

## Out of Sight, out of Mind?

### Controversy over Offshore Wind Energy in Norway's News Media<sup>1</sup>

Sara Heidenreich

Department of Interdisciplinary Studies of Culture

Norwegian University of Science and Technology

7491 Trondheim, Norway

Email: [sara.heidenreich@ntnu.no](mailto:sara.heidenreich@ntnu.no)

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# **Out of Sight, out of Mind? Controversy over Offshore Wind Energy in Norway's News Media**

## **Abstract**

News media are important reference points for public sense-making of emerging technology. In Norway, offshore wind can be considered an emerging technology. Siting renewable energy technology offshore is commonly regarded as a solution to onshore implementation problems, as development happens 'out of sight, out of mind' of the public. However, does moving renewable energy technology offshore really prevent controversy? How is emerging offshore wind technology made comprehensible in Norwegian news media? The dominance of supporting actors and arguments in the Norwegian news media discourse on offshore wind energy technology and the high prevalence of the argument that offshore wind should be non-controversial due to its placement 'out of sight' suggest that the expectation that such technology will prevent controversy has been partly met. Still, the emerging technology has been accompanied by an evolving controversy, though with a different extent and focus than the controversy over onshore wind. Both supporting and opposing actors have made offshore wind energy technology comprehensible by employing economic, environmental and moral arguments. Economics has appeared as a privileged frame of interpretation used by both supporters and opponents. Environmental arguments have shifted their focus to biodiversity and global aspects such as sustainability and climate change, and lost their dominance relative to their role in onshore controversies.

## **Keywords**

Offshore wind energy, news media coverage, sense-making, contested natures, Norway

## Introduction

I am against the development of land-based wind power because of its large intervention in nature. Future generations should have the right to stand on the highest summit and see the Ålfotbreen, Grovabreen and Jostefonn glaciers just as I do today. And they should do this without unsightly foreign elements around. Actually, we do not need to build out [land-based wind power], because there are alternatives, among them: offshore wind power. (*Bergens Tidende*, 1 October 2010)

This quote was taken from a feature story written by the farmer Jarle Nordgulen in the regional newspaper *Bergens Tidende*. It is a comment on the regional plan for wind power for the county of Sogn og Fjordane in Western Norway, renowned for its beautiful fjord landscape. Nordgulen argued against onshore wind development, mainly based on its perceived destruction of nature and landscapes and its consequences for the outdoor activities of the local community.

As we see here, the development of new renewable energy is frequently accompanied by controversy related to its high land-intensiveness relative to conventional energy production. Hirsh and Sovacool (2013) argue that new land-intensive renewable energy makes visible electricity production and distribution, which largely have been invisible to most people, due to the concentrated and remote placement of conventional power plants. Having energy production in view forces people ‘to ponder [...] that their electricity-based lifestyles require new sources of energy’ (Hirsh and Sovacool, 2013, p. 723f), and thus may lead to opposition. Particularly in the context of onshore wind power, controversies over natural and environmental consequences affecting biodiversity and landscapes have been widely observed (Toke, 2005; Warren *et al.*, 2005; Ellis *et al.*, 2007; Wolsink, 2007; Devine-Wright, 2009; Solli, 2010).

In his feature story in *Bergens Tidende*, farmer Nordgulen considered offshore wind power an acceptable alternative to onshore development. Consistent with Nordgulen’s reasoning, it is commonly assumed that moving renewable energy production offshore, and thus back to ‘invisibility’, will prevent controversy (Haggett, 2008), as offshore energy production promises to be ‘out of sight, out of mind’.

This paper on the news media discourse on offshore wind energy is based on an analysis of newspaper articles published in Norway between 2000 and 2010. How do both journalists and other contributing actors in Norwegian news media perform sense-making of offshore

wind technology and address controversy? In what sense was this technology made visible, or kept invisible, and hence, ‘out of sight, out of mind’?

