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Acceptance criteria as part of the German energy turnaround

-

A contribution to the implementation of and citizen participation in the major planning project “Suedlink”

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II. Index of translations and abbreviations

| | | |
|---|--------------------------------------|--------|
| Bundesbedarfsplan | (Federal Requirement Plan) | BBPIG |
| Bundesrat | (Federal Council) | BR |
| Bundesregierung | (Federal Government) | BReg |
| Bundesnetzagentur | (Federal Network Agency) | BNetzA |
| Bundesverwaltungsgericht | (Federal Administrative Court) | BVerwG |
| Bundesfachplanung | (Federal Requirement Plan) | BFP |
| Bund für Umwelt und Naturschutz e.V. | (Friends of the Earth Germany) | BUND |
| Rauordnungsverfahren | (Planning procedure) | RO |
| Planfeststellungsverfahren | (Plan Approval Procedure) | PFV |
| Verwaltungsverfahrensgesetz | (Administrative Procedure Act) | VwVfG |
| Energiewirtschaftsgesetz | (Energy Economy Law) | EnWG |
| Hochspannungsübertragungsgleichstrom | (High voltage direct current) | HVDC |
| Mitglied des Bundestages | (Member of German Bundestag) | MdB |
| Sozialdemokratische Partei Deutschlands | (Social democratic party of Germany) | SPD |
| Christlich-Soziale Union in Bayern | (Christian Social Union of Bavaria) | CSU |
| Christlich Demokratische Union Deutschlands | (Christian Democratic Union Germany) | CDU |
| Bündnis 90/Die Grünen | (Alliance '90/The Greens) | Grüne |
| Die Linke | (The Left) | Linke |

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1. Introduction

The worldwide shock after the nuclear contamination, which took place in Fukushima and its region in eastern Japan in 2011, convinced the executive and legislative branch in Germany to shut down their own domestic nuclear power plants by 2022. The German government not only decided to phase-out nuclear power but also set a new policy redesigning the domestic energy system and looking towards renewable energies. This policy is the so-called energy turnaround (*Energiewende*)¹, which increased renewable energy production, such as wind, solar, and biomass power. In particular, the production of wind and solar power had a legal framework since the Renewable Energy Law (*Erneuerbare-Energien-Gesetz*, EEG), which was introduced in 2001. The EEG is a legal framework that supports renewable energy production while providing electricity produced from renewable energy sources priority access to the grid system. Moreover, it offers guaranteed prices for producers to be paid by grid operators. Building on these incentives for energy producers, the German energy portfolio rapidly changed. To date, the Federal Ministry for Economic Affairs and Energy (*Bundesministerium für Wirtschaft und Energie*, BMWi) announced that only 14.1 percent of the German electricity was produced from nuclear power plants (BMWi, 2016a). Furthermore, 30 percent of German energy production comes from renewable energy sources, mostly solar and wind power, but also biomass, hydropower, and geothermal sources (BMWi, 2016a).

The deployment of renewable energies confronted the German government with the challenge to expand transmission grids. A significant challenge of the grid expansion in Germany is the fact that production and use of energy differ geographically. The majority of wind energy produced in northern states such as Schleswig-Holstein must be transported to southern states such as Baden Württemberg and Bavaria due to their energy intensive industries (Kment, 2014, p. 43). Here, Suedlink, a major planning and grid-expansion project of the 2013 Federal Requirement Plan becomes of particular concern. As the “*largest infrastructure project in the energy turnaround*”, Suedlink seeks to transfer green energy from northern Germany to the south, including an investigation area of approximately one fourth of the size of Germany (TenneT TSO GmbH, 2014).

¹ In addition, the term “energy transition” or “energy revolution” is used in English publications. The author of this paper will refer to the term “energy turnaround”. Moreover, given time and capacity of this paper, a concise summary of the energy turnaround cannot be provided. Further detailed information about the energy turnaround can be found in Hennicke and Fishedick (2007) or Maubach (2014).

Although public opinion polls concerning the energy turnaround show a relatively high acceptance of 92 percent towards Suedlink (Agentur für Erneuerbare Energien, 2016; Schubert et al., 2015, p. 55), it is highly questionable whether this is the case for the grid expansion project Suedlink. However, social acceptance towards grid expansion projects is significant for preventing siting conflicts in the regions where the transmission line is constructed (Schubert et al., 2015, p. 50). It is thus necessary to scrutinize what criteria, factors, and circumstances increase or decrease the social acceptance towards the grid expansion project Suedlink. For instance, Schnelle and Voigt (2012) conducted a study, analyzing public acceptance towards a grid expansion project in Thuringia. In addition, Hübner and Hahn (2013) focused on the relevance of local acceptance by citizens who are directly affected by grid expansion projects in Schleswig-Holstein. Menges and Beyer (2012) contributed to questions regarding the acceptance towards underground cables for grid expansion projects and the willingness to pay higher grid charges (Menges and Beyer, 2013).

However, less research has focused on social acceptance towards Suedlink and in particular towards the priority use of underground cables. Therefore, the primary research question of this thesis is: to what extent do local and individual factors increase or decrease the social acceptance of Suedlink, particularly the priority for underground cables? The analysis of the central question is conducted with the use of quantitative-descriptive methods and an online-survey. In addition, this thesis will seek to explain the decision making process concerning the priority of underground cables on both federal and local level. This process will be examined using a mixed methodology that combines document analysis and expert interviews. This paper organizes as follows: first, a theoretical section provides theories of social acceptance, participation, and governance. These theories are necessary for the overall understanding of the field of public acceptance research in general, and for the governance analysis in particular. Thereafter, a method section follows, explaining the methods that are used in this paper including aspects of the survey set-up, timing, and survey design. Third, the qualitative analysis of this paper is presented, establishing three governance arenas in which the decision making process of Suedlink is analyzed. Fourth, the author elaborates on the quantitative analysis, thus finishing with a conclusion.

1.1 Literature review

The theory of this paper is based on the assumptions and implications by Wüstenhagen et al. (2007), Zoellner et al. (2012), Schubert et al. (2015) for social acceptance, Schumpeter (1947; 1950), Barber (2003), and Münnich (2014) for citizen participation. The governance approach in the qualitative part of this paper is based on the theory of Benz and Dose (2010), Benz (2006; 2007), Schimank (2007), and Lange and Schimank (2004). For the quantitative-analytical part of this paper, the studies of Schnelle and Voigt (2012), Hübner and Hahn (2013) provided useful groundwork for analyzing respondent's acceptance towards grid expansion projects. If one lays focus on contributed studies in the field of public opinion research, acceptance towards the expansion of wind and solar power was primarily examined (Wüstenhagen et al., 2007, Frisenbichler, 2015, Zoellner et al., 2008). Aas et al. (2014) provided information about public support and acceptance towards the expansion of renewable energies and related grid projects. Bell et al. (2013) showed that major planning projects are often confronted with public protest – which is perceived as a dilemma by many experts and decision makers. Cain and Nelson's (2013) findings emphasize challenges in local areas and its opposition to energy projects, showing that planning and siting conflicts are a major source of delay for public infrastructure projects. Another study concluded that long lasting siting conflicts showed that the traditional top-down approach to grid development is becoming increasingly insufficient. (Knudsen et al., 2015). Moreover, the findings by Menges and Beyer (2013) were particularly crucial for the analytical sections and motivated the author to write a paper examining social acceptance towards underground cables.

1.2 Relevance and classification in the scientific context

The purpose of this paper is to scrutinize the decision making process that led to the priority use of underground cables in the grid expansion project Suedlink. Moreover, this paper seeks to analyze in what way underground cables shape local opinions towards grid expansion projects. The relevance of researching public opinions towards underground cables is somewhat high given that Suedlink is a project of high relevance for the energy turnaround when commissioned in 2025. The author of this paper thus wants to contribute to questions regarding the understanding of grid projects and the social acceptance towards Suedlink, respectively. Therefore, this paper is a contribution to studies of public acceptance towards grid expansion projects in Germany.

2. Theory – Acceptance

2.1 Acceptance subject and object

According to Wüstenhagen et al. (2007), Zoellner et al. (2012), and Nagel and Sattler (2007), social acceptance is the result of an interrelated decision making process depending on the acceptance subject and object. In the words of Zoellner et al. (2012), acceptance is defined as follows:

“In principle, one can define acceptance as a positive, and relative temporal outcome of an evaluation process that is dependent on context factors and directed towards an acceptance object” (translated from Zoellner et al., 2012, p. 93).

In this paper, the acceptance object shall be defined as the grid expansion project, namely Suedlink, given that this paper focuses on public attitudes towards this project. On the other hand, the German citizens are defined as the acceptance subject.

| Acceptance object | Acceptance subject |
|---------------------------------|--------------------|
| Grid expansion project Suedlink | German citizen |

(Illustration 1: Acceptance object and subject, own illustration based on Zoellner et al. (2012))

For the purpose of this paper, it is necessary to assume that stable attitudes towards the object can be expected from the subject (Schubert et al., 2015, p. 51). In order to examine the relationship between the subject and object it is crucial to clarify the term social acceptance.

2.2 Social acceptance

It is increasingly recognized that social acceptance is a constraining factor in increasing the share of renewable energies in many countries (Wüstenhagen et al., 2007, p. 2683). In particular, the acceptance towards grid expansion projects is significant for preventing siting conflicts in the regions, too (Schubert et al., 2015, p. 50). Based on these theoretical assumptions, this paper distinguishes three different types of acceptance: the so-called ‘triangle of social acceptance’ consists of socio-political acceptance, community acceptance, and market acceptance: The following illustration provides a brief overview about the three aspects that sometimes are interdependent.

| Socio-political acceptance | Local (community) acceptance | Market acceptance |
|---|--|--|
| <ul style="list-style-type: none"> • Of technologies and policies • By the citizens • By key actor • By policy makers | <ul style="list-style-type: none"> • Procedural acceptance • Distributional Justice • Trust | <ul style="list-style-type: none"> • Consumers • Investors • Intra-firm |

(Illustration 2: Social acceptance, own illustration based on Wüstenhagen et al., 2007, p. 2684)²

The socio-political acceptance is acceptance towards a policy on the most general level (Wüstenhagen et al., 2007, p. 2684). Almost every technology or project can be subject of socio-political acceptance, including tax reform, infrastructure projects, migration policy, or environmental policy (ibid.). Based on the findings of Wüstenhagen et al. (2007), public attitudes towards renewable energies are relatively positive in Germany (see further Zoellner et al., 2008, p. 4140; and Agentur für Erneuerbare Energien, 2015). Although the overall acceptance is quite high, people tend to protest and get involved in local siting conflicts. Siting conflicts reveal a lack of socio-political acceptance towards a project, i.e. the construction of windmills or transmission lines. It motivates citizens to protest against projects, disturbing its implementation and increasing pressure on political or administrative decision makers. According to Wüstenhagen et al. (2007), major planning projects are dependent on key actors³, such as interest groups, and policy makers. However, not only socio-political acceptance plays an important role in conducting projects, but rather a lack of support on the local level. In theory, social acceptance by the citizens, the key actors, and the policy makers requires an institutional framework that effectively enhance local acceptance⁴ (Wüstenhagen et al., 2007, 2685).

The second type of acceptance – local acceptance – refers to the acceptance of siting decisions and renewable energy projects by local actors, particularly residents and local authorities. In particular, distributional justice (How are the costs and benefits shared?), procedural justice (do all actors participate in the decision making process?), the citizen’s trust towards investors, and local

² Given time and capacity of this paper, the market acceptance cannot be further analyzed. Although Wüstenhagen et al. (2007) included this aspect; the author of this paper chose to exclude it because it is not in the scope of analyzing the people’s acceptance towards the transmission grid project Suedlink.

³ According to Jann and Bogumil (2009, p. 27), actors are organizations which act in the political process and follow their individual interest. Based on the definition of Blum and Schubert (2011, p. 54ff.), corporate and collective actors distinguish from each other in terms of structure and the concentration of resources. Corporate actors (government, lobby groups) gather their resources and follow a strict organization model while collective actors can be a formation of individuals without any organization (citizens’ initiative).

⁴ The author of this paper uses this term instead of “community acceptance” by Wüstenhagen et al. (2007)

authorities are very crucial for creating local acceptance (Wüstenhagen et al., 2011, 2685). This includes the question how the costs for infrastructure projects are redistributed and whether citizens pay higher grid charges or taxes, respectively. Moreover, procedural justice includes citizen participation, which will be further discussed in the chapter “Participation in major planning projects”. Another aspect of local acceptance is that it consist of two level (Wüstenhagen et al., 2007, p. 2685): on the level of evaluation, the acceptance subject evaluates the acceptance object can be any public policy. On the level of action, a positive or negative evaluation of a policy can lead to protest or support within a framework of actions including different possibilities for the subject (Zoellner et al., 2012, p. 93). The following illustration gives a brief overview about the definition:

| Acceptance | Policy |
|---------------------|--------------------------------------|
| Level of evaluation | Analysis of pro and contra arguments |
| Level of action | Protest or support |

(Illustration 3: Levels of acceptance, illustration based on Zoellner et al. 2012)

The time dimension plays a significant role in the citizen’s evaluation of a policy given that – based on other’s findings – the assessment of an infrastructure project is not strictly determined, but rather alters during the implementation process. According to Devine-Wright (2005) and Wüstenhagen (2007) the assessment follows a V- or U-curve. Wüstenhagen et al. (2007) describe this as follows:

[...] local acceptance before, during, and after a project follows a U-curve, going from high acceptance to (relatively) low acceptance during the siting phase (usually still positive on average) and back up to a higher level of acceptance once a project is up and running” (Wüstenhagen et al., 2007, p. 2685).

However, according to Zoellner et al. (2012), the assessment of major planning projects never follows the same pattern. The positive or negative assessment of a project is relatively dependent on a successful planning- and decision making process and the communication of problems in order to prevent local protests (Zoellner et al., 2012, p. 101).

2.3 NIMBY

Local acceptance is also the arena where NIMBYism unfolds. The so-called not-in-my-backyard approach (NIMBY) implies that people have positive attitudes towards a project until they are

actually affected by its implementation. While supporting the project in the beginning, they oppose it for selfish reasons when confronted (O' Hare, 1977; Dear, 1992). Many authors concluded that NIMBY plays a role for understanding environmental policies and their lack of local acceptance, i.e. the development of wind power (Smith and Klick, 2007) and the grid expansion (Schnelle and Voigt, 2012, p. 32). However, other studies have shown, that NIMBY does not adequately explain attitudes of local wind farm oppositions (Swofford and Slattery 2010, p. 2515; Wolsink, 2000; Eltham et al., 2008). Moreover, there is also empirical evidence, that NIMBY does not necessarily affect local acceptance, as shown by the "habituation effect" (*Gewöhnungseffekt*) which describes that households that are relatively close to transmission lines are more willing to accept grid projects in their neighborhood (Menges and Beyer, 2013, p. 291; Simon, 1996; Simon and Wüstenhagen, 2006). Summarizing this, proximity has a strong influence on social acceptance towards major planning projects, but the nature and strength of this effect is dependent on "local criteria" (Van der Horst, 2007, p. 2705). Therefore, and in conclusion of the literature review, the author of this paper does not emphasize the role of NIMBY and follows the argument of Van der Horst (2007) and Devine-Wright (2005), saying that other local or individual criteria are relevant.

2.4 Acceptance criteria

The social acceptance towards major planning projects is highly dependent on acceptance criteria. What are relevant criteria that influence opinions towards grid expansion projects? Keeney et al. (1984) conducted a value tree analysis of the decision making process of German public interest groups identifying acceptance criteria of major planning projects. Although these acceptance criteria vary between cases, the authors claimed that certain criteria are more important than others are (Keeney et al., 1984, p. 65). For instance, Lantz and Tegen (2009) showed in their study that acceptance criteria of wind power, i.e. aesthetics of windmills, and property values were relevant for the opinions of the respondents. Another example can be found in a study of Zoellner et al. (2008). The authors concluded that – on the one hand – the economic estimation of infrastructure projects was of particular concern. On the other hand, the participation of local residents in the decision-making and planning process was of particular concern for the respondents (Zoellner et al., 2008, p. 4141). Another study of Batel and Devine-Wright (2014) claimed that local protesters gather their resources, thus launching citizen initiative when concerned with biodiversity, landscape quality, and other criteria in the affected communities.

Menges and Beyer (2013) defined acceptance criteria for the use of underground cables for grid expansion projects, for instance construction works, construction streets necessary, long downtime in case of repair, interference in the water household, interference in the local agricultural use of land, and higher costs (Menges and Beyer, 2013, p. 281). Moreover, the acceptance criteria of Schubert et al. (2015) included economic criteria such as “employment” and impact on “agriculture”. They contributed to the questions whether the domestic energy system increases employment or how the impact of energy production affects domestic agriculture (Schubert et al., 2015, p. 52). Based on these acceptance criteria, the author of this paper formulated own acceptance criteria that were asked in the online-survey. These criteria addressed the impact of the transmission grid project Suedlink on local areas, the environment, but also global criteria such as the dependency on foreign energy or the energy supply. They are presented in the analytical part of this paper. In this regard, also a quantitative evaluation of the criteria is provided to receive information about criteria that are more crucial for the survey respondents than other criteria.⁵

2.5 Summary: Theory of acceptance

| | | Acceptance | Policy |
|---------------------------------|--------------------|---------------------|--------------------------------------|
| Acceptance object | Acceptance subject | Level of evaluation | Analysis of pro and contra arguments |
| Grid expansion project Suedlink | German citizen | Level of action | Protest or support |

(Illustration 1)

(Illustration 3)

| Socio-political acceptance | Local (community) acceptance | Market acceptance |
|---|--|--|
| <ul style="list-style-type: none"> • Of technologies and policies • By the citizens • By key actor • By policy makers | <ul style="list-style-type: none"> • Procedural acceptance • Distributional Justice • Trust | <ul style="list-style-type: none"> • Consumers • Investors • Intra-firm |

(Illustration 2)

⁵ See chapter 2.4 “Acceptance criteria of Suedlink”

3. Theory – Participation

3.1 Theoretical implications for participation

In the following paragraphs the term ‘citizen participation’ is defined as follows and then explained with the use of the theoretical implications of Schumpeter and Barber. While there is no universal definition of ‘participation’, the author of this paper follows the definition by Verba et al. (1998):

“By political participation we refer simply to activity that has the intent or effect of influencing government action – either directly by affecting the making or implementation of public policy or indirectly by influencing the selection of people who make those policies.” (Verba et al., 1989, p. 38).

For the purpose of this paper, participation is further understood as direct political participation in the decision making process of both government and administration. This being said, a theoretical question arises: what types and quality of participation can be taken into consideration if one analyzes political participation? Many political scientists have contributed to questions regarding the relationship between representative democracy and deliberative democracy and thus the importance of participation in the political decision making process (Schumpeter, 1947, 1950; Arnstein, 1969; Barber, 2003; Weber, 2012; Merkel and Petring, 2012). Because this paper is bounded to material and temporal limits, only the theoretical implications of Josef Schumpeter’s and Benjamin Barber’s approach are introduced as follows.

3.1.1 Joseph Schumpeter

The Austrian economist and politician Joseph Schumpeter was a disciple of an elite dominated approach towards democracy which had a significant impact on the greater discipline of Political Theory in the second half of the 20th century (Elliot, 1994, p. 284). According to this, democracy does not necessarily mean that citizens directly participate in the political decision making process. Moreover, citizens should only express their political preferences when electing an eligible representative. The underlying assumption for this theory is that the representative, the “political leader”, is fundamentally different from the citizen who represents the electorate (ibid., p. 290). Emphasizing this, Schumpeter’s theory describes that citizens do not have enough knowledge to make rational decisions and thus must delegate their power through votes (Schumpeter, 1947, p. 262). Schumpeter’s ‘elitist’ theory of democracy promulgates a top-down approach for political decision making. Participation of citizens is limited to elections in which candidates compete with

each other. Applying this for the political system, Schumpeter's theory also refers to Max Weber's ideas of a bureaucratic state with strict separations of competences formulating, implementing and executing the will of the political elites (Weber, 1976, p. 59f). Therefore, and although Schumpeter claims that the parliament should elect government officials, he holds the opinion that the political decision making process should take place within a strict bureaucratic hierarchy widely excluding collective decision making of parliamentarians and citizens (Osterhammel, 1988, p. 190). For the perspective of this paper, it is thus important to conclude that Schumpeter's theory of democracy mainly excludes citizens from the political decision making.

3.1.2 Benjamin Barber

The American political scientist Benjamin Barber's theory of participation follows a communitarian approach towards democracy. Other than Schumpeter's pessimistic approach towards individuals as utility maximizers, Barber's theory focuses on the 'citizen self-government' transforming self-interest individuals into citizens concerned with participation who have a strong position in the political decision making process (Simon, 1994, p. 126). In his opus magnum "Strong democracy" he advocates for the importance of participation to oppose the social alienation between government and citizens (Weber, 2012, p. 231.). This alienation can only be overcome if different ways of participation in the formal and informal political decision making process are implemented. Hence, and unlike Schumpeter's approach, democracy implies 'self-governing', including the launch of "participative institutions" such as social movements or citizen initiatives (Weber, 2012, p. 224). In Barber's mind, self-governance is not only a matter of the framework in which it takes place, but rather is dependent on dialogue between all actors: "Without talk, there can be no democracy" (Barber, 2003, p. 276). Because of the nature of political discourse, consensus-based bargaining seldom creates a perfect outcome for a policy. However, the social acceptance towards a project can be increased through communication and involvement (Barber, 2003, p. 129.). Concluding the aforementioned arguments, citizens and other actors of the civil society should get involved in the political decision making process to increase the acceptance towards a policy. However, not only the quantity of participation matters, but also the qualitative aspects of participation can have an influence on public attitudes.

3.2 Direct democracy and citizen participation

After proposing the theoretical groundwork of Schumpeter and Barber, this paper now seeks to focus on the quality of participation. Speaking of participation, one should distinguish direct democracy from citizen participation (Bürgerbeteiligung). Aspects of direct democracy imply that citizens directly participate in the policy formulating process through referenda and popular initiatives. Although these referenda are no substitutes for institutions of representative democracy, their outcome is legally binding (Frey, 1994, p. 338). In the German context, legal scholars considered citizen participation as an aspect of direct democracy. However, political scientists have defined citizen participation as a construct of consultative, informal, and non-binding form of Democracy. Hence, according to Fraenkel-Haeberle, one can distinguish between citizen participation and direct democracy given that the outcome of the participation process is not legally binding (Fraenkel-Haeberle, 2014, p.2).

3.3 Participation in major planning projects

The planning and implementation process of major planning projects is widely perceived as a top-down decision-making process excluding the citizen's interests and demands for participation (Münnich, 2014, p. 373ff.). An important example for a lack of participation is the so-called infrastructure project "*Stuttgart 21*" which aimed to restructure Stuttgart's main train station. The infrastructure project became recognized on an international level because local protesters demonstrated for months against the construction work. Pictures of media coverage showed protesters fighting for their beliefs, struggling with police officers, and demonstrating against the top-down decision making of the incumbents at that time (Althaus, 2012, p. 2). Consequently, and given the government's harsh reaction to the protesters, the incumbent party *Christlich Demokratische Union Deutschland* (CDU) lost their support in the electorate during the Baden-Württemberg state election in 2011 and finally was voted out of office.

