995-97, the sheer volume of anti-nuclear demonstrations and resistance against the transports was constantly increasing. The demonstrations gathered more people, the number of police deployed grew, expenses went up, and the Bundestag debated the topic incessantly. The disagreement between the federal government and Lower Saxony was intensifying, and politicians at the *Länder* level, like Gerhard Schröder (the Prime Minister for Lower Saxony) gained high visibility. Further research could offer a more in-depth analysis of Schröder's particular role in the conflict since he was involved in the Gorleben movement in previous decades when he defended the protest camp *Freies Republik Wendland* in court. The transports to the interim storage facility at Gorleben also raised issues about Germany's federal structure and the transnational nature of nuclear power.

6 CONCLUSIONS

The overall purpose of this doctoral dissertation was to consider answers to the question of how we might explain the gradual policy change towards the phasing out of nuclear energy in Germany and the eventual mainstream success of the *Energiewende* concept. This was done by discussing the competing conceptualisations in parliamentary policy debates by analysing micro-level speech acts by individuals which then, together with connected extra-parliamentary discourses and actions, contributed to semantic shifts at the macro-level of the discourse with the politicisation of new topics. Furthermore, concentrating on the decade directly preceding the first bill to phase out nuclear energy (passed in 2001) gives some indicators as to why the red-green federal government of Schröder remained more moderate than might have been expected, judging from their earlier demands. By discussing the disagreement over nuclear energy at the level of the federal parliament, this work contributes not only to the discussion about the fundamental source of the dispute, but also to explaining the continuity and success of the anti-nuclear discourse, i.e., which concepts were the most hotly disputed, and why this debate remained constantly topical for the federal parliament.

Debates about the further use and development of nuclear technology in the Bundestag were a fundamental struggle over who got to define the terms, and thus the direction of policy. Politicians were deliberately using traditional key concepts of the German nuclear energy discourse such as 'MCA', 'residual risk', 'philosophy of safety', and 'atomic state' to redefine their connotations for their own political ends, to challenge the views of the other parties, and to justify policies in the eyes of the voters. During this discursive process, the meanings of these concepts evolved in more concrete directions, as they were used in the context of certain real-world current affairs. In addition, new notions were launched to justify other policy decisions, notably the idea of an 'orderly phasing out' by the red-green federal government. In some cases old concepts were adapted from their earlier narrower context and applied more generally and frequently, such as *Energiewende*. This term was put to a far wider range of uses during the nineties, when the SPD, Alliance 90/Greens and PDS

started to commonly use the concept despite evident differences in their political emphases. Similarly, during this process, parties also adopted concepts from the other side of the conflict and reassigned them slightly different meanings. For example, the red-green federal government started talking about 'a new mix of energy sources' and 'transitional energy' - which indicates a certain rapprochement of political views.

During this micro-level discursive process, two macro-level changes were especially significant. Firstly, the constant concretisation of the discussion was remarkable, despite the evident personal and thematic continuity of the policy debates. The nuclear energy discourse of the nineties (1991-2001) continued the discursive practices of earlier decades, as many of the main politicians involved had also been engaged in these, and the themes of the debates - like safety issues, environmental aspects, and the question of waste disposal included notable elements of continuity. But the debate was also constantly updated through politicisation of the contingent issues going on around the discussion at the same time. Through politicising new topics within the context of the ongoing debate, politicians affected the direction and content of the debates. The debate did not concern only hypothetical speculations about presumed risks of nuclear technology or undemocratic means of the state, but material evidence from real-world events.

In sum, even though many aspects of the nuclear energy debate concerned rather abstract questions like the risks of technology, and the level of democracy, there were many concrete cases that could then be worked into the arguments to 'prove' the case. Language and discourse that had arisen in the 1970s as 'theoretical' or 'hypothetical' gradually evolved in the context of the nuclear accidents and problems that happened, to show that these previously hypothetical assumptions were right. This interpretation about macro-level semantic shifts may go some way to explaining the continuity of the discourse at a parliamentary level and the relative success of anti-nuclear demands, as they were being constantly brought up-to-date through the deliberate use of language. Hence a movement that had started in the 1960s and 1970s was not trapped there, but evolved with time, having accreted various meanings from real-life events that at the same time gradually transformed the key concepts at the macro-level.

The other thing was that these macro-level changes brought the political views of at least the SPD and CDU closer together even if there was still a significant gap between their views in the early 2000s. For instance, the SPD gave up on its original demand (made at the Nuremberg party conference in 1986) that nuclear power plants had to be closed down within ten years. Instead, the amendment to the Atomic Energy Act, passed in 2001 by Chancellor Schröder's cabinet, allowed for a relative long period of operation before nuclear power stations had to shut down. The practical reason for the watering down of the SPD's standpoint may have had something to do with the party not being in power until 1998. In addition, Gerhard Schröder's own moderate attitude towards nuclear phase-out may have had something to do with this,

since he had always shown a certain respect towards the interests of the industry; while his Minister for Economics and Technology in the first cabinet, Werner Müller (independent), had an even more economy-oriented attitude. The expression 'orderly phasing out' reflects this moderation of the SPD's attitudes during the red-green coalition, compared to their years in opposition.