News media present arenas for information and debate, not only for journalists, but also for other actors. They also serve as reference points for the public. They communicate information about issues such as renewable energy, and frame and ascribe meaning to these issues (Cox, 2010; Hansen, 2010; Lester, 2010). News media can be described as being at the interface between science/technology and the public. Hence, news media are important for the public sense-making of emerging technologies, such as offshore wind energy in Norway.

The current situation of offshore wind energy in Norway is ambiguous and uncertain. The country, with its long coastline, has excellent offshore wind potential, but its energy situation is characterized by the export of oil and gas. In addition, abundant clean and inexpensive hydropower represents a gold standard against which other energy production is measured (Sørensen, 2007), and cost efficiency is a dominant principle in Norwegian energy governance (Skjølsvold *et al.*, 2013). Thus, policymakers regard the development of offshore wind energy one option among many, and there is less drive behind its development in Norway than in other European countries.

In 2010, the Norwegian Water Resources and Energy Directorate identified 15 potential sites for offshore wind farms along the Norwegian coast (NVE, 2010). However, to date, the only licensed commercial offshore wind park is Havsul. The Havsul wind farm, which should be located between 5 and 10 kilometers off the coast of Mid-Norway, was originally planned to be operational by 2015. However, it was put on hold in December 2012, because the framework conditions in Norway were not supportive of offshore wind development. To date, only one offshore turbine – Hywind, a floating pilot – has been installed in Norway. Thus, while there is a quite strong focus on the research and development of offshore wind technology in Norway, future implementation remains uncertain. Many decisions concerning offshore wind energy remain undecided, and this analysis of the media coverage surrounding the subject may inform both national and local decision-making.

Due to the emerging state of offshore wind in Norway and the fact that no offshore wind parks have actually been installed, the paper analyzes how news media deal with various discursive promises of offshore wind energy, rather than analyzing a controversy over installed technology. This is important to note, in light of some studies (e.g., Brauholtz, 2003; Devine-Wright, 2005; Eltham *et al.*, 2008) that indicate that public sentiment changes after wind turbines have been installed, and in light of the discussion of the ‘social gap’ (Bell *et al.*, 2005) between high public support of wind energy on a more general and abstract level on the one

hand, and strong contestation over particular local wind farms on the other hand.

### **Analytical perspectives: Offshore wind energy, news media and contested natures**

An analysis of sense-making in the news media is particularly relevant in the context of emerging technology, such as offshore wind in Norway, which is characterized by many uncertainties. The analytical perspectives I draw upon in this paper are presented in this section and are divided into the following subsections: a) offshore wind energy: previous research, b) news media as arenas for sense-making of environmental issues and c) contested natures.

#### *Offshore wind energy: previous research*

Globally, the deployment of offshore wind energy is expected to increase greatly over the following decades. Thus far, development has mostly been in Europe, but other countries, including the US and China, are expected to also contribute to the development of this energy source. A main motivation for offshore wind energy is climate change mitigation. In addition, concerns over energy security, good wind conditions and free space, the opportunity to site power plants close to major coastal cities, the lower impact on the environment and humans, and apparently less public resistance than is typically found towards onshore energy sources are noted drivers for offshore wind development (Veum *et al.*, 2011; Kaldellis and Kapsali, 2013; Timilsina *et al.*, 2013).

Haggett (2011) argues that the discussion of offshore wind energy can be seen as a continuation of the onshore debate. Many issues, such as participation, trust, environmental and visual impact and local context, are relevant to both offshore and onshore debates. The continuous importance of aesthetic values and visual impact to public attitudes is particularly emphasized (Haggett, 2008; Gee, 2010; Waldo, 2012). Wolsink (2010) argues that public attachment to seascapes may play the same role as public attachment to landscapes. Also, contested environmental values factor into offshore wind controversies (González and Estévez, 2005; Firestone and Kempton, 2007). Thus, research challenges the common belief that siting wind turbines offshore will solve implementation problems encountered onshore.