The abovementioned example provides information how citizen's protest can evolve from a lack of participation in the decision making process of a policy. The majority of Stuttgart's citizens had the impression that the project was too expensive, harming the environment, and ultimately representing a prestige object for the Baden-Württemberg government. Represented by citizen initiatives, they hold the argument that they had no opportunity to discuss and introduce

amendments to the government’s policy. Following the protests of Stuttgart 21, many actors advocated for amendments concerning the legal regulation of the administrative procedure (Verwaltungsverfahrensgesetz). These amendments addressed issues of transparency, acceptance, and monitoring of the implementation process. (Fraenkel-Häberle, 2014, p.8).

Major planning projects are difficult to conduct in Germany and often cause local protest, dissatisfaction, and negative attitudes towards the decision making and implementation process of the government (Bartos et al., 2013, p. 75). Since the start of the energy turnaround in 2011, the grid expansion in Germany is highly negotiated. On the one hand, the acceleration of approval procedures (*Raumordnungs- und Planfeststellungsverfahren*) are important for government and industry because the fast implementation of a policy reduces costs. On the other hand, citizens, social initiatives and interest groups demand more participation in the decision making process of constructing new lines (Althaus, 2012, p. 1). According to Münnich (2014), the following three steps from the policy formulation to the implementation process show “negative aspects” that can decrease social acceptance.⁶

| 1. Policy formulation | 2. Implementation | 3. Finalization |
|--|--|--|
| The political decision was made without including the people's demands for participation although they are directly affected by the policy | The policy gets implemented in a formal process without including the people's demands | The policy gets finalized without making compromises in the interest of the people affected by the policy, in particular in siting conflicts |

(Illustration 4: Negative aspects in the policy implementation process, own illustration based on Münnich 2014)

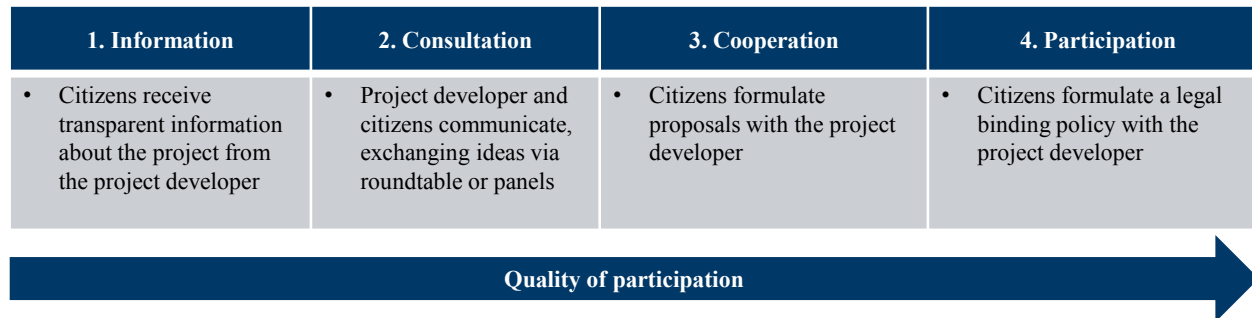
In order to increase the acceptance and the public support for a policy, a deliberative process of participation must address all three levels.⁷ A deliberative process allows actors to evaluate information, to discuss an issue, and to come – if based on consensus - to an agreement which will have an influence on the final decision making (Fearon, 1998, p. 58.).

⁶ In addition, other theories of Anstein (1969) and Klages and Vetter (2013) can be relevant for the purpose of this paper. However, given the time and capacity for this paper, they cannot be discussed in detail.

⁷ One could take the policy-cycle based on Jann and Wegrich (2003) into consideration which mainly adds another two steps such as “problem definition“ and “agenda-setting” to the theory. However, Münnich only refers to the abovementioned step. Moreover, given the time and capacity for this paper, the policy cycle cannot be discussed in detail.

3.4 Steps of participation

After describing the negative aspects from the formulation to the implementation step, this paper will now discuss four steps of participation that are structured from the lowest to the highest quality.



(Illustration 5: Steps of participation, own illustration based on Münnich, 2014)

The primary objective of the abovementioned steps is to create acceptance by the people towards a policy, for example towards grid expansion projects. As can be seen in the first column of Illustration 5, politicians, local authorities, and project developers communicate information regarding the project. The project becomes part of an agenda-setting process. Thus, citizens can reflect the project and discuss it in different platforms, i. e. local initiatives or social media. On the second level, the project developers consult citizens, promoting their project and discussing the project's outcome and consequences. This implies an exchange of ideas via round tables, public discussions, panels, and other forms of communication in the civil society. On the third level, citizens formulate proposals, directly addressing the project developers. On this level, citizens can introduce amendments to the policy formulated by the project developer without having the security that their interest is represented in the final decision. On the fourth level, citizens cooperate with project developers on an even level, formulating legally binding amendments or aspect of a project. The aforementioned steps of participation can take place in a “conventional” or “unconventional context” (Fraenkel-Haeberle, 2014, p. 3). While the conventional contexts comprises the right to become a member of a political party, the right to vote for candidates, or the right to get elected (*aktives und passives Wahlrecht*), the unconventional contexts includes every form of protest or support which does not adhere to legal language. Moreover, Fraenkel-Haeberle distinguishes between composed (*verfasster*) and non-composed (*unverfasster*) participation. The former includes measures of participation within the administration procedures. The latter

comprises measures that are not necessarily mentioned in the approval procedures, i.e. consultations of the project developer.

In conclusion, the author of this paper holds the opinion that citizen participation and involvement is a main aspect for the gain of social acceptance. The earlier people are involved, informed, or consulted, the higher the social acceptance is (Zoellner et al., 2008, p. 98). In addition, based on Münnich (2014), the higher the quality of participation is, the higher the local acceptance (procedural justice) is. This is also supported by Rau, Zoellner, and Schweizer-Ries (2011).

3.5 Summary: Theory of participation

| 1. Policy formulation | 2. Implementation | 3. Finalization |
|--|--|--|
| The political decision was made without including the people's demands for participation although they are directly affected by the policy | The policy gets implemented in a formal process without including the people's demands | The policy gets finalized without making compromises in the interest of the people affected by the policy, in particular in siting conflicts |

(Illustration 4)

| 1. Information | 2. Consultation | 3. Cooperation | 4. Participation |
|---|---|---|--|
| <ul style="list-style-type: none"> Citizens receive transparent information about the project from the project developer | <ul style="list-style-type: none"> Project developer and citizens communicate, exchanging ideas via roundtable or panels | <ul style="list-style-type: none"> Citizens formulate proposals with the project developer | <ul style="list-style-type: none"> Citizens formulate a legal binding policy with the project developer |



(Illustration 5)

4. Theory - Governance

4.1 Governance approach in the context of the energy turnaround

The German energy turnaround addresses economic incentives, political changes, and major planning projects of great magnitude. In particular, the construction of transmission lines includes challenges for political decision makers, economy and citizens. The grid expansion project Suedlink, which that was formulated on the federal level, has a huge impact on people's lives and can only be successful when supported locally (Schubert et al., 2015, p. 50; Hirschfeld and

Heidrich, 2013, p. 95). However, governments, municipalities, and majors often lack of competence to solve the local problems of the people and adjust measures of implementation (*Grenzen kommunaler Handlungsfähigkeit*). In order to scrutinize a multi-level governance that addresses actors both on a central/decentral level, one must identify a theory that contributes to the question how policies are formulated, decided, and implemented. In other words, the different competences and their distribution (*Kompetenzverteilung*) among the German government, federal agencies, municipalities, and project developers are of greater interest for the purpose of this paper.

Therefore, the governance approach is applicable to analyze the political decision making process, thus offering explanations how Suedlink was formulated, in particular the priority for underground cables. This approach explains how individual actors coordinate, giving an explanation how actors imitate, manipulate, or negotiate policy formulations. Although knowing that the costs for the use of underground cables are two to four times higher than overhead lines, the government stated that the local acceptance towards Südlink is higher if constructed with underground cables. Therefore, the theoretical concepts governance-mechanism, governance-form, and governance-regime are introduced as follows in order to scrutinize, how the policy formulation behind that decision took place.

4.1.1 Governance mechanism: imitation

In order to provide an explanation how actors interact with each other to achieve a certain outcome of a policy, three governance-mechanism can be identified: imitation, manipulation, negotiation. First, imitation describes a situation in which an actor copies certain actions of another actor, thus having the incentive to be as good or better as the observed actor. Besides knowing how the other actor acts, it is further important to copy the action or react in another way. The underlying motivation for imitation can resolve from competition (to be better) or identification (to be as good) between the actors. In both ways, actors coordinate their actions, however, creating different outcomes (see also Benz and Dose, 2010, 254).

4.1.2 Governance mechanism: manipulation

According to Benz and Dose (2010), the coordination of actions not only relies on imitation but rather on manipulation. Given that some actors are sovereign and able to influence other actors, the opportunities to influence policies vary among actors. In the perspective of a political scientist, it

is important to mention that manipulation can be seen as a sort of governance approach by the state (Salamon, 2002: p. 241ff; Dose, 2008, p.433-457). For instance, the government can draft a bill to expand the domestic grid system. If so, external actors, i.e. interest groups or relevant energy producing companies, do have a crucial interest in the political decision-making process. Because they are affected through local siting conflicts, they must react and address the government's policy.

For actors, manipulation is a performance-intensive action that produces a relatively high outcome to achieve their objective. However, it also produces a reaction of other actors (Benz and Dose, 2010, p. 255). According to Schimank (2007), actors are interdependent and although some are stronger than others are, they balance their output through action and reaction. To give an example, interest groups that are affected by a public policy can file a suit against regulative instruments of the government in front of the Federal Administrative Court (*Bundesverwaltungsgericht*) (Benz and Dose, 2010, p. 255). In conclusions, although often times such cases lack of success, interest groups temporarily stop the implementation process of public policies.

4.1.3 Governance mechanism: negotiation

The third governance mechanism is negotiation. Unlike the two aforementioned mechanism, actors directly communicate with each other in order to produce a consensus-based outcome (Benz et al., 2007, p. 21). Actors discuss their objectives concerning a project openly in order to formulate a compromise (Benz and Dose, 2010, p. 255-258). An example can be found in the German grid expansion project: if the Federal Network Agency (BNetzA) wants to set a date for implementing a grid expansion project it is very likely that they will consult the project developer which constructs the planned project. However, how do actors formulate a compromise? This process follows a pattern – a negotiation. In this pattern, actors only coordinate in order to achieve their individual objectives. Two sorts of negotiation can be found in the literature. First, “bargaining” describes a situation in which actors try to make compromises based on trade-offs and coherent positions. Second, “arguing” describes a situation in which actors try to persuade others with rational arguments (Benz and Dose, 2010, p. 258).

| Governance mechanism | Imitation | Manipulation | Negotiation |
|----------------------|---|---|--|
| Actors | Actors imitate actions in order to achieve similar objectives | Actors use their sovereignty to achieve their individual objectives | Actors try to coordinate in order to achieve individual objectives |

(Illustration 6: Governance mechanism, own illustration based on Benz and Dose, 2010)

4.2 Governance form: community

In the next paragraph, three different governance forms are introduced as follows. According to the literature, governance forms are relevant to produce efficient solutions for public tasks, problems, and policies (Salmon 1987, Vanberg/Kerber 1994). Governance forms are “frameworks” in which different mechanisms take place. Whereas multiple mechanisms can be relevant, one mechanism is always dominating (Benz et al. 2007, p. 21). The first form - community (*Gemeinschaft*) – describes a situation in which two or more actors gather their interests or resources. In doing so, they can coordinate their actions and maximize their security (Benz and Dose, 2010, p.258). However, it is more difficult for actors within a community to alter their positions given that the agenda setting process of communities is dependent on all members. Although communities work consensus-based, they are not flexible. In addition to that, the transaction cost for actors leaving a community are high (Benz and Dose, 2010, p.258f.).

4.3 Governance form: competition

The second governance form is competition. One has to distinguish between economic competition and political competition. Economic competition is entirely connected to supply and demand. Considering political competition, one has to differentiate methodologically: institutional competition (*Institutionenwettbewerb*) and performance competition (*Performanzwettbewerb*). First, institutional competition describes a situation in which the government and its administration seeks to reach their objectives while observing, comparing and imitating best practice cases (Benz and Dose, 2010). On the one hand, they want to maximize budget and revenues. On the other hand, the government seeks for the support of members, interest groups, partners, or other actors (Benz and Dose, 2010, p. 260f.) within the political decision making process. Concluding this, all political actors are somewhat dependent on the electorate and their support, respectively (Benz and Dose,

2010, p. 260f.). Second, performance competition describes a situation in which the government tries to address the electorate to create acceptance towards a policy.

4.4 Governance form: hierarchy

The third governance form - hierarchy – is crucial for most corporate actors, such as the government, administration, interest- and lobby groups, but also collective actors such as citizen's initiatives. According to Benz and Dose (2010), hierarchy provides security and predictable actions for actors within a strict statute of rules and competences. Coordination within a hierarchical system is based on a principal-agent relationship: the dominant actor (principal) delegates a task to subsidiary actor (agent) which has to implement the task (Benz et al., 2007, p. 21). A typical example for classic hierarchy is the decision-making process within the bureaucratic administration, respectively. It is impossible for actors to leave such a governance form given that all departments and units are incorporated in the administration and bound to laws and statutes.

4.5 Governance form: social networks

Not every conflict can be solved in a strict hierarchical system. Dialogue-orientated forms have substituted the classical top-down decision-making process, particularly in the field of environmental policy. The consequence is that the entirety of actors participating in the political decision making-process rose (Janicke et al., 1999, p. 66). Hence, social networks can develop from within a system given that actors launch informal networks in order to achieve their objectives. A network is a loose organization in which individual actors interact on a regular basis, sharing objectives without having a formal statute (Benz and Dose, 2010, p. 262). Moreover, they are forms where interactions take place (Benz and Dose, 200, p. 262). Bilateral trust supports these interactions because actors do not have to hedge. This situation minimizes transaction costs. However leaving a network causes high transaction cost because the trust among members was build up in advance over a long period (Benz and Dose, 2010, p. 262f.). The following illustrations summarizes the government forms as follows.

| Governance forms | Communities | Competition | Hierarchy | Social Network |
|--------------------------|---|---|--|--|
| Advantages for actors | share of interest and resources, security | Incentive based, innovation and flexibility | Strict implementation, security, predictability of decisions | pragmatic share of information, solution-orientated, informal, exclusive |
| Disadvantages for actors | altering positions is difficult, leaving causes high transaction cost | Winning votes in times of elections (performance competition) | Impossible to leave, inflexible, | Leaving causes high transaction costs, entirety of actors rises – long decision making process |

(Illustration 7: Governance forms, own illustration based on Benz and Dose, 2010)

4.6 Governance arenas

As concluded by the literature, government forms are not archetypical, but rather occur in mixed forms. These mixed forms are identified as government regimes (Schimank, 2007, p. 42; Lange and Schimank, 2004, p. 24). One can conclude that different actors and institutions (central/decentral, national, inter- and supranational) act in complex arrangements. The most crucial analytical aspect is whether coordination is ‘embedded’ (*eingebundene Koordinationskonstellation*) oder ‘connected’ (*verbundene Koordinationskonstellation*) (Benz, 2006, p. 35). First, ‘embedded coordination’ means that one governance form and its mechanism is dominating a regime. According to Scharpf (1993), negotiations can be embedded in hierarchy. In this case, the decision can be transferred to a higher institutional level if the negotiators cannot formulate a consensus. If the negotiations are held by executive actors or secretaries of state, a governance failure is not possible given that they fully represent their organization. However, participants of the negotiation are motivated to formulate a consensus given that otherwise they would risk to loose reputation and influence (Benz and Dose, 2010, p. 264).

| Governance regime | Embedded | Connected (arenas) |
|-------------------|--|---|
| Actors | <ul style="list-style-type: none"> One governance form is dominating Decisions can be delegated to a higher level. | <ul style="list-style-type: none"> All governance forms are even – not affected by hierarchy Decisions evolve from coordination |

(Illustration 8: Governance regime, own illustration based on Benz and Dose, 2010)

The second governance regime includes ‘connected’ governance forms. Here, no government form is dominating. Therefore, actors must closely coordinate and unlike in an ‘embedded’ governance regime the decision cannot be delegated to a higher level (Benz and Dose, 2010, p. 264f.). For example, networks do not have a superior level. Moreover, it is an advantage of networks that – in case of a canceled negotiation – new negotiations quickly continue given that all members trust each other (Benz and Dose, 2010, p. 264.). Based on the theory of Heritier (2002), connected governance forms are “arenas” which are not affected by hierarchy. The decision making process of an agency can be identified as an arena. The bureaucracy cooperates with actors as even partners, coordinating their action with in order to achieve common objectives. To come up with the example of the grid expansion, the agency (here BNetzA) must communicate with external stakeholders, such as the project developer TenneT, in order to elaborate the construction process of grid systems.

4.7 Summary: Governance theory

| Governance mechanism | Imitation | Manipulation | Negotiation |
|----------------------|---|---|--|
| Actors | Actors imitate actions in order to achieve similar objectives | Actors use their sovereignty to achieve their individual objectives | Actors try to coordinate in order to achieve individual objectives |

(Illustration 6)

| Governance forms | Communities | Competition | Hierarchy | Social Network |
|--------------------------|---|---|--|--|
| Advantages for actors | share of interest and resources, security | Incentive based, innovation and flexibility | Strict implementation, security, predictability of decisions | pragmatic share of information, solution-orientated, informal, exclusive |
| Disadvantages for actors | altering positions is difficult, leaving causes high transaction cost | Winning votes in times of elections (performance competition) | Impossible to leave, inflexible, | Leaving causes high transaction costs, entirety of actors rises – long decision making process |

(Illustration 7)

| Governance regime | Embedded | Connected (arenas) |
|-------------------|--|---|
| Actors | <ul style="list-style-type: none"> • One governance form is dominating • Decisions can be delegated to a higher level. | <ul style="list-style-type: none"> • All governance forms are even – not affected by hierarchy • Decisions evolve from coordination |

(Illustration 8)

5. Methods

5.1 Case study: Suedlink

Case studies are either relevant when analyzing a person, institution, place, event, phenomenon, public policy or other type of analysis that aims for a deeper understanding of an important research problem (Westle, 2008, p.152). Likewise, case studies can create clarity and predict future outcomes of a policy, illuminate hidden aspects of a subject that can be applied to the practice (University of Southern California UCL, 2016). Whereas a case study usually examines a single subject, the methods used to study can be of quantitative, qualitative, or mixed-method nature (University of Southern California, 2016). This paper combines qualitative and quantitative methods. On the one hand – with qualitative methods – the decision making process of Suedlink is analyzed and on the other hand, – with quantitative methods – the acceptance towards Suedlink of respondents is scrutinized. The former analysis was conducted through document analysis and expert interviews. For the latter analysis, an online survey was conducted and described with the use of descriptive quantitative methods.

5.2 Mixed Methods approach

According to Westle (2008), the mixed methods approach aims to overcome the two paradigm of qualitative and quantitative methods. It is thus mandatory to distinguish between three categories of research design: first, the sequential explanatory design starts with a quantitative analysis that is followed by a qualitative analysis. Second, the explanatory-sequence design starts with a qualitative analysis that is followed by a quantitative analysis. Third, both quantitative and qualitative methods are used parallel. Consequently, the results are analyzed and – if possible – compared with each other (Westle, 2008, p. 356-359). The author of this paper follows the parallel mixed methods approach, using both qualitative measures, i.e. document analysis and expert

interviews, and quantitative measures. This is needed, given that the question concerning how decisions are made in the governance arenas could not be answered with quantitative measures. In contrast, the question regarding the acceptance towards the priority of underground cables is better scrutinized with quantitative measures.

5.3 Document analysis

The purpose of this paper is to get a more precise understanding of the acceptance criteria of citizens which are affected by government infrastructure projects, i.e. the grid expansion project SuedLink. Therefore, a theoretic groundwork is provided. This groundwork consists of theories by other authors concerning acceptance, participation and governance. Hence, the analysis of documents is a mandatory method for this part of the paper given that it allows the author to refer to theories that were used by other authors in the research of public acceptance. The author of this paper thus refers to employed definitions, subjects in the research field, and statistical procedures used (see also Swales and Feak, 2012, p. 289).

5.4 Expert interviews

In order to get a significant understanding of the decision making process of Suedlink, the author of this paper conducted expert interview with officials that were involved in the decision making process on the federal level. In particular, because at the time where this paper was written there was no literature available that analyzed the process on the federal and parliamentary level. According to Bortz and Döring (1995), qualitative methods are thus used when verbal data are to be interpreted and the subject under study has been poorly investigated so far (Bortz and Döring, 1995, p. 272). This being the case, twenty expert were contacted and six interviews were conducted in order to support the qualitative analysis part of this paper. In summary, the author of this paper received two written answers and four oral answers. The oral interviews were conducted in the official's offices in the German Bundestag in June and July 2016. They were conducted in German and ended if every questions of the questionnaire was asked. Therefore, the interview time was flexible given that the response time and magnitude varied. Every expert approved his citation with full names. The officials were chosen because they are considered to have professional knowledge of Suedlink, including the question how the decision making process to use earth cables took place

(Bortz and Döring 2006, p. 315). The response rate of the requested experts was 33 percent. The following illustration gives an overview about the conducted interviews.

| Experts | Interview/response |
|--------------------------------|-------------------------|
| Birgit Koempel, MdB (SPD) | conducted July 6, 2016 |
| Johann Saathoff, MdB (SPD) | conducted July 8, 2016 |
| Ralf Lenkert, MdB (Linke) | received July 12, 2016 |
| Oliver Krischer, MdB (Grüne) | received July 18, 2016 |
| Michael Kuxenko (CDU/CSU) | conducted July 12, 2016 |
| Dr. Werner Neumann (BUND e.V.) | conducted July 14, 2016 |

(Illustration 9: Expert interviews, own illustration)⁸

5.4.1 Semi-structured interview guide

The interviews were conducted in a semi-structured/standardized form, meaning that they followed a certain pattern of questions, offering the opportunity for the respondents to answer the questions in their own words. The semi-structured/standardized interviews were recorded and transliterated.⁹ The interviews were conducted as a direct oral conversation – a face-to-face interview. In form of a classic ‘paper-and-pencil’ interview (Westle, 2008, p. 210), a printed questionnaire was introduced to the interview partners. Two questionnaires were sent via email and the answers were received shortly after. However, it is important to mention, that the written and oral responses cannot be compared in detail given that they did not follow a similar pattern. While the author of this paper was able to ask counter-questions responsively, the written answers strictly referred to the questionnaire. The questionnaire was designed as a guide for a conversation, offering enough space to reveal insight knowledge of the officials. In the following paragraph, some of the questions are translated from German to English to give a brief overview about the asked questions.

1. *Welche Akteure waren an der Formulierung der Gesetzesänderung zum Erdkabelvorrang bei Südlink beteiligt? Wie wurden diese eingebunden?*

What actors participated in the legislative process concerning the priority of underground cables for Suedlink? How were they incorporated in the decision making process? This question primarily addressed the parliamentary process. In this process it is necessary to identify the important actors and members of parliament that were involved in the decision making process.

⁸ The list of all requested interview partners can be found in the annex 4 of this paper.

