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Protest against the electricity grid extension in Germany

- The rise of a social movement?

1. Introduction

There have always been conflicts over large infrastructure projects, but in most cases citizens‘ protests have been limited to certain local hotspots. However, protests against the extension of the German electricity grid cover the whole country. The number of local and regional conflicts is still rising because more and more projects are reaching the advanced planning state. To a large extent, the conflicts have been driven by local concerns. In spite of there being a few pioneers who have tried to broaden the protest actors' dominant scope, most of them have continued their activities as single organizations with localist orientations, with little or no connection to other groups. Since 2004, more and more power line projects have been challenged by protests. In 2011, the planning of large power lines ("electricity highways“), started, giving rise to even larger protests. This new opposition, however, represented not only a change in quantity when compared to existing power line conflict groups. Rather, it was also more radical, in that it demanded that the power lines should not be built at all. Of course, protest initiatives are still active in local contexts, but many of them have become part of large umbrella organizations. Particularly, the latter provide support by making the key demands more visible for the public and by trying to gain influence on the political processes at both the federal and regional state levels. By observing the transformation of the conflicts, this paper deals with the question of the degree to which grid extension protests are turning into a social movement.

1.1 Main reasons for the conflict over grid extension

Overall, the German government and the transmission grid operators plan to construct about 50 high-voltage power line projects within the next 10-15 years. Together, these projects add up to a route length of 7,700 km (this includes new routes and upgrades of existing routes) (Bundesnetzagentur 2017). For several years now, there have been strong conflicts over a considerable number of the projects. Citizens' initiatives are resisting the projects because they consider these to be an infringement upon their rights (Neukirch 2016). The specific reasons for the protests differ from region to region (ibid.). But there are some issues that recur in the discourse of several protests as the main causes for conflict: nature and landscape destruction, health risks due to electromagnetic waves, loss of real estate value, a lack of opportunities for participation and a lack of transparency in the planning process. Moreover, some of the opponents point out that the power lines will not help the integration of renewable energies, but, on the contrary, that they will help lignite power plants stay in the system. New power lines may enable the power plant operators to export fossil energy into neighboring countries at times when prices are low, instead of switching the power plants off (Jarass & Jarass 2016; Neukirch 2016).

1.2 Two opposing coalitions

The conflict settings are characterized by the presence of two antagonistic actor coalitions: a pro- and an anti-grid-extension coalition. The coalitions vary from region to region. For example, for some protest contexts, regional governments or nature conservation groups play a major role, whereas elsewhere they do not. However, some actors are always involved. The main proponents are: the federal government (especially the Ministry of Economics), the Federal Network Agency, transmission grid operators, German Energy Agency (dena), the Federal Association of Energy and Water Companies (BDEW), power plant operators and experts. The main opponents are the local protest initiatives, which are often reinforced by citizen initiative alliances of various sizes. Usually, the protesters have the support of local politicians and institutions (e.g., local and district councils), political actors and governments at regional state levels, green and left parties and scientists with specific knowledge to justify their positions. (Neukirch 2014; 2016).

2. Focus on the anti-grid-extension coalition: citizen protests or social movement?

The option of interpreting the protests against grid extension as a part of the environmental movement, or even as a new social movement, is not obvious at first. If the planned grid

extension were a necessary step towards the transition to renewable energy sources , as it is presented by the pro-grid-extension coalition, the opponents would appear to be NIMBY (Not in My Back Yard) groups established to pursue individual interests. However, if this first impression is deceptive, and citizen initiatives are found not to be motivated primarily, or at all, by the support for individual interests, one might question what their effect might then be on the general perception of the protests.