Offshore wind energy in Norway has been given little scholarly attention, though Thele's (2008) study of the controversy over the planned Havsul near-shore wind farm is an interesting exception. He finds this local controversy to mainly pertain to conflicting definitions of nature. Similar observations have been made about wind energy on land.

Bye and Solli (2007) observe that the public perception of onshore wind in Norway has changed from seeing the energy source as environmentally friendly to seeing it as a controversial technological intervention in nature. Rygg claims that arguments both for and against onshore wind energy are locally embedded. Opponents point to the need for nature conservation. Supporters, in contrast, emphasize employment opportunities and economic benefits, thereby turning wind turbines 'into modernization hybrids, representing a tempting opportunity for the inhabitants' (Rygg, 2012, p. 175).

In their review of the literature on public engagement with offshore wind energy, Wiersma and Devine-Wright point out that studies about the 'wider socio-technical context (e.g. media coverage [...]) have not been emphasized sufficiently' (Wiersma and Devine-Wright, 2014, p. 501). The few previous studies of the media discourse on offshore wind energy suggest a dominance of aesthetic issues in controversies surrounding the subject. Based on his analysis of the newspaper coverage of a proposal for offshore wind development in Nantucket Sound, Massachusetts (US), Thompson (2005, p. 259) claims that 'the newspapers fell well short of facilitating high-quality public debate', because they failed to report sufficiently on most social and environmental issues, beyond aesthetics. He also argues that the newspapers mainly overlooked the link to global climate change, focusing instead on local aspects of offshore wind energy. Kuehn (2005), studying the reception of offshore wind farms in Denmark, finds that local newspapers mainly presented negative attitudes towards offshore wind, including concerns for aesthetics and high electricity prices, while propositions for local employment opportunities through the wind farms were given less attention.

The dominant focus on aesthetic issues and on local, rather than global, environmental concerns, makes media discourse on offshore wind comparable to the discourse on onshore wind. For example, Stephens and colleagues (2009) observe that US media coverage of onshore wind energy seldom links the technology to global warming. Furthermore, Wolsink (2000) presents a Dutch case in which an onshore wind

project was formally opposed due to noise. However, the regional and local press focused more on landscape and visual issues than on noise.

### *News media as arenas for sense-making of environmental issues*

The study of environmental media can be regarded as a subfield of environmental communication. Cox (2010, p. 20) defines environmental communication as the ‘pragmatic and constitutive vehicle for our understanding of the environment as well as our relationship to the natural world; it is the symbolic medium that we use in constructing environmental problems and negotiating society’s different responses to them’. Thus, the way in which we communicate about environmental issues, such as offshore wind energy, influences our perception of these issues. News media are important arenas where such communication and sense-making takes place – where elements of a story ‘are filtered, framed, communicated, and made available to society for construction and enactment’ (O’Connell and Mills, 2003).

Sense-making in this context is understood quite literally as producing meaning through processes of interpretation and reflection (Brown *et al.*, 2008). Weick writes that ‘to engage in sensemaking is to construct, filter, frame, [and] create facticity’ (Weick, 1995, p. 14). Further, Weick and colleagues stress that ‘sensemaking is, importantly, an issue of language, talk and communication. Situations, organizations, and environments are talked into existence’ (Weick *et al.*, 2005, p. 209). As mentioned above, new technologies, due to their ambiguity and uncertainty, require sense-making to be managed and to reduce equivocation.

Cox (2010, p. 208) describes news media as ‘important public sphere[s] within which many voices and claims to rationality compete’. They provide space for relevant actors to deal with issues of concern and express their perspectives. News media can be regarded as mediators between science and the public (Bucchi, 2008). This relationship between news media and the public is complementary: on the one hand, the media have a responsibility to engage the public; on the other hand, citizens have a responsibility to engage (Dahlgren, 2009). Likewise, Lester (2010, p. 165) states that ‘media invite their audiences [...] to respond’ in different ways; public response or engagement can, for example, involve interest, affect or participation.