⁹ The questionnaire and the transliteration can be found in the annex 3 and 9 of this paper, respectively.

2. *Mit welchen Mechanismen würde Sie die Entscheidungsfindung der Akteure in den jeweiligen Gremien/Ausschüssen beschreiben? Imitation – Manipulation – Verhandlung?*

What mechanism were relevant in the bodies where the decision were made? Imitation – Manipulation – Negotiation? This question was aiming on the insight knowledge of the experts, asking what informal bodies were relevant for the exchange of opinions. Moreover, the question addressed the governance mechanism that show how actors coordinate their actions.

5.4.2 Critique of the questionnaire

All interviewed officials criticized questions of the questionnaire that were formulated in a provocative manner. One question, for instance, asked whether the protest in the German society ‘forced’ the government and the German Bundestag to conduct Suedlink by the use of earth cables. In the official’s mind, the wording “to force somebody” was not adequate in the sense of the question. However, as was intended by the author of this paper, the interviewed officials started to discuss intensively about the right wording and the intention of the question.

5.5 Online-Survey

The main research question in this paper is which factors influence the people’s acceptance towards the Suedlink, in particular the use of underground cables. This paper questions the significance of the data that was analyzed in advance with the use of an online survey. It seeks to argue that underground cables alone not necessarily increase the acceptance towards Suedlink. Moreover, other (local) factors are relevant for the social acceptance. Therefore, a public online survey was issued in order to gather data regarding public opinions towards Suedlink. This survey seeks to explore a wide variety of opinions and attitudes. It addresses opinions or core values and thus can be affective or evaluative. Here, the level of evaluation is of particular concern, focusing on the respondent’s opinion about Suedlink.¹⁰ Opinions are latent constructs and are typically questioned with items, i.e. ‘good/bad’, ‘satisfying/unsatisfying’, ‘agree/disagree, or other items that address attitudes (Westle, 2008, p. 221). In addition, the conducted survey addressed the behavior of the respondents, asking whether they participate in a citizen initiative. Here, the level of action is focused, asking whether respondents actively support or protest against Suedlink.¹¹ Questions regarding behavior are related to the respondent’s memories of past actions or future intentions.

¹⁰ See also chapter 2.2 “Social acceptance” and the theory by Zoellner et al. (2012).

¹¹ See also chapter 2.2 “Social acceptance” and the theory by Zoellner et al. (2012).

However, with questions regarding happenings in the past, one must clarify that respondents can forget own actions (Westle, 2008, p. 221). However, given that only few questions of the conducted survey addressed behavior, this effect is considered irrelevant. In conducting this paper, a large evaluation of methods has been undertaken. These include postal surveys, telephone surveys, door-to-door questionnaires, semi-structured interviews, and several others. However, for the quantitative part, only an online survey seemed appropriate considering time, resources, and capacity for this paper. However, it is very likely that a higher N can be generated if ‘physical surveys’ are spread among municipalities, cities, and citizens that are in transmission line corridor of Suedlink from Schleswig-Holstein to Bavaria. Here it has to be mentioned, that a basic sample of an online survey excludes citizens without internet access, especially older people. However, it is also empirically visible in the demographic section of the conducted online survey that many respondents already retired.

As it is widely accepted in social science, all public opinion research proceeds on the assumption that citizens possess reasonably well formed attitudes on major political issues (Zaller and Feldmann 1992: 579). Surveys are passive measures of people’s attitudes (Zaller and Feldman 1992: 579). For example, if a survey respondent answers X one can estimate that answer X is actually the preexisting state of the respondent’s feeling. Opinion polls thus show local (or global) public opinions, including the people’s motivation, incentives and attitudes. Despite the fact that Zaller and Feldman (1992) or Converse (1964) argue that people do not possess preformed attitudes at the level of specificity demanded in survey, this paper follows the scholars who determined that people have underlying “true attitudes” that are overwhelmingly stable. In this paper, the “true attitude” or acceptance towards grid expansion projects are measured by questions regarding criteria of local acceptance, public attitudes towards climate change, and environmental policies.¹²

Therefore, a quantitative survey is administered in cooperation with Eva Eichenhauer from the Potsdam-Institut for Climate Change (PIK). The survey addressed a small unrepresentative sample of individuals in order to make an argument about how local acceptance towards earth cables is dependent on (local) factors. To analyze which of these factors are significant for the citizen’s acceptance towards the use of earth cables. The survey was conducted among various citizens and

¹² See chapter 7.1 “Acceptance criteria of Suedlink”

initiatives. These survey respondents are considered to have an opinion about the grid expansion project Suedlink. The sample was chosen under the assumption that citizens – if affected – are overwhelmingly motivated to do a survey that addresses opinions towards transmission grid projects. Different actors were thus located and chosen from March to July. The approaches towards different initiatives and actors took place during the *Methodenkonferenz Erdkabel*.

5.5.1 Survey setup

In the quantitative part of this paper is a fully structured questionnaire, meaning that all questions are asked in the same sequence and the magnitude of response opportunity (items) is identical (Westle, 2008, p. 210). The respondents were always asked in the same procedure, having the same questionnaire and the same options to answer (Westle, p. 2009, p. 220). They only were able to give online-based written answers without a direct interaction with the author of this paper in order to create comparable responses. The objective for the standardized survey set-up is to maintain the measurement conditions in order to create a comparability of responses (Westle, 2008, p. 220). If the questions or the items vary, it would not be possible to measure whether the variance derives from the opinions of the respondents or from the differences in measurements. However, two questions in the whole survey are open and offer respondents the opportunity to add arguments that – in their minds – were not mentioned in the survey. The two items were implemented in order to maintain that no opinions are excluded from the survey. The questionnaire is conducted via the online survey tool ‘limesurvey’. First, a private lime survey account was used. Second, in order to have a higher respondent rate, an account of the University of Potsdam was used.

5.5.2 Validity and reliability

A survey questionnaire must address several aspects in order to produce valid and reliable answers. Valid answers correspondent to what they are intended to measure. Reliable answers provide consistent measures in comparable situations (LSE, 2016). The LSE Media and Communications (2016) further describes that “[...] a good questionnaire maximizes the relationship between the answers given with respect to a particular question and what the research wants to measure through that question.” Therefore, the survey was designed to answer the central questions of this paper. It focused on opinions, structuring different sections of contents reaching from general opinions about the German energy turnaround to specific opinions about Suedlink. According to

the common practice formulated by LSE (2016), the survey questionnaire began with a short introductory text followed by warm-up questions regarding local circumstances¹³ of the respondents.

5.5.3 Case study region

The current transmission line corridor of Suedlink (Stand Bundesbedarfsplan 2015) reaches from the city Wilster in the German state of Schleswig-Holstein to the municipality Grafenrheinfeld in the German state of Bavaria¹⁴. The other transmission line starts in Brunsbüttel (Schleswig-Holstein) and ends in Großgartach (Baden-Württemberg). Hence, the spatial course of SüdLink is planned from the northern to the southern part, thus covering an area of about 800km. Suedlink thus crosses the German states Schleswig-Holstein, Lower Saxony, Hessen, Bavaria and Baden-Württemberg. Ever since Suedlink was anchored in the Federal Requirement Plan, more than 62 citizen initiatives were established in these states, advocating for or against the use of earth cables (Fittkau, 2015). All of the above mentioned initiatives were asked to participate in the survey.

5.5.4 Contact with citizen initiatives

The *‘Methodenkonferenz Erdkabel’* took place in Bonn, March 3 2016. It was a conference organized by the BNetzA and open for all interested actors in the field of grid expansion projects, energy politics, and the energy turnaround. Therefore, it included a variety of interest groups, citizen initiatives, and other actors from both politics and economy. For the purpose of this paper, the conference was visited by the author of this paper in order to contact citizen initiatives. The contacts were used to promote the online survey, thus motivating individuals to participate in the survey. Besides, the conference was useful to get an impression of the project Suedlink, to receive an update of the planning process, and to understand the important §6 NABEG procedure that is necessary for the project developers. Some district administrators, were contacted through the *Hamelner Erklärung*, an organization that gather district administrators who engage in Suedlink.

¹³ See annex 8 “Online survey questionnaire”.

¹⁴ No. 4 project anchored in the Federal Requirement Plan 2013.

| Citizen initiatives | Interest groups |
|--|--|
| <ul style="list-style-type: none"> • Contacted in Hesse (19) • Contacted in Bavaria (7) • Contacted in North Rhine-Westfalia (1) • Contacted in Lower Saxony (20) • Contacted in Schleswig-Holstein (1) | <ul style="list-style-type: none"> • Bundesverband Erneuerbare Energien e.V. • Bundesverband Solarwirtschaft e.V. • Bundesverband Windenergie e.V. • Verband Deutscher Maschinen- und Anlagenbauer e.V. • Bundesverband der Deutschen Industrie e.V. • Deutscher Bauernverband e.V. • Bund für Umwelt und Naturschutz e.V. • Hamelner Erklärung – Arbeitsplattform Suedlink • TenneT TSO GmbH |

(Illustration 10: Contacted initiatives and groups, own illustration)

5.5.5 Timing

After the literature review regarding interview techniques and survey designs, a first version of the questionnaire was elaborated with the support of Eva Eichenauer, who is a PhD candidate from the Potsdam Institute for Climate Impact Research. The first set-up of the survey was composed, concerning public attitudes towards environmental policies, i.e. the use of wind power and the grid expansion. Thereafter, the author of this paper composed an additional survey part concerning public attitudes towards the use of underground cables for Suedlink. This part was composed in limesurvey, an online-based survey software. Thereafter, the additional part was adjusted and some questions were reformulated with the help of Eva Eichenauer. Moreover, the survey was conducted over the web page of the Potsdam Institute for Climate Impact Research from March 15 to July 31, 2016. The online-survey was distributed among the aforementioned actors, initiatives, and citizens. In addition, other actors were contacted and asked to participate in the online-survey, for instance on the webpage of *Hamelner Erklärung*.¹⁵

5.5.6 Pretest

A pretest was conducted in the end of May. The author of this paper chose several respondents in order to get a qualified feedback concerning the time that is necessary to complete the survey. First, the time was set to 15 minutes. After the evaluation, it was necessary to set the time to 20 minutes given that the chosen respondents took more time answering all the questions. Furthermore, some redundant questions were removed from the survey.

¹⁵ See further annex 5 “Overview of contacted citizen initiatives Suedlink”

5.5.7 Critique from survey respondents

Both the survey respondents and the interviewed officials stated problems while responding to questions. Some respondents in the online-survey had issues regarding the content of the survey questions. For instance, respondents pointed out that – in their minds – the survey already gives a direction to favor underground cables. Concluding this, they argued that the survey is somewhat biased. Others pointed out that favor neither earth cables, nor overhead lines. These respondents somewhat represent people who can be described with attitudes that are fundamentally against every infrastructure project. Moreover, after exchanging several emails with the respondents, they could not be convinced to participate in the survey.

One other respondent argued that the survey was manipulative, thus giving a direction of how one should answer in favor of earth cables. Two other respondents mentioned that the survey is only designed for local citizens who are affected by the grid expansion project Suedlink. However, the arguments were not fully consistent. One respondent said that on the one hand the survey is good for measuring the acceptance towards Suedlink. On the other hand, he stated that the survey was not appropriate for measuring the problems occurring with transmission grid projects. Moreover, somebody responded that the questionnaire gave space for interpretation and that some items can describe several opinions. Other respondents hold the opinions that the survey was too long. Although trying to shorten it, the survey had to include questions regarding grid expansion projects and general questions addressing opinions towards the energy turnaround. The latter was important for Eva Eichenhauer, who is a PhD candidate at the Potsdam Institute for Climate Impact Research given that she uses the data for her own research. A typical source of mistakes for surveys is the so-called ‘response-set’. It describes a situation where respondents respond in way that has nothing to do with content. This can be seen in responses in which respondents occasionally decided to respond in the middle category of standardized a response opportunity. For instance, if a question offers a magnitude of responses (items) such as ‘fully accept’ (stimme voll und ganz zu), ‘accept’ (stimme eher zu), ‘neither, nor’ (weder noch), do not ‘accept’ (stimme eher nicht zu), and ‘do not accept entirely’ (stimme überhaupt nicht zu), respondents tend to choose the middle category (Westle, 2008, p. 216). To avoid a response set, the author used contrary items in several question. For instance, if a question addressed the advantages of underground cables, also items of disadvantages were incorporated in order to make sure that respondents actually have to read the

items. If respondents approve every item, it is very likely that the response is characterized by a response set.

6. Analysis Part I: Governance and the decision making process of Suedlink

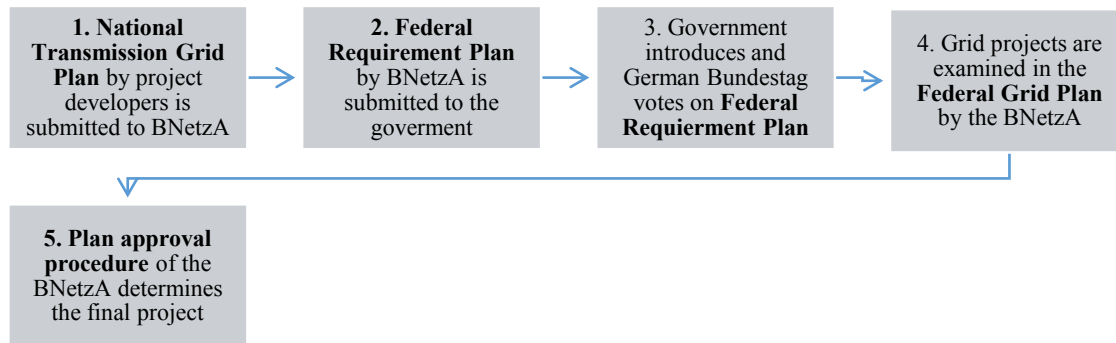
In the first analytical part of this paper, the governance approach is applied. Based on document analysis, this approach was elaborated in the previous theoretical chapters. Governance describes the “how” of decision-making and coordination (Benz et al., 2007, p. 20). Therefore, “*with use of the governance approach, forms of interdependent actions in and between systems of society, i.e. politics, economy, health care, mass media, can be scrutinized precisely [...]*” (Benz et al., 2007, p. 18). Following Lange and Schimank (2004), Benz et al. (2007), and Benz and Dose (2010), the following paragraphs qualitatively analyze the governance of grid expansion projects, in particular the priority of underground cables for Suedlink. In doing so, first the legal background of the German energy regulation is described. Thereafter, a description of the political background follows. Consequently, three different arenas are analyzed. Ultimately a conclusion is formulated.

6.1 Legal background

Since 2011, several bills such as the *Energiewirtschaftsgesetz* (EnWG) and the renewed *Netzausbaubeschleunigungsgesetz* (NABEG) laid the groundwork for revisions and changed responsibilities for the grid expansion and the construction of transmission lines, respectively. Because of these bills, project developers and grid operators such as TenneT TSO GmbH have to submit a National Transmission Grid Plan (Netzentwicklungsplan) to the BNetzA on an annual basis. This plan must include all necessary measures to optimize, enhance, and expand the transmission grid for the next 10 years (§ 12b EnWG). Thereafter, the BNetzA has to examine the national transmission grid plan. Based on this examination the BNetzA has to submit a draft for a Federal Requirement Plan (Bundesbedarfsplan) to the Federal Government within four years. The latter has to introduce the Federal Requirement Plan to the German Bundestag with a maximum delay of three years (§ 12e EnWG). The German Bundestag finally takes a legally binding vote on the federal requirement plan. (Hirschfeld/Heidrich, 2013, p. 95).

Grid expansion projects that are mentioned in the Federal Requirement Plan must be examined by the BNetzA in the Federal Grid Plan (Bundesfachplanung gem. §§ 4 ff. NABeG). Here, the

planning corridor is scrutinized. Afterwards, with approval of the Bundesrat (§ 2 NABeG), the Plan Approval Procedure (Planfeststellungsverfahren) finally determines the planning corridor of a transmission grid project (§§ 18ff. NABeG).¹⁶ The following illustration gives a brief overview about the different steps that are necessary for conducting grid expansion projects.



(Illustration 11: Formal procedures, own illustration)

6.2 Political background

A significant challenge of the grid expansion in Germany is the fact that production and use of energy differ geographically. While wind energy is produced in the northern states such as Schleswig-Holstein, the energy consuming economy lies in southern states such as Baden-Württemberg and Bavaria (Kment, 2014, p. 43). Therefore, the governance of the grid expansion is complex and includes a variety of actors, on the federal, state, and local level. Grid expansion projects must also address the decentralized “nature” of renewable energies. The German energy turnaround supports local and decentralized energy parks that – on the long run – replace conventional power plants. However, with this fragmentation of the energy production, the conventional and historically developed transmission grid does not apply to this standard. As mentioned in the introduction of this paper, Suedlink is designed to transfer green energy from the north to the south of Germany, having an enormous economic necessity and being the largest infrastructure project in the energy turnaround (TenneT TSO GmbH, 2014, p. 5). Due to political, economic and logistic challenges, the decision making process behind Suedlink is of particular concern. While decisions are made on the federal level, however, grid expansions primarily has consequences in local areas. In other words: although conflicts occur on the local level, the necessity of the projects is reasoned on the federal level (Hirschfeld and Heidrich, 2013, p. 95). As

¹⁶ See also chapter 6.4 “Arena of approval procedures”

described in the chapter “Social acceptance” the success of Suedlink is highly dependent on the citizen’s acceptance towards the project. The project developers TenneT TSO GmbH and Transnet BW describe this as follows.

“TenneT believes that the planning of Suedlink is only possible with the support of both the local population and the authorities involved. Today, the development of new infrastructure requires a multi-layered, participatory debate in order to gain public acceptance. Whether incorporated into the regulatory approval process, or initially informally and independently, public engagement must be comprehensively integrated into [...] planning.” (Bestgrid, 2015, p. 10)

In the theoretical chapter of this paper, the governance approach was introduced to provide and analytical groundwork. Based on this groundwork, and according to Hirschfeld and Heidrich (2013), three different arenas¹⁷ can be identified, thus examining the governance and citizen participation of Suedlink: national arena, regional arena, and the arena of approval procedures (Raumordnungs- und Planfeststellungsverfahren).

| National arena | Regional arena | Arena of approval procedures |
|--|--|---|
| <ul style="list-style-type: none"> • Grid expansion projects are discussed on the federal level. • Decision to build Suedlink with the use of earth cables | <ul style="list-style-type: none"> • municipalities, local governments and politicians, majors, and citizen initiatives discuss Suedlink • protests arose in response to the transmission line corridor and construction of Suedlink | <ul style="list-style-type: none"> • plan approval procedure takes place within legal boundaries • Formal decision of what and where the transmission line is implemented |

(Illustration 12: Governance arena, own illustration based on Hirschfeld and Heidrich, 2013)

In the following paragraphs, these different arenas are analyzed. In the first step, an analysis for every arena is presented based on the document analysis. This analysis addresses the main legal and political aspects. Second, by the use of the theoretical implications of the governance approach, the arenas are analyzed with the information from the expert interviews.

¹⁷ Given the time and capacity of this paper, the European “arena“ cannot be analyzed in this paper. The EU has supported grid expansion in the last 25 years: Decision of the European Parliament and Council Nr.1254/96/EG, Decision Nr. 1229/2003/EG, Decision Nr. 1346/2006/EG, EU-Regulation Nr. 347/2013.

6.3 National arena

The assessment and explanation of the economic and logistic necessity of Suedlink as a grid expansion project takes place on the federal (national) level (Hirschfeld and Heidrich, 2013, p. 97). The German Bundestag ultimately is the institution that takes a vote on grid expansion plans of the Federal Government. For a deeper understanding of how Suedlink was designed, it is thus necessary to scrutinize the parliamentary procedure. It is further interesting which aspects and positions finally led to the priority of underground cables. Therefore, in the following paragraphs the parliamentary procedure is described on the basis of the conducted expert interviews and then analyzed by the use of both governance and participation approach. The author of this paper refers to the expert interviews that were conducted and mentioned in the ‘methods’ section of this paper. The transliterations can be found in the annex of this paper.

6.3.1 Parliamentary procedure

In March 2015, the Federal Cabinet decided on a draft bill concerning changes and regulations for grid expansion projects in Germany. Several hearings and consultations with citizen initiatives and interest groups were conducted during the National Transmission Grid Plan¹⁸ and the first application phase of the project developer.¹⁹ In this draft, the government initially laid the groundwork for the priority of underground cables for DC transmission lines (Hochspannungsgleichstromübertragungsleitung). Afterwards the draft was submitted to the Federal Council (Bundesrat), which in return submitted its statement to the Federal Government. Thereafter, the Federal Government formulated a counterstatement, addressing the statement of the Federal Council. The draft bill was then submitted to the German Bundestag, including the aforementioned statement and counterstatement. The parliamentary procedure began. However, according to Michael Kuxenko (CDU), the German Bundestag did not receive the statements in time and thus conducted its first reading of the draft bill without the statements of the other two federal institutions.²⁰ The first reading was conducted on April 24, 2016 and shortly after the draft bill was submitted to the committee for economy and energy. Consequently, the draft bill was examined in three different bodies. On the first level, it was evaluated by the members of

¹⁸ See chapter 6.4.1 “Legal framework“

¹⁹ See chapter 6.4.2 “Federal Grid Plan“

²⁰ See annex 9 „Transliteration Expert Interviews“: Michael Kuxenko (CDU), p.6, Line 256.

parliaments in the committee of economic affairs and energy where, given the parliamentary proportion, the coalition fractions CDU/CSU and SPD had the most impact on the agenda setting process. Here, the committee launched several hearings with external actors. However, Michael Kuxenko (CDU) mentioned that the committee hearings are not exclusive enough to bargain and argue with the spokesperson from the fractions in order to set the agenda for the meetings of the committee.²¹

In the second body, inter-fraction hearings took place in the German Bundestag, organizing meetings with external actors, citizen initiatives and experts on a weekly basis. According to Birgit Kömpel (SPD), these meetings started after April 25, 2015 and were formalized, having an own agenda and conditions of participation.²² Moreover, she mentioned that all fractions in the parliament were included in the meetings. Furthermore, she pointed out that the BMWi, the BNetzA and several cable producing companies, i.e. ABB and Cable Europe, attended the hearings. However, the leadership of the CDU/CSU fraction ‘forbid’ its own members of parliament to attend the meetings regarding grid expansion projects with the opposition in the parliamentary buildings. Afterwards, Birgit Kömpel (SPD) concluded, the inter-fraction hearings were hold in external buildings without most of the CDU/CSU members.²³

The third body the ‘Energiesteuerungsgruppe’ was crucial for the process of the debates concerning the draft bill in the parliament. Michael Kuxenko (CDU) stated that the expert group had a significant influence on the agenda setting process of the committee for economic affairs and energy.²⁴ Furthermore, they coordinated the amendments of the fractions in cooperation with the BMWi, which was integrating the amendments into the draft bill (*Formulierungshilfe*). The members of this group met informally before every committee session. It consisted of different members of parliament, including Michael Fuchs (CDU/CSU), Hubertus Heil (SPD), Joachim Pfeiffer (CDU/CSU), Bernd Westphal (SPD), and the spokespersons for energy Johann Saathoff (SPD), Thomas Bareiß (CDU), and Georg Nüßlein (CSU). During a session week of the parliament, the ‘Energiesteuerungsgruppe’ meets on Monday, coordinating meetings for the upcoming week.