According to Dieter Rucht and Roland Roth (2008: 26. Translation: MN), several conditions have to be fulfilled in order to be able to consider a protest to be a social movement: "Without visible protest there is no social movement. Daily routines confirm the status quo.“ In addition, protest activities alone do not constitute a social movement (ibid.: 13): "We can only speak of a movement if there is a network of groups and organizations that has developed a collective identity and that is securing the continuity of the protests. Moreover, the protests must be tied to the claim of societal change. This is more than just saying no.“

Without a doubt, there have been "visible protests“, carried out by organizations – mostly citizens‘ initiatives – that have articulated clear demands against the established pro-grid-extension coalition for several years. Nonetheless, the situation seems less clear in two respects. First is the claim of societal change: How far do the protests go beyond just "saying no“, and do they connect their rejection to alternative ideas (e.g., referring to the energy system)? Are they successful in raising indispensable questions neglected so far? Or rather, are they motivated by self-interest (NIMBY)? Second is the network aspect: To what extent are protesters a part of networks that include larger regions and that are crucial for local protests?

On the basis of a document analysis (Neukirch 2016; Neukirch 2017), both aspects – "claim of societal change“ and "networking“ – will be discussed below. Therefore, the present study[1] focuses on different regional conflicts involving power line projects. Most demands of the citizens‘ initiatives can be encompassed under two main issues, which are in turn reinforced by the demands. These demands are seen as "argument demands“ (Table 1, Table 2).

As far as the rejection of overhead power lines is concerned, most actors agree, and they want the power lines to be installed using underground cables. The project is not rejected fundamentally, but, according to this view, specific aspects of it should be modified (this I call “General underground cable demand“). Disputes over specific details (main demand 1) can often be resolved if the planners agree to modify the route, or to install underground cables

[1] This paper provides results that have been gathered from the Helmholtz-Alliance ENERGYTRANS 2011-2016 and also from the initial results of E-Navi, an inter- and transdisciplinary research project, financed by the German Ministry of Education and Research.

(especially in sections within areas of conflict). In contrast, main demand 2, "Stop the power line project“ refers to a call for change that extends beyond the local context.

Table 1 Main Demand 1: "General underground cable“ (MD 1)[2]

MD1	**General underground cable demand**	MD1 includes the underground cable demand in its moderate variant – building only specific sections underground (in addition to smaller modifications of the route) – as well as the stronger variant, building everything using underground cables with HVDC technology (High Voltage Direct Current). All variants of MD1 have in common that the opponents do not reject the project fundamentally, but do resist specific aspects of its implementation.
F1a	Health protection	The protesters claim that overhead power lines cause health risks, even though emissions do not exceed the legal limits.
F1b	Landscape protection	The term "landscape“ refers here to spaces situated outside populated regions that are used by, or are manipulated by, humans. The demand aims to secure the value that the region in question has for people. This value may consist in its recreational potential or its economic potential as a source of revenue, as is the case with tourist regions and real estate.
F1c	Economy	The project opponents mention three general (macro) economical reasons: - Fewer protests allow for shorter planning periods, leading to overcompensation of the higher investment costs of underground cable - Positive economical effects of underground cables: avoidance of losses in value for real estate and tourist regions - Energy savings, if HVDC technology is applied instead of alternating current; energy losses are avoided thanks to the use of energy transmission from offshore wind parks directly to the industrial centers using HVDC technology.

[2] Source of Tables 1 – 3 and Table 5: Neukirch (2017)

Table 2 Main Demand 2: "Stop the power line project“ (MD2)

MD2	**Stop the power line project**	MD2 seeks the cancellation of at least one power line project. This position may be justified by claiming that there is a need to protect the landscape, public health, or nature, similarly as with MD1. However,,in most cases, to justify this position, other arguments were applied. MD2 is a demand against both single projects and the government's grid extension plan as a whole. The main arguments used here are that the need for the projects was not proven, that they would reaffirm a centralized energy path, and that they were not needed for the energy transition.
F2a	Energy Transition	The construction of new power lines must serve climate protection and the transition towards renewable energies. Numerous opponents criticize primarily that the grid extension would guarantee new transmission capacities for coal and nuclear power plants. These would have grid access even though there would be enough solar and wind power in the grid to secure the supply with renewable energy sources. Thus, the grid extension opponents claim, conventional power plants have to be operated according to environmental, but no longer according to economic, rationality. Demand F2a can refer to one single power line project or to the whole grid extension plan.
F2b	Decentralization	Grid extension should be avoided in favor of a decentralized energy transition. This demand is justified ideologically ("democratic supply structures“, "opposition to energy corporations“) as well as economically: If the cost of the extension is considered, a decentralized supply system turns out to be cheaper.
F2c	Use of new technologies	This demand aims for an improvement of the existing grid. The use of new technologies like high temperature conductors would make plans for new power lines redundant.