However, as studies on media effects (i.e., the influence of media on public attitudes and perceptions) show, it is difficult to establish a direct link between news media and public perceptions (Cox, 2010; Hansen, 2010). Hansen (2010, p. 169), for example, argues that demonstrating the specific ways in which the media influence publics ‘has proven a more elusive task’. However, the media may have agenda-setting power (McCombs and Shaw, 1972;

Ader, 1995; Cox, 2010; Olausson, 2011). They might not strongly influence what people think, but they do tell people what to think about. This is especially prevalent in relation to unobtrusive, as well as global and national (as opposed to local), issues (Hansen, 2010).

In this context, audiences should not be conceived of as passive recipients of news media. In contrast, they actively use media, in conjunction with many other sources in their social lives, to make environmental issues comprehensible. Hansen (2010, p. 181) states that:

the media and media coverage of environmental issues are best conceived of as a – continuously changing – cultural reservoir of images, meanings and definitions, on which different publics will draw for the purposes of articulating, making sense of, and understanding environmental problems and the politics of environmental issues.

Olausson (2011) criticizes research on climate reporting for media-centrism, on the basis that it assumes a central role of the media in shaping public understanding without empirically supporting that claim. Instead, she argues, the media are just one of several resources for the meaning-making activities of the public, constituting an overall framework for sense-making that people actively fill with their own experiences. However, she acknowledges that the media are ‘the primary intermediary between science, politics, and the citizens’ (Olausson, 2011, p. 295). Boykoff (2009, p. 448) expresses it as follows: ‘[media] coverage does not determine engagement but shapes their possibilities’.

News media do not mirror the public debate, but they provide edited arenas that influence science, as well as the public. They are very complex and diverse, influenced by varied interests and constructed of complex interactions with different actors (Dahlgren, 2009; Hansen, 2010). Lester (2010, p. 60f) proposes that we view news media as ‘deeply contested site[s] where issues develop and agendas are set’. Hansen (2010), for example, comments on the media’s gatekeeping role, emphasizing their control of the selection of issues, sources and arguments that enter their domain. Factors constraining the media include, among others, organizational, cultural, economic and political factors, and professional norms and values (Cox, 2010; Hansen, 2010; Lester, 2010).

Weingart (2005) introduces the concept of the mediatization of science to refer to a changed relationship between the media and science, or what he terms the ‘science-media coupling’. He describes two dimensions of this mediatization: First, science is increasingly becoming a public issue; it is constructed, imagined and represented in and through the mass



media. Second, science is increasingly changing by adapting to constructed public expectations and orienting towards the mass media for public acceptance. Schäfer (2009) describes the first dimension of mediatization, which is relevant in the context of this paper, as an extensified, pluralized and more controversial media coverage of science. Hence, Rödder and Schäfer (2010, p. 257) distinguish between routine and mediatized phases of media coverage of science, wherein ‘phases of mediatization are characterized by an increase in coverage and by more pluralistic debates’.

To summarize, the media are an important source of knowledge and opinions of science and technology. They play a central role in the construction of meaning, and they represent, although partially, public concerns (Boykoff, 2009; Hansen, 2010; Lester, 2010; Ryghaug *et al.*, 2011; Skjølsvold, 2012). In this paper, I regard news media as an arena in which sense-making and contestation of environmental issues (such as offshore wind energy) take place.

### *Contested natures*

As mentioned above, controversies over wind energy are often characterized by contested concepts of nature. Different participating actors conceptualize nature in different ways. Hence, news media can also be seen as arenas for sense-making about nature and the environment in the context of controversies over wind energy.

