

Public Participation for Planning New Facilities in the Context of the German “Energiewende”

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Summary

The German *Energiewende* (energy transition) poses major challenges to all the parties involved. Public participation can contribute to the acceptance of these challenges and to their positive resolution. It is not suitable, however, for finding acceptance for predetermined solutions. Participation presupposes openness about options. If this does not exist, one can only attempt to utilize dialogue and communication to convince the affected citizens of the necessity of adopting the planned measure. Yet if there is room for choosing options, participation may create the prerequisite for broad acceptance of a jointly determined solution to pressing problems. Participative procedures that follow the model of analytic-deliberative discourse—and thus combine scientific expertise with ethical and moral considerations—are particularly promising. A forward-looking model is drawn from the combination of online and traditional face-to-face methods, combining the advantages of both methods. An inclusive planning culture based on cooperation and integration is needed to implement the energy transition. Public participation is thus a promising way to achieve a fair and effective implementation.

About us

The energy transition in Germany and the related challenges to transformation of the national and European energy systems are at the heart of research at the Helmholtz Alliance ENERGY-TRANS. The novel perspective of ENERGY-TRANS is to consider the energy system mainly from the perspectives of societal demand and the user and to analyze the various interfaces between technical, economic, and social factors that determine the transition towards new infrastructures. The results are expected to provide action-oriented knowledge for an efficient and socially compatible development of the future energy system.

More information can be found at <http://www.energy-trans.de/english/index.php>

Insights into Acceptance and Public Participation in Public Planning

Disenchantment with politics, the NIMBY principle (Not in my back yard!), enraged citizens, the protest culture, holding on to the status quo, an entitlement mentality—these catchwords characterize the current debate about the citizen's role in today's society. The mere fact that a decision is the outcome of a democratic process is not sufficient for many to accept it. This has been demonstrated in Germany by protests against large construction projects, notably in the case of the planned renewal of the Stuttgart train station, called Stuttgart 21. Almost all the protest movements against construction or planning projects in recent years have exhibited three typical characteristics¹:

- Citizens are expected to forego personal conveniences and at least temporarily accept a deterioration in their living situation in favor of an alleged benefit to the community. With regard to wind turbines or biogas plants, this pertains to the noise, pollution, and traffic that accompany a large construction site, as well as the noise and odor anticipated from the operation of such plants.
- The alleged benefit to the community is a matter of controversy. In a globalized and individualized society, it is becoming increasingly difficult for governments and private planners of major projects to convincingly portray the community benefit in a manner that everyone accepts. Contrary to the frequently expressed opinion that this is a typical problem of communication, the lack of persuasive power of public welfare-oriented projects is symptomatic of societies characterized by a high plurality of values and diversity of preferences. Whether we actually need wind farms in idyllic landscapes or electrical networks stretching from the North Sea to Bavaria in order to implement the energy transition to a supply based on renewable sources of energy is hotly disputed between proponents and opponents. The use of the most sophisticated communication by any of the parties in this case is not sufficient for it to win over the other party.
- The citizens directly affected by the planning often perceive the decision-making process as being intransparent, inscrutable, or even corrupt. The impression of intransparency and deception is in turn associated with the complexity and plurality of political planning processes. An essential feature of the relationship between citizens and the state pertains to the growing gap between legality and perceived legitimacy. Even if issues such as the planned construction of transmission lines, using water to store energy, and wind farms go through all the approval processes, the complexity of the processes may, however, overwhelm the affected citizens, leading them to feel left out and to be skeptical of the claimed benefit to the public.

The question is: How can we overcome these problems and create a constructive atmosphere for making decisions and planning with regard to infrastructure issues?