Meanwhile, the standpoint of the other main party in German politics, the Christian democrats, was evolving as well. In the last decade of the 20th century, representatives of the CDU/CSU and the FDP started to make speeches in which they made it clear that using nuclear energy was not the only solution they were willing to consider. By the early 2000s there were cases where the speakers of the CDU/CSU and FDP were starting to use the concept of *Energiewende* to describe the policy of the red-green federal government, and the concept thus began to be generalised more in policy debates. The CDU/CSU and FDP still continued to show political support for nuclear energy, however, arguing that an alternative energy structure was not there to replace it yet. This evolution of pro-nuclear attitudes was evidently caused by the fact that anti-nuclear demands in society became much more visible during the demonstrations in the late nineties and, especially after the change of government in 1998, it was politically wise to express openness towards other alternatives as well. This rapprochement in political views concerned environmental aspects too, as these terms became more mainstream during the decade.

This rapprochement goes some way to explaining the 2001 bill, which reflects how both the SPD and Alliance 90/Greens had to moderate their previous anti-nuclear stances under Schröder's cabinet. Also it was clear that an interim solution was needed in the early 2000s until renewable energy sources had been developed to such a point that the percentage of electricity generated by nuclear power could be effectively replaced. After the Fukushima accident ten years later the situation changed significantly in this respect, and the rapprochement of political views in 1991-2001 had a big part to play in this. The viewpoints of the CDU/CSU and FDP had thus already gradually evolved during the 1990s and the parties were open to consider alternative solutions already in the early 2000s. At least as important was the fact that the Fukushima nuclear accident was exactly the kind of situation that the CDU/CSU and FDP had been claiming would never happen, so when it did, they had to rethink their safety conceptions.

If we consider the fundamental reasons for the disagreement over nuclear energy at the federal level, based on the empirical analysis of parliamentary policy debates, it is clear that concepts of safety and democracy were conflicting in a complex way. From the viewpoint of the anti-nuclear parties, nuclear technology included too many risks that put people in constant danger and pitted the state and its citizens against each other, since the citizens clearly did not want to pay with their health and lives for the sake of this technology. The other thing was that, due to the grave risks involved, the state was obliged to secure nuclear energy with all its power, with the result that

decisions were made behind closed doors without the democratic will of the people being consulted. The role of the state in nuclear energy was thus undermining the foundations of German democracy. On the other side, the pro-nuclear parties saw that two prerequisites for guaranteeing safe nuclear power were a democratic state and technological prowess. Only in established democracies, where the policy had gained its legitimacy from a parliamentary majority and representative institutions, could this role of the state be justified in managing the nuclear affairs of a country, and the citizens should therefore respect this 'rule of law'. This is why Fukushima was such a game changer, as it smashed those arguments.

Parliamentarians used concepts in this debate traditionally considered as key concepts in political culture such as 'democracy', 'constitution' and 'state under the rule of law', and they argued about the meaning of basic rights. In this respect there were competing conceptions of how democracy could be best fulfilled through either representative, parliamentary institutions, or a more direct form of democracy. In particular, the disagreement over Gorleben brought the parliamentary debate to a head, in the sense that especially the politicians of the Alliance 90/Greens saw the events surrounding Gorleben as indicative of Germany becoming an 'atomic state' (*Atomstaat*). In these demonstrations, the state was forced to use extreme power over its own citizens and to give up the principles of democracy because of the risks of nuclear technology. By using this concept of *Atomstaat* politicians were claiming that the state had changed its democratic role fundamentally.

Overall, the German nuclear energy debate throughout the decade of 1991-2001, falling as it did right at the end of the Cold War and following German reunification, was essentially a conflict based on justified historical fears from the 20th century and layer after layer of past nuclear experiences from then. The debate was an expression of a traumatic past and competing ideas about the evolution of democratic institutions and the international role of Germany following the fall of the Iron Curtain. Anti-nuclear attitudes expressed fears of having undemocratic political structures, an overly strong executive branch, the use of the police for political purposes, the subordination of citizens to political leaders, which were experienced in Nazi Germany and DDR, and of course fears of the risks of nuclear technology itself. From this perspective, anti-nuclear attitudes expressed hopes towards future political developments too: these hopes included visions of a democratic system, where the voice of the people would have an effect on policymaking, and grass-roots democracy would be more important than a powerful state. These included the idea of Germany as an example for other countries in a path towards a new post-atomic era. On the other side of the conflict were ideas about a workable parliamentary system, the legitimisation of decision-making in representative institutions, and a respect among citizens towards these representative institutions. From this perspective the vision stressed an economically strong Germany, dynamic technological development, Germany being a reliable foreign partner, especially among its neighbours (e.g., France, and Britain) and

taking a leading role in international affairs. The German conflict around nuclear energy was thus not just a domestic policy issue, but also had evident importance for Germany's foreign relations as well.