²¹ See annex 9 “Transliteration expert interviews“: Michael Kuxenko (CDU), p. 5, Line 200f.

²² See annex 9 “Transliteration expert interviews“: Birgit Kömpel (SPD), p. 2, Line 68-70.

²³ See annex 9 “Translation expert interviews“: Birgit Kömpel (SPD), p. 2, Line 75.

²⁴ See annex 9 “Transliteration expert interviews“: Michael Kuxenko (CDU), p. 5, Line 201.

The results from the Monday meetings go to the working groups of the coalition fractions that meet on Tuesday. Thereafter, the committee for economy and energy meets on Wednesday. The plenary debates are Thursdays and Fridays. Concluding this structure, one can identify the importance of this informal group given that it significantly formulated amendments and set the agenda in the parliamentary procedure. During the parliamentary procedure, the three chairpersons of the coalition parties made a decision over a political agreement on July 1, 2015. This agreement also gave priority to underground cables, besides including other aspects of the German energy turnaround. It was signed by Angela Merkel (CDU), Horst Seehofer (CSU), and Sigmar Gabriel (SPD). According to Michael Kuxenko (CDU), it was perceived as a directive for the leadership of the coalition fractions and the members of parliament.²⁵ After the parliamentary work in the committees, the draft bill finally was taken to the floor. On December 3, 2015 the German Bundestag took a vote on the bill ‘Gesetz zur Änderung des Energieleitungsbaus’.²⁶ During the parliamentary debate, the bill passed in a second and third reading with the votes of CDU/CSU and SPD. The Party Alliance 90/The Greens abstained and the Left party voted against the bill. Thereafter, the bill was formally anchored in the Bundesgesetzblatt (Federal Law Gazette) from December 30, 2015.

6.3.2 Fraction opinions towards underground cables

In the following paragraphs, the author of this paper seeks to analyze the different fraction opinions towards the priority of underground cables. Here, it further necessary to analyze and compare the different statements of the interviewed experts in order to reveal correlations or contradictions.

6.3.2.1 SPD fraction

If one tries to describe the position in the SPD fraction, it is necessary to mention that Sigmar Gabriel (SPD) was the minister for economic affairs and energy, at the time were this paper was written. He was thus responsible for the grid expansion as a part of the German energy turnaround, which is moderated by the BMWi. Moreover, he is also the head of the Social Democratic Party of Germany (SPD). According to Birgit Kömpel (SPD), the social democratic members of parliament used this partisanship of Sigmar Gabriel (SPD), influencing him in order to persuade him for the

²⁵ See annex 9 “Transliteration expert interviews”: Michael Kuxenko (CDU), p.6, Line 258f.

²⁶ Printings of the German Bundestag: 18/4655, 18/5581, 18/6909.

priority of underground cables for Suedlink. In particular, the members of parliament whose constituencies were affected by the transmission line corridor were opposing the overhead lines from the beginning. Kömpel and Saathof (both SPD) mentioned that the minister was not particularly supporting or opposing underground cables. He was not decisive when the conflict in the public evolved in early 2014, although his own constituency was not affected by the transmission line corridor, Birgit Kömpel (SPD) mentioned.²⁷ The spokesperson of the committee for economic affairs and energy, Johann Saathoff (SPD), mentioned in his interview that he was one of the first members of the social democratic fraction who understood the necessity of underground cables.²⁸ He argued that public acceptance towards Suedlink can be created with underground cables. Furthermore, he pointed out that the amendments of the draft bill were only discussed by the spokesperson of the CDU/CSU fraction and not particularly with other members of the SPD fraction. However, there was a significant organization of social democrats like Birgit Kömpel (SPD) whose constituents opposed the overhead lines or were even active in a citizen initiative. Moreover, she criticized the project developer's information policy. Whereas the feedback from the BNetzA reached the project developers in late 2014, TenneT did not manage to inform the public about its transmission grid plans. Birgit Kömpel (SPD) described that the Suedlink was already covered by the press without being noticed from the members of the German Bundestag. The social democrats in the parliament were informed from the mayors and district administrators in their constituencies.²⁹

The social democratic positioning can be distinguished in two different “camps”. On the one hand, the intra-fraction discussion – led by Johann Saathoff (SPD) – was affected by technical details of the draft bill and its consequences for the energy sector.³⁰ On the other hand, it was obvious that members such as Birgit Kömpel (SPD) represented the will of their constituents. Another argument for the advocacy of underground cables by the social democrats in the parliament was the solidarity of the members among each other. According to Birgit Kömpel (SPD) even members whose constituents were not affected at all, were willing to support other affected members. Furthermore, she stated that although it was very hard to persuade SPD members of parliament from Bavaria or

²⁷ See annex 9 “Transliteration expert interviews”: Birgit Kömpel (SPD), p. 1, Line 39-41.

²⁸ See annex 9 “Transliteration expert interviews”: Johann Saathoff (SPD), p. 1, Line 22f.

²⁹ See annex 9 “Transliteration expert interviews”: Birgit Kömpel (SPD) p. 3, Line 111.

³⁰ See annex 9 “Transliteration expert interviews”: Johann Saathoff (SPD), p. 3, Line 103.

North-Rhine Westphalia, these members ultimately supported other social democratic parliamentarians whose constituencies were affected by Suedlink.³¹

6.3.2.2 CDU/CSU fraction

The CDU/CSU fraction had very heterogeneous opinions towards underground cables. Here, one has to distinguish between the CDU and the CSU members of the fraction. On the one hand, the CDU members of parliament were not very convinced using underground cables for dc current transmission lines. Several members of parliament formulated doubts towards the necessity of underground cables for the social acceptance. However, the overwhelming argument against underground cables was its higher cost compared to overhead lines. In particular, members of parliament who were affiliated to the German economy protested against the underground cables due to the cost argument. However, Michael Kuxenko (CDU) argued that the leadership of the CDU/CSU fraction including Volker Kauder (CDU) and Michael Grosse-Brömer (CDU) had a “learning process”, opposing underground cables in the beginning and supporting it towards the end of the parliamentary procedure.³²

On the other hand, the CSU members of parliament followed their own agenda that was highly influenced by the position of Horst Seehofer (CSU). He was the prime minister of Bavaria during the Bavarian municipal elections in 2014 where Suedlink was seriously discussed in the election campaign. Given that Suedlink’s transmission line corridor ends in Grafenrheinfeld, Bavaria, Horst Seehofer (CSU) was put under pressure from citizen initiatives in Bavaria. Dr Werner Neumann (*Bund für Umwelt und Naturschutz*, BUND e.V.) concluded that his interest group was connecting with citizen initiatives that opposed Suedlink in general.³³ Horst Seehofer (CSU) feared that his party would lose votes in the municipal elections because of the lack of participation towards the overhead lines of Suedlink. All interview parties hold the opinion that Horst Seehofer (CSU) only support underground cables because he wanted to address the protest against Suedlink in 2014 and 2015. In doing so, Horst Seehofer (CSU) was trying to shape the policy formulation process before the draft bill was decided in the Federal Cabinet. At that time, the crucial term ‘Monstertrassen’ – describing huge overhead lines in a metaphorical way – became significant in the German public

³¹ See annex 9 “Transliteration expert interviews“: Birgit Kömpel (SPD), p. 2, Line 52f.

³² See annex 9 “Transliteration expert interviews“: Michael Kuxenko (CDU), p. 3, Line 127.

³³ See annex 9 “Transliteration expert interviews“: Dr. Werner Neumann (BUND e.V.), p. 1, Line 10f.

debate at that time. According to Oliver Krischer (Greens), Horst Seehofer (CSU) had a crucial influence on the policy formulation process of the Federal Government.³⁴

In conclusion, Michael Kuxenko (CDU) pointed out that – during the parliamentary procedure in 2015 – the use of underground cables for dc current lines was not discussed in the CDU/CSU fraction.³⁵ The fraction made clear that the priority of underground cables was already formulated in the draft bill that was submitted to the German Bundestag in July. The CDU/CSU fraction was informed of the prior use of underground cables and thus both CDU and CSU members of parliament who strongly opposed Suedlink from the beginning were satisfied with the draft bill.³⁶

6.3.2.3 Green fraction

Based on the arguments of the Green spokesperson for energy affairs Oliver Krischer (Greens), the Green fraction supported underground cables from the beginning of the parliamentary procedure. However, the Greens did not advocate for the general and priority use of underground cables, stating that it will extend the construction time of Suedlink. The construction time is extended given that that the implementation is more complicated and cost intensive. In contrast, the Greens argued that the underground cables should only be constructed when necessary in order to save the environment. This being said, the Green fraction advocated for a priority use of overhead lines while holding the argument that the implementation of underground cables should be an alternative whenever necessary in certain cases. Moreover, Oliver Krischer (Greens) pointed out that – after the political agreement of the three party chairpersons – the transmission line corridor was arbitrarily relocated for the sake of the Bavarian Prime Minister Horst Seehofer (CSU).³⁷ In addition, Oliver Krischer (Greens) argued that the priority for underground cables was not sufficient for Germany given that the negotiations should have been taken place in an environment that included the opposition fractions. Concluding this, he hold the opinion that the proposed amendments by Horst Seehofer (CSU) are not representing the countries needs for the grid system. Apparently, the decision was already made before the parliamentary fractions were able to address all the aspects of underground cables for dc current lines.³⁸

³⁴ See annex 9 “Transliteration expert interviews”: Oliver Krischer (Greens), p 2, Line 58.

³⁵ See annex 9 “Transliteration expert interviews“: Michael Kuxenko (CDU), p. 5, Line 227f.

³⁶ See annex 9 “Transliteration expert interviews“: Oliver Krischer (Greens), p. 1, Line 9f.

³⁷ See annex 9 “Transliteration expert interviews”: Oliver Krischer (Greens), p. 1, Line 15f.

³⁸ See annex 9 “Transliteration expert interviews“: Oliver Krischer (Greens), p.1, Line 23.

6.3.2.4 Left fraction

In this paragraph, the opinion of the left fraction towards the priority of underground cables is examined. However, the author of this paper has to clarify that it was very difficult to gather information about the opinion because most of the contacted left members of parliament did not respond and thus only little information is provided from the written response of Ralph Lenkert (Left). He argued that the priority of underground cables was formulated and introduced in the draft bill to reduce the public protest against Suedlink.³⁹ In contrast, the technical arguments for the use of underground cables instead of overhead lines were not compelling enough.⁴⁰ Furthermore, he holds the opinion that such cables only reduce public protest. In sum, he criticized that the citizen initiatives do not have equal access to the BMWI compared to the industry, although not giving examples which actions particularly influenced the decision making process of the draft bill formulated in the ministry. Ultimately, he confirmed that the opposition in the German Bundestag was able to formulate pro or contra arguments concerning underground cables, however, the decision for priority was already made by the government and the coalition fractions before the parliamentary procedure began.⁴¹

6.3.3 Governance approach in the national arena

In the following paragraph, the author of this paper seeks to analyze the governance forms and mechanism that were crucial in the decision making process of the national arena. The national arena thus includes decisions in the parliamentary procedure and in the government, respectively. According to Hirschfeld and Heidrich (2013), the necessity of grid expansion projects is reasoned in the national arena. In this arena, different actors compete, bargain, and argue in order to seize their opportunities, thus achieving their objectives in the grid expansion. However, the author of this paper argues that not only the necessity of grid expansion projects is reasoned on a national level, but rather its construction form – as can be seen in the case of the priority for underground cables. Based on the theory of Benz and Dose (2010), the governance approach is applicable for examining how actors pursue their objectives in the national arena.⁴²

³⁹ See annex 9 “Transliteration expert interviews”: Ralph Lenkert (Left), p. 1, Line 8f.

⁴⁰ See annex 9 “Transliteration expert interviews”: Ralph Lenkert (Left), p. 2, Line 66.

⁴¹ See annex 9 “Transliteration expert interviews”: Ralph Lenkert (Left), p. 1, Line 7-10.

⁴² See chapter 4.6 “Governance regimes”.

As was aforementioned, the decision making process in the parliamentary procedure was characterized by three different bodies.⁴³ First, the committee of economic and energy affairs, second, the inter-fraction hearings, and third, the so-called “Energiesteuerungsgruppe”, an expert group consisting of spokespersons from the CDU/CSU and SPD. The inter-fraction hearings and the “Energiesteuerungsgruppe” were the two relevant bodies. The committee of economic affairs and energy was the formal body, which provided a formal proposal in the second and third reading of the parliamentary debate, although the decisions were made in the aforementioned levels.

The inter-fraction hearings took place after April 2015 and, based on the arguments of Birgit Kömpel (SPD), all fractions participated in the hearings.⁴⁴ Furthermore, she stated that the meetings had a formal invitation process and an agenda was prepared in advance. The participants had the objective to regulate the transmission grid expansion, in particular the underground cables for Suedlink. This was obvious for Birgit Kömpel (SPD), given that many participants were members of parliament whose constituencies were affected by Suedlink.⁴⁵ They made the experience that their constituents oppose overhead lines. Therefore, also in order to be reelected, Suedlink was one of the most important issues for these members, Birgit Kömpel (SPD) concluded.⁴⁶ In terms of governance mechanism, negotiation and imitation was useful for the members in order to achieve their objective of the priority of underground cables. In conclusion, the governance form “community” is applicable for describing the inter-fraction hearings, given that the members gathered resources and met regularly in a formal procedure. However, months before the parliament took a vote on the draft bill, the Left and the Greens, as opposition fractions, were excluded from the inter-fraction hearings. According to Birgit Kömpel (SPD), this was an escalation from the leadership of the CDU/CSU fraction, stating that the coalition fractions “*do not need the opposition to discuss grid expansion projects.*”⁴⁷ In terms of governance forms (Benz and Dose, 2010) the leadership of the CDU/CSU fraction manipulated and forbid its members to participate in the hearings, using its sovereignty to achieve its objectives.⁴⁸ As aforementioned,

⁴³ See chapter 6.3.1 “Parliamentary procedure”.

⁴⁴ See annex 9 “Transliteration expert interviews”: Birgit Kömpel (SPD), p. 1 Line 10f.

⁴⁵ See annex 9 “Transliteration expert interviews”: Birgit Kömpel (SPD), p. 1. Line 10f.

⁴⁶ See annex 9 “Transliteration expert interviews”: Birgit Kömpel (SPD), p. 1. Line 10f.

⁴⁷ See annex 9 “Transliteration expert interviews”: Birgit Kömpel (SPD), p. 1 Line 18-20.

⁴⁸ See chapter 9 “Transliteration expert interviews”: Birgit Kömpel (SPD), p. 2, Line 71-76.

altering positions or leaving a community causes high transactions costs⁴⁹. However, although the Left and the Greens were excluded from the debate in the hearings, their positions were noticed.⁵⁰

The expert group “Energiesteuerungsgruppe” was exclusive and informal, setting the agenda in the committee of economic affairs and energy.⁵¹ According to Johann Saathoff (SPD), the expert group – with the “manpower” in research and expertise of the BMWi – were the main actors who determined the legal and political aspects of the draft bill in the parliamentary procedure.⁵² Thus, here the governance form ‘social network’ is applicable.

However, not only focusing on the parliamentary procedure, also the role of the chairpersons Sigmar Gabriel (SPD) and Horst Seehofer (CSU) is of particular concern for the decision making process in the national arena. First, the SPD members directly contacted Sigmar Gabriel (SPD) as their chairperson and head of the BMWi. Sigmar Gabriel (SPD) was thus influenced by its own party members who were advocating for underground cables. Here it is important to mention, that he as head of the BMWi has a significant impact on the legislation of the grid expansion. The SPD members therefore used their informal and exclusive access to the minister in order to achieve their outcomes – which characterizes the governance form social network. Moreover, as was mentioned by all interviewed expert, Horst Seehofer (CSU) – driven by the municipal election in Bavaria in 2014 and the citizen initiatives⁵³, tried to manipulate the decision making process on the federal level. He used his position as Bavarian Prime Minister, manipulating the policy formulation process in the Federal Cabinet, which ultimately decided on the priority use of underground cables in March 2015. Thereafter, the political agreement in July 1, 2016 was another milestone showing that Horst Seehofer (CSU) reached his goal to prevent the overhead lines in Bavaria given that the outcomes of the political agreements were implemented in the parliamentary procedure.⁵⁴ The political agreement of three party chairpersons influenced the parliamentarian’s actions in the parliament because it was perceived as a directive for parliamentarians. For instance, Michael Kuxenko (CDU) pointed out that in the CDU/CSU fraction did not discuss overhead lines for dc

⁴⁹ See also chapter 4.2 “Governance form: community”.

⁵⁰ See annex 9 “Transliteration expert interviews“: Johann Saathoff (SPD), p. 3, Line 60f., Ralph Lenkert (Left), p. 1, Line 10.

⁵¹ See chapter 6.3.1 “Parliamentary Procedure“.

⁵² See annex 9 “Transliteration expert interviews“: Johann Saathoff (SPD), p. 1, Line 39.

⁵³ See annex 9 “Transliteration expert interviews“: Dr. Werner Neumann (BUND e.V.), p. 1, Line 10f.

⁵⁴ See annex 9 “Transliteration expert interviews“: Michael Kuxenko (CDU), p. 6, Line 258f.

current projects any more after the political agreement was published.⁵⁵ Moreover, based on Oliver Krischer (Greens), Horst Seehofer (CSU) used the highest level of escalation, exclusively addressing Angela Merkel (CDU) and Sigmar Gabriel (SPD) in order to achieve his individual objective.⁵⁶ Here, and in conclusion, the governance form social network is applicable to describe the coordination and decision making process on the highest level. Horst Seehofer (CSU) particularly used his informal connection to the other chairpersons that were represented in the government fraction.

6.4 Arena of approval procedures

In the following paragraph, the governance of the approval procedures is introduced as follows. First, the legal background of the approval procedures is explained. Thereafter, the Federal Grid Plan of Suedlink and is explained considering the current application process. At last, the governance approach is applied.

6.4.1 Legal framework

Federal grid expansion projects in Germany must be examined by the BNetzA in order to receive an approval. The BNetzA conducts the formal procedures – Federal Grid Plan (*Bundesfachplanung*) and the Plan Approval Procedure (*Planfeststellungsverfahren*) – for cross-border grid expansion projects.⁵⁷ The Federal Grid Plan and the Plan Approval Procedure refer to the formal rules of the Administrative Procedure Act (*Verwaltungsverfahrensgesetz*, VwVfG), legal planning and other legal sources, i.e. *Energiewirtschaftsgesetz* (EnWG), and environmental law (Hirschfeld and Heidrich, 2013, p. 98). The BNetzA is not obliged to implement the political will of the incumbents, thus formulating its decisions based on the regulation of the administrative procedure (BVerwGE 134, 308: 311)⁵⁸. In the following paragraphs, the procedures of the Federal Grid Plan and the Plan Approval Procedure are explained concisely. Afterwards the procedures are analyzed based on the information from the expert interviews and document analysis.

⁵⁵ See annex 9 “Transliteration expert interviews”: Michael Kuxenko, p. 5, Line 227.

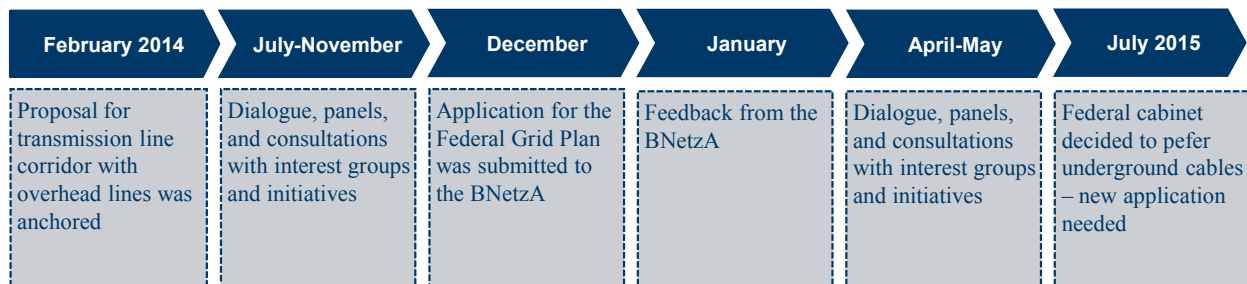
⁵⁶ See annex 9 “Transliteration expert interviews“: Oliver Krischer (Greens), p. 1. Line 11f.

⁵⁷ However, given time and capacity, this paper cannot analyze technical and construction aspects and regulations in the formal procedures.

⁵⁸ Decision of the Federal Administrative Court (*Entscheidung des Bundesverwaltungsgericht*, BVerwGE).

6.4.2 Federal Grid Plan

When grid expansion projects are constructed through different states in Germany, the Federal Grid Plan substitutes a single state's procedures for regional planning (§ 2 I NABeG). The BNetzA approves and defines the transmission line corridor within six months after the application from the project developer was submitted (§ 12 I NABeG). The transmission line corridor must comply with environmental standards (§12 II NABeG) and German environmental law (Kment, 2015, p. 52). For the analysis of the Federal Grid Plan for Suedlink, one must distinguish two applications of the project developers. The first describes the project history of Suedlink from 2013 to July 2015, in which overhead lines were preferred. After July 2015, when the Bundeskabinett (federal cabinet) had decided to use underground cables instead of overhead lines, the second application was initialized. The following illustration gives an overview about the first phase from 2014 to 2015.



(Illustration 14: First application for Federal Grid Plan, own illustration based on TenneT TSO GmbH, 2016)⁵⁹

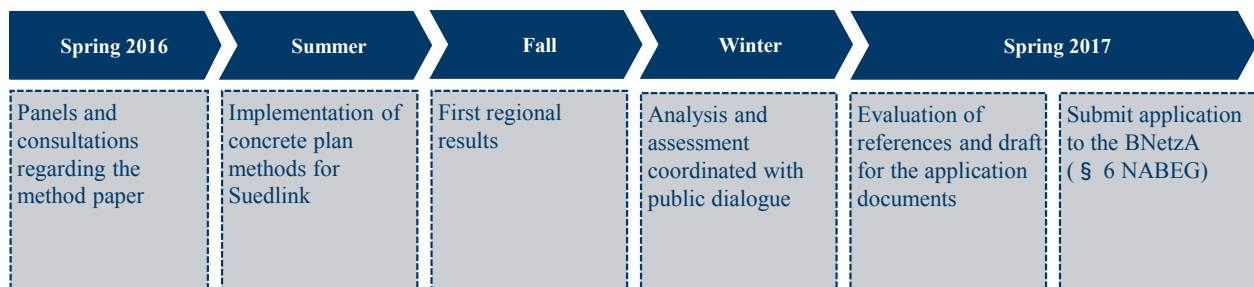
In the Federal Requirement Plan, introduced in 2013, Suedlink was anchored as a grid expansion project that is constructed with overhead lines. As can be seen in the illustration, TenneT TSO GmbH and Transnet BW published a proposal in 2014, including the transmission line corridor. In this transmission line corridor, the dc current transmission line was defined from a starting point in the north to the south. The two transmission lines were planned from Wilster to Grafenrheinfeld and Brunsbüttel to Großgartach and were designed as overhead lines. After the proposal, the project developers started a program to communicate the transmission line corridor with the municipalities and citizens living in the corridor. In order to create local acceptance, over 300 events and 3000 written questionnaires were reported on the project developer's homepage, including panels and conversations with citizen initiatives and interest groups (TenneT TSO GmbH, 2016). Finally, they

⁵⁹ The information was collected during the meeting "Suedlink – nächste Schritte" planned by TenneT TSO GmbH and Transnet BW in the German Bundestag in June 2016.

submitted the first application for the Federal Grid Plan on December 12, 2014. However, the Federal Government was already working on a new regulation for underground cables.⁶⁰

6.4.3 Current application process

At the time where this paper was written, the project developer TenneT TSO GmbH was working on a new application for the Federal Grid Plan. The new application must include the primary use of underground cables for grid expansion projects. It includes the legal aspects of the parliament decision from December 3, 2016 and focuses on the newly introduced ‘Gesetz zur Änderungen von Bestimmungen des Rechts des Energieleitungsbaus⁶¹’. The following illustration provides an overview about the next application for the Federal Grid Plan.