The empirical analysis of people's attitudes towards changes in their environment, in particular regarding a new technological infrastructure, has shown that four factors are crucial for creating a positive position towards proposed changes²:

The German energy transition requires an inclusive planning culture based on cooperation and integration

- Why do we need change? This cognitive aspect includes the insight that the proposed change is going to provide the service that is associated with this change and that the concomitant risks can be managed by the societal institutions mandated to deal with these risks.
- What is in it for me? People need to be convinced that the proposed changes will be of benefit either for themselves or for others for whom they care. If the common good is invoked, it needs to be articulated in the form of concrete advantages to those who will utilize the services. Abstract promises such as “it will improve the competitiveness of the country” are insufficient to serve this objective.
- Does this limit my options? People tend to reject innovations or changes if they believe that their personal range of options or their personal freedom is negatively affected. A loss of sovereignty and the perception of being dominated by others are powerful threats to self-efficacy and autonomy. Innovations such as smart grids or district heating systems are good examples where this feeling of being dominated by others may easily evolve.
- Do I feel personally engaged? Changes always mean interventions in one's way of life. If these changes are seen as something alien in a neighborhood, they are likely to be rejected. A good example is the ownership of a municipal wind park. If it is owned by a distant company, people often feel that it does not fit into the landscape in which they live. However, if the people in the community own the wind park themselves, they may feel that the generators are part of the community's heritage.

In the event that one wants to exert influence on these four factors to achieve greater acceptance of the proposed project, it is at least necessary for all four of the factors to be made topics of communication, i.e., of information and public relations efforts. However, the effectiveness of such efforts in influencing public acceptance is extremely limited. This is especially true when the projects are associated with encumbrances for local residents or when different social groups challenge the claim that the project is serving the public good. In such cases, it is almost impossible for information and public relations alone to bring about a change in the level of acceptance. Public participation is then the best way forward.

The Limits of Communication and the Prospects of Participation

Due to communication's lack of effectiveness there is the eminent danger that forcing projects through might lead to runaway disenchantment with politics. It is therefore appropriate for the authorities to grant increased opportunities for participation to those affected so that these people can decide for themselves whether or to what extent the four factors are satisfied. Involvement fundamentally changes the planning process. Communication is designed to make those affected agree with what the planners had envisioned. The hope is that the public will approve the planned changes or at least tolerate them. In contrast, citizen involvement in open planning processes makes it incumbent upon the involved citizens to create and evaluate planning options based on their own ideas, values, and preferences within the statutory and the planning limits. Identity is created by the process the moment that those affected by decisions themselves become decision makers. There are a number of reasons on behalf of

greater public participation:

- Decision-making processes that include participatory elements not only create transparency and acceptance, they can also improve the quality of the outcome by incorporating the knowledge of citizens.
- The increased level of grassroots participation also improves the robustness of the overall system. Large-scale planning is often hampered by the fact that one link in a long chain of interrelated measures either is missing or has been overlooked. Many small, decentralized initiatives can help create a network of activities that may enhance the process's diversity and versatility and generate greater resistance to individual setbacks.
- The early involvement of citizens in the planning and decision-making process of energy infrastructure projects, such as the implementation of smart grid solutions, makes it possible for future consumer behavior to be directly integrated into the process. This results in a coupling between energy behavior and collective planning goals.
- Finally, local participation creates the space for new operating models, such as for local cooperatives to construct and operate wind parks or for projects to be optimally embedded in the existing local culture.

Problems and disadvantages are of course also associated with such processes. Success is not guaranteed. Furthermore, individual local solutions may not fit the overall energy system³. However, by means of public participation, the rationale behind the interconnecting parts of the *Energiewende* can also be made explicit to those involved in the process. Participation can highlight how all the building blocks fit together and how they are integrated into the overall structure of the energy system. These insights make it more likely that the selection made from the range of available options will also be more conducive to the general welfare⁴. While there is no guarantee of a positive outcome, past experience with citizen participation justifies us in being cautiously optimistic.

A Guiding Model for Participation

How can participatory processes be implemented? Many suggestions for doing this have been made at all levels of policy making and planning. In particular, social science research on participation describes multiple formats for involving citizens in decision making.⁵ A proposed procedure that appears to be particularly suitable for participatory processes with complex and knowledge-based problems is analytic-deliberative discourse.

The concept of analytic-deliberative discourse was championed by the U.S. National Academy of Sciences in a 1996 opinion on the handling of risk.⁶ It is comprised of two main elements: on the one hand, the analytical task of determining the possible consequences of different possible solutions in all their complexity, uncertainty, and ambiguity; and on the other hand, the deliberative task of finding an effective, efficient, and fair solution to the initial problem on the basis of an exchange of rational arguments.

