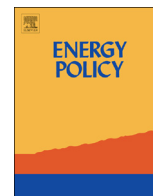




ELSEVIER

Contents lists available at ScienceDirect

## Energy Policy

journal homepage: [www.elsevier.com/locate/enpol](http://www.elsevier.com/locate/enpol)

# Beyond public acceptance of energy infrastructure: How citizens make sense and form reactions by enacting networks of entities in infrastructure development

Sara Bjørn Aaen<sup>a,\*</sup>, Søren Kerndrup<sup>b</sup>, Ivar Lyhne<sup>a</sup><sup>a</sup> Aalborg University, Skibbrogade 5, 9000 Aalborg, Denmark<sup>b</sup> Aalborg University, Vestre Havnepromenade 9, 9000 Aalborg, Denmark

## H I G H L I G H T S

- Attention to citizens' sensemaking enables greater insight into the decision-making process.
- A combination of sensemaking and actor-network theory (ANT) is relevant for studies of public acceptance.
- Sensemaking explains why citizens facing similar situations act differently.
- Complexity of citizens' sensemaking challenges the predictability of processes.

## A R T I C L E I N F O

## Article history:

Received 10 July 2015

Received in revised form

23 May 2016

Accepted 21 June 2016

Available online 5 July 2016

## Keywords:

Public acceptance

Public participation

Energy infrastructure

Citizens

Sensemaking

ANT

## A B S T R A C T

This article adds to the growing insight into public acceptance by presenting a novel approach to how citizens make sense of new energy infrastructure. We claim that to understand public acceptance, we need to go beyond the current thinking of citizens framed as passive respondents to proposed projects, and instead view infrastructure projects as enacted by citizens in their local settings. We propose a combination of sensemaking theory and actor-network theory that allows insight into how citizens enact entities from experiences and surroundings in order to create meaning and form a reaction to new infrastructure projects. Empirically, we analyze how four citizens make sense of an electricity cable project through a conversation process with a representative from the infrastructure developer. Interestingly, the formal participation process and the materiality of the cable play minor roles in citizens' sensemaking process. We conclude that insight into the way citizens are making sense of energy infrastructure processes can improve and help to overcome shortcomings in the current thinking about public acceptance and public participation.

© 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## 1. Introduction

Internationally, problems regarding public acceptance are identified as some of the main issues impeding the development of energy infrastructure projects (European Commission, 2011; Devine-Wright, 2011). Even wind power developments, which generally are highly supported by the public, are increasingly delayed or blocked due to opposition at local level (Bell et al., 2005; Wolsink, 2007).

Over the last decades, researchers and practitioners have gained considerable knowledge about public acceptance of energy

infrastructure development, researchers have identified factors that influence public acceptance (see Devine-Wright, 2008; Van der Horst, 2007; Jobert et al., 2007; Bidwell, 2013), outlined development of public acceptance over time (Wolsink, 2007), and developed a conceptual understanding of social responses to energy project development (e.g., Wüstenhagen et al., 2007; Devine-Wright, 2009). Moreover, academic literature on energy infrastructure seems to have moved beyond the previous focus on NIMBYism (not-in-my-backyard) to a more elaborate understanding of the complexity of citizens' reactions (Wolsink, 2007; Devine-Wright, 2009; Batel and Devine-Wright, 2015; Pellizzone et al., 2015).

Despite this development, Aitken (2010) argues that there are fundamental misunderstandings in how we approach social aspects of energy infrastructure projects. She calls for critical reflection on how we understand acceptance, and points out the

\* Corresponding author.

E-mail addresses: [sara@plan.aau.dk](mailto:sara@plan.aau.dk) (S.B. Aaen), [soeren@plan.aau.dk](mailto:soeren@plan.aau.dk) (S. Kerndrup), [lyhne@plan.aau.dk](mailto:lyhne@plan.aau.dk) (I. Lyhne).

inappropriateness in understanding local opposition as something which has to be 'fixed'. Moreover, it seems to be a widespread presumption that good participation processes can eliminate conflict in the planning process (e.g., Zhang, 2015; Innes and Booher, 2004). Furthermore, an instrumental approach dominates much literature on public participation (e.g., Cohen et al., 2014; Michels and de Graaf, 2010; Rowe and Frewer, 2000), aiming at "devising procedures to facilitate quick and efficient negotiations" (Cohen et al., 2014 p. 4).

To understand public acceptance of infrastructure developments, we need to look beyond the current perception of 'acceptance'. Referring to critiques of the NIMBY concept, Batel and Devine-Wright (2015) argue that "[i]t is not important to actually understand why the attitude-behavior discrepancy in those responses exists, but instead what type of socio-psychological processes give it shape and what functions those serve" (p. 313). In this article we follow this line of thinking and look beyond the NIMBY concept and the public acceptance model to investigate the socio-psychological processes among the citizens in the process of participating.

