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Influence of Media and Coal Labor Unions

Most Coal- dependent Countries of the EU and their Path Away from Coal

Case Study of Poland and Germany

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Abstract

Coal phase- out is one of the most important factors of the green energy transition. Therefore, it is a burning issue for the most coal- dependent countries of the European Union. While the background, starting point, and overall policies within the coal phase- out area between those countries differ, they are aiming towards the same goal.

This thesis will focus on coal phase- outs in Poland and Germany since the introduction of the Just Transition Mechanism. More specifically, it will try to analyze why is Poland and Germany on their paths of green transitions and coal phase- outs, focusing on the media coverage and regime resistance from the unions. Thus, first part of this research explores the coverage of coal phase- out related issues in major newspapers in both countries. The results of this part underline the differences between the formulation of the topics not only between the countries, but also between the left-wing and right-wing media.

The second part of the research explores the regime resistance, comparing the influence of trade unions in Poland and Germany. The results here show that the unions in Poland are more vocal and are more influential, however, they also stand more significantly against the coal phase- outs.

Statutory Declaration

I hereby declare that I have written the submitted Master's Thesis concerning the topic of “Influence of Media and Coal Labor Unions -Most Coal- dependent Countries of the EU and their Path Away from Coal” independently. All the sources used for the purpose of finishing this thesis have been adequately referenced and are listed in the Bibliography.

In Utrecht, May 2023

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Kristína Kráľovská

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List of Terms and Acronyms

CDU- Christlich Demokratische Union Deutschlands (German political party)

CSU- Christlich-Soziale Union (German political party)

CJEU- Court of Justice of the European Union

CO₂- Carbon Dioxide

COP- Conference of the Parties

EC- European Commission

EGD- European Green Deal

EP- European Parliament

EU- European Union

IEA- International Energy Agency

IGBCE- Industriegewerkschaft Bergbau, Chemie, Energie (German coal union)

JSW- Jastrzębska Spółka Węglowa (Polish coal company)

JTF- Just Transition Fund

JTM- Just Transition Mechanism

NGO- Non-governmental Organization

NSZZ Solidarnosc SGIE- Niezależny Samorządny Związek Zawodowy, Solidarność,
Sekretariat Górnictwa i Energetyki (Polish coal union)

PiS- Prawo i Sprawiedliwość/ Law and Justice (Polish political party)

RES- Renewable Energy Sources

TJTP- Territorial Just Transition Plans

V4- Visegrad Four

1 Introduction

Poland and Germany are the most coal- dependent countries of the European Union, together with the Czech Republic creating the coal heartland of the EU. With the introduction of Just Transition Mechanisms, which stands as one of the most important tools for fair transition towards a climate- neutral economy, and, as the European Commission underlines, it is trying to create policies so no one is 'left behind', Poland has witnessed a significant progress in the area of green policies and green transitions in general, with a visible decline in their coal dependency, yet the media support and the voice of workers unions has remained strong (Żuk, Żuk & Pluciński, 2021). On the other hand, Germany has a way longer tradition of green policies and coal phase- outs. In addition to this, the overall regime resistance in Germany is significantly weaker than the one in Poland on the side of companies and unions, as well as in the mainstream media. However, the situation in Germany has been under significant criticism in the mainstream media for the reaction and physical interference of the German police, as well as the activists themselves, in the climate activist- led protests against the expansion of the Garzweiler coal mine (Allgemeine Zeitung, 2023; Welt, 2023). On the other hand, the Polish media coverage is rather diverse, mostly polarized depending on the right- wing or left- wing nature of the media. Based on the influence that media and the unions have, this research answers two questions:

Main research question: How do mainstream media and coal labor unions influence the national coal phase- out policies?

Sub question: In which of these countries, Poland or Germany, is coal supposedly defended more and why?

Answering the questions shall add to understanding of policy- making in the coal area in both countries, while clarifying the behaviour of stakeholders in the policy- making process. In addition to this, the research contributes to fill in the gap in

academic literature in terms of the labor unions and their influence on the policy-making. Moreover, the development of media influence on the coal phase-out policies has changed significantly since the beginning of the war in Ukraine. Thus, this thesis adds to the necessary monitoring of the phase-out policy development in times of crises. To answer the research question, data from the mainstream media and the labor union websites and representatives are collected within each country regarding their influence on coal phase-outs. Secondly, the results are analyzed to determine which group-mainstream media or the labor unions have more influence on the phase-out policy-making process in each country. The results are then compared in order to identify any similar or different patterns in the phase-out policy-making process in Germany and Poland. As to the sub question, the research identifies whether the labor unions, mainstream media and the policy-makers cited in the media in each country defend the usage of coal power or not. Followingly, the thesis defines the position and rejection or defence of each country in terms of the coal phase-outs and compares the results, ensuing the possible reasons for the countries' standpoints.

In the following chapters, literature review summarizes the existing literature on the topic and underlines the gap in the literature that this thesis shall fill. Followed by the theoretical part which outlines how the bodies analysed in the thesis (therefore unions and media), influence the policy-making. Data collection and methodology chapters describe the conducting of this research into detail. Short analytical framework chapter explains what coal phase-outs are, followed by the Just Transition Mechanism which established the time framework for this research. Following, the existing coal phase-out policies are analysed in the EU, and in the researched countries. Next chapter examines the influence of the labor unions and compares the standpoints, rhetoric, and general approach towards the coal phase-outs within the unions in Poland and Germany. The Media Coverage chapter summarizes the articles within mainstream media in Poland and Germany on both left and right side of the political spectrum, which are critically analysed within the country itself, followed by a comparison of the two countries. Finally, the conclusion compares the existing policy reaction to the labor unions, as well as the media, and draws conclusions to the research question. Moreover, the final chapter describes space for further research, and establishes the limitations.

2 Literature Review

The literature on the topic of coal phase-outs and related policies has been blooming lately, mostly due to the EGD policies (e.g. Claeys, Tagliapietra & Zachmann; 2019; Siddi, 2020; Mindeková et al, 2023), rise of green energy and the energy crisis closely connected to the war in Ukraine (e.g. Osička & Černoch, 2022; Mannhardt, Gabrielli & Sansavini, 2023). The focus has been not only on the future of the energy sector itself, but also on the economic aspects of the green transitions (e.g. Vaněk et al., 2017; Mannhardt, Gabrielli & Sansavini, 2023). When discussing the coal heartland, the literature underlines the importance of geological and geopolitical factors, while analysing the losses and benefits of energy issues in question (e.g. Žuk, Žuk & Pluciński, 2021; Böhringer & Rosendahl, 2022). All in all, majority of the coal-related literature can be divided into two streams: one stream focusing on the policy making (e.g. Leipprand & Flachsland, 2018; Jermain et al., 2022; Walk & Stognief, 2022), and the other one focusing on the ones influenced by said policies, such as coal miners and coal regions (Della Bosca, & Gillespie, 2018; Mayer, 2018).

The coal- related literature focuses, in the geographical and geopolitical terms, usually either on specific countries (e.g. Della Bosca, & Gillespie, 2018; Frankowski & Herrero, 2021; Markard, Rinscheid & Widdel, 2021) or within particular regions (e.g. the EU, V4, Pacific Northwest of the USA, Rhineland, etc.) (e.g. Žuk, Žuk & Pluciński, 2021; Loewen, 2022; Mindeková et al, 2023). While multiple academics focus on the coal heartland of Europe (Poland, Germany and the Czech Republic) (e.g. Osička et al., 2020), this thesis is going to only compare the most coal dependent countries in the EU- Germany and Poland. While being on 'the same boat' in terms of coal dependency, the two countries have very different background, policies and overall approach when it comes to coal power. Therefore, this thesis offers a comparative element which is present, however, rather rare when it comes to the empirical research on coal.

When it comes to the media coverage, there has only been a small number of articles covering the topic and explaining the influence that mainstream media have on coal phase- out policy- making (e.g. Pietzner et al., 2014; Schneider, 2019; Černý & Ocelík, 2020; Osička et al, 2020). This literature is often based on the assumptions of Iyengar, Manheim and Koch-Baumgarten & Voltmer, that explain how media not only report on the policies and policy- making processes, but directly influence them

(Manheim, 1987; Iyengar, 1990; Koch-Baumgarten & Voltmer, 2010). Additionally, the academic literature on the influence of the workers' unions is almost non-existent. Therefore, this thesis is trying to underline the difference between the policy making of coal phase- outs in two countries, Germany and Poland, while examining which of the two spheres- media or the coal workers' unions possesses stronger ability to influence the final policies.

3 Theory

In terms of theoretical basis of the thesis, it originates from the dynamic interaction between policy making, mainstream media and workers' unions. The two elements were chosen on the basis of being influential when it comes to the policy making in terms of media, and the labor unions as a body that is heavily influenced by the coal phase- out policies, yet it appears that it is often not consulted enough when it comes to their creation. While the media may only appear as the reflection of the policies and the reactions of the unions, policymakers act and react to the media picture that is created about them (Reeves, McKee & Stuckler, 2016; McDonnell, Neitz & Taylor, 2023). As a result, the policy making process is co-shaped by the mainstream media (Manheim, 1987; Koch-Baumgarten & Voltmer, 2010). Moreover, the media picture heavily depends on the side of the political spectrum. Thus, the thesis analysis mainstream media from both right and left spectrum. The assumption is that a topic heavily discussed in the media becomes more important for the policymakers, as it shapes the opinions and decision- making of the general public, therefore voters (Iyengar, 1990). Additionally, media has the power to shape public opinion by underlining some aspects of the discussed issues, while omitting others. Thus, the media shapes public opinions and has direct effect on the policy makers, via either underlining an issue itself, or exposing individual policy makers that then long to avoid further negative media presence (Benton & Frazier, 1976; Osička et al., 2020). The thesis therefore analysis the influence of the mainstream media in Germany and Poland on the actual policy making in the area of coal and coal phase- outs, while pointing out that that the reaction often depends on the political orientation of the media.

The labor unions of the workers withing coal- related areas play a significant role in the policy making, especially in Poland (Szymalski, 2023). While coal workers' unions are very vocal in all coal- dependent countries, the general approach is very

different. Unions are important stakeholders to be involved in the early policy making process, as they represent the group most influenced by the phase- outs. However, the official stance of IG BCE in Germany is that coal phase-out is inevitable and the unions only require consistent preparation and stability for the workers (IG BCE representative- Interviewee 1, 2023), while the NSZZ Solidarnosc SGIE in Poland strikes against the phase- outs, calls for sticking to coal power and expresses its opinions more openly, sometimes even violently (Energetyka24, 2021; Kropaczek, 2022; NSZZ Solidarnosc SGIE representative- Interviewee 2, 2023; Wiejski, 2023). Thus, the assumption is that while in both Poland and Germany the coal sector workers play an important role in the decision- making, the labor unions in Poland are more vocal, especially due to lack of willingness to undergo the green transition.