From the methodological point of view this dissertation contributes to the ongoing multidisciplinary discussion that advances language-oriented methods for studying politics, by providing an empirical historical analysis in those situations where the methodological approach can be successfully applied. The politicisation of real-world contingent events in the context of the ongoing discourses in the period 1991-2001 proved vital in changing the meaning of concepts used in the debate, and goes some way to explaining the political consensus to phase out nuclear energy after the Fukushima accident in 2011.

YHTEENVETO (SUMMARY)

Euroopan talousmahti Saksa on viime vuosikymmenten energiapoliittisilla ratkaisuillaan ottanut kansainvälisesti vertaillen poikkeuksellisen suunnan. Liittokansleri Gerhard Schröderin johdolla maa sitoutui energiakäänteeksi (die Energiewende) nimetyn politiikan toteuttamiseen vuosikymmenen jatkuneen voimakkaasti polarisoituneen keskustelun huipentumana punavihreän hallituskoalition astututta valtaan vuoden 1998 vaalien jälkeen. Parlamentaarin päätös ydinenergiasta luopumisesta hyväksyttiin Saksan liittopäivillä joulukuussa 2001. Energiakäänteeksi nimetty politiikka piti tämän lisäksi sisällään erityisesti uusiutuvien energiamuotojen tukemisen sekä teknologian ja tehokkuuden kehittämisen. Fukushima maaliskuun 2011 ydinvoimalaonnettomuuden seurauksena energiakäänteen toteuttaminen sai kaikkien poliittisten puolueiden virallisen tuen taakseen, kun liittokansleri Angela Merkelin johtama kristillisdemokratien ja liberaalien hallituskoalitio teki energiapoliittisen kurssinvaihdon ja ryhtyi tukemaan ydinenergiasta luopumista. Saksan energiapoliittiset ratkaisut ovat olleet laaja-alaisesti merkittäviä muun muassa Euroopan geopoliittisen kehityksen ja energiahuoltoratkaisuiden kannalta. Erityisesti ne ovat kasvattaneet Venäjän osallisuutta Euroopan energiahuoltoon, mistä on osoituksena Itämeren kaasuputkihankke Venäjältä Saksan Greifswaldiin sekä saksalaisen laitostoimittajan vaihtuminen venäläiseen Fennovoiman Pyhäjoen ydinvoimalaprojektissa. Toisaalta ydinenergian voimakas vastustus on edistänyt uusiutuvien energiamuotojen ja teknologian kehittämistä.

Fukushiman ydinvoimalaonnettomuuden maaliskuussa 2011 seurauksena energiakäänteestä (Energiewende) tuli saksalaisen energiapolitiikan yleis- ja valtavirtäkäsite. Tämä merkitsi viimeisintä vaihetta vuosikymmeniä kestäneessä ja eri vaiheiden kautta kehittyneessä debatissa ydinenergian käyttöä koskien. Väitöskirjatutkimus keskittyy vuosiin 1991–2001, jolloin poliittisissa debateissa voimistui vaatimus ydinenergiasta luopumisen sisältävästä energiapolitiikan laaja-alaisesta reformista. Kehitys kulminoitu joulukuun 2001 parlamentaariseen päätöksen vähittäisestä ydinenergiasta luopumisesta. Tutkimus osoittaa liittovaltion ydinenergiapoliittisten debattien mikrotason (yksilöt) toistuvien puhetekojen analyysin kautta ydinenergiadebatin makrotasolla tapahtuneita merkittäviä muutoksia 1990-luvulla. Työ vie eteenpäin keskustelua Saksan energiapoliittisten ratkaisujen ja jatkuvasti voimistuvan ydinenergiavastaisuuden syistä. Ajankasana ydinenergiapoliittisissa debateissa argumentteja ydinenergian puolesta ja vastaan päivitettiin jatkuvasti vastaamaan vallitsevia olosuhteita politisoimalla uusia reaali maailman tapahtumia osaksi käynnissä olevaa keskustelua. Lisäksi Tšernobylin ydinvoimalaonnettomuuden polarisoimat puolueiden näkökannat alkoivat vähitellen liikkua lähemmäs toisiaan. Käsitteellisellä tasolla ydinenergian käytön aiheuttamassa konfliktissa oli kyse ristiriitaisten, teknologian turvallisuutta ja riskejä sekä demokratiaa ja päätöksenteon legitimitettiin koskevien käsitteiden moniulotteisesta yhteentörmäyksestä.