The claims of going beyond local protests and of supporting societal change will be assumed to be true, if the opponents reject a power line project fundamentally (main demand 2) and if they justify their resistance with arguments related to climate policy and/or to the goal of a decentralized energy system (Table 2). Furthermore, it will be assumed as a necessary condition that the protesters are sufficiently connected by network activities if the local citizens' initiatives are organized in umbrella organizations. When compared to the general protest

discourse, the umbrella organizations tend to advocate more radical positions. To make sure that the umbrella organization really is influential, and is not merely a small, isolated group of people that claims to "speak for the masses“, I will determine whether there is coherence between the positions articulated within a protest region.[3] The crucial question here is whether the umbrella organizations are an expression of networking, or whether they are just formal alliances that are lifeless and that have no active relationship with the member groups.

During the last few years, the protests seem to have become more radical. In order to take this development into account, two sets of conflict cases will be compared below. The conflicts of the first set started between 2004 and 2008 (first wave), and those of the second between 2012 and 2014 (second wave). Both sets will be examined and compared with regard to the two criteria described above, i.e., "claim of societal change“ and "networking“.

2.1 First-wave protests (beginning of the conflict: 2004-2008) – selected cases

The EnLAG (Energieleitungsausbaugesetz) of 2009, the first national demand plan for grid extension with legislative status, includes 22 power line projects, of which eight have been chosen for the document analysis. Table 3 displays the number of statements and actors that support MD1 or MD2, for each protest region (Neukirch 2017).

Table 3 First-Wave-Conflicts – Main demands

Main Demand	EnLAG 1	EnLAG 2	EnLAG 3	EnLAG 4	EnLAG 5/14/15	EnLAG 6
Underground cable (MD1)	7 actors 10 sources	19 13	15 12	-	12 9	25 16
Project stop (MD2)	-	-	-	8 4	-	-

Whereas seven protest regions show a clear dominance of MD1, only the protests by EnLAG 4 support MD2 (cancellation). Based on scientific expertise, they justified their fundamental resistance with the argument that the power line would enable the lignite coal power plants of Brandenburg to remain in the grid, even in periods of strong winds (when the existing grid

[3] This term refers to all protests that are active along the route. In the case of "SüdLink“ (HVDC corridor C), the states of Lower Saxony and Bavaria are parts of the same protest region.

capacity would be needed for wind energy). Only one first-wave conflict displays protests oriented towards a movement.

In contrast to the "localist“, orientation (Neukirch 2014) that dominates the majority of the protest regions here considered, many actors have founded umbrella organizations. The largest of them are listed in Table 4. The assumption that umbrella organizations are more "radical“ than the protest mainstream of the regions in question is true, especially for EnLAG 2 and EnLAG 5/14/15. Whereas the umbrella organizations "Vorsicht Hochspannung“ and "Pro Erdkabel NRW“ insist on the old demand for the exclusive use of underground cables, the conflict surrounding local cable sections dominates the discourse of these protests at several hotspots (Neukirch 2014).