The influence of each body is measured by the political reactions to their stimuli. In other words, the requirements and calls for changes in coal phase- out policies are outlined within media and by the coal unions. The requirements and positions are then compared to actual existing policies, analysing whether they were taken into consideration by the policy- makers, thus whether media and unions achieved their policy goals and managed to influence the policy- making. Moreover, in terms of the mainstream media, the reaction of politicians to the articles mentioning themselves, their policies, political parties or simply the government decision as a direct reaction to the previous articles shows how media influenced the decision- making. As for the coal unions, the thesis analyses ways in which the unions propose and call for changes.

4 Data Collection

The thesis analyses following sources in the research: official state documents or press conferences, in-depth semi-structured interviews, and mainstream media from each country. As to the official state documents and press conferences, the sources have been examined in order to provide the national strategies of coal phase- outs, objectives and plans for the green transitions. The documents include both national policies, and policies or requirements of the EU within the area. While the thesis provides a general background in order to more closely illustrate the problematics, the main focus is on the policies created, debated and implemented since the implementation of JTMs. The

understanding of the specific national policies underlines the two main components that are influencing them analysed in this thesis- media and labor unions.

The main sources used to examine the work and the influence of the labor unions are their official websites and statements, but mainly semi-structured interviews of their representatives. Even the potential media appearance of the unions is discussed with the representatives for deeper understanding. Due to the potential bias of the labor unions, the topics are also debated and clarified by researchers from NGOs and thinktanks focusing on environmental issues, renewable energy and energy transitions from both Poland and Germany. Followingly, the statements are analysed and compared to the actual phase- out policies. The media appearance of the unionists, especially in Poland, would result in a direct reaction of certain politicians, therefore, the valuable comments are underlined in case they lead to specific policy changes or adjustments. The interviews were conducted in the time period between February and April 2023, during the author's internship in a thinktank that provided access to a number of the contacts. All of the interviews consisted of open questions. Some of the interviews were recorded, not all of them, though, due to the refusal of numerous interviewees. Said interviewees were also anonymized. Thus in total, the interviews were conducted with a representative of IGBCE- coal union in Germany, a representative of NSZZ Solidarnosc SGIE- coal union in Poland, two NGO climate and energy researchers from Poland and one from Germany. The questions asked during the interviews shall be found in the Annex 2 of the thesis.

When it comes to media, this thesis investigates articles in four mainstream media: Die Welt (rightist) and Die Zeit (leftist) from Germany, and TVP (rightist) and Gazeta Wyborcza (leftist) from Poland over the time period since the establishment of JTMs, therefore January 2021, to underline an important milestone in phasing out coal in the EU. The media were chosen on the basis of being the most popular and trusted within each country, together with an attempt to cover both right- leaning and left- leaning side of the political spectrum. The process of choosing the articles suitable for the analysis went as follows:

1. Presence of the word “coal” in the text, and
2. Relevance of the article to energy sector of the country and

3. Change or call for a change in national energy policies.

The articles are evaluated based on the metadata (namely date and the publisher), the geographical scope of the article and the nature of the article in terms of positive or negative attitude towards the phase- out. The coding scheme (Annex 1) is applied to choose the articles, identify the patterns and finally, to interpret the results.

Finally, the results of the analyses of all sources are evaluated and compared to the actual existing policies and to the push on the policymakers from each side in order to answer the research question.

5 Methodology

In evaluating the influence on the coal phase- out policies, the author analysed the following sources: official state documents and statements of the governments (German, Polish and EU), semi- structured interviews and media (German and Polish). The official documents and government statements were analysed in order to determine the overall applications of coal phase- out policies and of the JTM structure and conditions. As said documents outline strategies of Germany and Poland phase- out policies, they are compared to the statements and preferred strategies of the workers' unions, as well as the media coverage, to establish which motion was more influential on the actual policies. The thesis is therefore answering the research question: *How do mainstream media and coal labor unions influence the national coal phase- out policies?* Via analysis of the actual policies created by the government, the media coverage and statements and actions of workers' unions in Poland and Germany.

Considering the timeframe, while there is a short summary of previous developments in phasing- out coal, this research focuses on the policies, articles and statements made after the establishment of JTMs, as it provides a significant milestone in coal phase- outs. In practical terms, the research first analyses the EU policies and the stance that Germany and Poland took towards them. Secondly, the national phase- out policies are outlined in order to establish the official stance of each country. Followingly, the media coverage of coal phase- outs is analysed, as well as the regime resistance on the side of the workers' unions. Finally, the research is concluded by establishing the influence of mainstream media and the coal unions on the national policy- making. In addition to this, the thesis also clarifies why is Poland more

defensive of coal than Germany.

Germany and Poland were chosen on the basis of being the most coal-dependent countries of the EU, while having very different approach to phase-outs and divergent paths. While Poland is quite new to the phase-out race, Germany has been steadily phasing out coal for years.

The analysis of the official state documents and statements of the government officials focuses on the policy perspective. Said part examines national policies that have been put into practice since the introduction of JTM. This part is mostly analytical, trying to provide general overview of the national policies, as well as the EU policies and their implementation within Poland and Germany. Later on, it is analysed to what extent were the existing policies of each government influenced by the media coverage and the regime resistance on the side of unions.

As to the media, one right-wing and one left-wing oriented mainstream media was picked from each country: Die Welt (rightist) and Die Zeit (leftist) from Germany, and TVP (rightist) and Gazeta Wyborcza (leftist) from Poland. The time period followed by the article is January 2021- May 2023, therefore the time period of launch of the JTM, underlining an important milestone in the coal phase-out arena in the EU, through its initial application, covering the influence that the energy crisis had on the coal phase-outs and ending with deadline of this research. The criteria for the articles examined were as follows: 1. Presence of the word “coal” in the text, and 2. Relevance of the article to energy sector of the country and 3. Change or call for a change in national energy policies. Within the time period and the scope of articles, direct reactions of policy-makers on the policies they created is analysed, showing to what extent media influence the policy-making, as well as how often or fast do the policy-makers reply to media criticism and stimuli.

The interviews are conducted with officials of the unions in each country, namely IGBCE in Germany and NSZZ Solidarnosc SGIE in Poland. The interviews are then coded and analysed based on the acts of the unions upon the topics of coal phase-outs, as well as their reactions of policymakers on said acts. Moreover, additional interviews are conducted with NGO or think tank researchers from each country for better understanding of the situation in Poland and Germany. The interviews are all semi-structured, giving the interviewees space to go deeper into their area of expertise.

The research combines semantic and latent approach, as it sheds a light on the social context that the statements of the interviewees provide, together with the expertise that the researchers interviewed possess, however, they also encounter the freedom to express their opinions.

6 Academic and Societal Relevance

The academic and social relevance of the research is present on various levels. First, as derived from the literature review, the research is academically relevant due to general lack of academic literature on the labor unions, their standpoints and their influence on the policies in the sphere of they work. Additionally, while media coverage is analysed in the academic literature regularly, we rarely see the comparison of the two countries covered in the research, Poland and Germany, and the evaluation of media influence on coal policy- making is rather scarce. Therefore, the combination of said aspects aspires to fill in the gap in the academic literature.

While the existing literature on the coal phase- outs is rather contemporary, the current issues in Ukraine and its impact on the energy sector require more update and constant monitoring.

As to the societal relevance of the thesis, the research may help with the critical evaluation of the coal phase- out policies of each country. In addition to this, it expresses the influence of various stakeholders and highlights the power that they have in the policy- making, which can help with re-evaluation of the policies as well as possible predictions for the future evolvement of the policies in the upcoming years.

7 Analytical Framework

7.1 Coal Phase-outs

Coal phase-out is one of the most important environmental policies taking place in the green energy transition. In simple terms, it means that coal combustion should be stopped, and coal-burning power plants shut down as a significant part of fossil fuel phase-out. Considering the fact that coal is the most carbon-intensive fossil fuel, phase-outs are crucial in order to limit climate change, thus fulfil the Paris Agreement and the European Green Deal goals. According to the International Energy Agency, coal is responsible for around 30% of the rise of the average temperature (IEA, 2019).

Moreover, the Climate Analytics research shows the urgency of coal phase-outs before 2040 in order to fulfil the climate commitments of the world (Climate Analytics, n.d.). The coal dependent countries of the EU have already taken the initiative and are trying to limit their dependency, providing less funding for coal and more of the just transition. While Poland, as the most coal dependent country is rather vocal about the potential problems and worries connected to the coal phase-outs, Germany has already proven in the case of Ruhr that phase-out can be done smartly, without much harm, when it starts with solid strategic planning, feasible distribution of resources and stakeholder engagement (Mavrogenis, 2018).

7.2 Just Transition Mechanism

The European Union is devoted to achieving net-zero greenhouse gas emissions by 2050, as signed in the European Green Deal (European Green Deal, n.d.). The green transition is expected to bring numerous social and economic issues to various regions and industries, mainly the ones relying on fossil fuels, especially coal. In 2018, coal power plants generated around 15% of EU's power capacity, with the coal sector directly employing about 237,000 people, and indirectly supporting other around 215,000 jobs (World Resources Institute, 2021). With the expected closures of the EU coal mines, with majority planning to close by 2030, there is a threat of job losses in the sector. When narrowed down to the national level, Poland faces the greatest potential job losses, followed by Germany. Moreover, on a local level, the most significant job losses are probable in Silesia, Poland (World Resources Institute, 2021). Therefore, Just Transition Mechanism was created to address social and economic effects of the transition, providing financial and technical support for the most affected regions and industries to assure a fair transition where “no one is left behind” (European Commission, n.d.). JTM consists of three pillars: A new Just Transition Fund, Invest EU “Just Transition Scheme” and A new Public Sector Loan Facility. JTF is aspiring to mobilise around 25,4 billion EUR (currently around 19.2 billion EUR). Invest EU JT scheme provides a primary advisory and support for investments in the private sector. Finally, the Public Sector Loan Facility shall mobilise 18.5 billion EUR from EU budget and the European Investment Bank (European Commission, n.d.)