Tutkimuksen tavoitteena on selvittää, miksi Saksan ydinenergiapolitiikka muuttui vähitellen Tšernobylin ydinvoimalaonnettomuutta seuraavan vuosikymmenen aikana ja millaisen prosessin tuloksena energiakäänne alkoi nousta politiikan teon avainkäsitteeksi kilpailevan käsitteiden (erityisesti 'Energienmix') jäädessä vähitellen sivummalle. Työ pohtii samalla kysymystä, miksi vuoden 2001 laki ydinenergiasta luopumisesta jäi verrattain maltillisiksi sallien ydinvoimaloiden toiminnan jatkumisen aina 2020-luvun alkuun saakka. Väitöskirjatutkimus etsii siten vastauksia seuraaviin kysymyksiin: Miten liittovaltiotason parlamentaaristen debattien näkökulmasta voidaan selittää ydinenergiapolitiikan muutosta ydinenergiasta luopumisen suuntaan ja miksi Gerhard Schröderin ensimmäisen kabinetin ajama laki ydinenergiasta luopumisesta jäi maltillisemmaksi kuin sosiaalidemokraattien ja vihreiden vaatimukset edeltävän vuosikymmenen aikana? Miksi ydinenergiavastaisuus voimistui vähitellen 1990-luvun kuluessa ja millaisen diskursiivisen prosessin tuloksena energiakäänne alkoi saavuttaa asemaa saksalaisen energiapolitiikan kulmakivenä kilpailevien poliittisten vaihtoehtojen sijaan? Vastauksia kysymyksiin etsitään analysoiden aiemmassa tutkimuksessa vähemmällä tarkastelulle jääneitä liittovaltiotason parlamentaarisia debatteja kielellisiä analyysimenetelmiä soveltaen.

Tutkimus täydentää keskustelua ydinenergian käytön aiheuttaman, sukupolvet ylittävän konfliktin jatkuvuuden ja sen suhteellisen voimakkuuden syistä Saksassa. Tätä keskustelua on hallinnut pääasiassa kaksi vastakkaista näkökulmaa. Toisen, erityisesti historioitsija Joachim Radkaun edustaman näkökulman mukaan ydinteknologiaan sisältyvät riskit itsessään ja onnettomuudet, jotka ovat vahvistaneet turvallisuusepäilyjä, ovat pääasiallinen selittäjä ydinenergiavastaisen liikkeen jatkuvuudelle sukupolvesta toiseen. Tämän näkökulman mukaan ydinteollisuus on itse syyllinen omaan tuhoonsa teknologisten ja inhimillisten virheiden sekä riittämättömän avoimuuden takia. Toinen, erityisesti sosiologien ja politiikan tutkijoiden kuten Dieter Ruchtin edustama näkökulma on puolestaan korostanut, että ydinenergiavastainen liike on muiden samaan aikaan nousseiden yhteiskunnallisten liikkeiden tapaan ennen muuta syvempien poliittisten ja kulttuuristen tyytymättömyyksien ilmentymä. Väitöskirjatutkimus täydentää näitä tutkimussuuntauksia Saksan liittovaltiotason parlamentin näkökulmasta jatkaen lingvisti Matthias Jungin aloittamaa keskustelua saksalaisen ydinenergiadebatin kehittymisestä. Tutkimus täydentää Jungin semanttista analyysia ydinenergiadebatin kehityksestä sekä ajallisessa mielessä keskittyen 1990-luvun ja 2000-luvun alkuvuosien debattiin että korostamalla kielen pragmaattisten käyttötapojen tarkastelun merkitystä.

Lähdeaineisto koostuu Saksan liittopäivien ja liittoneuvoston debateista, komitea-aineistosta sekä valikoidusta sanomalehtiaineistosta (Frankfurter Allgemeine, Süddeutsche Zeitung). Tutkimus erittelee kilpailevia energiapoliittisia käsitteitä käyttäen analyysimenetelmänä yksilötason puhetekojen tarkastelua suhteessa poliittisen debatin makrotason kehitykseen. Erityisesti tarkastelussa nousee esiin ajankohtaisten reaali maailman asioiden ja tapahtumien politisoiminen osaksi käynnissä olevaa debattia, ja keskustelun suunnan ja käsitysten vähittäi-

nen muuttuminen tämän takia. Analyysissa huomioidaan, miten poliittiset käsitteet ydinenergian käyttöä ja kehittämistä koskien muuttuivat vähitellen keskustelun makrotasolla mikrotason puhetekojen kautta ja miten politiikan suunnanmuutosta puolestaan voidaan selittää tätä kautta.