(Illustration 15: Second application for Federal Grid Plan, own illustration based on TenneT TSO GmbH, 2016)⁶²

In the beginning of 2016, the project developers conducted panels, consulted citizen initiatives, and coordinated their planning methods with the BNetzA. The author of this paper participated in the ‘Methodenkonferenz Bonn’, where the methods of the BNetzA were discussed, contacting and gathering citizen initiatives and insight information, respectively.⁶³ Thereafter, the concrete plan methods were implemented by the BNetzA and possible transmission line corridors were evaluated. At the time where this paper was written, the process was still ongoing.

In fall, first regional results about the transmission line corridor will be published.⁶⁴ Following this, the transmission line corridor will be discussed in a public dialogue in order to assess and evaluate the transmission line corridor and the construction of Suedlink. Thereafter, the results from the

⁶⁰ See chapter 6.3.4 “Governance approach in the national arena”

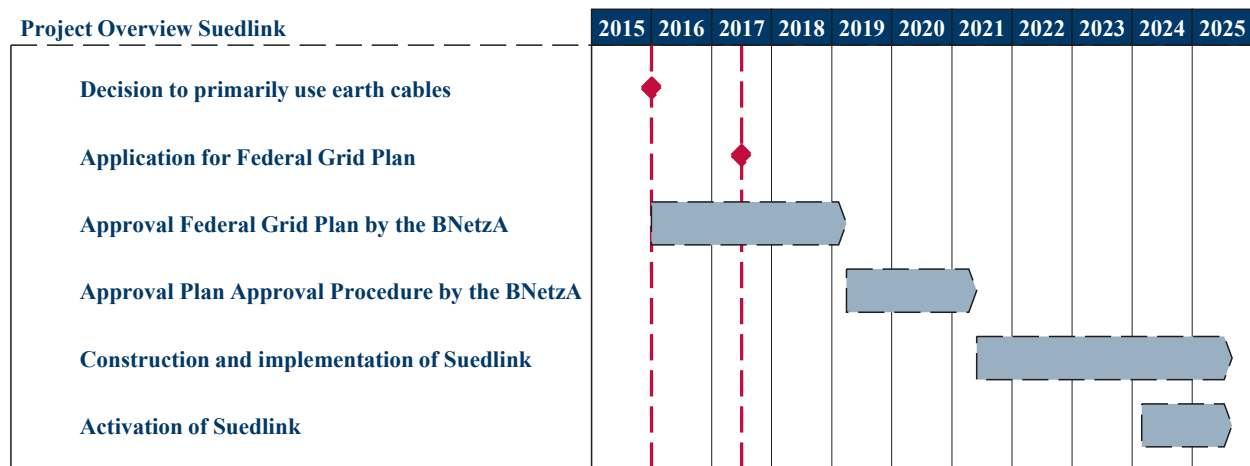
⁶¹ See chapter 6.3.1 “Parliamentary procedure”.

⁶² The information was collected during the meeting “Suedlink – nächste Schritte” planned by TenneT TSO GmbH and Transnet BW in the German Bundestag in June 2016.

⁶³ See also chapter 5.5.4 “Contact with citizen initiatives”.

⁶⁴ See also chapter 6.4.3 “Current application process”

dialogue and evaluation will be formulated in a draft for the application documents. In spring 2017, the application for the Federal Grid Plan will be submitted to the BNetzA. As proposed by the project developers, the Federal Grid Plan will be finalized in late 2018 and followed by the Plan Approval Procedure in 2019. The following illustration gives an overview about the timeline of the project.



(Illustration 16: Project overview, own illustration based on TenneT TSO GmbH, 2016)⁶⁵

6.4.4 Plan Approval Procedure

After the Federal Grid Plan, the Plan Approval Procedure technically starts (§ 15 Abs. 1 NABeG). The current plans of the projects developers show that the Plan Approval Procedure of Suedlink initiates in the first quarter of 2019 and finishes in 2021. Afterwards, the construction works and the grid implementation of Suedlink starts, finalizing approximately in 2025.⁶⁶ The Plan Approval Procedure determines the exact transmission line corridor. It also qualifies grid expansion projects, issuing the same legal status as for other infrastructure projects, i.e. railways, highways and bridges.

6.4.5 Governance approach in the arena of approval procedures

As mentioned before, both Federal Grid Plan and Plan Approval Procedure follow strict patterns of administrative rules. The decision making of both procedures is characterized by a clear definition of how to scrutinize legal and environmental aspects in grid expansion projects. Following Benz and Dose (2010), one can identify a strict hierarchical process that starts with the

⁶⁵ The information was collected during the meeting “Suedlink – nächste Schritte” planned by TenneT TSO GmbH and Transnet BW in the German Bundestag in June 2016.

⁶⁶ The information was collected during the meeting “Suedlink – nächste Schritte” planned by TenneT TSO GmbH and Transnet BW in the German Bundestag in June 2016.

definition of the transmission corridor line and finalizes in a concrete transmission line. The government form ‘hierarchy’ is applicable here. Hierarchy offers disadvantages and advantages for actors (Benz and Dose, 2010). The disadvantages include inflexibility and the fact that it is impossible to leave the procedure. This is the case in both approval procedures given that every grid expansion project must be scrutinized in these procedures. Moreover – following Benz and Dose (2010) – the outcome of a hierarchical governance form is very predictable: a grid expansion project can either be approved or rejected. This aspect can be considered as an advantage of hierarchy because project developers invest resources in their projects and need clear outcomes.

However, citizens can participate in formal procedures, criticizing or suggesting their own involvement due to the planned transmission line corridor. Furthermore, citizen initiatives, lobbies, or other interest groups can accumulate their resources and communicate their interests. In doing so, they often imitate other actors or gather resources in order to create a greater audience, opposing or supporting the Suedlink. For instance, in both application phases for the Federal Grid Plan, citizen initiatives participated in public panels, consultations and dialogues. Considering the conducted expert interviews, also lobby groups and other third parties coordinate their actions and share information to achieve common objectives in the formal procedures. As can be seen in the case of the *Hamelner Erklärung* and the Bund für Umwelt und Naturschutz Deutschland (BUND e.V), more than 70 district administrators (Landräte) coordinated their actions with lobbyists from BUND e.V. in order to create a better negotiation position in the formal procedures.⁶⁷ This was also analyzed in the expert interviews given that two experts described how citizen initiatives share information about a planning process.⁶⁸ Taking into account, that citizen initiatives not only share information among themselves but rather gather resources when they have common objectives, one can also identify the governance mechanism ‘communities’. For instance, the Bundesverband gegen Südlink e.V. is a lobby group that gathers citizen initiatives opposing Suedlink. They not only share their information pragmatically on an informal basis, but also gather resources.⁶⁹

⁶⁷ See annex 9 “Transliteration expert interviews”: Dr. Werner Neumann (BUND e.V.), p. 2, Line 73f.

⁶⁸ See annex 9 “Transliteration Expert interviews“: Birgit Kömpel (SPD), p. 3, Line 91-96 ; Johann Saathoff (SPD), p. 1, Line 18.

⁶⁹ See annex 9 “Expert interviews”: Birgit Kömpel (SPD), p. 3, Line 91-96.

In sum, the arena of plan approval procedures combines the governance forms ‘hierarchy’ and ‘communities’. Both governance forms are interdependent, however the final decision is made in an agency – a hierarchical corporate actor. As introduced in the chapter governance regime, an example for arenas is the bureaucracy that cooperates with actors as even partners. Citizen initiatives and other interest groups can submit assessments and opinions in the process, however, without having a legally binding character. The approval agency only informs and consults third parties without incorporating them in the formal procedures of decision-making (Fraenkel-Haeberle, 2014, p. 6). Although the Plan Approval Procedure determines the transmission line, it is possible to file a suit against its output. This can also possibly extend the process of constructing Suedlink. As long a suit is filed, the construction cannot proceed. Given this circumstances, one aspect of participation is to avoid people filling suits against the project developer or the BNetzA. All interview partners mentioned the problems of suing against the Plan Approval Procedure, advocating for earth cables and mentioning that only a few citizens would consider filing suits against this measure.⁷⁰

6.5 Regional Arena

As was explained in the theoretical chapters of this paper, the local acceptance plays a significant role for the success of grid expansion projects in Germany.⁷¹ However, recent studies from Norway, United Kingdom, and Sweden have shown that citizens perceive grid expansion projects as highly dominated by experts and decision-makers on a national level, without including local inhabitants or initiatives (Aas et al. 2014). While the aforementioned national arena is somewhat centralized on the federal level, the regional arena is closely connected to the approval procedures and addresses governance on a decentralized (local) level. Therefore, the regional arena and the arena of approval procedures are somewhat connected when analyzing participation. In other words, in the regional arena, project developers interact with citizen initiatives, affected people, and environmental activists within the approval procedures. These interactions via public panels, speeches, and roundtables cause positions and opinions by the citizens that are integrated in the approval procedures (Hirschfeld and Heidrich, 2013, p. 97). In contrast to the national (centralized) arena, the regional (decentralized) arena is the place where social acceptance is created on a local

⁷⁰ See annex 9 “Expert interviews”: Johann, Saathoff, MdB (SPD), p. 2, Line 75.

⁷¹ See chapter 2.2 “Social acceptance”:

level. As was described in previous chapters, the energy turnaround is characterized by central and decentral aspects and many authors have contributed to the question whether the local acceptance is of mandatory importance for the success of the German energy turnaround. Based on the expert interviews and document analysis, the author of this paper applies Münnich's (2014) theory for analyzing the participation in the approval procedures.⁷²

6.6 Participation approach in the regional arena

Form the point when a grid expansion projects is anchored in the Federal Requirement plan, citizens can claim their personal concern. Citizens can either directly address local governments or agencies. However, they are more successful when launching a collective citizen initiative (Hirschfeld and Heidrich, 2013, p. 98). During the approval procedures, individuals and citizen initiatives can make arguments, propose ideas in public hearings, and submit written amendments and comments to the project (Hirschfeld and Heidrich, 2013, p.98).⁷³ Michael Kuxenko (CDU) emphasized that even before the first application for the Federal Grid Plan was submitted, the project developers had conducted different panels with citizens.⁷⁴ Likewise, the project developers announced in 2013, that they would integrate citizens in the dialogues of the grid expansion from the beginning of the approval procedures and share information transparently (Netzentwicklungsplan, 2013). In contrast, Birgit Kömpel (SPD) concluded that the information policy of TenneT was undermining an early participation of citizens in the planning process.⁷⁵ She argued that, during the first application process reaching from 2013 to 2015, TenneT did not address the citizen's demands for participation efficiently.⁷⁶ In addition, Birgit Kömpel (SPD) stated that the lack of participation in the dialogue phases from July and November 2014 and April to May 2015 were very inconsistent and pretended to 'integrate' citizens in the decision making process.⁷⁷ Moreover, experience from other approval procedures shows that affected citizens often times lack information whether their arguments and proposed ideas are integrated in the approval process. This causes high uncertainty among citizens (Hirschfeld and Heidrich, 2013, p. 98).

⁷² See also chapter 3.4 "Steps of Participation".

⁷³ See also chapter 3.3. "Participation in major planning projects".

⁷⁴ See annex 9 "Transliteration expert interviews": Michael Kuxenko (CDU), p. 1, Line 25, 39.

⁷⁵ See annex 9 "Transliteration expert interviews": Birgit Kömpel (SPD), p. 3, Line 112.

⁷⁶ See annex 9 "Transliteration expert interviews": Birgit Kömpel (SPD), p. 3, Line 141-143.

⁷⁷ See annex 9 "Transliteration expert interviews": Birgit Kömpel (SPD), p. 3, Line 141-143.

In conclusion, the miscommunication of TenneT led to dissatisfaction among citizens during the implementation phase after the first application. Oliver Krischer (Grüne), however, concluded in the expert interview that the project developers conducted several consultations and panels with citizen initiatives before the legislative procedure began.⁷⁸ While the quantity of the panels is unquestioned, it is questionable whether the quality (of participation) addresses the needs of the citizen initiatives in the formal procedure. For instance, Dr. Werner Neumann, advisor of the BUND e.V. criticizes the dialogue platforms of the project developers to their low quality of participation.⁷⁹ He argues that only informing and consulting people does not lead to real participation of citizens within the formal procedures. Moreover, citizens can propose doubts and comments without having a real stake in the decision making process of Suedlink.⁸⁰ Although many actors and citizens demand more participation in the beginning of a planning process, the scope for action is relatively low because of the complexity of the transmission grid and approval procedures (Ahmels, 2014, p. 66). Moreover, Ahmels (2014) scrutinizes that citizens often criticize general aspects of the German energy turnaround rather than addressing a specific infrastructure or grid project (Ahmels, 2014, p. 66).

Following Münnich's (2014) steps of participation, the step "information" and "consultation" were applied in the approval procedures and the regional arena. Citizens only received information about Suedlink, rather than having a real influence in the approval procedures. The quality of participation found its climax in consultations, panels and round tables where the proposals of citizens were acknowledged but not directly implemented.

However, for the current application process of Suedlink, TenneT seemed to change their policy on participation. Thomas Wagner, TenneT's advisor for citizen participation, affirms that the participation of municipalities, agencies, and interest groups will become crucial after the application for the Federal Grid Plan is submitted in 2016/2017 (Hessische/Niedersächsische Allgemeine, 2016). Furthermore, he declared that citizens can participate in every step of the approval procedures and that every information about the prospected transmission line will be anchored transparently (ibid.). Moreover, saying that TenneT 'learned its lesson', Birgit Kömpel

⁷⁸ See annex 9 "Transliteration expert interviews": Oliver Krischer (Grüne), p. 1, Line 36.

⁷⁹ See annex 9 "Transliteration expert interviews": Dr. Werner Neumann (BUND e.V.), p. 3, Line 126-128.

⁸⁰ See annex 9 "Transliteration expert interviews": Dr. Werner Neumann (BUND e.V.) p. 3, Line 124-126.

(SPD) was convinced that the participation during the second application phase – Suedlink with priority of underground cables – is more qualified.⁸¹ However, at the time at this paper was written, crucial changes could not be identified by the author of this paper.

6.7 Conclusion: Governance and the decision making process of Suedlink

In the qualitative analysis of this paper, the governance of Suedlink was analyzed regarding the question how the decision for the priority of underground cables for Suedlink was made. Therefore, the author of this paper identified three governance arenas that had an impact on the abovementioned decision: the national arena where the draft bill concerning Suedlink was formulated and then discussed in the parliamentary procedure, the arena of approval procedures, and the regional arena. Furthermore, the quality of participation was analyzed in the regional arena that is closely connected with the governance of the arena of approval procedures.

In the national arena, the priority use of underground cables was a political decision that was influenced by Horst Seehofer (CSU) and Sigmar Gabriel (SPD). On the one hand, Horst Seehofer (CSU) as the Bavarian Prime Minister influenced the coordination process in the Federal Government given that his party, the CSU, was suffering under the strong opposition against Suedlink in Bavaria. Citizen initiatives not only lacked acceptance and were opposing the overhead lines of Suedlink in Bavaria, but rather district administrators, mayors, and local politicians. In particular, during the Bavarian municipal elections in 2014, the public statements of Horst Seehofer (CSU) and his party were very aggressive against the use of overhead lines.⁸² Concluding this, his role for the priority of underground cables was significant. Sigmar Gabriel (SPD), however, was neither promoting nor opposing the priority use of underground cables. Nevertheless, he was put under pressure from his own social democratic members of parliament, in particular from those members whose constituencies faced overhead lines. Based on the expert interviews, the German chancellor and chairperson of the Christian democrats Angela Merkel (CDU) was not against overhead lines but in the end she approved that the acceptance towards underground cables was considered higher. Concluding this, the advocacy of Horst Seehofer (CSU) and Sigmar Gabriel (SPD) was of significant importance for the priority use of underground cables in Germany. First,

⁸¹ See annex 9 “Transliteration expert interviews“: Birgit Kömpel (SPD), p. 4, Line 40f.

⁸² See annex 9 “Transliteration expert Interviews“: Michael Kuxenko (CDU), p. 7, Line 286.

the draft bill already included the mentioned priority and second, the political agreement that was decided on July 1, 2016 gave a direction for the parliamentary procedure, making sure that the priority was almost non-negotiable for the members of parliament.

In the parliamentary procedure, three bodies were working on the draft bill: the committee of economic affairs, the inter-fraction hearings, and the expert group “Energiesteuerungsgruppe”. While the committee was the least important body, the inter-fraction hearings were crucial for the members of parliament whose constituencies were affected by Suedlink. In these hearings, citizen initiatives, the BNetzA, the BMWi met occasionally. As was stated by Ralph Lenkert (Left), interest groups and citizen initiatives had a significant influence on the members of parliament.⁸³ In addition, Johann Saathoff (SPD) made clear that the citizen initiatives initialized and enhanced the parliamentary debate from early on.⁸⁴ However, the expert group was an informal and exclusive body that significantly set the agenda in committee and the parliamentary debates. Another part of the qualitative analysis in this paper addressed the question how the successful construction of new transmission lines depend on the quality of participation in the approval procedures (Hirschfeld/Heidrich, 2013, p. 94). In the approval procedures of Suedlink, one must distinguish between the first and the second (current) application process. The first gave priority for overhead transmission lines with exclusive use of underground cables and lasted from 2014 until 2015. The second application process of TenneT started in 2015 and the application for the Federal Grid Plan will be submitted in early 2017.

Although citizen initiatives were included in the approval procedures, the quality of participation was restricted. Based on the theory of Münnich (2014), citizens were only informed or consulted but were not able to significantly influence the planning process of Suedlink with their own opinions. Whereas Johann Saathoff (SPD) and Michael Kuxenko (CDU) pointed out that many initiatives were integrated in the public debates⁸⁵, it was apparent that they were able to claim their concern without having an influence on the planning from early on. For instance, Ralph Lenkert (Left) found fault with that citizen initiatives do not have the same access to the BMWi or the

⁸³ See annex 9 “Transliteration expert Interviews”: Ralf Lenkert (Left), p. 2, Line 75f.

⁸⁴ See annex 9 “Transliteration expert interviews”: Johann Saathoff (SPD), p. 5, Line 185-188

⁸⁵ See annex 9 “Transliteration expert interviews”: Michael Kuxenko (CDU), p. 1, Line 25; Johann Saathoff (SPD), p. 5, Line 185-188.

BNetzA compared to the economy.⁸⁶ This being said, the citizen initiatives were ‘involved’ without participating from early on. Moreover, Birgit Kömpel (SPD) pointed out that when TenneT published the first planned transmission lines through their constituency, she was not informed properly. Consequently, citizen initiatives formed against the construction plans in her constituency.⁸⁷ This is an example that early participation can increase the acceptance toward an infrastructure project, as was also shown in other studies (Cotton and Devine-Wright, 2011; Schnelle and Voigt, 2012). In conclusion, citizen initiatives were more successful when they addressed members of the German Bundestag who had their constituencies in the affected regions, rather than participating in the formal procedures.

7. Analysis Part II: Results from the online-survey

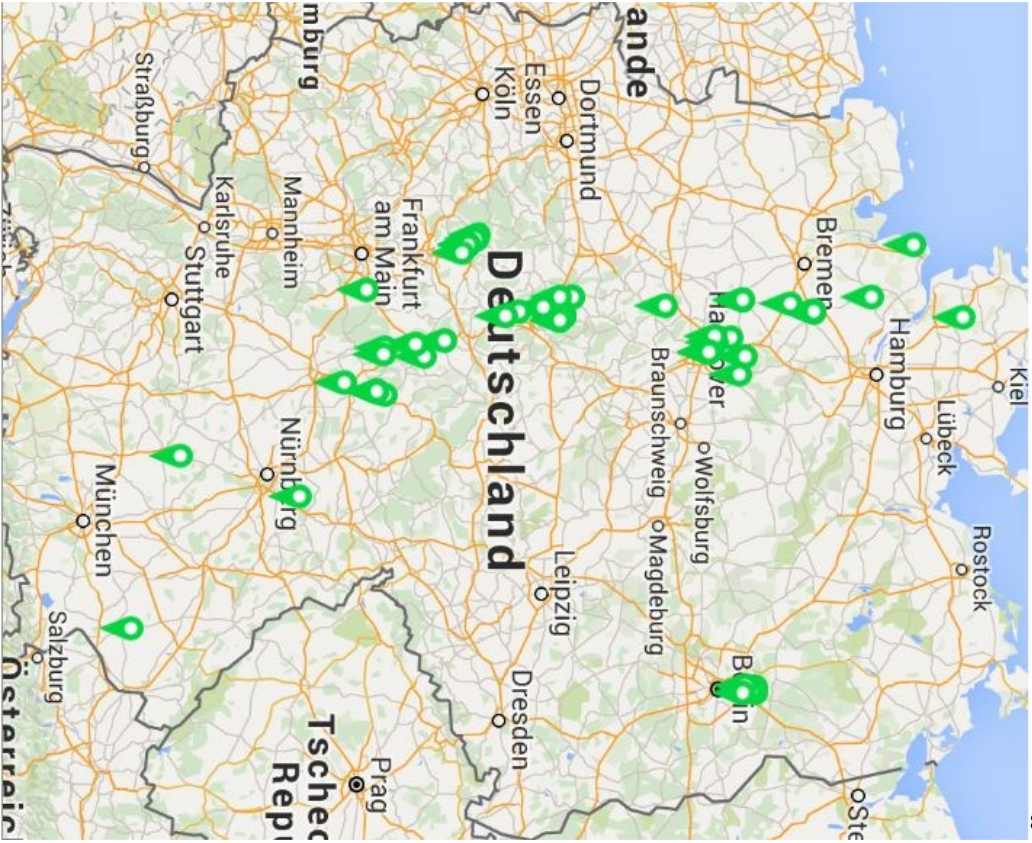
In this part of the paper, the results from the conducted online survey are presented. The central question of this paper is taken into consideration: to what extent do local and individual factors increase or decrease the social acceptance of Suedlink, particularly the priority for underground cables? The author of this paper elaborates on the acceptance criteria that are followed by specific questions concerning the acceptance towards Suedlink.