When it comes to Territorial Just Transition Plans (TJTTPs) in Poland, as of December 2022, all of the operational programs have been adopted (Kuzmanić, Stępień

& Ilčíková, 2022). While the TJTPs themselves were facing a significant backlash from the unions (Wiejski, 2023), the EC still underlines the importance of compliance with the EU Charter of Fundamental Rights on the side of Poland to unlock the funds for JTF and Cohesion Funds (Kuzmanić, Stępień & Ilčíková, 2022). While the main argument of the unions were job losses, the funding shall provide new jobs as an impact of the JTM measures, as well as training and re- skilling for the workers within the coal sector (Kuzmanić, Stępień & Ilčíková, 2022). Considering Germany, the JTF acceptance seemed significantly smoother than the one in Poland. Considering the long ongoing coal phase- out journey that Germany has already accomplished, the TJTPs are mostly focusing on reorientation of companies, establishment of green businesses, restoration of the land around the lignite mines and, as well as in Poland, training and re- skilling for the workers (Wettengel, 2022). While the influence of the JTM itself is not analysed in the research, the reason of its explanation in the thesis is that it provides a feasible timeframe for the research and publication of relevant articles.

8 Policy Background

8.1 European Union

With the EU financial and practical aid, both Germany and Poland shall be on the right track towards the coal phase-outs and green transitions. Poland has been the EGD troublemaker ever since its introduction (Li, Zhang & Kang, 2020; Gawlikowska-Fyk, 2022). Nevertheless, the country is benefiting from the JTM, together with tailored financial support from the EU to help the coal regions.

In addition to the JTM, the EC also provides aid for national and regional authorities in order to efficiently implement the transition policies (European Commission b), n.d.). The Commission also launched the ‘Initiative for Coal Regions in Transition’, which focuses on the social aspects of the transitions rather than the technical ones, bringing together variety of stakeholders in hopes to identify and tackle phase-out related issues more effectively (European Commission c), n.d.). Despite the EU policies attempting to be practical and provide financial aid, as well as practical solutions, many are still concerned about Polish transitions and their reluctance towards the EGD (Arak, 2020). However, when it comes to coal, the 2022 energy shock only

caused a minor return to coal in the EU, and brought support for renewable energy (Jones, 2023).

8.2 Germany

Germany promises to completely phase- out by 2038, underlining the fact that it may happen sooner. While the country has been facing some problems lately, it has been repeatedly stated that they are not running back to coal and are not planning to extend the deadline for the phase-out. Rather than that, Germany explains its reactivation of 8 GW of coal plants as a temporary compensation needed due to the losses of Russian gas (Popp, 2023). However, this little backlash does not change anything about the decision of the German parliament to phase- out coal until 2038 and the discourse has been asking “how” and “when” instead of “whether”. The law was discussed with variety of stakeholders, however, was still heavily criticized by numerous green lobbyists (Markard, Rinscheid & Widdel, 2021).

While the energy crisis shed a bad light on Germany, showing country’s dependency on Russian gas and underlining the unreadiness of the grid to switch to renewables quickly enough, the 8 GW return to coal was a necessity, however, a temporary issue (Popp, 2023). The permission for the lignite plants to keep in function is until June 2023, with hard coal plants permitted to function until March 2024

(Ersatzkraftwerkebereithaltungsgesetz, n.d.). Moreover, as Ember recently reported, the coal power plants have already been limiting their capacity and are committed to the coal phase-out before their actual deadline (Ember, 2023). The German government therefore stays behind the deadline, already has a deal with RWE to speed up the process of phasing- out the North Rhine+ Westphalia coal region, and is debating comparable measures in the Eastern lignite regions (Wirtschaft, 2023). In addition to this, Germany has revised the EU emission trading system, and attempts to speed up process simply by making lignite and hard coal plants too expensive to operate within the next five years (Popp, 2023). In addition to this, the country raised the RES targets within a month and a half after the beginning of the war in Ukraine, changing the RES

goal by 2030 from 65% to 80%¹ (German Federal Ministry for Economic Affairs and Climate Action, 2023).

As to the national policy making, one of the significant steps that Germany took in order to assure, and ideally also speed up the coal phase-outs was the allocation of resources and a support from both national and regional budgets investing not only in energy transitions, but also in the social aspects, including pension schemes for the elderly group of the coal workers, career change opportunities and reschooling for the younger groups and other social policies to keep the coal regions economically stable (Markard, Rinscheid & Widdel, 2021).

All in all, Germany managed to make coal mining stop making sense economically. Another significant step in policy making was the clever stakeholder engagement. Different stakeholders were a part of the process, including the IGBCE, and while it was a difficult and long process, unilateral decisions were not an option and all stakeholders had to discuss, debate, and argue their opinions and possible solutions (Wehrmann, 2018).

8.3 Poland

While Germany is trying to speed up the process, Poland presents an opposite view. Even though the government yearns for sticking to the 2049 phase-out deadline, the Polish State Assets Minister, Jacek Sasin, stated that while the deadline stands, the path towards it shall be “slower” and the “curve shall be flattened” (Sasin, 2022). The overall debate on coal phase-outs in Poland appears to be way more heated than in Germany on all levels- societal, unions, government and NGOs (Wiejski, 2023). However, the promising nature lies in the cooperation with the USA and South Korea. The country is planning to open its first nuclear power plant in the next ten years (Krzysztozek, 2022). Sasin adds that the coal mines shall still be operating until the nuclear reactors are launched and functioning (Sasin, 2022).

Even though the national policies seem to be lacking behind, the Polish public is trying to take the matters into their own hands. Poland managed to create a system that makes solar energy so transparent, available and affordable for the individual households, that the transition to renewable energy is happening through the efforts of

¹ Current share of renewables in Germany is around 47 %.

Polish society (Kráľovská, 2023). All in all, coal is becoming perceptibly uncompetitive, and the efficiency of the solar energy, while not done on the national-governmental scale, is succeeding heavily. Impressive 9 GW uptake of PV systems was achieved only on the household level due to the government subsidies and the transparency of the system provided by the government (Kondarev, 2023). It is also important to mention that ever since the coal and steel crisis in the 1950s and 1960s, the number of coal workers has been decreasing. Not only the number of employees has been decreasing, but the coal industry also required significant subsidies in billions of euros, which proves not only the downfalls of coal industry, but also the nearly unconditional support of the governmental support (Mavrogenis, 2018).

In conclusion, the coal phase-out policies on the national level are still developing and rather unclear (Kondarev, 2023). The dialogue on the move away from coal is primarily political, with the famously populist Law and Justice party (PiS), together with Confederation (Konfederacja) advocating for coal. On the other hand, left-wing parties support the energy transition, and keep advocating for renewable energy (Žuk, Žuk & Pluciński, 2021). Even though the society is not a 100% congruent either, the majority is in support of the renewable energy, government subsidies, and financial support for the coal regions to shift their production towards clean energy (Wiejski, 2023; Žuk, Žuk & Pluciński, 2021). In addition to this, Poland is trying to get as many stakeholders on board as possible and discuss the further development, however, the stakeholders are significantly more polarised than the ones in Germany and the general push against the coal phase-out is stronger (Kráľovská, 2023; Popp, 2023).

9 Media Coverage

9.1 Germany

In this part, the German mainstream media articles are analysed and compared. Die Welt (right- oriented) and Die Zeit (left- oriented) both report on coal on a regular basis, with Die Zeit having more coal- focused articles. The geographical focus is mainly national in terms of both. However, while both also report on coal regions and towns with approximately the same intensity, Die Zeit has more international articles- whether EU- focused or wider geographical range (USA, China, India or worldwide). When we take the most salient actors, in both cases, this role is apparently assigned to

the federal government, followed by RWE- German multinational energy company that operates the majority of the German coal power plants. However, since the war in Ukraine, the EU also transpires as one of the most significant actors due to the embargo on Russian gas and coal. While party politics is mentioned rather rarely, the most mentioned political party are the Greens by virtue of their environmental agenda.

The definition of German mainstream media reactions to coal and coal policies appears to be quite similar on both right and left side of the political spectrum, however, the rhetoric differences deepened since the beginning of the war in Ukraine. Thus, the pre- war period articles are analysed first (January 2021- February 24th 2022), followed by the identification of the articles published after the Russian attack on Ukraine, often connected to the issue. First, the pre- war period. In German mainstream media, the emotional assessment appears to be rather neutral, especially before the war in Ukraine. Nevertheless, the rhetoric was slightly different. Both Die Zeit and Die Welt underline the importance of climate change mitigation and of the coal phase- outs. Yet, Die Zeit articles from 2021 suggests that climate protection is the most important aspect of policy- creation nowadays (e.g. Die Zeit a), 2021; Schumacher, 2021). The rhetoric also appears to be quite powerful, with statements such as “We must not go wrong again” or “Climate is the greatest challenge of the mankind”, highlighting the urgency of coal phase- outs, ideally speeding up the process despite the temporary economic setbacks (e.g. Erdmann a), 2021; Herntier,2021; Schumacher, 2021). On the other hand, Die Welt repeatedly suggested that the phase- out is “premature”, underlying the importance of coal power for Germany and, focusing on the economic questions, suggesting that Germany shall not “hurry” with the phase- outs, while still paying attention to its importance (mostly due to the floods being the direct and visible result of the climate change), yet there is a need for compromise (e.g. Die Welt a), 2021; Wetzal a), 2021). The coal power is repeatedly referred to as the “dirty” form of energy within both newspapers, and they highlight the importance and smart transition towards renewable energy, focusing especially on wind. When it comes to discussing financial aspects of the phase- outs, both media support financial aid for the coal regions transition. However, while Die Welt underlines the financial damages, and presents Moorburg as an “investment ruin” (Preuss, 2021), Die Zeit calls for higher fossil fuel prices and cancelling coal “gigantic” subsidies (Fratzscher, 2021). As to pre- war in Ukraine

rhetoric about the international arena, Die Zeit appears to be more supportive of the EU policies in general, while Die Welt repeatedly uses negative connotations, such as the EU “thwarting” German energy transition. Finally, ending the year 2021 with COP 26, Die Zeit provides more articles on the topic, yet both Die Zeit and Die Welt agree that COP 26 was a failed opportunity, even though it promises the end of coal- COP 26 is presented mostly as “not ambitious enough” (Die Zeit b), 2021; Erdmann b), 2021; Snower, 2021; Wetzl b), 2021; Wetzl c), 2021).