Macnaghten and Urry (1998) show that nature has multiple, often contested, meanings and argue that it would be more appropriate to speak of natures, in plural. The authors emphasize that natures and environments are produced by social practice and discourse. Furthermore, they demonstrate the diversity and ambivalence of people’s engagement with nature and argue that, since nature is constructed in various ways, ‘nature is in some senses as cultural as is say that content of television’ (Macnaghten and Urry, 1998, p. 249). Weber (2007) also emphasizes the fact that different concepts of nature replace each other over the course of time, and that these concepts may be combined or may exist simultaneously. Similarly, Morton (2007, p. 21f) considers nature ‘an arbitrary rhetorical construct, empty of independent, genuine existence behind or beyond the texts we create about it’.

Particularly in examinations of controversy, different meanings and constructions of nature that are employed to support arguments and attitudes can be found and analyzed. Weber (2007), for example, argues that different understandings of nature contribute to inconsistencies and conflicts in the nature protection discourse. Similarly, Warren and colleagues (2005) describe conflicts of environmental values related to wind energy as ‘green on green’, referring to the different environmental values and concepts of nature that are employed in controversies.

Some environmentalists support wind farms because they produce clean energy; others oppose them because they destroy the landscape.

Castree and Braun (1998) distinguish between two perspectives on nature. The first is based on a culture–nature dualism. Representatives of this perspective aim to protect nature from intervention by humans. This is in line with what Weber (2007) describes as the traditional discourse of ‘nature as worthy of protection’, wherein nature is conceptualized as a landscape – something static that should not change, and something that should be protected in order for it to remain as it is. In this traditional discourse, nature is described with attributes such as harmony, beauty and familiarity. The second perspective that Castree and Braun present subverts the culture–nature dualism and stresses the linkage and integration of humans and nature. ‘From this perspective, human intervention in nature is thus neither ‘unnatural’ nor something to fear or decry’ (Castree and Braun, 1998, p. 4). In short, nature is conceptualized differently depending on context, and is filled with a diversity of meanings.

## **Method**

This paper on the news media discourse on offshore wind energy is based on an analysis of Norwegian newspaper articles published between 2000 and 2010. Large in number and regular readers, newspapers hold a strong position in Norway (Østbye, 2008). The articles used in this paper were collected from the online archive Retriever ([www.retriever.no](http://www.retriever.no)), through searches for the main Norwegian terms for offshore wind energy: *vindkraft til havs* and *offshore vindkraft*. Due to the relatively small number of articles about offshore wind energy, and since wind energy issues – especially those pertaining to particular developments – are often discussed locally, I included all Norwegian newspapers in my search, including small, local newspapers. After manually removing irrelevant articles (such as those only mentioning offshore wind energy in discussion of other topics, and commercial or job advertisements) from the sample, a total of 654 articles remained.

In my analysis, I use the term ‘discourse’ in its everyday sense as talk, speech, conversation or communication. Thus, the method of data analysis used to study the newspaper articles was not discourse analysis. Rather, I complemented a qualitative analysis inspired by grounded theory methods with quantitative data analysis. Articles were quantified in order to provide an overview of, for example, the proportion of positive and negative arguments and the change in the number of articles over time. However, since I was interested in meaning, rather than just the spread and relative strength of arguments in the data, the qualitative analysis was most important.

The qualitative analysis was inspired by Charmaz's (2006) constructivist version of grounded theory, due to its strength in identifying categories and clusters of arguments in play. Because of the rather large sample, the analysis was conducted in two steps. In order to gain an overview of the development of the media discourse, I first coded the 443 articles published between 2000 and 2009 with an open coding – that is, I did not apply predefined codes, but instead developed codes while reading the articles. The article was the unit of analysis, and my aim was to identify the main topics of the debate and determine if and how these changed over those years.