The analytic-deliberative discourse can be divided into two steps. In a first step, it is important to accurately assess the consequences of the possible options in terms of opportunities and risks in an

interdisciplinary forum made up of knowledgeable experts. An important feature of this process is that it is to be guided by evidence-based strategies of assessment and to characterize clearly any remaining uncertainties and any gaps in our knowledge in order to avoid any unjustified certainty in the later selection of options for action.⁷ In a second step, it is necessary to make a comprehensive evaluation of the annotated options on the basis of the knowledge-based assessment of the possible consequences and their uncertainties. Such an evaluation needs to address the plural values, interests, and preferences of those affected by each option. The process of evaluation is supposed to take into account the basic criteria of effectiveness, resilience, efficiency, and social cohesion. *Effectiveness* refers to the need of societies to have a certain degree of confidence that human activities and actions will actually result in the consequences that the actors intended when performing them. *Efficiency* describes the degree to which scarce resources are used to reach the intended goal. The more resources are invested to reach a given objective, the less efficient the activity under question remains. *Resilience* describes the capacity to sustain functionality of a system or a service even under severe stress or unfamiliar conditions. Finally, *social cohesion* covers the need for social integration and collective identity despite plural values and lifestyles. All four needs or functions of society build the foundation for legitimacy. *Legitimacy* is a composite term that denotes, first, the normative right of a decision-making body to impose a decision even on those who were not part of the decision-making process (issuing collectively binding decisions), and second, the factual acceptance of this right by those who might be affected by the decision. As a result, it includes an objective normative element, such as legality or due process, and a subjective judgment, such as the perception of acceptability.

Within the macro-organization of modern societies, these four functions are predominantly handled by different societal systems: economy, science (expertise), politics (including legal systems), and the social sphere. In the recent literature on governance, the political system is often associated with the rationale of hierarchical and bureaucratic reasoning; the economic system with monetary incentives and individual rewards; and the social sphere with the deregulated interactions of groups within the framework of a civil society. Another way to phrase these differences is by distinguishing between competition (market system), hierarchy (political system), and cooperation (sociocultural system).

When designing the deliberative part of the participation process, it is only logical that the individuals involved in the decision-making process also embody these four criteria and represent the social subsystems that have specialized in providing this functionality to the planning process. This implies a cooperative control culture with the participation of academia (effectiveness), government (resilience), business (efficiency), and civil society (social cohesion).⁸

The Need for a Clear and Unambiguous Mandate

Regardless of which procedure or format is selected, a valid principle is always that one has to communicate the mandate of a participatory

event in a clear and transparent form even during the early phases of the participatory procedure. The mandate of the participants can be very different, the scope ranging from providing input in the form of ideas and suggestions, to providing feedback regarding preferences, to self-commitments or the direct participation in political decisions. The German constitution does not permit decisions on collectively binding measures to be made in the format of informal participation (preempting). Parliament is and remains the site for politically legitimized majority decisions. The participants in participatory procedures can, however, be involved in the development of options, in the assessment of their respective consequences, and the evaluation of their desirability, and thus provide major input to policy decision making.

Legal Requirements and Opportunities for Participation

Decisions made in the context of administrative proceedings have to be in accordance with legal regulations and in compliance with the procedures and rules of the competent institutions. The actual submission of an application for a siting process or for the authorization of other planning projects—such as a high-voltage power line— significantly reduces the leeway for designing multiple options.⁹ It is very important to have public input prior to the submission of the application in order to preserve more options.

The planning cascade for the transmission lines in accordance with the Energy Industry Act (EnWG) and the Grid Expansion Acceleration Act (NABEG) includes a multitier planning procedure at all levels that also provides for public participation.¹⁰ This is a novel feature of German administrative law. One could easily integrate an analytical-deliberative discourse as described above in this legally prescribed siting process. This includes the selection of the appropriate problem-oriented formats for participation, adherence to participation deadlines, and adequate procedure management, possibly also including conflict mediation techniques. It is important that the findings from communication studies and the social sciences as well as the practical experience acquired during participatory procedures are implemented into the existing legal possibilities regarding participation.