The rhetoric changed quite significantly since the beginning of the war in Ukraine. Both Die Zeit and Die Welt often criticize the green policies, suggesting that they should be more consistent. Die Welt generally focuses on the economic side more than on the climate one. For example, when the war in Ukraine started, Die Zeit repeatedly criticized the government for focusing on the energy supply stability rather than the climate change, for running back to coal, suggesting that Germany is “burning more coal than the environment can afford”. On the other hand, Die Welt simply underlined the economic factors, stating that “If the coal-fired power plant has to keep running, then that's the way it is” (Laurin, 2022). Die Welt never praised coal energy, but repeatedly suggested that it is needed and that it reduces the electricity bills of German households and companies. Additionally, some articles in Die Welt tried to underline that renewable energy might not be so feasible and that it also has toxic waste (Die Welt b), 2022). Both newspapers agree on the energy independence from Russian gas and coal, as well as on the importance to stop climate change. However, while Die Welt suggests that for now, coal is important for stability, Die Zeit articles push the quick shift to renewable energy. Once again, coal has been referred to as “dirty” and both newspaper repeatedly express their concerns about the CO₂ emissions that are produced by the coal power plants. Moreover, while the emissions are criticized, they are also being justified by the need to secure the energy supply due to the war in Ukraine. Together with the emission concerns, the news communicate the solar and wind energy push from the federal government, as well as the need to save energy. Nonetheless, Die Zeit puts more focus on the fact that the coal phase- out is not enough, and that the whole process should be speeded up. Both Die Zeit and Die Welt underline the importance of support for the eastern coal regions. Additionally, they criticize the RWE practices, but Die Welt highlights that their policies are justified in order to

provide security of energy supply. An interesting difference occurs within the presentation of anti- coal protests. While in terms of Jänschwalde coal-fired power plant both platforms informed about the issue very objectively, purely describing the situation, the same cannot be said about the Lutzerah protests. Despite the fact that most articles are of informative nature, when it comes to the clashes of protesters and the police, Die Welt appears to defend the acts of the police forces, while Die Zeit criticizes the police more and occasionally defends the acts of the protesters. When it comes to COP27, Die Zeit, again, presents more articles on the topic. However, both sides are mostly informative on the conference, with slight stronger focus on the economic aspects on the side of Die Welt. Another important aspect is the EU- related rhetoric of the media. Die Zeit defends and supports the EU climate policies and push for renewables. While they present worries about regional wellbeing, Die Zeit uses strong wording for coal power such as “monster” or “climate hell” (Die Zeit c), 2022; Endress, 2022; Orellana, 2022), also focusing that with a quick shift towards renewable energy with the EU support, coal will no longer be needed. On the other hand, Die Welt stated that "Europe's climate obsession has led to an energy crisis" (Die Welt c), 2022), criticizing the EU policies and expressing the temporary need for coal that the EU is trying to stomp. Die Welt even suggested a temporary replacement of coal by fossils or nuclear energy to assure the energy supply security (Die Welt d), 2022; Frigelj 2022). Both news have rather regional focus, yet it is a bit stronger on Die Welt's side. As to the political parties, the Greens remain the mostly mentioned political party. The major difference stems from the positive nature within Die Zeit- underlining that the Greens are trying their best, and the negative nature within Die Welt, which questions the credibility of the party. Finally, the general reaction to the coal policy changes due to the Russian attack on Ukraine is negative. Nevertheless, Die Welt sees coal as important and inevitable way to survive the crisis, even though it may not be profitable, due to its stability. Die Zeit, on the other hand, presents that Germany must break away from coal, oil and gas as quickly as possible and only through renewable energy can become sustainable, competitive and battle the energy crisis.

In conclusion, German mainstream media articles analysed are mostly of informative nature, with slight more significant differences between the right- wing and the left- wing rhetoric, especially since the beginning of the war in Ukraine, followed by

the energy crisis. However, both portals agree on the need of a coal phase- out and on the environmental problems it causes- the most significant difference is the required pace, policies and problem solving in the times of crisis. As to the direct reactions of the policy- makers mentions in the media, the reactions are rather scarce. The media often report opinions of professionals or a simple descriptive, rather than critical, evaluation of the national coal phase- out policies.

9.2 Poland

In this part, the Polish mainstream media articles are analysed and compared. TVP (right- oriented) and Gazeta Wyborcza (left- oriented) publish a significant amount of coal- related articles. Gazeta Wyborcza has more coal- oriented articles, hardly ever specifying whether the issue touches upon hard coal or lignite. Both media focus mostly on national and regional coal- related issues, with Gazeta Wyborcza having more global coverage, especially the EU, occasionally China. When it comes to the EU discussions, the reaction to the policies is diametrically different. While Gazeta Wyborcza stands behind the support of the EU climate and coal policies, TVP criticizes them heavily and repeatedly blames the national energy- economic issues on the EC. The most salient actor is still the national government on both sides, yet the rhetoric is rather divergent. Additionally, JSW (largest producer of coking coal in Poland, as well as the EU) and regional governments represent an important role in the coal- related articles, together with the NSZZ Solidarnosc SGIE coal union. In Polish mainstream media, party politics appears on a regular basis in the connection to coal. Such articles would mostly involve the Prawo i Sprawiedliwość (PiS) party, with TVP defending their stance and Gazeta Wyborcza opposing.

Starting with the pre- war in Ukraine period, (January 2021- February 24th 2022), the coal- related articles were mainly on the financial problems of the sector and the job shortages. Both newspaper discuss the CJEU Case C - 121 /21 concerning the Turów lignite mine that supplies lignite to the Turów power plant. In this case, the dispute was about the negative impact on groundwater in the Czech Republic. In this sense, once again, the media took an opposite approach. While Gazeta Wyborcza defended the Czech side as there are multiple articles connected to water pollution caused by the Turów mine, TVP commented on the steps taken by the Czech Republic as “frivolous, irresponsible and incomprehensible” (TVP Parliament, 2021). Majority of

the articles in TVP accuse the EC of pressuring Poland with their climate policies and that the EU should be concerned about the increasing energy prices more than about the green transition. In the meantime, Gazeta Wyborcza kept on blaming coal power plants for polluting water in Poland, and behind the borders as well. In general, Gazeta Wyborcza has been discussing the new wind energy laws that are needed, but are being blocked by the PiS government. The topics of need for renewables were often connected to the failures of Polish power plants in both Turów and Bełchatów and by the push to save money via renewable energy. Gazeta Wyborcza has also been continuously critical in the context of smog and air quality issues connected to coal energy. While TVP was blaming the EU for increasing energy prices in the country, Gazeta Wyborcza took a very different approach, often defending the EU policies and underlining the need to accept the EU climate policies. Gazeta Wyborcza also repeatedly highlighted the importance of JTM and JTF for coal regions, presenting it as an opportunity to fulfil the EGD that Poland “keeps ruining” (Hopârteanu & Antoniewicz, 2021). In general, Gazeta Wyborcza seems to be marginally more critical towards the national coal policies, criticizing the phase-out for being too slow. Moreover, it supports the EU policies more significantly, stating that the PiS promises to switch to cleaner energy are “empty words” (Czoik, 2021).

Both media reported on the coal union strikes in a rather informative way before the war in Ukraine, analysing the problem with not only workers’ conditions, but also with the labor shortage in coal mining.

In case of Polish mainstream media, the general rhetoric stayed mostly the same after the outburst of the war- the right wing TVP supporting the decisions of the PiS government and the left wing Gazeta Wyborcza standing against them. The coal-related articles of both TVP and Gazeta Wyborcza strongly supported the sanctions on Russia, and to some extent, both justified the usage of coal for the sake of security of supply. TVP repeatedly emphasized that there is no chance to agree with the EU climate policies now, that even the EC has to admit that the EU needs coal and that the environmentally friendlier energy policies and alternatives have to be postponed, as security and stable energy supply is more important. On the other hand, Gazeta Wyborcza repeatedly pushed for RES, informing about geothermal subsidies, seeing the energy crisis as a space for change to renewables. Gazeta Wyborcza further discusses

solar energy, both utility scale and rooftop solars, as the feasible source of affordable and stable energy. Additionally, it heavily debates the wind energy, criticizing the PiS government for stopping the wind energy- related policies that would ease the process of installing windmills and their connection to the grid. Followingly, as the EU carbon laws are discussed, TVP refers to them as “unjust”, urging Poland to rethink the policies. The policy- makers’ reactions in TVP are rather common, mostly to underline the importance and correctness of their previous decisions. Furthermore, TVP blames inflation on the EU green policies and the emission trading system. Gazeta Wyborcza mostly reports on said policies, seeing the importance of de-russification, yet still portraying renewables, mostly photovoltaics, as the most feasible solution for the Polish nation. Significant issue discussed by both news was the lignite and hard coal that did not meet the quality standards. Simply said, the quality standards were lowered by the government in order to produce more energy faster. This step was judged by Gazeta Wyborcza heavily, stating that it was a “mistake of the PiS government that they are trying to blame on the regional governments” (Biernat, 2022). On the other hand, TVP would defend the actions of the government, stating that the standards had to be lowered to assure the security of supply. Another problem arose within the coal business, as fake coal sellers arose on Polish websites. In the face of crisis, numerous scammers created websites where they would supposedly sell coal directly to household. After transferring the money, the websites would disappear. Both newspaper warned about fake coal sellers informatively, underlining the prevention and providing guidelines to figure out whether the coal- selling websites are a scam.

Considering coal mining itself, this subchapter is going to analyse the media reaction to numerous stimulus. Starting with the labor market, Gazeta Wyborcza continuously reports on the labor shortages in the mining industry, as the industry does not seem to be profitable and feasible for the future, as well as not being attractive for the younger generation. Moreover, it describes the cuts in fossil industry in general and the potential move to jobs in the RES sector. Nonetheless, TVP states the exact opposite, standing by the opinion that coal mining is needed as it creates job positions. While TVP rarely ever discusses pollution, it appears to be one of the most discussed topics in Gazeta Wyborcza, reporting on alarming air pollution, water pollution and increasing level of respiratory issues caused by the dust from the coal mines. Both TVP

and Gazeta Wyborcza report on the strikes and protests of the coal union that have been going on in an informative way, with TVP referring to Poland as “miners’ republic” to underline the support that the sector requires.

Another heavily debated topic is how long is Poland going to use coal. TVP and Gazeta Wyborcza agree that coal mining will not be over anytime soon. The context of the idea is, however, different. TVP sees it as a positive, highlighting the stability of coal energy, with potential modernization of the industry. Gazeta Wyborcza focuses more on the negatives, such as inability to fulfil the EGD goals, economic unfeasibility of coal imports and ineffectivity of the JTF and other investments into coal regions, which bring very little change. Media continuously and in mostly informative manner report on coal prices, together with price predictions for the upcoming winter. In the articles that discussed energy diversification, despite similar titles, Gazeta Wyborcza outlines the benefits of solar and wind power, shedding light on the photovoltaic boom in Poland. TVP, even within the topic of diversification, focuses mostly on coal investments and subsidies. In terms of TVP and as to its ownership by the government, each decision or policy push is followed by a reassurance of the policy or a policy-maker’s statement.