7.1 Survey response and information about the sample

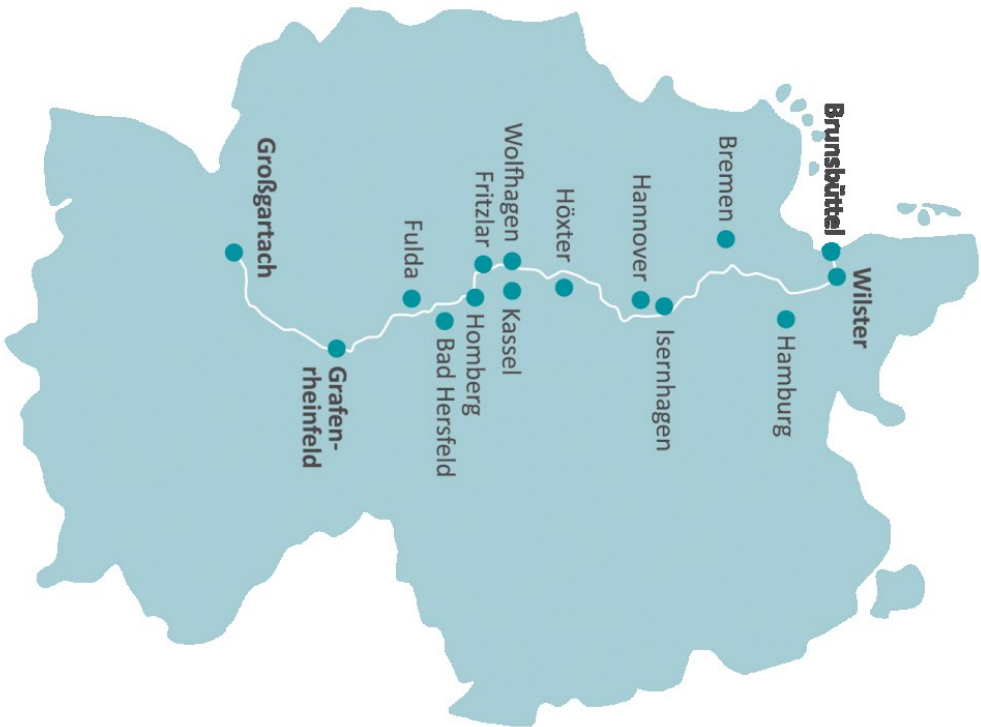
In sum, 49 citizen initiatives were contacted and asked to promote the survey among their members. In general, the curiosity and the will to respond was much higher among the citizen initiatives compared to other third parties. Unlike other third parties, these initiatives quickly responded and furthermore asked whether they can promote the survey on their webpage. In sum, the poll return was N=161. However, only n=76 surveys were fully completed. A relatively high number canceled the survey after some time. Apparently, the survey was not interesting for them or they clearly lacked of concentration or did not have the time. On the following Illustration 16 and 17, one can see the geographical coordinates from the demographic information of the respondents.

⁸⁶ See annex 9 “Transliteration expert interviews“: Ralph Lenkert (Left), p. 1, Line 15-17

⁸⁷ See annex 9 “Transliteration Expert interviews“: Birgit Kömpel (SPD), p. 3, Line 115f.



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It is obvious, that most respondents live in areas that lay in the planned transmission corridor line of Suedlink, particularly in Hessen and Lower Saxony. There is relatively high response from Berlin because some interest groups have their offices in the German capital.

Because citizen initiatives and district administrators, who live in the planned transmission line corridor of Suedlink, were primarily connected the sample is specialized and non-representative (Mayer, 2013, 59ff.). In general, a majority of 67.5 percent of the survey respondents were men (n=77, Missing 84, N=161). Moreover, 52.7 percent of all respondents hold an academic degree (n=74, Missing 87, N=161). Some 61.3 percent were professionals, self-employed or civil servants, 14.7 percent were apprentices, and 21.3 were already retired (all n=75, Missing 85, N=161).

7.2 Acceptance criteria by respondents

The following section draws attention to acceptance criteria towards aspects of energy supply.⁹⁰ As was introduced in the theoretical part of this paper⁹¹, research has shown that acceptance criteria give insight about how opinions towards projects are shaped. Thus, the following illustrations show the evaluation of the respondent, asking what criterion is most – and least – important when evaluating energy-related projects. Furthermore, the author seeks to provide (partial) answers to the question when and why people become concerned about proposed infrastructure projects.

⁸⁸ Illustration 17: Coordinates respondents, edited on glotter.com based on demographic information from the survey

⁸⁹ Illustration 18: Transmission corridor line of Suedlink, web content of power-cable.net, accessed June 24, 2016.

⁹⁰ See annex 8 “Online survey questionnaire“: p. 13f.

⁹¹ See chapter 2.4 “Acceptance criteria”.

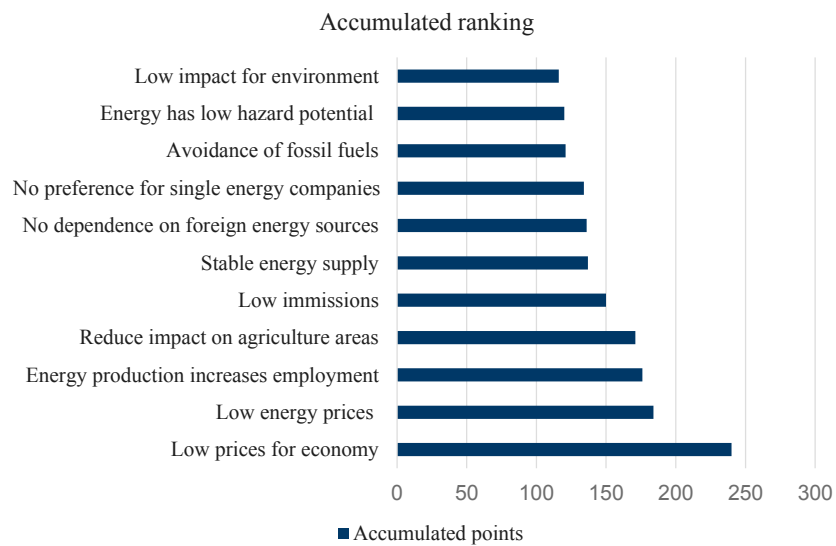
| Acceptance criteria | Strongly agree (+1) | Agree (+2) | Neither disagree nor agree (+3) | Disagree (+4) | Strongly disagree (+5) | Accumulated points <i>A</i> |
|---|---------------------|------------|---------------------------------|---------------|------------------------|-----------------------------|
| Low immissions | 37 | 20 | 8 | 6 | 5 | 150 (7) |
| Stable energy supply | 39 | 22 | 10 | 1 | 4 | 137 (6) |
| Low impact for environment | 56 | 9 | 5 | 3 | 3 | 116 (1) |
| Low energy prices | 19 | 27 | 14 | 11 | 5 | 184 (10) |
| Energy has low hazard potential | 48 | 18 | 7 | / | 3 | 120 (2) |
| Avoidance of fossil fuels | 50 | 17 | 3 | 2 | 4 | 121 (3) |
| No dependence on foreign energy sources | 37 | 23 | 9 | 4 | 2 | 136 (5) |
| No preference for single energy companies | 52 | 12 | 5 | 2 | 5 | 134 (4) |
| Energy production increases employment | 27 | 21 | 19 | 6 | 3 | 176 (9) |
| Reduce impact on agriculture areas | 29 | 18 | 11 | 12 | 3 | 171 (8) |
| Low prices for economy | 8 | 18 | 17 | 16 | 17 | 240 (11) |

(Illustration 19: Acceptance criteria, n=76; own illustration based on quantitative analysis)

Illustration 19 shows respondent's evaluation of acceptance criteria related to general thoughts about Suedlink during the period March 15 to July 31, 2016. The valid n=76 (N=161, Missing 85). The criteria are sorted based on their absolute frequency. For instance, the criteria "Low immissions" was evaluated 76 times. Some 37 respondents strongly agreed that low immissions, i.e. noise or pollution, are crucial for energy projects. 20 respondents "agreed", 8 respondents evaluated "neither nor", 6 "disagreed", and 5 respondents marked "strongly disagree".

On the left side of the illustration, the criteria are indicated. They describe either consequences or impacts of infrastructure projects, including grid expansion or energy supply. They are connoted positively. Whereas the criteria "Avoidance of fossil fuel" has a positive connotation for the environment, other criteria such as "low prices for economy" or "Energy production increases employment" focus on economy. The acceptance criteria were identified from various studies in

the field of environmental research and sorted by the author of this paper.⁹² On the top of Illustration 19, one can identify the options starting from “strongly agree” to “strongly disagree”. As can be seen, the options include evaluation numbers (+1,+2,+3,+4,+5).⁹³ The single n for the acceptance criteria can be found in the line under the options. These n are multiplied with the evaluation numbers from the acceptance criteria in order to create accumulated points (*A*) that provide information about the quality of criteria evaluation. The equation thus is: $A=1a+2b+3c+4d+5e$. The lower *A* is, the better respondents evaluated the criteria.



(Illustration 20: Accumulated ranking, n=76; own illustration based on the online survey)

Acceptance criteria that are believed to be most relevant for the respondents are somewhat mixed between the protection of the environment (“Low impact for environment”, “Avoidance of fossil fuels”) and skepticism towards the potential danger of grid expansion (“Energy has low hazard potential”). The high public support for renewable energies in Germany (Zoellner et al., 2008, p. 4140; Agentur für Erneuerbare Energien, 2015, Schubert et al., 2015) was probably a cause for the high evaluation of the acceptance criteria “Low impact for the environment” and “Avoidance of fossil fuels” given that these criteria address the protection of the environment. As was also shown by other authors, these criteria are considered crucial for the German society (Schubert et al., 2015, p. 59). The criterion “Energy has low hazard potential” was rated very high with n=48 respondents saying that they strongly agree with the criterion. This criterion particularly addresses the construction form underground cables or overhead lines, respectively. Here, the skepticism towards

⁹² See chapter 2.4 “Acceptance criteria”.

⁹³ The addition from left (+1) to right (+5) was adjusted to comply with the results composed by the statistical software SPSS.

overhead lines – that are somewhat perceived as dangerous – among the respondents could have affected the opinions of the respondents.

The fact that many (52) of the respondents strongly agree with the criterion “No preference for single energy companies” can be related to the respondent’s background. Because some respondents are organized in citizen initiatives and/or live in an area where the previous transmission line corridor was planned, one can suppose that these respondents are on average more skeptical towards energy companies or project developers such as TenneT or Transnet BW. Moreover, some respondents perceived these companies as capitalistic and profit-orientated that should pay for the grid expansion instead of end-consumers.

In the view of some authors, people evaluate the stable energy supply higher than pricing (Schubert et al., 2015, p. 60). Also in this conducted survey, respondents evaluation the criterion “Stable energy supply” (accumulated points: 137) higher than low energy prices (184). In conclusion, the findings of Schubert et al. (2015) can be somewhat approved from the descriptive analysis of the acceptance criteria. As can be seen in Illustration 20, the assessment of criteria that address environmental aspects are ranked high, showing the respondents concern for environmental issues. It is worthwhile to note that the low rated criteria somewhat address economic aspects of consumers i.e. “Energy production increases employment”, “Low energy prices”, and companies, i.e. “Reduce impact on agriculture areas”, “Low prices for economy”. Whereas employment and low energy prices are beneficiary for most consumers, agriculture and low prices are important for the economy, in particular in local areas. Here, one can derive a strong possibility that the respondents do not consider economic aspects relevant for the grid expansion. This is somewhat contrary to the findings of Menges and Beyer (2013) that explain the positive correlation between local value chains and acceptance towards grid expansion projects. In other words, if local value chains are connected with the energy industry, people are more likely to accept grid expansion projects given that their region benefits from the energy turnaround (Menges and Beyer, 2013, p. 294). A good example is be the construction of windmills in the German state Schleswig-Holstein, where many local value chains are connected with wind energy. Concluding the findings of the conducted survey, there is only little support for the argument that local value chains play an important role when evaluating grid expansion projects.

7.3 Social acceptance towards Suedlink

In this paragraph, the general acceptance towards Suedlink by the respondents is illustrated.⁹⁴ Both illustrations provide an overview about how respondents frame their opinions towards Suedlink. In sum, valid n=117 while 44 answers were missing (N=161). First, respondents were asked if they generally support the construction of Suedlink. Here (Illustration 21), respondents had to choose between three options “I refuse the construction of Suedlink”, “I agree on the construction of Suedlink”, or “Undecided”. For the second question (Illustration 22), which aimed at the respondents change of mind towards Suedlink, they had to mark either “No change of mind”, “Yes, previously I was against it but now I am for it”, or “Yes, previously I was for it but now I am against it.” The second question was aiming at the respondent’s change of mind towards Suedlink. This question was designed to address altering positions and attitudes of the respondents. As can be seen in Illustration 20, the frequency is somewhat balanced between the respondents, having 52 respondents (44.4 percent) against the construction of Suedlink and 54 respondents (46.2 percent) for it, while 11 respondents (9.4 percent) were indecisive. Considering the results from the second question illustrated in Illustration 22, one can notice that 104 respondents (94 percent) had no change of mind towards Suedlink recently. Here, one has to consider, that the respondents read the introduction of the online-survey where the decision of both government and parliament for the priority of underground cable was described.⁹⁵

| Opinion towards the grid expansion project Suedlink | Absolute frequency | Relative frequency (%) | Recent change of mind towards the construction of Suedlink | Absolute frequency | Relative frequency (%) |
|---|--------------------|------------------------|--|--------------------|------------------------|
| I refuse the construction of Suedlink | 52 | 44.4 | No change of mind | 107 | 94 |
| I agree on the construction of Suedlink | 54 | 46.2 | Yes, previously I was against it but now I am for it | 5 | 4,3 |
| Undecided | 11 | 9.4 | Yes, previously I was for it but now I am against it | 2 | 1.7 |
| Valid n | 117 | 100 | Valid n | 114 | 100 |
| Missing | 44 | / | Missing | 47 | / |
| N | 161 | / | N | 161 | / |

(Illustration 21: Opinion 1, n=117, own illustration) (Illustration 22: Opinion 2, n=117, own illustration)

⁹⁴ See annex 8 “Online survey questionnaire”: p. 1, Question 1+2.

⁹⁵ See annex 8 “Online survey questionnaire”: p. 1.

Because the questions concerning the general acceptance were the first two questions in the survey, one can expect reliable responses. In addition, one can hold the argument that respondents read these questions carefully, having a higher concentration compared to questions that are positioned at the end of the questionnaire. In sum, it is likely that the priority for underground cables did not really affect the respondent's opinions towards Suedlink. However, only little explanatory value derives from this assumption. A more advanced research design would have included two surveys that would have been conducted before and after the bill passed. However, given time and capacity two several surveys with comparable measures and the same research design were not possible.

7.4 Opinions towards underground cables

In the next illustration, specific information about the priority of underground cables are provided.⁹⁶ In sum, n=96 (N=161, Missing 65) respondents evaluated underground cables for Suedlink related to citizen participation. The question implied a causal linkage of underground cables and participation. Besides Oliver Krischer (Greens), all interviewed experts pointed out that the decision for the priority of underground cables of Suedlink was a product of citizen participation in both the parliamentary and approval process. Moreover, in the view of many scholars, i.e. Rau and Zoellner and Schweizer-Ries (2011), Zoellner et al. (2008), and Münnich (2014) local participation is crucial for the acceptance of grid expansion projects. Therefore, one can assume that the acceptance towards underground cables could be somewhat linked to the quality of participation.⁹⁷ The following illustrations provide an overview about the results.

⁹⁶ See annex 8 "Online survey questionnaire": p. 5, Question 2.

⁹⁷ See chapter 3.4 "Steps of Participation".

| Underground cables (+). Because their priority is a product of successful citizen participation | Absolute frequency | Relative frequency (%) | Underground cables (-). Because the conditions of the citizen are left behind | Absolute frequency | Relative frequency (%) |
|--|-----------------------|------------------------------|--|-----------------------|------------------------------|
| Yes | 33 | 34.4 | Yes | 24 | 25.8 |
| Indecisive | 42 | 43.8 | Indecisive | 43 | 46.2 |
| No | 21 | 21.9 | No | 26 | 28.0 |
| Valid n | 96 | 100 | Valid n | 96 | 100 |
| Missing | 65 | / | Missing | 65 | / |
| N | 161 | / | N | 161 | / |

(Illustration 23: Opinion 3 n=96, own illustration)

(Illustration 24: Opinion 4, n=96, own illustration)

As can be seen in Illustration 23, 33 respondents (34.4 percent) supported the priority of underground cables for Suedlink. Some 21 respondents (21.9) opposed Suedlink and 42 respondents (43.8) were indecisive. It is worthwhile to mention that 43 respondents were also indecisive when asked whether they oppose Suedlink (Illustration 24). Here, one can identify a little possibility that people did not consider participation as a very important factor for their evaluation. Given the high number of indecisive respondents, it is possible that respondents did not consider participation as an important factor for their evaluation. In other words, participation was not a factor people that made people deciding for or against underground cables. Moreover, high support for underground cables (60 percent of valid n) that was researched in the sample of Menges and Beyer (2013 cannot be identified in the sample of this paper.

7.5 Respondent's evaluation of participation

The next tab provides information about the respondent's opinion towards the participation process of the project developer TenneT and TransnetBW. Moreover, questions regarding the transparency and access of information are answered.

| Evaluation criteria | Yes | Indecisive | No |
|--|------------------|------------------|----------------|
| Satisfaction towards participation | 9 (9.3) | 68 (70.1) | 20 (12.4) |
| Dissatisfaction towards participation | 60 (61.9) | 18 (18.6) | 19 (19.6) |
| Project developers care about people's concern | 18 (18.6) | 41 (42.3) | 38 (39.2) |
| Attendance in information panel | 58 (59.2) | 34 (34.7) | 6 (6.1) |
| Less sceptical if better involved | 23 (24) | 45 (46.9) | 28 (29.2) |
| Well informed about Suedlink | 50 (51.5) | 26 (26.8) | 21 (21.6) |
| Knowledge about the current corridor | 57 (59.4) | 24 (25) | 15 (15.6) |
| Access to transparent information about Suedlink | 21 (21.4) | 29 (29.6) | 48 (49) |

(Illustration 25, Evaluation criteria participation, n=97, own illustration)

The illustration shows evaluation criteria concerning different aspects of evaluation. In the left column, one can see the criteria and in the top line, respondents were asked to mark the item that reflects their opinion. In sum, 97 respondents evaluated the question, thus the valid n=97 and 65 were missing (N=161). The author of this paper emphasized the absolute frequency of the responds, highlighting them adding the relative frequencies in brackets. As can be seen in the tab, an overall 70.1 percent of people were indecisive whether they are satisfied with the participation process. In contrast, 61.9 percent were dissatisfied. Moreover, some 41.3 percent of respondents were indecisive whether the project developers cared about their opinions towards Suedlink formulated on different “platforms” of participation, i.e. round tables and panels.

Hence, there is some empirical evidence that the sample shows a dissatisfaction with the participation process. Although the author of this paper cannot make causal arguments, one has to refer to the qualitative analysis of this paper, saying that the participation process of Suedlink had only little quality. It may be likely, that people wanted to point out their aversion towards the participation process that only includes the steps “information” and “consultation” (Münnich 2014). On the other side, 59.2 percent attended an information panel at least once. It is also

worthwhile noting that 51.5 percent of respondents claim that they are “Well informed about Suedlink” and 59.4 percent of respondents say that they have knowledge about the current transmission line corridor. The following Illustration 26 crosses specific evaluation criteria that were mentioned in Illustration 25. In the first line n=60 respondents tagged “yes” and “Dissatisfaction towards participation”. As can be seen in the second column of illustration 26, 38.3 percent of these respondents were members in a citizen initiative (absolute frequency n=23). In the second line, 48.7 percent of respondents who were indecisive whether project developers care about their concern were also member in a citizen initiative. From the descriptive data, one could derive the argument that members in a citizen initiative were on average not significantly satisfied with the participation process of Suedlink.

| Evaluation criteria (evaluated) | Member in a citizen initiative | Indecisive | No member in a citizen initiative | unlabeled |
|---|--------------------------------|------------|-----------------------------------|-----------|
| Dissatisfaction towards participation (n=60, yes) | 23 (38.3) | 6 (10) | 15 (25) | 16 (26.6) |
| Project developers care about people’s concern (n=41, indecisive) | 20 (48.7) | 1 (0.2) | 5 (12.1) | 15 (36.5) |
| Well informed about Suedlink (n=50, yes) | 26 (52.0) | 6 (12) | 7 (14) | 11 (21.1) |
| Knowledge about the current corridor (n=57, yes) | 19 (33.3) | 7 (12.2) | 14 (24.5) | 17 (29.8) |

(Illustration 26, Evaluation criteria participation, n=variable, own illustration)

7.6 Concern and local acceptance towards Suedlink

In the following paragraph, the concern and the acceptance towards Suedlink are illustrated with the help of cross tables.⁹⁸ According to the frequencies of the crossed items, one can derive descriptive expressions about how many people in the sample supported Suedlink while being affected by it. In illustration 27, in the column on the left side, one can see the items regarding the opinions towards Suedlink in general. On the top line, one can see the items “Local concern”, “Indecisive”, and “No local concern” describing the whether people are affected by the planned transmission grid corridor. The respondents were able to mark “concern” if they know whether the transmission line corridor goes through their local area. In in contrast, respondents were able to mark “No local concern” or “Indecisive”, respectively.

⁹⁸ See annex 8 “Online survey questionnaire“: p.1 Question 1, p. 2 Question 1, 2, 4.

| Opinions towards the construction of Suedlink | Local concern | Indecisive | No local concern | Sum |
|---|------------------|------------|------------------|------------------|
| Refuse | 33 (31.1) | 9 | 6 | 48 |
| Support | 11 | 31 | 6 | 48 |
| Indecisive | 3 | 2 | 5 | 10 |
| Sum | 47 | 42 | 17 | 106 (100) |

(Illustration 27: Opinions towards the construction of Suedlink 1, n=106, own illustration)

As abovementioned, 33 respondents (31.1 percent, n=106) refused the construction of Suedlink. These respondents are locally affected by the transmission line corridor. Some 31 respondents (29.2 percent, n=106) supported Suedlink without knowing whether their municipality is located in the transmission line corridor. Although the absolute frequency of respondents who refuse Suedlink is somewhat balanced compared with people who support Suedlink, the relative frequency of respondents who refused Suedlink and have local concern is more compelling. Some 68.7 percent (n=48) of the people who refused Suedlink have local concern. Some 64.5 (n=48) percent of the people who support Suedlink were indecisive whether the transmission line corridor crosses their local area. Moreover, the habituation effect (Gewöhnungseffekt) is discussed, which describes an empirical phenomenon that people who already are affected by transmission grid projects are more willing to accept new ones (Menges and Beyer, 2013, p. 291).⁹⁹ The following Illustration 28 gives an overview about respondent's opinions towards Suedlink while taking overhead lines in their local area into account.

| Opinions towards the construction of Suedlink | Overhead lines in local area | No overhead lines in local area | No information about overhead lines | Sum |
|---|------------------------------|---------------------------------|-------------------------------------|------------------|
| Refuse | 38 (32.4) | 9 | 3 | 52 |
| Support | 31 (26.4) | 12 | 11 | 54 |
| Indecisive | 4 | 4 | 2 | 11 |
| Sum | 73 | 25 | 16 | 117 (100) |

(Illustration 28, Opinions towards the construction of Suedlink 2, n=117, own illustration)

⁹⁹ See annex 8 „Online survey questionnaire“: p.1 Question 1, p. 2 Question 4.