The Energy Industry Act (EnWG) and the Grid Expansion Acceleration Act (NABEG) offer windows of opportunity for improved public participation

- ¹ See a similar listing in Brettschneider, Frank 2013: Major projects between protest and acceptance. In: Brettschneider, Frank/Schuster, Wolfgang (eds.): Stuttgart 21. A major project between protest and acceptance. Wiesbaden: Springer, 319-328, in this case 320f. See also Walter, Franz 2013: Civility protest and distrust in the society. In: Marg, Stine/Geiges, Lars/Butzlaff, Felix/Walter, Franz (eds.): The new power of the citizen. What motivates the protest movements? Reinbek by Hamburg: Rowohlt, 301-343, in this case 323.
- ² The list is originally from: Renn, O. (2013): Citizen participation in public projects – State of research and conclusions for practice (in German). *UVP-Report*, 27 (1/2), pp. 38-44, here 40. A similar list of influential factors can be found in; Fiske, S. F. 2010: *Social beings. Core motives in social psychology*. 2nd edition. New York: John Wiley, pp. 89 ff. Susan Fiske explores three aspects: Understanding, Controlling and Self-Enhancing. Personal utility is not on her list. This aspect is highlighted in: van Zomeren, M.; Postmes, T. and Spears, R. (2008): Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. In: *Psychological Bulletin* 134 (4), pp. 504-535.
- ³ Cf. Renn, Ortwin 2008: Risk Governance. Coping with Uncertainty in a Complex World. London: Earthscan, 8-11. Cf. also: Bora, Alfons/Hausendorf, Heiko 2006: Participatory Science Governance Revisited: Normative Expectations versus Empirical Evidence. In: *Science and Public Policy*, 33 (7), 478-488.
- ⁴ Cf. Braun, Kathrin/Kropp, Cordula 2010: Beyond Speaking the Truth? Institutional Responses to Uncertainty in Scientific Governance. In: *Science, Technology, and Human Values* 2010, 35, 771-782, in this case 775. Cf. also: Rowe, Gene/Frewer, Lynn 2000: Public Participation Methods: A Framework for Evaluation. In: *Science, Technology & Human Values* 25 (1), 3-29, in this case 7.
- ⁵ Cf. Webler, Thomas/Tuler, Seth 2010: Getting the Engineers Right is not Always Enough: Researching the Human Dimensions of the New Energy Technologies. In: *Energy Policy* 38, 2690-2691, in this case 2690.
- ⁶ US National Research Council 1996: Understanding Risk: Informing Decisions in a Democratic Society. Coordinators: Stern, Paul C. /Fineberg, Harvey V. Committee on Risk Characterization. Washington, D.C.: National Academies Press, 118 ff. Cf. also: Tuler, Seth/Webler, Thomas 1999: Designing an Analytic Deliberative Process for Environmental Health Policy Making in the US Nuclear Weapons Complex. In: *RISK: Health, Safety, and Environment* 10 (1), 65-87. As well as: Renn, Ortwin 1999: A Model for an Analytic Deliberative Model in Risk Management. In: *Environmental Science and Technology* 33 (18), 3049-3055.
- ⁷ US National Research Council 1996: *ibid.* 97 ff.; Rosa, E.; Renn, O. and McCright, A.: *The Risk Society Revisited. Risk Governance and Social Theory*, Temple University Press, Philadelphia, USA: 2014, pp. 173-178.
- ⁸ Cf. Renn, Ortwin 2008: *ibid.* 288.
- ⁹ See to this end Burgi, Martin/Durner, Wolfgang 2012: Modernisation of administrative procedure law through the strengthening of the Administrative Procedure Act (VwVfG), 176 ff.; Steinberg, Rudolf 2011: The management of infrastructure projects through administrative procedures - a survey, *ZUR*, 340, 344.
- ¹⁰ See to this end Köck, Wolfgang/Salzborn, Nadja 2012: Fields of action for the further development of environmental protection in spatial planning law, *ZUR*, 203, 203, 206. For a more detailed presentation of the planning cascade: Appel, Markus 2011: New law for new grids – the regulatory regime to speed up the current grid expansion by the Energy Act and NABEG, *UPR*, 406-416.