When discussing environmental issues, the number of articles urging environmental protection is significantly higher in Gazeta Wyborcza. In both cases, the EU is one of the dominant actors in the articles. Even if TVP reports normatively on the EU energy policies, the articles usually highlight that the security of energy supply comes first, therefore coal is needed. Moreover, TVP also referred to climate change as an “ideology”, stating that coal should not be abandoned “for ideological reasons” (TVP Parliament 2023). As to the institutions, coal companies are mentioned on a regular basis, especially JSW, accused of their unfulfilled plans to lower the emissions connected to coal mining. Last but not least, the methane regulations are discussed, with both media reporting on the national government satisfaction with the compromise on methane emission tolerance.

In conclusion, Polish mainstream media articles are significantly polarised. Especially when it comes to the EU policies or the PiS government decisions, right-wing media rhetoric is mostly in favour of the PiS government decisions and against the EU policies. For the left-wing media, the opposite is true. Both portals see coal phase-

out as a question of rather far future, focusing on security and stability of the Polish energy market. All in all, Polish mainstream media analysed focus on the social, economic and technical practices of the coal system, not seeing the phase- out as urgently as the German mainstream media.

9.3 Comparison

The media analysis presented the political context within Germany and Poland related to coal, underlining the assumptions about its influence on the policymaking. Despite the fact that the two countries analysed are facing a similar problem, the differences found are significant. Especially within the Polish media, the conceptual aspect is stronger than the material one. Moreover, ideology and political inclinations play a more significant role within the Polish media.

German coal- related article focus on the practical components of the coal phase- out from a long term perspective, focusing mostly on the effect on the environment and in the light of the energy crisis, on the national economy. Polish coal- related articles, on the other hand, shed a light on the difficulties within the coal regions, focusing on the struggle of the coal industry and its workers itself. While the left- wing Polish media take the environmental aspects into consideration- mostly on regional level, the general focus on both sides is mostly on the socio-economic consequences.

Despite the setback in the German phase- out plans, German media still report on the severity of the climate change and the future policies for the country. In terms of Polish media, while the left wing sees the environmental threat, the right wing often avoids the effect that coal energy has on climate change. Moreover, the rightist Polish media uses strong rhetoric to underline the societal importance of coal, together with its national history and tradition.

Germany is generally more progressive. Majority of the political parties agree on the importance of coal phase- out and on the urgency of the climate change. The party support in the German media, therefore, is not so obvious in relations to coal. The same cannot be said about Poland. Right-wing media analysed support the PiS government decisions rather openly, oppose the EU climate policies and advocate for keeping coal energy alive for as long as possible. Left-wing in Poland is more vocal

about the threat of the climate change, however, focuses mostly socio- economic aspects of the phase- out.

Considering renewable energy, while German media show support, Polish media is, again, polarised. The Polish left-wing is trying to push for mostly solar and wind energy, while the right-wing media hardly ever reporting on the renewables and keep the focus on the importance of coal for the country.

All in all, media in both countries express a certain level of influence on the political agenda creation, with more balance on the German side. On the Polish side, TVP commonly poses as the agenda- setter for PiS and a defender of their actions. The influence of the media is reflected in regular reactions to the mentions of the government officials or specific coal policies in the media. On the other hand, left-leaning *Gazeta Wyborcza* criticizes the PiS politics and brings forward more progressive issues, with a significant push for the renewable energy practices in Poland. The left- leaning articles are mostly referred to by the NGO sector workers or environmental activists.

10 Regime Resistance or Compliance of the Labor Unions?

10.1 Official Stance on Coal Phase-out

As already outlined in the previous chapters, the two countries have very different approaches to the phase- out in general. German IGBCE is one of the strongest collective bargaining institutions in the country (IGBCE Allgemein, 2023). IGBCE as wider span than NSZZ Solidarnosc SGIE. While NSZZ Solidarnosc SGIE covers only coal industry, IGBCE is the umbrella institution for not only coal workers, but also chemistry workers, mechanics, industrial clerks, glassmakers, and shoemakers (IGBCE, n.d.). That might be one of the reasons why IGBCE has better media and policy-making bargaining power. The main difference in the coal area is the acceptance of the facts and the general attitude. As IGBCE accepts and supports the phase- outs, provides expertise for their effectivity and fairness and tries to make it socially acceptable and economically feasible (IGBCE Allgemein, 2023; IGBCE representative- Interviewee 1). However, the same cannot be said about NSZZ Solidarnosc SGIE. Polish stance still mostly pushes against the phase- outs. Instead of assuring better workers' conditions, the unions still try to prevent the coal phase- outs from happening. In case there is an

attempt or need to comply with the laws on both EU and national level, NSZZ Solidarnosc SGIE usually reacts in a form of an open letter, medialises the issue or, less frequently, organizes a protest (NSZZ Solidarnosc SGIE, 2022; NSZZ Solidarnosc SGIE representative- Interviewee 2, 2023). Both unions are trying to bring the coal districts within their countries together and push forward policies that would fit all, especially to have a unified voice when ensuring coordination vis-à-vis the state governments and decision-makers. The most significant difference therefore lies in the fact that while IGBCE is trying to make sure that the phase-out is fair and does not harm the coal workers, NSZZ Solidarnosc SGIE still protests the phase- out itself.

10.2 Press Releases and Media Presence

Press releases and media presence further highlight the differences between the German and the Polish unionists. First, it is important to state the fact that NSZZ Solidarnosc SGIE has its own newspaper, 'Solidarnosc', thus can present their opinions in any way that feels the most beneficial to them (Solidarnosc Gornicza Archive, n.d.). However, the representatives of the union still appear in the more mainstream media. On the other hand, IGBCE has more active websites and social media. Both unions have websites, Instagram accounts and Facebook accounts. As to the websites, the IGBCE one is being refreshed on a regular basis, the same cannot be said about the NSZZ Solidarnosc SGIE. They appear to be mostly outdated, are rather unclear and the graphic design is very basic. As to the social media accounts, while IGBCE post frequency is every or every other day, mostly containing infographic of their work and topical policy updates (IGBCE Instagram, n.d.). NSZZ Solidarnosc SGIE post frequency is one post per 3 months on average. In addition to this, the NSZZ Solidarnosc SGIE posts are rather often completely unrelated to coal or the work of the unions (Solidarnosc Instagram, n.d.). While not possessing their own newspaper, the union provides email newsletters and press releases (IGBCE Press, n.d.). Interestingly, the union members in both countries are not openly supporting any political party and are only vocal about certain decisions that specific political parties made or their stances they defended. The unions are not even politically polarised and do not openly lean towards right- wing or left- wing politics. Nonetheless, there are still slight topical differences. Understandably, the most discussed issues are coal-related policies, updates on happenings within the coal area and occasional windows on the history of coal and

of their own institutions (IGBCE Press, n.d.; Solidarnosc Gornicza Archive, n.d.). However, while IGBCE stays areligious, the same cannot be said about NSZZ Solidarnosc SGIE. Repeatedly, Solidarnosc Gornicza openly support catholic leaders, presents quotes and pictures of catholic saints and discusses religious issues (Solidarnosc Gornicza Archive, n.d.; NSZZ Solidarnosc SGIE representative- Interviewee 2, 2023).

Communication with the mainstream media mostly occurs during the protests and other events that the unions organize. In this sense, the appearance is mostly comparable. The only significant differences would be the course of the protests itself and the idea that is being presented or protested for/ against. The issue of protests will be discussed later in this chapter.

10.3 EU-related Rhetoric of the Coal Unions

This subchapter is dedicated specifically to the EU- related rhetoric. The general rhetoric, as expected, is pro- EU in IGBCE and anti- EU in NSZZ Solidarnosc SGIE. The EU is mostly discussed in terms of the EGD, methane policies and CO2 emission policies. The importance of the EU policies and the unions´ reactions to them lies in the fact that the EU policies are shared by all the members, thus both Germany and Poland, while the incorporation into the national legislation, as well as overall implication, differs.

First, the EGD is referred to as “madness” or as a “ridiculous set of policies” by NSZZ Solidarnosc SGIE (NSZZ Solidarnosc SGIE, 2021; NSZZ Solidarnosc SGIE representative- Interviewee 2, 2023). All in all, NSZZ Solidarnosc SGIE presents the EGD as something worrying and nearly impossible to fulfil based on their requirements. The same cannot be said about IGBCE. IGBCE, on the other hand, presents the EGD as a project to be supported and has to be achieved by common effort (IGBCE b), n.d.). IGBCE openly underlines the importance of cooperation and debate with the EU official, organising discussions with Brussels officials to defend the energy workers´ rights and establish policies that would be profitable for the EU as a whole (IGBCE c), n.d.). The overall rhetoric on the EU- related topic is positive and IGBCE tries to present the energy crisis and sustainable transformation as an opportunity for the coal regions, workers and decision- makers to join forces and provide a solution that would benefit all parties (IGBCE Representative- Interviewee 1). Moreover, they call for more

effective spread of information in Europe- wide, active cross- border cooperation and common EU job security and sustainable business models (IGBCE c), n.d.). NSZZ Solidarnosc SGIE, on the other hand, calls the EU officials out. The union works more on the basis of writing open letters to the members of the European Parliament, expressing disagreements with certain policies and asking for their cancellation or change (Solidarnosc Gornicza Archive a), 2023; NSZZ Solidarnosc SGIE representative- Interviewee 2, 2023).

Secondly, the position towards the CO₂- emission policies is very similar to the general EU standpoints. As the NSZZ Solidarnosc SGIE criticizes the EU policies on CO₂ emission- reduction, they mostly discuss its insufficient implementation within the country (NSZZ Solidarnosc SGIE- Stanowisko nr 1, 2021). While the EU policies itself are perceived as the central problem, the union sheds a light on numerous national institutions that were in charge of implementation of the signed social contracts with the coal workers, were supposed to establish the National Energy Security Agency (Narodowa Agencja Bezpieczeństwa Energetycznego) and discuss the related issues. However, seemingly the responsible units failed to complete the task due to constant changes in the management and disagreement within the organisations themselves (NSZZ Solidarnosc SGIE- Stanowisko nr 1, 2021). IGBCE, once again, stands behind the EU policies and focuses on the effectivity of climate change mitigation and further investment into innovation within the energy sector to keep it competitive (IGBCE Press, 2023).