Tab. 4 First-wave conflicts – Role of network organizations[4]

	EnLAG 1	EnLAG 2	EnLAG 3	EnLAG 4	EnLAG 5/14/15	EnLAG 6
Umbrella organization	-	"Vorsicht Hoch-spannung“	-	"IG Achtung Hochspannung“	"Pro Erdkabel NRW“	"Bürgerinitiative für HGÜ-Erdkabel“
Protests based mainly on single citizens‘ organizations	Yes	No	Yes	No	Yes	No
Protests with „Single-Spot-Demands“	Yes	Yes	Yes	No	Yes	No
Discursive coherence between umbrella organization and local actors	-	Partly	-	Yes	Rather not	Yes

The protest groups that are active against EnLAG 1 and EnLAG 3 are not organized as alliances. Networking seems to have a crucial impact on the protests for only two first wave-

[4] Source of Table 4 and Table 6: Interim results that were gathered within the E-Navi project (s.a.).

conflicts - EnLAG 4 and EnLAG 6. Only here are the protest discourses widely coherent with the umbrella organizations‘ positions.

In summary, with regard to the first-wave protests, one can assert that there are protest activities by more than a hundred citizens‘ initiatives, supported in many cases by local political actors. Moreover, there are different reasons to reject the opinion that it would be adequate to understand the protests mainly as single point protests working on their own and pursuing local interests: There are other alliances beyond the umbrella organizations listed in Table 4, often between only a few neighbouring villages. Many protesters are part of networks, although in many cases these do not seem to have great importance for the protests. Finally, national media outlets often present protests against grid extension as being a collective entity. As a whole, the first-wave-protests are clearly more than the sum of their parts. At the same time, the description of these protests as a social movement is far from adequate.

2.2 Second-wave protests (beginning of the conflict: 2012-2014)

When one considers the conflicts that began some years later, the "electricity highways" are among the particularly interesting cases. These HVDC power lines, with a length of between 300 and 700 km, are intended to transport wind power from the coast to the industrial centers, at least in the future. At present, many of their opponents hold more critical, even "radical“, views (Table 5), when compared to the views prevalent during most early protests.

Table 5 Second-wave conflicts - Main demands

Main Demand	HVDC A south ("Ultranet“)	HVDC C ("SüdLink“)	HVDC D ("SüdostLink“)	EnLAG 24 (cancelled)
Underground cable (MD1)	8 actors 5 sources	9 8	6 5	-
Project stop (MD2)	3 3	8 6	25 18	6 6

For two of four projects, Table 5 displays a clear predominance of the opponents‘ main demand, i.e., to stop the project (HVDC D and EnLAG 24). For the HVDC Corridor C ("SüdLink“), the majority of the citizens‘ organizations advocate stopping the project, whereas the rural districts involved are in favor of the power line as long as they are implemented entirely with underground cables. Only in the southern part of the HVDC corridor A ("ultranet“) is the majority of the opponents in favor of a compromise based on the installation of an underground

cable. Thus, the step from first wave to second wave protests is characterized by an increased level of fundamental opposition.

Moreover, the protest groups have established tighter networks. Only the opponents against project EnLAG 24 have not founded a formal roof organization (Table 6), but in this protest region there were only ten active citizens‘ initiatives that worked together closely and informally.[5]

Table 6 Second-wave conflicts – The role of network organizations

	HVDC A south ("Ultranet“)	HVDC C ("SüdLink“)	HVDC ("SüdostLink“)	EnLAG 24
Umbrella organization	Aktionsbündnis Ultranet	Bundesverband Bürgerinitiativen gegen den SüdLink	Aktionsbündnis gegen die Süd-Ost-Trasse	10 citizens‘ initiatives (without a formal umbrella organization, but working together)
Protests based mainly on single citizens‘ organizations	No	No	No	No
Protests with "Single-spot demands“	No	No	No	No
Discursive coherence between umbrella organization and local actors	Yes	Partly	Yes	Yes

[5] In fact, project EnLAG 24 was cancelled in 2015.