The 211 articles published in 2010 were analyzed in more detail. In order to identify actors, arguments and framings, I began with an open line-by-line coding of the articles. I then grouped codes referring to arguments towards offshore wind energy into larger categories of pro and contra arguments. The 'economic benefits' category, for instance, subsumed codes such as 'developing supply industry', 'emphasizing big international markets', 'local development' and 'potential for industrial development'. Following the initial coding, I investigated some codes (which were chosen mainly because of their significance in the data and on the basis of previous studies and theory) further, with focused coding. To develop an overview of the material and to enable quantification, I created a table to list each article with its corresponding codes and important quotes. In the process of data analysis, findings, ideas and questions were jotted down as memos. The theoretical framework presented in the previous section inspired further questions, with which I approached the data. Thus, my analysis can be characterized as abductive (a movement between induction and deduction): generating concepts through induction, choosing a theoretical framework based on those concepts and returning to the data with the chosen theoretical framework (Dey, 2004).

The quantitative data, which complemented the qualitative analysis, were also produced in two steps. The Retriever search provided an exact number of articles per year containing the respective search words, and I used this number to illustrate how the quantity of published articles about offshore wind energy changed between 2000 and 2010. In order to establish the proportion of negative and positive arguments in the 2010 articles, I coded the articles on the basis of the line-to-line codes to determine whether they included only positive, only negative or both positive and negative arguments. I then counted the number of articles in each category.

The analyzed articles were written by journalists or were letters to the editor and feature articles written by public contributors. Of the analyzed articles from 2010, more than one third (36%) were letters to the editor or feature articles. This points, already, to some public engagement with the issue at that time.

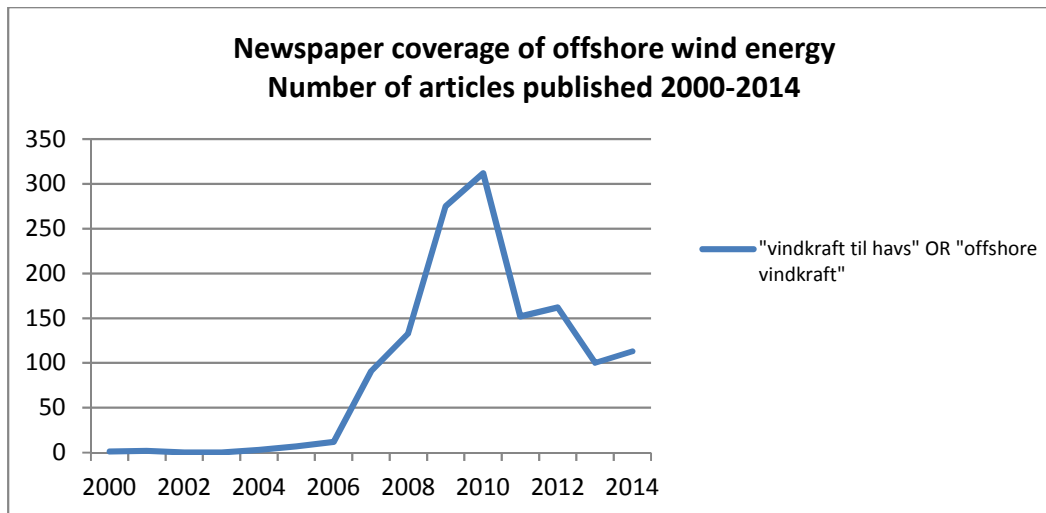
Although news articles, letters and feature articles are different types of newspaper features, I combined them in my analysis because I was interested in the newspapers' general sense-making about offshore wind technology. As mentioned, news media provide an arena for debate not only for journalists, but also for other actors. All three types of newspaper features are involved in the provision of meaning with respect to offshore wind technology. Moreover, I did not analyze the media discourse as a representation of public views; rather, I acknowledged that the data present a particular debate of offshore wind energy and reflect the media's gatekeeping role. However, the importance of the media in the public construction of meaning legitimized the use of such data.

The results of the media analysis are presented in the following three sections. I first demonstrate how the media discourse developed between 2000 and 2010, in order to provide insights related to the volume of coverage as well as the emergence of some main arguments. I follow with a detailed analysis of the actors and arguments in the year 2010.