Last, the methane policies pose a significant role in the EU- related rhetoric of the unions. Starting with the IGBCE, the union barely mentions methane- related policies. The main focus is on the shift towards renewable energy, speeding up the process via hydrogen power, even though it means that Germany would have to import hydrogen (IGBCE- der Stoff der Zukunft, 2022). NSZZ Solidarnosc SGIE has been discussing methane issues quite frequently, however, the union is rather satisfied with the outcome of the deals with the EP. The compromise achieved states that the limit for methane emissions is to be 5 tons per 1,000 tons of coal mined by the operator (coal company), and not the mine as previously proposed. The representative of NSZZ Solidarnosc SGIE, Dominik Kolorz expressed his satisfaction with this compromise,

stating that it provides more room for manoeuvre for coal mining companies in Poland (Solidarnosc Gornicza Archive b), 2023).

10.4 Protesting

As previously suggested, NSZZ Solidarnosc SGIE organises more protests than IGBCCE, with different nature. IGBCCE mostly participates on strikes, whether on its own or in cooperation with other labor unions, trying to achieve salary increases (IGBCE representative- Interviewee 1, 2023). Other than that, it is mostly about fair conditions for the workers, often considering safety regulations or working time (IGBCE d), n.d.). NSZZ Solidarnosc SGIE, on the other hand, protests EU and national policies. One of the main objectives being the previously mentioned methane regulations, CO₂-emission regulations, or general coal phase- out issues (Wiejski, 2023; NSZZ Solidarnosc SGIE representative- Interviewee 2, 2023). While unions in both countries hold, by majority, peaceful protests or strikes, in Poland, the situation got out of hand multiple times. During the 2021 protests against the EU green and coal policies, the protesters in Wrocław marched in front of the European Commission's representative office, with number of them carrying bags of brown coal to throw or scatter in front the building (Energetyka 24, 2021). More recent example comes from Warsaw, when the protesters against the methane regulations burned tires in the centre of the capital (Dobrolowicz, 2023).

All in all, the regime resistance is significantly stronger on the Polish side, while German unionists comply with the coal phase- out regime and only require more feasible conditions to manage the energy shift. Additionally, IGBCCE mostly attempts to resolve the issues by providing the requirements to the policy- making bodies and considers strikes as the last call (IGBCR Representative- Interviewee 1, 2023). The Polish NSZZ Solidarnosc SGIE often starts the other way round. While some requirements go to the government directly, mostly on the small- scale or regional level, the issues with the EU policies usually escalate into a protest (NSZZ Solidarnosc SGIE representative- Interviewee 2, 2023)

11 Main Findings- How Can Mainstream Media and Coal Labor Unions Influence the National Coal Phase- out Policies?

This thesis analysed and compared the influence of mainstream media and labor unions in Poland and Germany on their national policy making on the topic of coal phase- outs. By analysing articles from both left- wing and right- wing mainstream media in each country and interviewing and examining the work, positions and influence of the labor unions, this paper answers the research question: “How can mainstream media and coal labor unions influence the national coal phase- out policies?”, while sub contextually providing the answer to the sub question: " In which of these countries, Poland or Germany, is coal supposedly defended more and why?".

11.1 Main Research Question

By identifying the narratives and general rhetoric about coal, coal policies and the phase- outs, the first obvious finding is the significant difference in the approach of the two countries. Thus, while facing the same problems, entities’ behaviour is mostly contrasting. In Germany, media reporting is mostly informative. With slight differences in the rhetoric between the right- wing and the left- wing media, the opinion on the need of coal- phase out is uniform. The question is not “if” but rather “when” and “how” should it happen. Political parties are mentioned rather rarely, and the focus is mostly on the implementation of the national, as well as the EU policies. Therefore, the theories of Manheim and Koch-Baumgarten & Voltmer are proven, showing how the policy making process is co- shaped by the mainstream media. However, due to the consensus and lack of “naming and shaming”, in the case of Germany, the mainstream media mostly fulfil their informative role. As to shaping the public opinion and therefore influencing the voters, once again, as to the lack of dispute and overall consensus within the media, the push for policy- change is rather low and the main focus stays on the feasibility and speed of the coal phase- out. Additionally, the direct reactions of the policy- makers to their mentions (or mentions of their policies and parties) is rather occasional.

As to the German coal labor union, they seemingly have more influence than the

mainstream media. Not only are their requirements directly reflected in the national policies, but they simply 'shout louder'. Unlike the Polish coal labor union, the German one also agrees on the importance of coal phase-out and sees its urgency. Therefore, instead of trying to stop the phase-out from happening, the German labor union calls for better conditions in terms of salaries, retirements and reschooling of the coal-working personell. As the conditions have so far been achieved or are being further discussed, the labor union has more influence on the coal policy making in Germany than the mainstream media. Moreover, the research proved that it is not only the direct discussions with the policy makers and protests, but also the spread of information and activity on the social media and websites that add to the influence on various target groups.

In Poland, the reality of media is very different. Firstly, the left-wing or right-wing bias is rather obvious. Both sides discuss coal-related issues very often, yet in a rather different manner. First, the right-wing media stand quite strongly against coal. They are trying to underline the coal dependency, the safety of supply that coal supposedly brings and the mining and coal tradition that the country has. Thus, the rightist media incorporate a cultural aspect into the debate. Left-wing media, on the other hand, focus more on the environmental and economic aspects. In terms of the environmental issues, while there is a push for renewable energy, the concerns are mostly related to air and water pollution in particular cities. The mention of political parties also differs significantly when compared to Germany. The right-wing TVP, owned by the Polish government, is unsurprisingly biased with strong pro-PiS rhetoric. TVP defends the steps taken by the government, opposes coal phase-out, and underlines the importance of coal for stability and security of Polish energy supply. In the meantime, the left-wing rarely mentions political parties at all. If so, PiS is mostly criticized. Considering the EU policies, expectedly, while the right-wing mostly opposes them, the left-wing is either rather descriptive, often focusing on the economic impact that the policies may have on Poland. Here, the theories of Manheim and Koch-Baumgarten & Voltmer are once again visible, due to the mainstream media co-shaping the policy making process. Moreover, Iyengar's assumption that a topic heavily discussed in the media becomes more important for the policymakers, as it shapes the opinions and decision-making of the general public, therefore voters, is rather striking,

as coal phase-outs are one of the most debated topics in the country. While the leftist media reports are mostly used by the NGOs to underline the importance of the phase-out and push for the policy change, the rightist media and policy-makers appearance is usually connected to PiS representatives, which results in reassurance of the PiS policies for the future. In conclusion, there is quite a significant clash between the right-wing and the left-wing Polish media, with TVP serving as a platform for the Polish government to defend their actions, while Gazeta Wyborcza, the left-wing, belongs to a public company and generally presents more liberal views, thus imposing more on the liberal readers.

As to the Polish coal labor union, while being very vocal, seemingly have less influence than the mainstream media. Even though numerous requirements have been implemented or are being discussed and their involvement in political decisions is quite significant, as well as their often violent protests being debated by the government and in the media, the government-owned media still have more power due to the direct influence of the government on the general public-the voters. While the Polish coal union stands strongly against the coal phase-out, and for the most part, so does the current Polish government, not all of their requirements are being fulfilled and the populism of the leading political party prevails. Thus, right-wing mainstream media in Poland seemingly have the most influence on policy-making, as they create a circle of influencing the general public with the goals and preferences of the leading right-wing party. However, it is still important to underline that there was more support for coal phase-out in the government before the Russian attack on Ukraine.

11.2 Sub Question

This section focuses on the sub question: “In which of these countries, Poland or Germany, is coal supposedly defended more and why?”. The answer has been crystalising throughout the paper, focusing on different aspects that make Poland defend coal while Germany stands strongly against.

First important asset is the ownership of the coal companies. In Poland, majority of the coal companies are owned by the state, which makes the state significantly more involved in promoting, regulating and generally shaping the future of the coal sector. The same cannot be said about Germany, where the largest coal companies are public.

Thus the coal regulations in Germany are created with a less bias and influence from the coal industry itself, but rather with a focus on the environmental goals to be achieved. The ownership aspect therefore obviously plays a significant role in the Polish defence of coal industry from the side of the government, as well as the government- owned media.

The second asset would, thus, be politics. When PiS came to power in 2015, their government to face pressure from both sides- the environmental scene and the coal scene. In said period, even though the government kept the narrative that coal is the absolutely essential source of energy, they also promoted clean energy to an extent necessary to reach the environmental requirements (Zasuń & Derski, 2019). During the next elections in 2019, PiS discussed reforming the coal sector and reaching the phase- out by 2040, while the Democratic Left Alliance pushed for the phase- out already in 2035 (Sojusz Lewicy Demokratycznej, 2019). Thus, the next few years were supposed to witness a renewable energy boom in Poland. As a matter of fact, investments in renewables did increase and Tauron² managed to put into function five wind farms in Poland, as well as a solar power plant (WNP, 2020 a); WNP, 2020 b)). However, what followed in the years to come was the Covid- 19 crisis and the war in Ukraine just two years later. While Poland is still witnessing a solar boom, it is mostly on the rooftop household level, rather than large utility scale projects (Obiekty Mieszkalne, 2023). Moreover, the crises gave PiS argument ammunition to use in support of coal energy, which they have been extensively using.

German government is more leftist, therefore the policies are also usually more green and pro- environmental. However, it is important to mention that even the German right supports the green policies, as well as the coal phase- out. The setback only came in the speed of their reactions to the floods of 2021, which made the German voters turn to the parties with greener, more climate change- battling manifestos. On this front, CDU and CSU were both criticized for not acting quickly enough when the floods occurred (Sugue, Zimmermann & Posaner, 2021).

² Tauron Polska Energia S.A. is the second biggest company in terms of energy production in Poland.

12 Why Is the Difference in the Approach of the Countries so Significant?

As Poland and Germany are facing the same issue, it could be expected that they also face the same problems along the way and keep coming up with similar solutions. On the contrary, while they are the most coal- dependent countries of the EU, the ideational component differs significantly. Poland and Germany differ too significantly in terms of resources, economic options, and socio- cultural aspects.

12.1 Economic Aspect and Allocation of Resources

Starting with the economic aspects, it has to be taken into account that the countries compared possess a GDP of \$4.503 trillion for Germany and \$1.382 trillion for Poland, as per 2022 (World Economics, n.d.). The number of people employed in the coal sector is similar in the countries, employing approximately 85 000 people³ (Statista, 2023; The German Coal Commission, 2019). Thus, as to the financial stance, Germany can simply afford to allocate more resources towards the coal phase- out, development of the renewable sector, as well as reschooling of the coal workers and assuring pensions for them. In terms of renewable investments, Poland is more reliant on JTF and EU funding in general, and is not able to fund the extensive retirement schemes for the high number of coal- sector employees. Discussing the more regional level, the Polish coal- dependent regions are also generally poorer, which makes JTF a sine qua non condition for a change.