Tutkimus jäsentyy rakenteeltaan ydinenergiadebateissa esiinnousseiden makrotason teemojen mukaisesti. Luku 2 taustoittaa seuraavia, syvällisempiä analyysilukuja. Se keskustelee puolueiden eriävistä näkökannoista ydinenergiaa koskien ja erittelee näkökantojen ilmaisussa käytettyjä keskeisiä käsitteitä kuten 'ydinenergian optio', 'ydinenergiasta luopuminen', 'järjestelmällinen ydinenergiasta luopuminen' ja 'ylimenoenergia' sekä näissä tapahtuneita pieniä, mutta tärkeitä semanttisia muutoksia. Luku 3 analysoi ja pohtii turvallisuuskäsitysten merkitystä ydinenergiadebatissa. Se osoittaa Tšernobylin ydinvoimalaonnettomuuden symbolisen merkityksen saksalaisessa ydinenergiakeskustelussa sekä useiden muiden konkreettisten tapahtumien käytön osana poliittista puhetta. Keskeisiä käsitteitä kuten 'GAU' (suurin kuviteltavissa oleva onnettomuus), 'Restrisiko' (jäännösriski), 'Sicherheitsphilosophie' (turvallisuusfilosofia) ei käytetty poliittisessa puheessa vain hypoteettisina, vaan keskustelu ydinenergian turvallisuudesta koski varsin konkreettisia esimerkkejä sekä niille annettuja merkityksiä. Luku 4 puolestaan erittelee argumentteja koskien ydinenergian paradoksaalista suhdetta ympäristön- ja ilmastonsuojelullisiin tavoitteisiin sekä talouskasvuun. Kaikki liittopäivien poliittiset puolueet pitivät välttämättömänä toteuttaa jonkinasteisia muutoksia energiapolitiikassa ilmastonsuojelullisiin tavoitteisiin vastaamiseksi ja talouskasvun turvaamiseksi. Luku erittelee poliittisten vaihtoehtojen ilmaisussa käytettyjä käsitteitä 'Energiewende' ja 'Energienmix' ja näiden käyttötavoissa tapahtuneita muutoksia. Luku 5 pureutuu liittopäivillä kiivainta debattia aiheuttaneeseen kysymykseen ydinjätehuollosta ja erityisesti 1990-luvun toisella puoliskolla Gorlebenin välivarastoon toteutetuista ydinjätukuljetuksista sekä niiden nostattamista laajoista mielenosoituksista. Näitä teemoja käsittelevien debattien analyysi toi esiin ydinenergiakonfliktin linkittymisen kilpaileviin ja ristiriitaisiin käsityksiin demokratiasta ja politiikan legitimitetistä.

Käsittelyluvut osoittavat kaikkineen, kuinka liittopäivien poliittiset debattit koskien ydinteknologian käyttöä ja kehittämistä olivat pohjimmiltaan taistelua keskustelun avaintermien ja käsitteiden merkityksistä ja oikeudesta määritellä harjoitetun politiikan suunta. Poliitikot käyttivät puheteoissaan perinteisiä saksalaisen ydinenergiadiskurssin avainkäsitteitä tavoitteenaan määritellä käsitteiden konnotaatiot ajamiensa poliittisten päämäärien mukaisiksi sekä oikeuttaa politiikka äänestäjien silmissä. Tämä kertoo poliittisen keskustelun dynamiikasta yleisemminkin.

Liittopäivillä käydyn diskursiivisen prosessin analyysi toi esiin erityisesti kaksi keskeisintä makrotason muutosta poliittisessa keskustelussa. Ensinnäkin keskustelun jatkuva konkretisoituminen oli huomattavaa huolimatta debatin ilmeisestä jatkuvuudesta siihen osallistuvien henkilöiden ja käsiteltävien teemojen osalta. Toisekseen poliittisten puolueiden näkökannat liikkuivat vähitellen lähemmäs toisiaan.

Ydinenergiadebatti 1990-luvulla (1991–2001) jatkoi luonnollisesti edellisten vuosikymmenien keskustelua, johon monet poliitikot olivat myös osallistuneet ja jossa oli käsitelty samoja kysymyksiä ydinteknologian turvallisuudesta, ympäristönäkökulmista ja ydinjätehuollosta. Tästä jatkuvuudesta huolimatta poliittinen debatti ei ollut jumittunut menneisiin vuosikymmeniin, vaan sitä päivitettiin jatkuvasti politisoimalla osin kontingenteja, ajankohtaisia tapahtumia osaksi käynnissä olevaa ydinenergiakeskustelua, mikä vähitellen muutti ydinenergiapoliittisen debatin suuntaa ja sisältöä. Keskustelu ydinenergian käyttämisestä ja kehittamisestä ei siten ollut vain hypoteettista spekulatiota oletetuista ydinenergian riskeistä tai valtion epädemokraattisesta käytöksestä, vaan reaali maailman tapahtumien materialisoimia käsityksiä näistä.