### **An evolving controversy: How media discourse developed from 2000–2010<sup>1</sup>**

The petroleum resources are being used up, and the risk for a global energy crisis truly exists. Norway has unique possibilities to contribute to curb the crisis by developing offshore wind power, the world's fastest growing energy form. (*Dagens Næringsliv*, 22 January 2005)

The news media discourse on offshore wind energy in Norway emerged in parallel to the worldwide growth of the energy form. Figure 1 illustrates the increase in the number of articles mentioning offshore wind energy from fewer than ten articles in 2000 to more than 300 articles in 2010, which represents a peak in newspaper coverage.<sup>2</sup>



**Figure 1:** Number of articles containing the search words *vindkraft til havs* or *offshore vindkraft* in Norwegian newspapers between 2000 and 2014. Source: retriever.no (accessed 24 March 2015).

In particular, the steep curve upwards after 2006, when news media performed their agenda-setting function (McCombs and Shaw, 1972) and increasingly contributed to creating public awareness of offshore wind energy, reflects the new focus on offshore wind in Norwegian energy policy, research and industrial development at that time. However, was the emerging technology accompanied by an evolving controversy? How controversial was offshore wind energy in early newspaper discourse? To answer these questions, I present the main features of the media discourse between 2000 and 2010.

The starting phase of newspaper discourse between 2000 and 2005 was characterized by references to the huge potential of offshore wind energy technology. Big, floating offshore wind power plants situated far from the coast were imagined to solve the problems experienced with onshore wind power plants: ‘Here is the solution for those who think that windmills destroy the landscape: Hydro pursues to put up the first floating windmill in 2007’ (*Adresseavisen*, 4 November 2005). Offshore wind would be ‘out of sight, out of mind’. Thus, the media made the still rather unknown emerging technology comprehensible by relating it to the more familiar onshore wind parks and constructing it as a positive solution for existing problems.

The increased number of published articles from 2006 onwards, which parallels the worldwide growth of offshore wind, can also be explained by the public disclosure of plans for the first commercial offshore wind power plant in Norway, Havsul. Contrary to imaginings of floating, far offshore sites, Havsul was planned as a bottom-fixed near-shore wind power plant. Many contributors were critical of Havsul. Beyond concerns of noise, danger for birds and consequences for tourism and fishery, the dominant argument against Havsul referred to the

wind farm's visual impact. However, some supporting voices pointed to the wind farm's sustainability and potential contribution to reducing carbon emissions and mitigating climate change. Hence, while media coverage before 2006 dealt with abstract imaginings, it changed its character when it included debate over plans for particular wind parks. News media started to become arenas for contestation: 'public sphere[s] within which many voices and claims to rationality compete' (Cox, 2010, p. 208). Different actors performed various ways of sense-making of this particular wind park.

In 2007, offshore wind energy became a relevant issue for politicians and the media also on the national level. In addition, a global perspective was added through references to a global market for the technology and the possibility that Norway might become a leading actor in technology development. Offshore wind energy was seen to offer a potential technological leap.

The European perspective was added to the newspaper discourse in 2008. Through a combination of offshore wind and hydropower, Norway was imagined to have the potential to act as 'Europe's battery'. Expectations were so high that offshore wind energy was referred to as 'Norway's new oil'. However, this enthusiasm was curbed through criticism referring to the technology's expense and to possible area conflicts. In 2009, offshore wind energy was additionally discussed in the context of electricity prices. Apart from this focus on electricity prices, the arguments in 2009 did not differ much from those in 2010, which I present in more detail in the following two sections.

In sum, the media discourse began with technology optimistic statements about future possibilities. Social aspects became relevant in the local controversy over Havsul. A national debate emerged when topics such as electricity prices and energy export were included. Thus, the emerging technology was accompanied by an evolving controversy, wherein the news media assumed the responsibility to encourage public engagement (Dahlgren, 2009). Apart from the controversy over the plans for Havsul, the controversy remained on an abstract and general level. However, contrary to the concept of the 'social gap' (Bell *et al.*, 2005; i.e., that people are positive, in general, but negative towards particular projects), skeptical arguments were also present in the abstract debate on the national level. Hence, the year 2006, when offshore wind entered the public agenda, marked the beginning of a phase of mediatization (Rödder and Schäfer, 2010) of offshore wind energy technology, represented by an increase in the number of articles published and the participation of a diversity of actors in the controversy.