12.2 Historical Aspect and Relations with Russia

Secondly, the historical aspect plays a significant role, especially considering the energy relations of each country with Russia. Germany placed its bets on outsourcing in the late 20th century: while the USA were the security assurance, the energy supply was largely provided by Russia. Ever since the reunification of Germany in 1990, Russia was perceived as a reliable and cheap energy partner for the country. Metaphorically, Germany symbolised a Cold War bridge between the East and the West and therefore, Russia also perceived Germany as a strategic partner (Stelzenmüller, 2022). While there were multiple issues between 2014 cancellation of German- Russian strategic

³ Different sources provide different numbers, 85 000 is the average presented in the majority of them. Poland has more contemporary statistics on the issue than Germany.

relationship and the attempt in Navalny's⁴ assassination in 2020. However, this did not shake the energy relations much. The new wind only appeared with suspension of the Nord Stream 2 pipeline when Russia attacked Ukraine in February 2022. At this point, however, Germany was already on a path away from coal, domestically producing significant percentage of the energy mix renewably (Economist, 2022). While oil and gas presented a way bigger challenge for Germany in terms of independence from Russia, Germany simply turned to the Netherlands and Norway for the imports (Stelzenmüller, 2022). All in all, coal phase-out has been a long ongoing issue for Germany and therefore, there was not much reliance on the history. Moreover, the green movements and push for renewables is so significant in the country that the energy crisis due to the war in Ukraine and subsequent increase in coal energy usage represents a minor setback on the phase-out journey, rather than something that is here to stay.

In Poland, coal has a long history with first documented extraction already in 1434 in the area of Lower Silesia, with the first modern-sense mining records in 1657 (Baca-Pogorzelska, n.d.). However, in mid 19th century, crude oil and natural gas started to gain more importance. During the World War II, numerous coal mines were destroyed, which led to creation of the first mining unions. In the 1990s, the demand for coal started decreasing (Baca-Pogorzelska, n.d.). As the energy mix was changing, Gazprom called for a new pipeline. However, Polish scepticism towards energy trading with Russia has been long ongoing in the 1990s already. Despite the concerns about the security of supply and influence that Russia might have on Poland, a contract with Russia on gas supplies was signed. As the contract said that Poland would have to “pay for all the gas it has undertaken to buy, whether it is actually needed or not” (Gorska, 2010), Russia was visibly the stronger actor in this relationship. Thus, after realising the unequal relationship that the contract provided, Poland decided to diversify its energy mix more. Due to the largest reserves of coal in the EU that Poland already had, but continued to discover, coal provided a simple, cheap solution for energy independence. While the pollution aspect has been discussed, coal was there to save Polish energy independence, safety of supply and diversification (Brown, 2016).

⁴ Alexei Navalny is a Russian opposition leader, lawyer, and anti-corruption activist. In 2020, there was an attempt in his assassination in Russia. EU then proceeded with sanctions against Russia due to the attempt, and proven poisoning of Navalny with Novichok nerve agent.

12.3 Cultural Sentiment

Last but not least, in Poland, coal represents a certain tradition and is embedded into the national culture, which cannot be said about Germany. Despite the fact that Germany is also one of the earliest mining countries in Europe, it witnessed the peak of its popularity at the turn of the 20th century. Coal helped Germany to flourish economically during the industrial period, however, has been declining especially since the 1970s (Kretschmann, Efremenkov & Khoreshok, 2017). As the public awareness of the environmental issues, climate change and global warming started to arise and become more apparent, Germany turned to supposedly greener and environmentally friendlier solutions. Not only the environmental safety, but also the safety of the miners themselves played a significant role in German coal energy popularity decline (Kretschmann, Efremenkov & Khoreshok, 2017).

While having a long going history of coal usage, as well as the largest coal reserves in the EU, Polish have crossed numerous obstacles to use coal. As mentioned in the previous paragraph, numerous Polish coal mines were destroyed during the World War II. While the German army was also trying to swamp the mines, it was the mine workers themselves that tried to stop it (Baca-Pogorzelska, n.d.). Thus, as to the post-war reconstruction, coal represented a significant supporting pillar of the Polish economy. The government invested into development of the coal sector, as well as the railways to transport coal and as a result, the number of workers in the coal mining industry increased significantly (Pactwa, Woźniak & Dudek, 2020). In the early 2000s, Polish mines witnessed several fatal explosions, such as the 2006 or 2009 methane explosions, but also rather contemporary catastrophes as the methane explosion in Pniówek and a collapse of a mine in Zofiówka, both in 2022 (Szlązak, Obracaj, & Swolkień, 2020; Reuters, 2022). In the light of these catastrophes, the Polish government officials made numerous speeches about the importance of mining, especially coal mining, for Poland, emphasising that it is a “mining nation” (TVP, 2022). Moreover, the government takes the Miners' Day (Dzień Górnika) rather seriously. On the 4th of December, some government representatives lay flowers by the statue of Saint Barbara, the patron saint of miners, and attend a mass to honor the miners who lost their lives in the mining catastrophes (TVP, 2022). Thus, it is quite

apparent how coal mining is embodied in the culture and the national pride of the country, even though the younger generations are not so keen on working in this sector.

13 Conclusion

This thesis focused on the difference in coal phase- out policy- making in Germany and Poland since the introduction of the JTM. Throughout the research, the main research question: “How can mainstream media and coal labor unions influence the national coal phase- out policies?” and the sub question “In which of these countries, Poland or Germany, is coal supposedly defended more and why?” were answered. As for the main research question, the desk research, as well as the interviews showed significant differences between the overall German and Polish approach towards the coal phase- outs, showing that while in Germany, labor unions have more influence on the policy- making as they agree on the necessity of the phase- out, and only call for fair conditions to achieve it, in Poland, the case is different. While Polish coal unions have also been proven very vocal and have a significant amount of influence, the right- wing mainstream media which are owned by the Polish government appear to be the most influential one of the Polish actors analysed in this research. Unsurprisingly, ownership of the media therefore plays a significant role in presenting the issues in the media. Moreover, the ties between the Polish government, coal companies and the media combined laid the predisposition for the strong influence of the mainstream media in the country.

The thesis was further trying to fill out the gap in the academic literature. While the amount of literature on the coal regions is quite extensive, it is less common to discuss media influence, with the influence of the coal labor unions not being discussed at all. Additionally, majority of the existing literature comes from the period before the war in Ukraine, thus also before the energy crisis in the EU which influenced the phase- outs significantly. Further relevance of the research lies in the societal aspects, as the research shall help with evaluation of coal phase- out policies and their feasibility, as well as the background of the policy creation. As to the policy creation, the thesis could represent sharing of good practice considering the overall acceptance, allocation of resources and structural planning of the coal phase- out in Germany, and, while more difficult, but rather significant renewable (solar) energy boom in Poland and their regulatory practices on the household level. The required policy response would thus be

to share the practices in the EU coal heartland (Germany, Poland and the Czech Republic) and higher involvement of a variety of stakeholders.

While not a central goal of the research, an interesting aspect was the desk research of social media and websites of the coal labor unions. In both countries, coal unions represent long established institutions with tradition. While German coal union is active on social media and has a clear, modern, informative website, the same cannot be said about Poland. The social media of the Polish coal union seem unrelated to their topic and rather confusing. Websites, while more informative, are rather outdated. On the other hand, Polish coal union has its own newspaper that updates on the news in the coal industry on a regular, monthly basis.

14 Possibilities for Future Research

Building upon this research, it is important to take into consideration how vibrant is the energy sector itself, and that media approach can change depending on its ownership or changes in governance. Therefore, in the area of energy policy- making, there is a constant space for further research, depending on national, as well as the EU and international reactions to a variety of stimuli. The war in Ukraine shuffled the cards in coal phase- out policy making, and so shall other significant political events. Therefore, constant monitoring of policy development is necessary. Additionally, the narrative of the research might differ with analysis of different media. The most popular from each country and political spectrum were chosen due to the scope of this research, however, further research may focus on more or different media.

Another future research possibility could arise from a focus on other geographical area. This research could be enriched by focusing on the coal heartland of the EU (thus adding the Czech Republic), or taking into consideration completely different areas with coal energy tradition.

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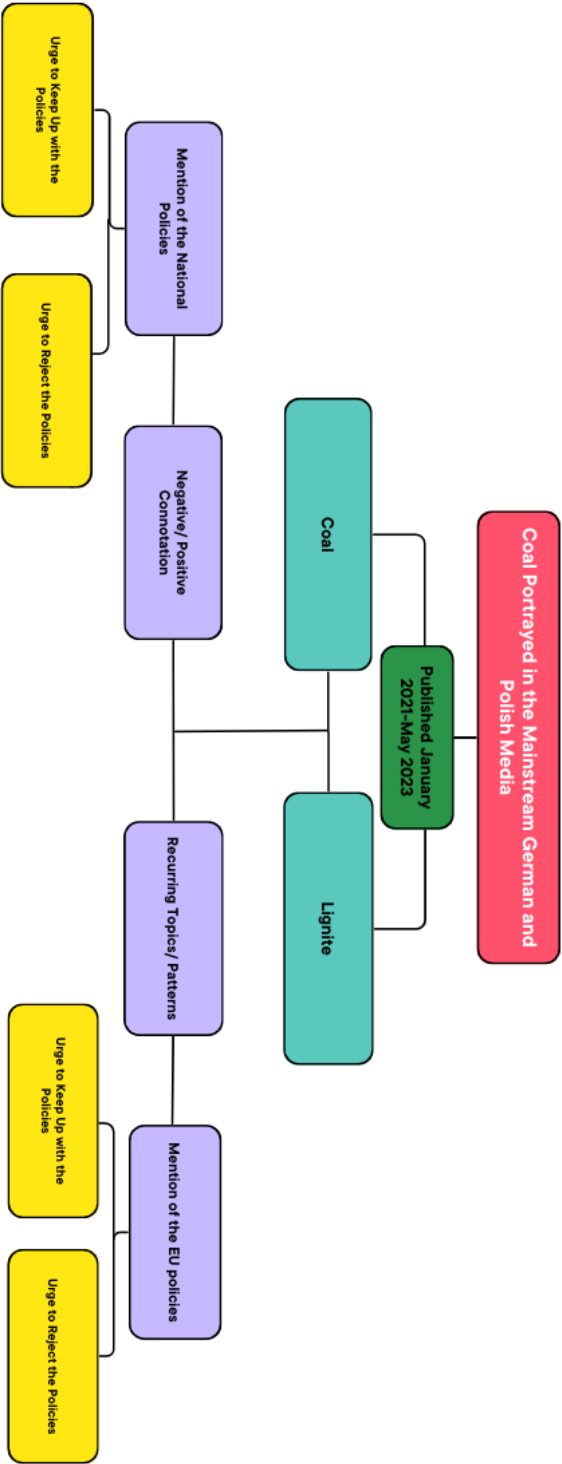
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15 Annex 1: Coding Tree



16 Annex 2- Interview Questions

1. How do you believe that the coal phase- outs are perceived in your country?
2. Do you see progress in the coal phase-out area in the last 5 years?
3. Do you believe that the majority of the people in your country support renewable energy or coal?
4. Do you think that media has a significant influence on policy- making in your country?
5. Do you believe that the majority of the media in your country is impartial? Why/ not?
6. Do you think that media serve as a platform for the decision- makers to present their opinions in your country? If so, which ones would that be?
7. Do you think that unions have a strong say in the decision- making process in your country? Why/ not?
8. Do you believe that the unions should have a stronger impact on the phase- out policies? Why/ not?
9. Do you feel like the unions are blocking the green policies and coal phase-outs? Why do you think so?