Vaikka monet ydinenergiadebateissa käsitellyt kysymykset olivat siis luonteeltaan varsin abstrakteja kuten kysymykset teknologian riskeistä ja demokration toteutumisen tasosta, poliittiseen keskusteluun nostettiin jatkuvasti konkreettisia tapahtumia, jotka sitten puheteoissa osoitettiin argumentteja todistavina tapauksina. 1970-luvulla teoreettisen ja hypoteettisena noussut keskustelu kehittyi vähitellen ja eli tapahtumahistorian kontekstissa asioiden politisoimisen myötä. Tämä ydinenergiadebatin makrotason kehitys on keskeinen tekijä selitettäessä ydinenergiadebatin jatkumista ja ydinenergiavastaisten kantojen menestystä liittovaltiotason parlamentin näkökulmasta; debattia päivitettiin jatkuvasti poliittisella kielenkäytöllä vastaamaan kyseisen hetken olosuhteita. Ydinenergiavastainen liike ei siten ollut jämähtänyt menneisiin vuosikymmeniin, vaan poliittinen kielenkäyttö piti ydinenergian käyttöä ja sen kehittämistä koskevat argumentit ajankohtaisina ja varsin konkreettisiin tilanteisiin ja esimerkkeihin liittyvinä.

Tämä näkökulma on ratkaiseva tutkimustulos selitettäessä energiakäänteiden nousua poliittisesti marginaalisesta, pienen ryhmittymän ajamasta radikaalista vaihtoehdosta saksalaisen energiapolitiikan kulmakiveksi ja monimerkitykselliseksi, kaikkien poliittisten puolueiden käyttämäksi politiikan yleiskäsitteeksi. Energiakäänteiden menestystä ja valtavirtaistumista selittää siis analysoidun aineiston perusteella erityisesti poliittisten debattien jatkuva kehittyminen ja muuttuminen tietoisien kielenkäytön myötä suhteessa konkreettisiin ja osin kontingentteihin tapahtumiin. Osana tätä prosessia erityisesti energiakäänteiden (Energiewende) käyttö poliittisessa puheessa laajeni merkittävästi verrattuna käsitteen alkuperäiseen, varsin rajalliseen käyttäjäjoukkoon. Käsitteen käyttötavat ja merkityssisällöt laajenivat ratkaisevasti 1990-luvun aikana, kun sosiaalidemokraatit, vihreät ja vasemmisto alkoivat ajaa toisistaan painotuksissa eroaviaan energiapoliittisia päämääriään käsitettä käyttäen.

Toinen tutkimuksen esiin tuoma makrotason muutos koski erityisesti sosiaalidemokraattien ja kristillisdemokraattien näkökulmien vähittäistä lähentymistä tutkittuna ajanjaksona, vaikka näkökulmat 2000-luvun alussa jäivät vielä suhteellisen kauas toisistaan. SPD lakkasi kannattamasta ydinvoimaloiden alasaajoa kymmenen vuoden sisään, mikä oli ollut puolueen lähtökohta Nürnbergin puoluekokouksen 1986 jälkeen. Schröderin kabinetin ajama laki salli tähän suh-

teutettuna pitkän jäljelle jäävän toiminta-ajan ydinvoimaloille. Tätä selitti osaltaan varsinkin liittokansleri Gerhard Schröderin henkilökohtainen maltillinen suhtautuminen ydinenergian käyttöä kohtaan ja teollisuuden intressien huomiointi sekä talous- ja teknologiaministeri Werner Müllerin (puolueeton) teollisuusmyönteisyys. Puna-vihreän hallituksen omaksuma ilmaisu 'järjestelmällinen ydinenergiasta luopuminen' ilmensi sosiaalidemokraattien poliittisten näkökantojen lientymistä. Lisäksi diskursiivisen prosessin osana puolueet omaksuivat vastapuolen käyttämiä käsitteitä ja löysivät niille uusia käyttötapoja. Esimerkiksi puna-vihreän hallituksen ministerit puhuivat 'uudesta energialähteiden sekoituksesta' ja 'siirtymäenergiasta', mikä osaltaan osoitti näkökulmien lähentymistä kristillisdemokraattien ja liberaalien suuntaan.

Samaan aikaan toisen Saksan suurimmista puolueista, kristillisdemokraattien näkökannat ydinenergiaa kohtaan olivat myös muutoksessa. 1990-luvun loppupuolelle tultaessa CDU/CSU:n sekä FDP:n edustajat alkoivat yhä useammin esittää puheenvuoroja, jotka toivat ilmi maltillisen valmiuden harkita jonkinasteisen ydinenergiasta luopumisen sisältävän energiapolitiikan malleja. 2000-luvun alussa puolueiden piirissä oli ryhdytty käyttämään energiakäänteen käsitettä (Energiewende) osoittamaan puna-vihreän hallituksen politiikkaa, mikä oli ratkaiseva askel kohti käsitteen valtavirtaistumista. Kristillisdemokraattien ja liberaalien poliittisten näkökantojen hienovaraisista muutoksista huolimatta puolueet jatkoivat ydinenergian käytön kannattamista vedoten vaihtoehtoisten ratkaisujen puuttumiseen tai keskeneräisyyteen. Tätä ydinenergiamyönteisten puolueiden vähin erin kasvavaa myönteisyyttä vaihtoehtoisten energiamallien kehittämistä kohtaan selitti osaltaan 1990-luvun jälkipuoliskon massiiviset ydinenergiavastaiset mielenosoitukset ja oppositioon jääminen 1998 liittopäivävaalien seurauksena. Makrotasolla tapahtunut puolueiden näkökantojen lähentyminen on keskeinen selittäjä sille, että vuoden 2001 laki jäi varsin vaisuksi aiempiin puheisiin nähden.