Here, the sample can only be described descriptively. Some 52 people refused Suedlink and 73 percent (n=38) of them had overhead lines in their local area. In contrast, 54 respondents supported Suedlink and 57.4 percent (n=31) of these had overhead lines in their local area. The overall strong support for grid expansion projects if people already have overhead lines in their local area – the habituation affect -, which was described in the study by Menges and Beyer (2013), cannot be confirmed descriptively based on the aforementioned data. The general assumption of Menges and Beyer (2013), saying that people are more willing to accept grid expansion projects if they already have overhead lines in their local are, can neither be falsified or verified.

| Opinions towards the construction of Suedlink | Underground cables in local area | No underground cables in local area | No information about underground cables | Sum |
|---|----------------------------------|-------------------------------------|---|-----------|
| Refuse | 12 | 34 (29.05) | 4 | 52 |
| Support | 9 | 18 | 26 | 54 |
| Indecisive | 1 | 3 | 6 | 11 |
| Sum | 22 | 55 | 36 | 117 (100) |

(Illustration 29, Opinions towards the construction of Suedlink 3, n=117, own illustration)

7.7 Information of economic aspects from the sample

In the following paragraphs, the author of this paper wants to present the respondent’s opinions towards economic aspects of the grid expansion project Suedlink. First, people were asked whether they are willing to pay more money for electricity if Suedlink is constructed with underground cables. Second, the respondents were asked whether they are owners of private residential buildings. This is crucial given that Schubert et al. (2015) and Menges and Beyer (2013) attested a higher aversion against grid expansion projects

7.7.1 Willingness to pay more for underground cables

According to some earlier studies, the general support of the transformation of the energy turnaround also leads to the people’s willingness to pay more for electricity (Schubert et al, 2015, p. 59). As was mentioned by all interviewed experts, the costs for underground cables are two to four times higher than compared to overhead lines. These costs are redistributed via grid charges or taxes. In this conducted survey, 46.5 percent (n=41, N=88) strongly agreed that underground

cables are likely to increase the grid charges.¹⁰⁰ Of these 41 respondents, more than 65.8 percent (n=27, N=41) opposed the construction of Suedlink.¹⁰¹ Supporting this, in the view of Menges and Beyer (2013) the acceptance for underground cables does not necessarily mean that people are willing to pay more for them. This so called ‘free rider problem’ is illustrated in the following cross table that show the frequency of respondents who evaluated the construction of Suedlink and answered the survey questions concerning the willingness to pay more for the priority of underground cables.¹⁰²

| Opinion towards the grid expansion project Suedlink | Raise grid charges | Increase tax | Against additional cost | Sum |
|---|--------------------|----------------|-------------------------|-----------------|
| I refuse the construction of Suedlink | 10 | 1 | 22 (29.3) | 33 |
| I agree on the construction of Suedlink | 17 (22.6) | 2 | 15 (20.0) | 34 |
| Undecided | 5 | 2 | 1 | 8 |
| Sum | 32 | 5 (6.7) | 38 | 75 (100) |

(Illustration 30, Opinions towards higher charges, n=75, own illustration)

As can be seen in illustration 30, almost 20 percent of the respondents show characteristic of free riders (n=75, Missing 86, N=161). On the one hand, they agree with the construction of Suedlink, but on the other hand, they are not willing to pay more for underground cables. The highest relative frequency – 29.3 percent – is reached by respondents who were against the construction of Suedlink, also opposing addition costs for underground cables (n=75, Missing 86, N=161). As to that, the author expected a higher relative frequency against any additional cost given that the motivation to pay higher grid charges for underground cables while refusing the construction of Suedlink is inconsistent. However, the data shows an overwhelming opposition towards any increase of tax, showing that only 6.7 percent tagged the item “increase tax” (n=75, Missing 86, N=161).

¹⁰⁰ See annex 11 “SPSS Data Output 2”.

¹⁰¹ See annex 11 “SPSS Data Output 2”.

¹⁰² See annex 8 “Online survey questionnaire”: p. 5 Question 2, p. 9 Question 1, p. 10 Question 1.

7.7.2 Owners of private residential building

Although the absolute frequency of respondents that answered both questions regarding the construction of Suedlink and whether they are owners of private residential buildings (*Eigenheim*) is quite small (n=50) the descriptive illustration is worthwhile noting.

| Opinions towards the construction of Suedlink | Owner of private residential building | No ownership | Sum |
|---|---------------------------------------|--------------|----------|
| Refuse | 28 (56.0) | 2 | 30 |
| Support | 15 | 4 | 19 |
| Indecisive | 1 | 0 | 1 |
| Sum | 44 | 6 | 50 (100) |

(Illustration 31, Opinions of owners of private residential buildings, n=50, own illustration)

Concluding this, one can estimate a slight possibility that owners of private residential houses oppose the construction of Suedlink (Kemfert and Horne, 2013, p. 6). In addition, Illustration 32 shows that the absolute frequency of respondents that answered both questions concerning the support for underground cables and the ownership of private residential buildings is relatively small (n=48).

| Support the priority for underground cables (+) | Owner of private residential building | No ownership | Sum |
|---|---------------------------------------|--------------|----------|
| Yes | 11 | 1 | 12 |
| Indecisive | 23 (47.9) | 3 | 26 |
| No | 8 | 2 | 10 |
| Sum | 42 | 6 | 48 (100) |

(Illustration 32, Support for underground cables among owners, n=48, own illustration)

After presenting descriptive illustrations about the opinions of respondents who live in private residential buildings, the author wants to emphasize on the relative frequency of respondents who are owners of private residential buildings and member in a citizen initiative. As can be seen in illustration 32, 44.8 percent of the owners of private houses are in a citizen initiative against Suedlink.

| Member in a citizen initiative | Owner of private residential building | No ownership | Sum |
|---|---------------------------------------|--------------|----------|
| Yes, it is against Suedlink | 22 (44.8) | 2 | 24 |
| Yes, it is for the priority of underground cables | 6 | 1 | 7 |
| No | 15 | 3 | 18 |
| Sum | 43 | 6 | 49 (100) |

(Illustration 33: Owners and members of citizen initiatives, n=49, own illustration)

8. Conclusion

Given that social acceptance towards grid expansion projects is only little researched, the author of this paper analyzed the case study Suedlink – the largest grid expansion project of the German energy turnaround – in order to provide information about a project, which is highly relevant and not examined by the scientific community. Moreover, the author aimed to point out that underground cables do not necessarily increase social acceptance, but rather are one aspect among other local or individual aspects. The primary research question thus was; to what extent do local and individual factors increase or decrease the social acceptance towards Suedlink, particularly the priority for underground cables? A second aim was to scrutinize the decision making process both on the federal and local level, which led to the prioritizing of underground cables. The former question was analyzed with the use of quantitative measures. The data was collected from an online-survey that was conducted by the author during March and July 2016. The latter question was scrutinized with the use of different methods, such as document analysis and expert interviews.

In the qualitative analysis of this paper, the author of this paper identified three governance arenas that had an impact on the abovementioned decision: first, the national arena where the draft bill concerning Suedlink was formulated and then discussed in the parliamentary procedure. Second, the arena of approval procedures where the transmission line corridor and the construction form of Suedlink was formally examined. Third, the regional arena that is closely connected with the approval procedures and in which citizen initiatives get involved in the planning process. Furthermore, based on the theoretical implications by Münnich (2014), the quality of participation was analyzed in the regional arena.

In the national arena, the priority use of underground cables was a political decision that was significantly influenced by Horst Seehofer (CSU) and Sigmar Gabriel (SPD). On the one hand, Horst Seehofer (CSU) as the Bavarian Prime Minister influenced the coordination process in the Federal Government given that his party was suffering under the strong opposition against Suedlink in Bavaria. On the other hand, Sigmar Gabriel (SPD) was put under pressure from his own social democratic members of parliament, in particular from those members whose constituencies faced overhead lines. Based on the expert interviews, the German chancellor and chairperson of the Christian democrats Angela Merkel (CDU) was not against overhead lines but in the end she approved that the acceptance towards underground cables was considered higher. Moreover, the chairpersons of the political parties represented in the Federal Government formulated a political agreement on July 1, 2016 that was perceived as a political directive among parliamentarians in order to influence the parliamentary procedure. The main actor in the parliamentary procedure was the so-called *Energiesteuerungsgruppe*, which was closely connected to the chairpersons and set the agenda in the committee for economic affairs and energy.

Another part of the qualitative analysis in this paper addressed the question how the successful construction of new transmission lines depend on the quality of participation in the approval procedures. Although citizen initiatives were included in the approval procedures, the quality of participation during the panels and consultations with the projects developers was relatively low. Based on the theory of Münnich (2014), citizens were only informed or consulted but were not able to significantly influence the planning process of Suedlink with their own opinions. In conclusion, citizen initiatives were more successful when they addressed members of the German Bundestag who had their constituencies in the affected regions, rather than participating in the formal procedures.

In the quantitative section of this paper the results from the conducted survey were analyzed and presented in different chapters. The online survey included several questions that could not – given time and capacity – be analyzed in this paper. However, the author tried to summarize the most compelling arguments considering the central question of this paper. In the first analytical section, acceptance criteria concerning energy supply were evaluated by the survey respondents. This analysis showed some evidence that respondents evaluate environmental criteria (“Low impact for environment”, “Energy has low hazard potential”, and “Avoidance of fossil fuels”) higher than

questions concerning the local value chain and economic aspects (“Low energy prices”, “Low prices for economy”, and “Energy production increases employment”).¹⁰³ Concluding this, the overall high support for environmental policies in the German society can also be identified in this sample. However, unlike Menges and Beyer (2013), the local value chains did not play an important role when respondents analyzed energy supply and grid expansion. Moreover, respondents were very sceptical towards project developers and energy companies when evaluating the criterion “No preference for single energy companies”. Another section of this paper showed that the sample is somewhat balanced considering protest and support for Suedlink. Some 44.4 percent opposed Suedlink and 46.2 percent supported it. In addition to that, some 94 percent had no change of mind in the previous time. There is little empirical evidence that the priority use of underground cables had no impact on the peoples acceptance towards Suedlink. This argument is supported from the data that was presented in the third analytical section. Some 43.8 percent of the respondents were indecisive whether they support underground cables. Likewise, some 46.2 were indecisive whether they oppose or support underground cables. Both questions are linked with the impact of citizen participation on the evaluation process towards underground cables. The results somewhat show that participation had no influence on the question of whether respondents were for or against the priority of underground cables. This is slightly supported by Illustration 24, saying that 70.1 percent of respondents were indecisive and 61.9 percent were dissatisfied with citizen participation. Moreover, 56.0 percent of owners of private residential buildings were refusing the construction of Suedlink. Some 47.9 percent if house owners were indecisive whether they agree on the priority use of underground cables for Suedlink.

Concluding the aforementioned aspects, many local and individual aspects and criteria are relevant when analyzing grid expansion projects. It seems that the single use of underground cables cannot increase the acceptance significantly. This is somewhat compliant with the argument by Menges and Beyer (2013), saying that a general increase of acceptance towards a grid expansion project cannot be claimed from the use of underground cables (Menges and Beyer, p. 2013, p. 294). Moreover, they concluded that respondents who advocated for cost-intensive underground cables are not necessarily willing to pay higher grid charges. This is also slightly supported by the results of this paper. Some 29.3 percent of respondents oppose Suedlink and are against any increase of

¹⁰³ See Illustration 19, p. 56.

grid charges. In addition, some 20.0 percent were free riders, supporting Suedlink while disagreeing to pay higher grid charges for its construction.¹⁰⁴

It should be noted that this study was focusing on the decision making process of Suedlink including the priority for underground cables, and the social acceptance towards this project. However, the findings of this study are restricted to a fairly small amount of expert interviews that were necessary for the qualitative analysis. The limitations show that more expert interviews are more compelling and provide a more detailed variety of arguments concerning the decision for the priority of underground cables. In addition, the author of this paper wishes to point out that the quantitative part was restricted on descriptive cross tables, widely excluding regression analysis and more advanced statistical methods. The results of this study cannot be taken as evidence for claiming that underground cables always increase the acceptance for grid expansion projects. However, in contrast, this study has only addressed partial aspects that can have an influence on the acceptance towards grid expansion projects without providing a causal explanation. In addition, the limitations of this study are clear: due to the relatively low n=respondent rate and the high missings depending on the questions, a strong claim for the acceptance towards underground cables cannot be derived from the quantitative analysis.

Notwithstanding its limitations, this study provides insight knowledge about the decision making process of Suedlink on both the national and local level. As to the knowledge of the author of this paper, there has been no similar study or paper examining this field of research because it is highly relevant and not well researched. Moreover, no noteworthy studies were conducted analyzing public opinions towards Suedlink. However, considering the construction time of Suedlink from 2021 to 2025, the author of this paper is convinced that the research interest for the project is very likely to rise given that most siting conflicts actually begin when the project is implemented. Further research desiderata thus must address more detailed research designs in order to prevent a lack of social acceptance, in particular in the region where Suedlink's transmission line corridor is constructed.

¹⁰⁴ See also Illustration 29, p. 65.

IV. Bibliography

- Aas, Øystein, T. Tangeland, T. Batel, and S. Ruud (2014). Public beliefs about high-voltage powerlines in Norway, Sweden and the United Kingdom: A comparative survey. *Energy Research & Social Science*, 2, 30-37.
- Agentur für Erneuerbare Energien (2016). *Renews Kompakt. Akzeptanz für Erneuerbare Energien weiterhin hoch.* (URL: https://www.unendlich-viel-energie.de/media/file/416.AEE_RenewsKompakt_Akzeptanzumfrage2015.pdf, accessed: March 22, 2016).
- Ahmels, Peter (2014). Erfahrungen mit der Öffentlichkeitsbeteiligung bei der Netzplanung. In *Energieumweltrecht in Zeiten von Europäisierung und Energiewende*. Ralf Brinktrine, Markus Ludwigs, and Wolfgang Seidel (Eds.), 57-67. Berlin: Duncker & Humblot.
- Althaus, Marco (2012). Schnelle Energiewende – bedroht durch Wutbürger und Umweltverbände? Protest, Beteiligung und politisches Risikopotenzial für Großprojekte im Kraftwerk- und Netzausbau. *TH Wildau Wissenschaftliche Beiträge (Vol. 15)*, 103-113.
- Arnstein, Sherry R (1969). A Ladder of Participation, *Journal of the American Planning Association*, Vol. 35: No. 4, 216-224.
- Barber, Benjamin. (2003). *Strong Democracy. Participatory Politics for a New Age (1984). Twentieth Anniversary Edition with a New Preface*, Berkeley: University of California Press.
- Bartos, Bettina, J. Cohen, J. Reichel, M. Schmidthaler, and J. Streit-Maier (2012). Die gesellschaftliche Akzeptanz von Energieinfrastrukturen – Stand der Forschung. In *Jahrbuch Energiewirtschaft*. Steinmüller, Horst, A. Hauer, and F. Schneider (Eds.). Wien: NWV Neuer Wissenschaftlicher Verlag. 73-91.
- Batel, Susana and Patrick Devine-Wright (2014). A critical and empirical analysis of the national-local ‘gap’ in public responses to large-scale energy infrastructures. *Journal of Environmental Planning and Management* 57 (URL: <http://www.tandfonline.com/action/showCitFormats?doi=10.1080/09640568.2014.914020>, accessed: July 4, 2016).
- Bell, Derek, T. Gray, C. Hagget, and J. Swaffield (2013). ‘Re-visiting the ‘social gap’: public opinion and relations power in the local politics of wind energy’. *Environmental Politics* 22. 115–135.
- Benz, Arthur and Nicolai Dose (2010). Von der Governance-Analyse zur Policytheorie. In *ibid* (Eds.). *Governance – Regieren in komplexen Regelsystemen. Eine Einführung*. 251-277.
- Benz, Arthur, S. Lütz, U. Schimank, and G. Simonis (2007). Einleitung. In *Handbuch Governance*. Simonis, Georg (Eds.), A. Benz, S. Lütz, and U. Schenk. Wiesbaden: VS Verlag für Sozialwissenschaften. 9-26.

- Benz, Arthur (2006). Eigendynamik von Governance in der Verwaltung. In: *Politik und Verwaltung. PVS-Sonderheft 37*. Nullmeier, Frank (Eds.), J. Bogumil, and W. Jann. Wiesbaden: VS Verlag für Sozialwissenschaften. 29-49.
- Bestgrid (2015). *Testing better practices. Final Report of the BESTGRID project October 2015* (URL: http://www.bestgrid.eu/uploads/media/D1.5_BESTGRID_Final_Report.pdf, accessed: July 6, 2016)
- Blum Sonja and Klaus Schubert (2011): *Politikfeldanalyse*, Wiesbaden: VS-Verlag für Sozialwissenschaften.
- Bortz, Jürgen and Nicola Döring (1995). *"Qualitative Methoden." Forschungsmethoden und Evaluation*. Berlin/Heidelberg: Springer.
- Bortz, Jürgen and Nicola Döring (2007). *Forschungsmethoden und Evaluation für Human- und Sozialwissenschaftler: Limitierte Sonderausgabe*. Berlin/Heidelberg: Springer-Verlag.
- Cain, Nicholas L. and Hal T. Nelson (2013). What drives opposition to high-voltage transmission lines?. *Land use policy*, 2013, 33. Jg. 204-213.
- Cotton, Matthew and Patrick Devine-Wright (2010). Making electricity networks "visible": Industry actor representations of "publics" and public engagement in infrastructure planning. *Public Understanding of Science*.
- Dear, Michael (1992). Understanding and overcoming the NIMBY syndrome. *Journal of the American Planning Association*, 58(3). 288-300.
- Devine-Wright, Patrick (2005). Beyond NIMBYism: towards an integrated framework for understanding public perceptions of wind energy. *Wind energy*, 8(2). 125-139.
- Dose, Nicolai (2008). *Problemorientierte staatliche Steuerung. Ansatz für ein reflektiertes Policy-Design*. Baden-Baden: Nomos-Verlagsgesellschaft.
- Eltham, Douglas C., G. Harrison, and S. J. Allen (2008). Change in public attitudes towards a Cornish wind farm: Implications for planning. *Energy Policy*, 36(1). 23-33.
- Fearon, James D. (1998). Deliberation as Discussion. In *Deliberative Democracy*. John Elster (Eds). New York: Cambridge University Press. 44-68.
- Fittkau, Ludger (2015). *Die Kabel kommen unter die Erde. Deutschlandfunk* (URL: [C:\Users\CWack\Desktop\Masterarbeit\online-artikel\Diskussion um SuedLink - Die Kabel kommen unter die Erde.html](http://www.deutschlandfunk.de/Diskussion-um-SuedLink-Die-Kabel-kommen-unter-die-Erde.html), accessed July 6, 2016).
- Fraenkel-Haberle, Cristina (2014). *Bürgerbeteiligung bei großen Infrastrukturvorhaben: zum Verhältnis zwischen Betroffenheitspartizipation und Bürgerbeteiligung*. Referat anlässlich der Tagung „Legitimation von Verwaltungshandeln“, 20.-21.1.2014, Hannover.

- Frey, Bruno S. (1994). Direct democracy: politico-economic lessons from Swiss experience. *The American Economic Review*. 84(2). 338-342.
- Hennicke, Peter and Manfred Fishedick (2007). *Erneuerbare Energien: mit Energieeffizienz zur Energiewende*. München: CH Beck.
- Hessische/Hannoversche Allgemeine (2016). *Fragen und Antworten zur Suedlink-Trasse: Was auf Anwohner zukommt* (URL: <http://www.hna.de/kassel/kreis-kassel/kreis-kassel-ort306256/suedlink-warten-trasse-6535475.html>, accessed July 25, 2016).
- Hirschfeld, Markus and Bernhard Heidrich (2013). Die Bedeutung regionaler Governance-Prozesse für den Ausbau des Höchstspannungsnetzes. In *Governance-Prozesse für erneuerbare Energien*. Klagge, Britta und Cora Arbach (Eds). 94-114. Hannover: Verlag der Akademie für Raumforschung und Landesplanung.
- Hübner, Gundula and Christoph Hahn (2013). *Akzeptanz des Stromnetzausbaus in Schleswig-Holstein*. Halle: Universität Halle-Wittenberg.
- Jann, Werner and Kai Wegrich (2003). Phasenmodelle und Politikprozesse: Der Policy Cycle. In *Lehrbuch der Politikfeldanalyse*. Schubert, Klaus and Nils C. Bandelow (Eds). München/Wien: Oldenbourg, 71-105.
- Jann, Werner und Jörg Bogumil (2009). *Verwaltung und Verwaltungswissenschaft in Deutschland*, Wiesbaden: VS Verlag für Sozialwissenschaften.
- Jänicke, M., Kunig, P., & Stitzel, M. (1999). *Lern-und Arbeitsbuch Umweltpolitik: Politik, Recht und Management des Umweltschutzes in Staat und Unternehmen*. Dietz.
- Keeney, R. L. and O. Renn (1984). *Die Wertbaumanalyse. Entscheidungshilfe für die Politik* HTV Edition" Technik und Sozialer Wandel": München.
- Kempf, Claudia and Jannic Horne (2013). *Good Governance of the Energiewende in Germany: wishful thinking or manageable*. Berlin: Hertie School of Governance.
- Klages, Helmut and Angelika Vetter (2013). *Bürgerbeteiligung auf kommunaler Ebene. Perspektiven für eine systematische und verstetigte Gestaltung*. Berlin: Edition Sigma.
- Kment, Martin (2014). Netzintegration erneuerbarer Energien als Baustein der Energiewende. In *Energieumweltrecht in Zeiten von Europäisierung und Energiewende*. Brinktrine, Ralf, M. Ludwig, and W. Seidel (Eds.). Berlin: Duncker & Humblot. 43-56.
- Knudsen, Jorgen K., L. Wold, O. Aas, JJK. Haug, and S. Batel (2015). Local perceptions of opportunities for engagement and procedural justice in electricity transmission grid projects in Norway and the UK. *Land Use Policy*, 48. 299-308.