Our point is that citizens' reactions toward new energy infrastructure are created by citizens actively connecting a broad range of socio-material and socio-mental entities from their own arenas as well as from the formal arenas provided by authorities in participatory processes. In line with Wolsink's early call for understanding "the multitude of underlying motivations" among local citizens (Wolsink, 2000, p. 57), we investigate citizens' reactions not as opposition to a specific development, but as a reflection of the many agendas and meanings that we as citizens possess at any given time. Therefore, to understand how citizens make sense of new energy infrastructure, it is essential to broaden the scope of interest and to view the infrastructure development as a part of citizens' worldview — as opposed to the citizens being part of the planning process. We must turn to the spaces where, as Jones and Gaventa (2002) put it, "... citizens spend their everyday life" (Jones and Gaventa, 2002, p. 22).

We investigate citizens' sensemaking processes by applying a novel theoretical framework inspired by sensemaking theory and actor-network theory (ANT) to a Danish case of infrastructure development. This allows for a study of how citizens continuously enact networks of entities to make sense of and act upon the development of infrastructure projects. Applying sensemaking theory and actor-network theory (ANT) to understand citizens' sensemaking is a process-oriented academic contribution to the existing literature aimed at understanding public acceptance of energy infrastructure. From a practice perspective, a better understanding of how citizens make sense might add to the understanding of public acceptance of energy infrastructure. Furthermore, it expands the existing knowledge of what sparks controversy and conflict and why only some of the participating citizens enter into conflict while others do not, especially when these citizens seem to be impacted in similar ways. Today, the tool for identifying the key stakeholders that can be expected to enter into a conflict is a stakeholder analysis. This, we argue, is problematic because it merely gives a static picture of the citizens' attitudes, whilst the attitudes of the citizens seem to be dynamic. A better understanding of citizens' sensemaking process can help bridge this gap.

## 2. Theoretical positioning

In this paper, the combination of sensemaking theory and actor-network theory (ANT) will be used to guide the analysis. ANT has previously been applied to explore the complexity of controversies in wind energy processes (Jolivet and Heiskanen, 2010;

Garud et al., Forthcoming), and sensemaking theory has previously been applied to explore the processes of how citizens make sense of energy initiatives (Virkki-Hatakkaa et al., 2013) and new infrastructure (Lyhne and Kørnø, 2013). In this article we develop a framework for understanding citizens' sensemaking and reactions to new infrastructure by combining the theory of sensemaking and actor-network theory (ANT).

We make the general claim that sensemaking and actor-network theories (ANT) are very useful in combination in order to understand how citizens make sense of new infrastructure projects. The sensemaking theory contributes an understanding of how actors make sense about infrastructure by enacting cues and create plausible stories. The ANT perspective contributes to the understanding of how actors make sense with a strong focus on the heterogeneity of entities,<sup>1</sup> the process of assemblage of entities through problematization, interestment and enrollment, and the interactive processes of how the entities are ascribed and ascribe positions and roles to other entities in a network.

Our use of sensemaking theory is primarily inspired by Weick (1995, 1979) and Weick and Sutcliffe (2015). The sensemaking perspective guides our investigation of the process of sensemaking that is undertaken by the individual citizen in a dialectical process among the perception of the impacts of the project, the social interaction in the participation process, the citizen's world, and the citizen's actions.

In a sensemaking context, an infrastructure project being presented to the participating citizens can be considered a disturbance to their everyday practices. It inspires sensemaking, because it is a situation where "... the current state of the world is perceived to be different from the expected state of the world" (Weick et al., 2005, p. 414). Citizens are then forced to ask themselves the question that Weick et al. (2005) pose as the starting point of sensemaking: "What's going on here?" This is followed by such questions as: "How does it concern me? How do others react? And now what should I do?" These are starting points of actions related to the planning process.

However, action cannot be viewed only as a successor to sensemaking. Action is more importantly a part of the sensemaking process. In order to make sense of events happening in our environment, as Weick (1995) argues, we need to enact the environment. This means that we act before we fully understand the context in which we act, and only interpret in retrospect in order to understand what we just did and the environment in which we did it (Westwood and Clegg, 2003).

According to Weick (1995), we make sense by noticing and bracketing cues in our surroundings in order to create a plausible story about what is going on (Weick, 1995). The process of noticing and bracketing is formed by previous experiences and identities (Weick et al., 2005). Therefore, the cues and stories become rather different from individual to individual, but the way of doing it is similar (Weick and Sutcliffe, 2015). Using another set of terms, Hill and Leventhagen (1995) describe this set of experiences as a way to: "... establish images, names and an understanding of how things fit together" (p. 1059). This set of experiences is continuously evolving and is inherently social (Weick, 1995).

In order to understand the outcome of the sensemaking process it is essential to also consider the input to the sensemaking process — the cues. Weick (1995) states that the content of sensemaking is to be found in the "frames and categories that summarize past experience", but also in "the cues and labels that snare specifics in the present experience" (Weick, 1995, p. 111).

<sup>1</sup> The ANT literature uses the term "actants" to emphasize that both humans and non-human elements are influencing identities and actions of persons. In this paper, we use the term "entities" to cover human and non-human elements.

Download English Version:

<https://daneshyari.com/en/article/7398862>

Download Persian Version:

<https://daneshyari.com/article/7398862>

[Daneshyari.com](https://daneshyari.com)