Liittovaltiotason parlamentin poliittisen kielenkäytön näkökulmasta ydinenergian käytön aiheuttamassa konfliktissa oli pohjimmiltaan kyse turvallisuutta ja demokratiaa koskevien käsitysten yhteentörmäyksestä monessa merkityksessä. Ydinenergiavastaisten puolueiden näkökulmasta ydinteknologian käytön riskit asettivat ihmiset jatkuvaan vaaraan, mikä puolestaan pakotti valtion ja kansalaiset toimimaan toisiaan vastaan myös voimakeinoja käyttäen. Tämän nähtiin vaarantavan ratkaisevasti demokraattisen valtion perusteet. Toisaalta kaikki puolueet toivat esiin käsityksen, jonka mukaan vain demokraattisissa ja vakaissa olosuhteissa ydinteknologia saattoi ylipäänsä olla mahdollista eli turvallisuuskäsitykset edellyttivät kaikkien puolueiden mielestä toimivaa demokratiaa. Erimielisyys koski kysymystä, takasiko tämäkään riittävää turvallisuustasoa.

Liittovaltiotason parlamentissa ydinenergian aiheuttama konfliktin merkittävänä syynä olivat eriävät käsitykset demokratiasta ja demokraattisesta päätöksenteosta. Vastakkain asettuivat käsitys edustuksellisesta, parlamentaarisesta demokratiasta, joka oli legitiimi tekemään enemmistön tahdon mukaisia poliittisia päätöksiä, sekä toisaalta käsitys demokratian toteutumisesta suoran vaikutta-

misen keinojen kautta ja lähelle kansalaisia tuleva poliittinen päätöksenteko. Eri-tyisesti Gorlebenin tapahtumat 1990-luvun toisella puoliskolla kulminoivat demokraatia-keskustelua Liittouma 90/Vihreiden esittäessä liittopäivilläkin tulkin-toja siitä, että Gorleben osoitti 'Atomstaat'-pelkojen olevan todellisia. Tästä näkökulmasta Gorlebenin katsottiin todistavan valtion luopumista demokraattisista periaatteistaan joutuessaan käyttämään äärimmäistä voimaa omia kansalai-siaan vastaan ydinteknologiaan sisältyvien riskien takia.

Kaikkineen Saksassa käyty keskustelu ydinenergian käytöstä välittömästi kylmän sodan päättymisen ja Saksojen jälleenyhdistymisen jälkeisenä ajanjak-sona ilmensi monikerroksisten historiallisten pelkojen ja kokemusten aiheutta-maa konfliktia yhdistettynä konkreettisiin ydinteknologian käyttöön liittyviin kokemuksiin. Tässä mielessä saksalainen ydinenergiadebatti ilmaisi 1900-luvun traumaattisia kokemuksia sekä kilpailevia näkökulmia koskien demokraattisten instituutioiden kehittämistä ja yhdistyneen Saksan roolia kansainvälisissä suh-teissa rautaesiripun kaaduttua.

Ydinvoimavastaiset käsitykset ilmensivät luonnollisesti pelkoa ydinener-gian aiheuttamasta riskistä ihmisille ja ympäristölle, mutta myös pelkoja epäde-mokraattisia poliittisia rakenteita ja voimakasta toimeenpanovaltaa kohtaan, kri-tiikkiä poliisivoimien käytöstä poliittisten päätösten tukena sekä pelkoja kansa-laisten jäämisestä poliittisten johtajien jalkoihin. Ydinvoimavastaisista puolueista erityisesti vihreät liittyivät ydinenergian vastustamiseen vision demokraattisesta järjestelmästä, jossa kansalaisilla oli suoran vaikuttamisen keinoja poliittiseen päätöksentekoon ja ruohonjuuritason demokratia asetettiin voimakkaan valtion yläpuolelle. Tähän liittyi ylevä idea Saksasta esikuvana muille maille tiellä kohti uutta, ydinvoiman jälkeistä aikakautta. Ydinvoimaa kannattavat puolueet puo-lestaan puolustivat demokratiaa toimivana parlamentaarisena järjestelmänä, jossa päätöksenteko legitimoitiin kansalaisten kunnioittamisessa, edustukselli-sissa instituutioissa. Tästä näkökulmasta korostui visio taloudellisesti vahvasta ja dynaamisesti teknologiaa kehittävästä Saksasta, joka nautti naapurimaidensa luottamusta ja toimi johtajana kansainvälisissä suhteissa kuten ilmastonsuojelul-lisissa pyrkimyksissä. Kaikkineen ydinenergian käyttöä koskeva konflikti ei ollut vain sisäpoliittinen kysymys, vaan sillä oli moninaiset kytkökset ulkopoliittisiin kysymyksiin.