- Lange, Stefan and Uwe Schimank (2004). Governance und gesellschaftliche Integration. In: *Governance und gesellschaftliche Integration*. Ibid. (Eds). Wiesbaden: VS Verlag für Sozialwissenschaften, 9-44.
- Lantz, Eric and S. Tegen (2009). *Economic Development Impacts of Community Wind Projects: A Review and Empirical Evaluation*. Presented to WINDPOWER 2009 Conference and Exhibition, May 4-7, Chicago.
- London School of Economics and Political Science (2016). *What are the best ways to construct a survey questionnaire?* (URL: <http://www.lse.ac.uk/media@lse/research/EUKidsOnline/BestPracticeGuide/FAQ16.aspx>, accessed: July 2, 2016).
- Maubach, Klaus-Dieter (2014). *Energiewende: Wege zu einer bezahlbaren Energieversorgung*. Wiesbaden: Springer VS.
- Mayer, Horst Otto (2013). *Interview und schriftliche Befragung: Grundlagen und Methoden empirischer Sozialforschung*. Berlin: Walter de Gruyter.
- Merkel, Wolfgang and Alexander Petring (2012): Politische Partizipation und demokratische Inklusion. In *Demokratie in Deutschland. Zustand - Herausforderungen – Perspektiven*. Christian Krell (Eds.). Wiesbaden: Springer VS.
- Münnich, Michael (2014): Bürgerbeteiligung bei umweltrelevanten Großvorhaben. In *Nachhaltigkeit gestalten, Trends und Entwicklungen in der Umweltkommunikation*. Witte, Ulrich (Eds.). München: Oekom Verlag.
- Netzentwicklungsplan (2013). *Startschuss für das Gemeinschaftsprojekt Sued.Link* (URL: <http://www.netzentwicklungsplan.de/content/startschuss-f%C3%BCr-das-gemeinschaftsprojekt-suedlink>, accessed July 25, 2016).
- O'hare, Michael (1977). "Not On My Block You Don't"-Facilities Siting and the Strategic Importance of Compensation. Massachusetts Institute of Technology Laboratory of Architecture and Planning.
- Osterhammel, Jürgen (1988): Spielarten der Sozialökonomik – Joseph A. Schumpeter und Max Weber. *Max Weber und seine Zeitgenossen*. In Mommsen, Wolfgang E and Wolfgang Schwentker (Eds.). Göttingen: Vandenhoeck & Ruprecht.
- Salamon, Lester. M. and Odus V. Elliott (2002). *The tools of government: A guide to the new governance*. Oxford: Oxford University Press.
- Salmon, Pierre (1987). Decentralization as an incentive scheme. *Oxford review of economic policy*, 3(2), 24-43.
- Sattler, Claudia and Uwe J. Nagel (2010). Factors affecting farmers' acceptance of conservation measures—a case study from north-eastern Germany. *Land Use Policy*, 27(1). 70-77.

- Scharpf, Fritz W (1993). *Games in Hierarchies and Networks, Analytical and Empirical approaches to the Study of Governance Institutions*. Frankfurt am Main: Campus Verlag.
- Schimank, Uwe (2007). Elementare Mechanismen In *Handbuch Governance*. Simonis, Georg (Eds.), A. Benz, S. Lütz, and U. Schenk. Wiesbaden: VS Verlag für Sozialwissenschaften. 29-45.
- Schnelle, Kerstin and Matthias Voigt (2012). *Energiewende und Bürgerbeteiligung. Öffentliche Akzeptanz von Infrastrukturprojekten am Beispiel der Thüringer Strombrücke*. Study on behalf of Germanwatch e.V., DAKT e.V. Heinrich-Böll-Stiftung. Erfurt.
- Schubert, Daniel K. J., Thomas Meyer, and Daniel Möst (2015). Die Transformation des deutschen Energiesystems aus der Perspektive der Bevölkerung. *Zeitschrift für Energiewirtschaft*, 39(1), 49-61.
- Schumpeter, Joseph A. (1947). *Capitalism, Socialism and Democracy*. New York: Harper & Brothers.
- Schumpeter, Joseph A. (1950). *Kapitalismus, Sozialismus und Demokratie*. Bern: A. Francke Verlag.
- Simon, Anne M. (1996). *A summary of research conducted into attitudes to wind power from 1990-1996*. Planning and Research for British Wind Energy Association. London.
- Simon, Anne M., and Rolf Wüstenhagen (2006). *Factors Influencing the Acceptance of Wind Energy in Switzerland*. In Proceedings of the “Workshop on Social Acceptance of Renewable Energy Innovation”. Tramelan.
- Simon, T. W. (1994). The Theoretical Marginalization of the Disadvantaged: A Liberal/Communitarian Failing. In *The Liberalism-Communitarianism Debate*. Delaney, CF (Eds.). Totowa, NJ: Rowman and Littlefield.
- Smith, Eric and Klick, Holly (2007). *Explaining NIMBY opposition to wind power*. In American Political Science Association Annual Meeting. 1-19.
- Spiegel Online (2014). *Gleichstromtrasse Sued.Link: Hier soll die neue Energieautobahn verlaufen*. (URL: <http://www.spiegel.de/wirtschaft/unternehmen/gleichstromtrasse-suedlink-planung-und-verlauf-der-stromautobahn-a-951656.html>, accessed May 12, 2016).
- Swales, John M. and Christine B. Feak (2012). *Academic writing for graduate students: Essential tasks and skills* (Vol. 3). Ann Arbor, MI: University of Michigan Press.
- Swofford, Jeffrey and Slattery, Michael (2010). Public attitudes of wind energy in Texas: Local communities in close proximity to wind farms and their effect on decision-making. *Energy policy*, 38(5), 2508-2519.

- TenneT TSO GmbH (2016). *Projekthistorie*. (URL: <http://suedlink.tennet.eu/suedlink/projekthistorie.html>, accessed July 23, 2016).
- TenneT TSO GmbH (2014). *Suedlink. In dialogue on the grid expansion – Public Information and stakeholder integration*. BESTGRID Workshop. Hamburg May 21, 2014.
- University of South California (2016). *Organizing Your Social Sciences Research Paper: Writing a Case Study* (URL: <http://libguides.usc.edu/writingguide/casestudy>, accessed August 6, 2016).
- Vanberg, Viktor and Wolfgang Kerber (1994). Institutional competition among jurisdictions: An evolutionary approach. *Constitutional Political Economy*, 5(2), 193-219.
- Van der Horst, Dan (2007). NIMBY or not? Exploring the relevance of location and the politics of voiced opinions in renewable energy siting controversies. *Energy policy*, 35(5), 2705-2714.
- Verba, Sidney and K. Schlozman (1995). *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge, Massachusetts: Cambridge University Press.
- Weber, Florian (2012). Selbstbestimmung durch Teilhabe, Theorie der partizipativen Demokratie, In *Zeitgenössische Demokratietheorien. Band 1 Normative Demokratietheorien*. Gary S. Schaal (Eds.). Wiesbaden: Springer VS.
- Weber, Max (1976). Auszüge aus: „Wirtschaft und Gesellschaft“, Die Typen der Herrschaft. In *Organisation und Herrschaft – Klassische und moderne Studientexte zur sozialwissenschaftlichen Organisationstheorie*. Büschges, Günter (Eds.). Reibek: Rowohlt Taschenbuch Verlag, 59f.
- Westle, Bettina (2009). *Methoden der Politikwissenschaft*. Baden-Baden: Nomos.
- Wolsink, M. (2000). Wind power and the NIMBY-myth: institutional capacity and the limited significance of public support. *Renewable energy*, 21(1), 49-64.
- Wüstenhagen, Rolf, M. Wolsink und MJ. Bürer (2007). Social acceptance of renewable energy innovation: An introduction to the concept. *Energy policy*, 35(5), 2683-2691.
- Zaller, John and S. Feldman (1992). A simple theory of the survey response: Answering questions versus revealing preferences. *American journal of political science*, 579-616.
- Zoellner, Jan, Irina Rau, and Petra Schweizer-Ries (2011). Beteiligungsprozesse und Entwicklungschancen für Kommunen und Regionen. *Ökologisches Wirtschaften-Fachzeitschrift*, 2011, 26. Jg.
- Zoellner, Jan, Petra Schweizer-Ries, and Christin Wemheuer (2008). "Public acceptance of renewable energies: Results from case studies in Germany." *Energy policy* 36.11. 4136-4141.

Zoellner, Jan, Petra Schweizer-Ries, and Irina Rau (2012). Akzeptanz Erneuerbarer Energien. In *20 Jahre Recht der Erneuerbaren Energien*, Thomas Müller (Eds). Baden-Baden: Nomos Verlagsgesellschaft. 91-106.

V. Annex

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Annex 1: Kurze Zusammenfassung der Arbeit (Deutsch)

Die vorliegende Arbeit ist eine Fallstudie zum Netzausbauprojekt „Suedlink“. Sie gliedert sich demnach in vier wesentliche Abschnitte: 1. In einem theoretischen Teil werden die für diese Arbeit wichtigen Theorien der „Sozialen Akzeptanz“ nach Wüstenhagen et al. (2007), der „Schritte der Partizipation“ nach Münnich (2014) und der Governance-Theorie nach Benz und Dose (2011) erläutert. 2. In einem methodischen Teil werden die für diese Arbeit relevanten Methoden diskutiert und kritisch erläutert. 3. In einem qualitativ-empirischen Teil werden die Informationen der Experteninterviews ausgewertet und anhand der vorgestellten Theorien eingeordnet. In dem vierten und letzten Teil der Arbeit wird eine empirisch-quantitative Analyse der gesellschaftlichen Akzeptanz gegenüber Suedlink vorgenommen.

In dieser Arbeit soll mithilfe qualitativer und quantitativer Methoden zwei Fragen geklärt werden. 1. Welche Governance-Aspekte waren für eine gesetzliche Priorität von Erdkabeln im Ausbau von Hochspannungsübertragungsgleichstromleitungen entscheidend? Hierfür wurden intensive Dokumentenanalysen und verschiedene Experteninterviews durchgeführt. 2. Die zentrale Fragestellung dieser Arbeit beschäftigt sich mit der Frage, inwiefern lokale und individuelle Faktoren die Akzeptanz von Suedlink beeinflussen. Hierbei ist interessant zu sehen, welchen Einfluss der gesetzliche Erdkabelvorrang bei der Akzeptanzbildung der Bevölkerung gegenüber Suedlink gespielt hat. Für die Beantwortung wurde ein Online-survey konzipiert, welcher zwischen März und Juli 2016 über Bürgerinitiativen, Landräte und soziale Netzwerke verteilt wurde. Nach Abschluss der Datenerhebung wurden dieser unter Verwendung deskriptiv-quantitativer Methoden ausgewertet. Die Auswertung der Umfrage zeigt auf, dass Erdkabel alleine keine nennenswerte Akzeptanz schaffen (vgl. dazu Menges und Beyer, 2013). Vielmehr stehen individuell und lokale Faktoren und Kriterien im Vordergrund der Beurteilung. Zum Beispiel spielt die Qualität der Partizipation und Einbindung der Bürger sowie die Nähe zur Erdverkabelung und die finanzielle Mehrbelastung eine Rolle bei der Beurteilung von Erdkabeln. Zudem wird deutlich, dass Befragte aus Bürgerinitiativen wesentlich kritischer gegen Suedlink allgemein und gegenüber Erdkabeln im speziellen sind. Ferner ist signifikant, dass Eigenheimbesitzer jegliche Bauform ablehnen.

Annex 2: I. Inhaltsverzeichnis

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Annex 3: Questionnaire expert interviews

1. Welche Akteure waren an der Formulierung der Gesetzesänderung zum Erdkabelvorrang bei Südlink beteiligt? Wie wurden diese eingebunden?
2. Waren alle Akteure gleichberechtigt oder gab es Ihrer Meinung nach ein Machtgefälle?
3. Welche Rolle schreiben Sie kommunalen Akteuren im Hinblick auf den Entscheidungsprozess zur Gesetzesänderung zu?
4. Wie wurde das Thema in Ihrem Wahlkreis kommuniziert?
5. Was waren die wichtigsten Streitpunkte zur Erdverkabelung innerhalb ihrer Fraktion?
6. Mit welchen Mechanismen würde Sie die Entscheidungsfindung der Akteure in den jeweiligen Gremien/Ausschüssen beschreiben? Imitation – Manipulation – Verhandlung?
7. Wie wurde das Thema im Bundestag behandelt? Gab es Eskalationen von Entscheidungssituationen auf höherer Ebene?
8. In welchem Gremium wurde die Entscheidung zum Erdkabelvorrang überwiegend getroffen? Gab es informelle Netzwerke, die Ihrer Meinung nach die Entscheidungsfindung beeinflusst haben?
9. Wählen Sie einen Begriff aus den folgenden aus, um den Entscheidungsfindungsprozess rund um die Erdverkabelung bei Südlink zu beschreiben. -Gemeinschaft-politischer Wettbewerb-Hierarchie-Netzwerke
10. Was sind aus Ihrer Meinung nach die wichtigsten Argumente für Erdkabel? Welche Contra-Argumente sehen Sie?

Wie beurteilen Sie folgende Aussagen? (Antwort in kurzen prägnanten Sätzen)

Die Entscheidung der Bundesregierung, Südlink weit überwiegend durch den Einsatz von Erdkabeln zu verwirklichen...

...war eine Reaktion des Drucks von Horst Seehofer (CSU) auf die Bundesregierung

...war eine Reaktion auf den Protest der Bürgerinitiativen gegen Freileitungen

...war eine Reaktion, die durch den gesamtgesellschaftlichen Druck gegen SüdLink erzwungen wurde

...war eine Reaktion, die erneut bewiesen hat, dass große Infrastrukturprojekte in Deutschland sehr schwer zu verwirklichen sind

...war eine Reaktion, die der allgemeinen Protestkultur in Deutschland entgegenwirken sollte

Annex 4: Overview of requested and conducted expert interviews

Members of the German Bundestag

| | | |
|------------------------------|-------------------------|--------------------------|
| Eva Bulling-Schröter (Linke) | requested July 9, 2016 | no response/cancellation |
| Johann Saathoff (SPD) | requested June 14, 2016 | interview July 8, 2016 |
| Birgit Kömpel (SPD) | requested June 13, 2016 | interview July 6, 2016 |
| Ralf Lenkert (Linke) | requested June 13, 2016 | response July 15, 2016 |
| Thomas Bareiß (CDU) | requested June 13, 2016 | no response/cancellation |
| Dr. Anja Weisgerber (CSU) | requested June 13, 2016 | no response/cancellation |
| Julia Verlinden (Grüne) | requested June 13, 2016 | no response/cancellation |
| Dieter Janecek (Grüne) | requested June 13, 2016 | no response/cancellation |
| Thomas Gambke (Grüne) | requested June 14, 2016 | no response/cancellation |
| Annalena Baerbock (Grüne) | requested June 14, 2016 | no response/cancellation |
| Michael Vietz (CDU) | requested June 14, 2016 | no response/cancellation |
| Edgar Franke (SPD) | requested June 14, 2016 | no response/cancellation |
| Oliver Krischer (Grüne) | requested June 14, 2016 | response July 18, 2016 |
| Hubertus Heil (SPD) | requested June 16, 2016 | no response/cancellation |

Others:

| | | |
|---------------------------------|-------------------------|--------------------------|
| CDU/CSU fraction | requested June 14, 2016 | interview July 12, 2016 |
| Left fraction | requested June 14, 2016 | no response/cancellation |
| SPD fraction | requested June 14, 2016 | no response/cancellation |
| Bündnis 90/Die Grünen fraction | requested June 14, 2016 | no response/cancellation |
| TenneT TSO GmbH | requested June 28, 2016 | no response/cancellation |
| Bund für Umwelt und Naturschutz | requested Juni 28, 2016 | interview July 14, 2016 |

Annex 5: Overview of contacted citizen initiatives Suedlink

Hessen

H 01 Bürgerinitiative gegen SuedLink e.V. in Fritzlar Ingmar Theiß 34560 Fritzlar info@buenger-gegen-suedlink.de

H 02 Nein zur Stromtrasse in Homberg (Efze) und Schwalm-Eder-Kreis Bernd Herbold 34576 Homberg (Efze)

H 03 Verein Pro Region Aulatal e.V. Alexander Hinz 36275 Kirchheim

H 04 Bürgerinitiative Lebensqualität Neuenstein e. V. Lars Niebel 36286 Neuenstein

H 05 Kiebitzgrund aktiv Maria Quanz 36151 Burghaun kiebitzgrund@gmail.com

H 06 Bürgerinitiative Fuldata e.V. (Fulda) Johannes Lange 36037 Fulda BIFuldata@web.de

H 07 BI Lebenswertes Felsberg Hilmar Löber 34587 Felsberg hilmar.loeber@web.de

H 08 BI Bad Emstal V. Papenhagen-Stannick 34308 Bad Emstal rain.papenhagen@t-online.de

H 09 Bürgerinitiative Kalbach gegen SuedLink e. V. Martin Müller 36148 Kalbach mueller.uttrichshausen@t-online.de

H 10 Bürgerinitiative Habichtswald gegen SuedLink Wolfgang Aßhauer 34317 Habichtswald wolfgang.asshauer@bi-suedlink-habichtswald.de

H 11 Bürgerinitiative Schauenburg gegen SuedLink Erdmuthe Hoefl 34270 Schauenburg ehoeft@hoeft.de

H 12 Gegen SuedLink - Bürgerinitiative Frielendorf Andreas Hoffmann 34621 Frielendorf ahoffmann4@gmx.de

H 13 BI Gudensberg 'SuedLink? - NEIN DANKE!' Bernd Meisterfeld 34281 Gudensberg b.meisterfeld@t-online.de

H 14 Lebenswertes Neukirchen - gegen SuedLink Willi Berg 34626 Neukirchen bergw.neukirchen@t-online.de

H 15 Lebenswertes Knüllwald e. V. Karl-Heinz Steuerwald 34593 Knüllwald karl-heinz.steuerwald@web.de

H 16 BI-Wolfhagerland gegen SuedLink Ursula Günther 34466 Wolfhagen bi-wolfhagerland@web.de

H 17 Pro Sinntal Marco Bayer 36391 Altengronau marco.bayer@t-online.de

H 18 BI Baunatal Peter Dahl 34225 Baunatal info@bi-baunatal.de

H 19 BI Edermünde Herbert Wicke 34295 Edermünde herb.wicke@gmail.com

Bayern

B 01 BI „Sinntal gegen die Stromtrasse" Ingo Queck 36391 Sinntal ingo.queck@gmx.de

B 02 Bürgerinitiative A7 Stromtrasse NEIN Jens Wörner 97535 Schwemmelsbach www.a7stromtrasse.de

B 03 Bürgerinitiative "Bürger gegen Strommonstertrasse" Stammham Werner Summer 85134 Stammham info@stromtrasse-stammham.de

B 04 Bürgerinitiative Sinngrund - Allianz, Burgsinn Robert Herold 97775 Burgsinn Robert.herold@vgem-burgsinn.bayern.de

B 05 Bergrheinfeld sagt NEIN zu SuedLink Gerhard Göb 97493 Bergrheinfeld bbvbergrheinfeld@web.de

B 06 BI Leinburg gegen die Stromtrasse Süd-Ost Dörte Hamann 91227 Leinburg bi-leinburg@stromautobahn.de

B 07 BI Pro Region Karsbach Horst Rosche 97783 Karsbach rocotech@web.de

Nordrhein Westfalen

NRW 01 Bi Bökendorf "Keine neue Stromtrasse in Bökendorf" Ruth Brenke 33034 Bökendorf bi-boekendorf@gmail.com

NRW 02 BI -Aktion gegen Stromtrasse- Rischenau Martin Hottel 32676 Rischenau martinhotel@aol.com

Niedersachsen

NS 01 Bürgerinitiative für HGÜ Erdkabel Peter Gosslar 37581 Bad Gandersheim peter.gosslar@web.de

NS 02 PRO Sehlde 31008 Elze teamprosehlde@gmail.com

NS 03 BI PRO Erdkabel Bad Gandersheim Kreiensen 37574 Einbeck joan@posteo.de

NS 04 Umweltschutzverein in Isernhagen und Umgebung e.V. Siegfried Lemke 30916 Isernhagen stromtrasse@umweltschutzverein.de

NS 05 BI Erdkabel Innerstetal und Umgebung 31303 Burgdorf rainer.huebbe@web.de

NS 06 Monstertrassen 30982 Pattensen khi@khiwannek.de

NS 07 Waffensen lässt sich nicht (Sued-) linken 27356 Waffensen info@suedlink-waffensen.de

NS 08 Initiative pro.kronsberg – Mensch, Natur, Zukunft e. V. 30519 Hannover pro.kronsberg@live.de

NS 09 BI Hesedorf Torsten Schwerdt 27404 Gyhum-Hesedorf torsten.schwerdt@web.de

NS 10 BI Wennigsen & Calenberger Land 30974 Wennigsen gegensuedlink@gmx.de

NS 11 Bürgerinitiative Horst in Garbsen 30382 Garbsen info@bi-horst.de

NS 12 Keine SuedLink-Trasse durch das Burgdorfer Land 31303 Burgdorf rainer.huebbe@web.de

NS 13 Bürgerinitiative Weserbergland Frank Borchers 31860 Esperde info@bi-weserbergland.de

NS 14 AG Dorf Meyenfeld e.V. (Kontakt unter BI Horst) 30823 Meyenfeld

NS 15 Seelze gegen SuedLink 30926 Seelze info@seelze-gegen-suedlink.de

NS 16 Garbsener Bürgerinitiativen gegen SuedLink 30826 Garbsen info@garbsen-gegen-suedlink.de

NS 17 Bürgerinitiative Kirchlinteln 27308 Kirchlinteln info@bi-kirchlinteln.de

NS 18 BI Brelinger Berg 30900 Wedemark info@bi-brelinger-berg.de

NS 19 BI SuedLink-Rehburg-Loccum Derek Meister 31547 Rehburg-Loccum suedlink-rehburg-loccum@gmx.de

NS 20 Bürgerinitiative Gegen den Trassenwahnsinn, Grafschaft Hoya 27333 Warpe gegen-den-trassenwahnsinn@gmx.de

Schleswig-Holstein

SH 01 Westküste-trassenfrei e.V. Jürgen Diethmer 25870 Oldenswort kontakt@westkueste-trassenfrei.de

Annex 6: Potsdam Institute for Climate Impact Research announcement

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Umfrage zur Erdverkabelung von Südlink

Christian Wack ist Student der Verwaltungswissenschaften an der Universität Potsdam und beschäftigt sich in seiner Masterarbeit mit der Erdverkabelung von Südlink. Dabei wirft er sowohl einen Blick auf die politisch-administrativen Entscheidungsprozesses als auch auf die Wahrnehmung von Erdkabeln innerhalb der betroffenen Bevölkerungsgruppen.

Wir freuen uns, wenn Sie sich die Zeit nehmen und sich an der kurzen Onlineumfrage beteiligen. Sie können somit einen wichtigen Beitrag zur wissenschaftlichen Debatte leisten.

-

Hier geht es zur Onlineumfrage "Südlink".

Bei Fragen zur Umfrage wenden Sie sich bitte an Christian Wack B.A., Universität Potsdam
christian.wack [at] uni-potsdam.de

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Annex 7: Hamelner Erklärung announcement

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Hamelner Erklärung

Arbeitsplattform SuedLink

SuedLink-Verfahren

- Start
- Aktuelles
- Hamelner Erklärung
- **Umfrage zum SuedLink**

Umfrage zur Erdverkabelung SuedLink

Christian Wack ist Student der Verwaltungswissenschaften an der Universität Potsdam und beschäftigt sich in seiner Masterarbeit mit der Erdverkabelung des SuedLink. Dabei wirft er sowohl einen Blick auf die politisch-administrativen Entscheidungsprozesses als auch auf die Wahrnehmung von Erdkabeln innerhalb der betroffenen Bevölkerungsgruppen.

Seiner Bitte um die Möglichkeit, einen Link zu seiner Umfrage zu setzen, kommen wir hiermit nach.

Wir bitten um freundliche Beachtung und um Teilnahme an der Umfrage, wenn Sie über etwas Zeit verfügen.

[> Weiter zur Umfrage...](#)

Annex 8: Online survey questionnaire

(following pages)

VI. Statement under oath

I hereby confirm that the work presented has been performed and interpreted solely by myself except for where I explicitly identified the contrary. I assure that this work has not been presented in any other form for the fulfillment of any other degree or qualification. Ideas taken from other works in letter and in spirit are identified in every single case.

Christian Wack

Potsdam, August 17, 2016