17 Annex 3- Analysed Articles

Die Welt:

Die Welt 23.5.2023; <https://www.welt.de/wissenschaft/plus245388642/Deutsche-Energiewende-Kohle-ist-etwa-1000-mal-toedlicher-als-Atomkraft.html?icid=search.product.onsitesearch>

Die Welt 12.3.2023; <https://www.welt.de/wirtschaft/article244209765/Energie-Steinkohle-statt-Gas-14-Kraftwerke-kehren-an-Markt-zurueck.html>

Die Welt 18.1.2023; <https://www.welt.de/wirtschaft/plus243220817/Strom-Zwischen-17-und-19-Uhr-droht-Stromengpass-in-Baden-Wuerttemberg.html>

Die Welt 14.1.2023;
<https://www.welt.de/politik/deutschland/video243214579/Luetzerath-Zusammenstoesse-zwischen-Polizei-und-Demonstranten.html>

Die Welt 11.1.2023;
<https://www.welt.de/politik/deutschland/video243159171/Raeumung-von-Luetzerath-Beamte-wurden-mit-Steinen-und-Molotowcocktails-beworfen.html>

Die Welt 8.1.2023; <https://www.welt.de/politik/deutschland/plus243095973/Luetzerath-Die-Gruenen-haben-uns-ausgenutzt.html>

Die Welt 4.1.2023;
<https://www.welt.de/politik/deutschland/plus243032511/Klimaschutz-Jetzt-wird-deutlich-was-Karlsruhes-Urteil-nach-sich-zieht.html>

Die Welt, 13.12.2022;
<https://www.welt.de/regionales/hamburg/article242651563/Energiekrise-In-diesen-offiziellen-Zahlen-zeigt-sich-die-deutsche-Strom-Realitaet-eines-Jahres.html>

Die Welt, 9.12.2022; <https://www.welt.de/politik/deutschland/plus242605513/Ernste-Startprobleme-in-NRW-Schwarz-Gruen-verstolpert-sich.html>

Die Welt, 7.12.2022;

<https://www.welt.de/wirtschaft/article242540567/Stromerzeugung-Ueber-ein-Drittel-des-erzeugten-Stroms-stammt-aus-Kohlekraftwerken.html>

Die Welt, 1.12.2022; <https://www.welt.de/wirtschaft/plus242408295/Kaum-Sonne-und-Wind-Deutschland-mit-katastrophalem-CO-Ausstoss-bei-Energieerzeugung.html>

Die Welt, 18.11.2022;

<https://www.welt.de/politik/deutschland/plus242202559/Amtsgericht-Cottbus-Was-sind-Millionen-Tote-gegen-drei-Millionen-Euro-fragt-die-Klima-Aktivistin.html>

Die Welt, 14.10.2022;

<https://www.welt.de/politik/deutschland/video241590629/Energiekrise-Andreas-Jung-CDU-zum-Atomstreit-in-der-Ampel.html>

Die Welt, 11.10.2022; <https://www.welt.de/politik/deutschland/plus241540935/Kampf-um-Luetzerath-Geisterdorf-stuerzt-Gruene-in-Glaubwuerdigkeitskrise.html>

Die Welt, 4.10.2022; <https://www.welt.de/wirtschaft/plus241413469/Strom-aus-Gas-statt-aus-Kohle-So-rechtfertigt-Habeck-den-RWE-Deal.html>

Die Welt, 27.9.2022; <https://www.welt.de/wirtschaft/article241283685/Energiekrise-FDP-will-mehr-Kohlekraftwerke-wieder-in-Betrieb-nehmen.html>

Die Welt, 19.9.2022;

<https://www.welt.de/vermischtes/article241134467/Klimaaktivisten-blockieren-Kohlekraftwerk-in-Jaenschwalde.html>

Die Welt, 12.9.2022;

<https://www.welt.de/regionales/hamburg/article240999179/Hamburg-Kraftwerk-Moorburg-soll-schnellstmoeglich-abgerissen-werden.html>

Die Welt, 19.8.2022; <https://www.welt.de/wirtschaft/video240559201/Energiekrise-Jedes-Kohlekraftwerk-senkt-die-Stromrechnung-der-Deutschen-um-vier-Milliarden-Euro.html>

Die Welt, 14.8.2021;

<https://www.welt.de/politik/deutschland/plus240451463/Energiekrise-Wenn-das-Kohlekraftwerk-weiterlaufen-muss-ist-das-so.html>

Die Welt, 25.7.2021;

<https://www.welt.de/wirtschaft/energie/video240104221/Atomkraft-Debatte-Eine-Illusion-zu-behaupten-erneuerbare-Energien-haetten-keine-toxischen-Abfaelle.html>

Die Welt, 12.7.2022;

<https://www.welt.de/politik/ausland/article239872113/Internationale-Presseschau-Europas-Klimabesessenheit-hat-zu-einer-Energiekrise-gefuehrt.html>

Die Welt, 19.6.2022;

<https://www.welt.de/politik/deutschland/article239453405/Vorstoss-von-Habeck-Das-Ziel-Kohleausstieg-bis-2030-zu-vollenden-bleibt-unangetastet.html>

Die Welt, 22.1.2022;

<https://www.welt.de/politik/deutschland/plus236407331/Bewertung-von-Atomkraft-Die-deutsche-Widerspruechlichkeit-in-der-Klimapolitik.html>

Die Welt, 21.12.2021; <https://www.welt.de/wirtschaft/plus235801156/Immer-mehr-Oeko-Strom-Die-Wahrheit-ueber-den-deutschen-Energiemix.html>

Die Welt, 17.12.2021; <https://www.welt.de/wirtschaft/article235678092/Taxonomie-Kohle-statt-Gas-Wie-die-EU-die-deutsche-Energiewende-durchkreuzt.html>

Die Welt, 21.7.2021;

<https://www.welt.de/politik/deutschland/article232640511/Markus-Soeder-fordert-Kohleausstieg-bis-2030-Bayern-ist-im-Klimastress.html>

Die Welt, 4.3.2021; <https://www.welt.de/wirtschaft/article227601671/Kohle-Ausstieg-Der-Fehlstart-wird-fuer-Uniper-zum-Geschaeftsmodell.html>

Die Welt, 8.1.2021; <https://www.welt.de/regionales/hamburg/article224021762/Hamburg-Vattenfall-nimmt-Kohlekraftwerk-Moorburg-vom-Netz.html>

Die Zeit:

Die Zeit, 22.5.2023; <https://www.zeit.de/wirtschaft/energiemonitor-deutschland-gaspreis-spritpreis-energieversorgung>

Die Zeit, 7.5.2023; <https://www.zeit.de/gesellschaft/2023-05/muehlrose-kohleabbau-abriss-klimaaktivismus-umsiedlung>

Die Zeit, 3.3.2023; <https://www.zeit.de/politik/deutschland/2023-03/erneuerbare-energien-windkraft-solar-bundestag-vereinfacht-genehmigung>

Die Zeit, 9.2.2023; <https://www.zeit.de/wissen/umwelt/2023-02/kohle-gas-co2-kohlekraftwerke-klimaziele-studie>

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Die Zeit, 14.1.2023; <https://www.zeit.de/video/2023-01/6318680308112/klimaaktivismus-greta-thunbergs-rede-beim-protest-in-luetzerath>

Die Zeit, 11.1.2023; <https://www.zeit.de/wirtschaft/2023-01/luetzerath-raeumung-braunkohle-klimaaktivisten-energiepolitik>

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Die Zeit, 29.11.2022; <https://www.zeit.de/politik/ausland/2022-11/energiekrise-atomkraft-kohle-gesundheit-klima>

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Die Zeit, 20.11.2022; <https://www.zeit.de/zeit-magazin/2022/47/kolumbien-kohle-wasser-la-guajira-wayuu>

Die Zeit, 20.11.2022; <https://www.zeit.de/wirtschaft/2022-11/energiewende-erneuerbare-energien-kohle-strom-klimaschutz>

Die Zeit, 27.10.2022; <https://www.zeit.de/wissen/umwelt/2022-10/julian-popov-bulgarien-umweltminister-klimaziele>

Die Zeit, 21.9.2022; <https://www.zeit.de/2022/38/turow-tagebau-polen-kohleabbau-umweltschutz-eu-recht>

Die Zeit, 19.9.2022; <https://www.zeit.de/gesellschaft/2022-09/braunkohle-kraftwerk-jaenschwalde-aktivisten-polizei>

Die Zeit, 6.9.2022; <https://www.zeit.de/wissen/umwelt/2022-09/russland-fossile-energie-eu-sanktionen-ukraine-krieg>

Die Zeit, 6.8.2022; <https://www.zeit.de/2022/32/steinkohlekraftwerke-bexbach-energieversorgung-gaskrise>

Die Zeit, 3.8.2022; <https://www.zeit.de/wirtschaft/2022-07/energiewende-fossile-brennstoffe-erneuerbare-energien-energiepolitik>

Die Zeit, 20.7.2022; <https://www.zeit.de/wirtschaft/2022-07/energiepolitik-gasversorgung-oel-russland-sanktionen>

Die Zeit, 3.7.2022; <https://www.zeit.de/kultur/2022-07/energiepolitik-ideologie-oelkrise-erneuerbare-energie>

Die Zeit, 17.5.2022; <https://www.zeit.de/wirtschaft/2022-05/energiearmut-energiepreise-stromsperre-geld>

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Die Zeit, 7.4.2022; <https://www.zeit.de/wirtschaft/2022-04/eu-sanktionen-russland-kohle-embargo-faq>

Die Zeit, 15.3.2022; <https://www.zeit.de/wissen/umwelt/2022-03/klima-uba-co2-emissionen-treibhausgas>

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