Väitöskirja pureutuu siis lähihistorian vaiheeseen avaten tutkimukselliseen keskusteluun uusia ja täydentäviä näkökulmia saksalaisen ydinvoimavastaisuuden jatkuvan voimistumisen ja energiakäänteen nousun syistä. Tutkimustulokset auttavat ymmärtämään myös Fukushima ydinvoimalaonnettomuuden (2011) jälkeistä viimeisintä vaihetta Saksan ydinenergiapolitiikassa. Keskeistä tässä on tutkittuna ajanjaksona alkanut puolueiden poliittisten näkökantojen vähittäinen lähentyminen, jonka seurauksena vaihtoehtoisten energiaratkaisuiden kehittä-miseen panostettiin jatkuvasti. Toisekseen tutkimus tuo esiin, kuinka Fukushi-man ydinvoimalaonnettomuus oli käsitteellisen analyysin tasolla konkreettinen reaali maailman tapahtuma, joka ilmensi ydinenergiaa kannattavien puolueiden siihen saakka mahdottomaksi väittämää tilannetta: se oli vakava ydinvoimalaon-

nettomuus Saksan kaltaisessa teknologisesti kehittyneessä, vakaassa ja demokraattisessa valtiossa. Tämä kontingentti tapahtuma aloitti uuden syklin saksalaisessa ydinvoimakeskustelussa, johon tutkijoiden on syytä jatkossa paneutua tarkemmin.

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Wikimedia.org. Nuclear Power Plants in Germany:

https://commons.wikimedia.org/wiki/File:Nuclear_Power_Plants_in_Germany.svg

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APPENDICES

APPENDIX 1

TABLE 1 LIST OF NUCLEAR REACTORS IN GERMANY⁷⁰⁵

Name	Type	Location	First Grid Connection (year)	Permanent Shutdown Date
AVR Juelich	HTGR	Juelich	1967	31.12.1988
Biblis A	PWR	Biblis	1974	6.8.2011
Biblis B	PWR	Biblis	1976	6.8.2011
Brokdorf	PWR	Osterende	1986	Operational
Brunsbuettel	BWR	Brunsbuettel	1976	6.8.2011
Emsland	PWR	Lingen (EMS)	1988	Operational
Grafenrheinfeld	PWR	Schweinfurt	1981	27.6.2015
Greifswald-1	PWR	Greifswald	1973	14.2.1990
Greifswald-2	PWR	Greifswald	1974	14.2.1990
Greifswald-3	PWR	Greifswald	1977	28.2.1990
Greifswald-4	PWR	Greifswald	1979	22.7.1990
Greifswald-5	PWR	Greifswald	1989	24.11.1989
Grohnde	PWR	Grohnde	1984	Operational
Gundremmingen-A	BWR	Gundremmingen	1966	13.1.1977
Gundremmingen-B	BWR	Gundremmingen	1984	Operational
Gundremmingen-C	BWR	Gundremmingen	1984	Operational
HDR Grosswelzheim	BWR	Karlstein	1969	20.4.1971
Isar-1	BWR	Essenbach	1977	6.8.2011
Isar-2	PWR	Essenbach	1988	Operational
KNK II	FBR	Eggenstein	1978	23.8.1991
Kruemmel	BWR	Geesthacht	1983	6.8.2011
Lingen	BWR	Lingen	1968	5.1.1977

⁷⁰⁵ IAEA PRIS Power Reactor Information System. The Database on Nuclear Power Reactors.

Muelheim-Kaerlich	PWR	Muelheim-Kaerlich	1986	9.9.1988
MZRF	PHWR	Karlsruhe	1966	3.5.1984
Neckarwestheim-1	PWR	Neckarwestheim	1976	6.8.2011
Neckarwestheim-2	PWR	Neckarwestheim	1989	Operational
Niederaichbach	HWGCR	Karlstein	1973	31.7.1974
Obrigheim	PWR	Obrigheim	1968	11.5.2005
Philippsburg-1	BWR	Philippsburg	1979	6.8.2011
Philippsburg-2	PWR	Philippsburg	1984	Operational
Rheinsberg	PWR	Gransee	1966	1.6.1990
Stade	PWR	Stade	1972	14.11.2003
THTR-300	HTGR	Hamm-Uentrop	1985	29.9.1988
Unterweser	PWR	Stadland	1978	6.8.2011
VAK Kahl	BWR	Kahl	1961	25.11.1985
Wuergassen	BWR	Wuergassen	1971	26.8.1994

APPENDIX 2

FIGURE 1 MAP OF NUCLEAR POWER PLANTS IN GERMANY⁷⁰⁶



⁷⁰⁶ Wikimedia.org. Nuclear Power Plants in Germany.