Protests that are focused on single points ("our village should stay clean“) or that are even NIMBY-oriented do not need an umbrella organization. Cooperation and the idea of joining forces only become relevant if "non-localist“ targets are followed. This precondition obviously seems fulfilled by the second-wave protests presented here. Moreover, as Table 6 shows, the opponents are involved in networks to a greater extent than is the case with the first-wave protests. Usually, the protests are related to the whole route and not only to a small section. The umbrella organizations‘ role in the protest discourse has become more important. Additionally, there is a higher degree of discursive coherence between the organization and the single actors at the local level.

Returning to the initial question, when one considers a growing discursive fundamentalism and an increased level of networking and cooperation among the protest actors, it seems clear that these protests are approaching the status of a social movement. However, one should not forget that only a few protest regions fulfill the criteria that would allow us to categorize the protests as having a movement-like character. In all, considering four protest regions of second-wave protests and two older protest contexts (EnLAG 4 and EnLAG 6), there are only six power-line-disputes that might be seen as being the nucleus of a social movement. On the other hand, there are 40 other power line projects (EnLAG and BBPIG). These display only single-point protests, with a localist orientation, or even no protests at all. If nothing changes, it seems more adequate to see the dispute contexts described here as special cases that are not representative of the grid extension process as a whole.

3. Summary and outlook

Basically,the question of whether the movement-leaning protest nucleus will grow, or not, is open. Such a dynamic will only take place if these protesters‘ argumentations and orientations become more common. The existence of this nucleus is making learning processes – which are necessary for this development – much easier. The relevant questions here are widely known: What is the effect of a planned power line on climate policy? Will it support a centralization of the energy system? Will it will support or hinder the energy transition progress, and to what degree? Of course, depending on the context, different questions have to be raised, and different answers will be provided (even within the anti-coalition).[6] What is most

[6] Besides the conflict over a centralized or decentralized energy system, another question seems unclear: If there is a high percentage of volatile wind and solar power in the electricity system at some point, a large power grid infrastructure will be needed. But as long as the system is dominated by conventional power plants, the new power lines seem to have the function of securing a long-term compatiblity of both old and new energies. This strong argument of the opponents would lose its discoursive power if the goverment excluded coal power plants after a certain deadline (e.g., by 2030). Such a law would not only support the acceptance of

important, however, is to overcome the localist perspective. Moreover, it seems possible that raising fundamental questions can become a strategy: Environmental and climate political positions are very popular in Germany (at least as long as they have no consequences for daily life). Will the acceptance for protests against power lines increase if they are justified by an interest in the common good? Will the local actors develop some kind of strategic solidarity that rejects "passing on" a planned power line to the neighboring village where people are (still) less engaged? Today it is still unclear whether the protest nucleus will grow significantly.

Nevertheless, some statements on the movement-leaning nucleus are of provisional character and should be examined on a broader empirical basis. Only two things are sure: First, the nucleus is characterized by protest discourses that transcend localist interests. Thus, they advocate issues of general importance (e.g., climate policy, the future of energy system). Second, all protest regions have established network organizations that assume an important role in the coherent representation of the protest discourse.

Still, there are several open questions that refer to the relationship between the network organizations and their members. What does it mean for a local citizens‘ initiative to be part of a network organization? How tight are the networks behind the network organization? There are numerous local protest groups, but to what degree do they actively support the roof organizations‘ (often radical) positions? What if the coherence is merely a product of the fact that the majority of local citizens‘ initiatives do not make public statements? Finally, there is another aspect that hasn’t been addressed so far: A social movement shares a collective identity (Rucht & Roth 2008). According to Eder (2011), this is crucial for securing the movement’s continuity. The members of a movement feel as part of a storyline that holds the community together. This is the case even in calmer times, when there is nothing to continue the narrative by means of new events of collective experience. Therefore, the question of collective identity must be a task for further research. These questions are crucial for understanding the core of the protests. The rise of a social movement can only be expected if many people are not only involved in the protests actively (e.g., taking part in demonstrations and public meetings), but are also thinking politically and in visionary ways.

power line projects (Neukirch 2015), but it would also underline the seriousness of the government’s climate policy.

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