The sense-making of offshore wind energy between 2000 and 2005 was dominated by one perspective on the technology, relating the emerging technology to existing onshore wind

parks and constructing it as a solution for existing problems due to its placement ‘out of sight, out of mind’. From 2005 to 2010, news media increasingly appeared as arenas of contestation, where different attempts for sense-making of this emerging technology competed – first on the local level, relating to particular plans for offshore wind farms, and later on the national, more abstract, level.

One can view this controversy as a pro and contra debate uncovering utopian and dystopian visions of the technology. However, these pro and contra arguments were not balanced in the media coverage. Of the 211 analyzed newspaper articles published in 2010, approximately 50 percent were found to present mainly supportive arguments, while only around 10 percent were found to present mainly skeptical arguments. The remaining articles were found to present either a balance of supportive and skeptical arguments, or neutral information about new laws and technology development.

A wide range of actors participated in this controversy; that is, the media performed their gatekeeping role (Hansen, 2010) by either giving voice to public actors in news articles or allowing them into the debate via letters to the editor or feature articles. Hence, the sense-making of the technology was performed both by news media and other actors. My analysis identified a group of actors in support and a group in opposition to offshore wind energy. However, not every participating group and individual was easily defined as a supporter or an opponent. There were some ‘in betweens’, which I, following Bell and colleagues (2005), labeled ‘qualified supporters’, as they supported offshore wind energy only when certain conditions were met. In the following two sections, I present the supporting and opposing groups and their main arguments, reflecting their sense-making about offshore wind energy. However, before I do so, I will shortly recall the context in which these arguments were made.

It is 2010. There is still no offshore wind farm installed in Norwegian waters. The only offshore turbine, Hywind – the first floating pilot worldwide – has just been installed. The Minister for Petroleum and Energy enthusiastically describes offshore wind as an industrial adventure for Norway. Fifteen potential areas for offshore wind farms along Norway’s coast are identified in the offshore wind report (NVE, 2010). The Havsul wind farm is the only offshore wind farm given a license, but installation has not started. As we have seen, 2010 is the year with the most newspaper items published about offshore wind energy and presents the peak of the mediatization of offshore wind energy.

In his analysis of ‘the rise and decline of offshore wind in Norway’, Normann (2014) describes that, between 2005 and 2009, entrepreneurial activity, coupled with political enthusiasm for offshore wind as a solution for climate change and industrial decline, opened a

window of opportunity for offshore wind in Norway. However, he argues that this window closed between 2010 and 2012 due to, among other things, exogenous events such as new oil discoveries and a new Minister for Petroleum and Energy who had less enthusiasm for offshore wind. Hence, the year of 2010 could be described as a turning point for Norwegian offshore wind energy; thus, an analysis of the controversy in 2010 is particularly interesting.

### **A new green industrial adventure: The supporters**

In the next couple of years we have a unique chance to take floating offshore wind energy as the next big industrial adventure in Norway. (*Bergens Tidende*, 11 December 2010)

The supporting group was found to contribute to the mediatization of offshore wind energy with high expectations of its opportunities and the related benefits for Norway. Representatives of offshore wind related industries and research institutions were included in this group, and they focused their sense-making on technological and industrial developments related to offshore wind and the associated business opportunities. A second, very active, supporting group consisted of politicians from nearly all parties. This group pointed to the necessity of developing renewables to prevent climate change, and hence emphasized the global aspects of offshore wind. They also focused on its national benefits – that is, its potential for generating industrial development. However, some local politicians could also be characterized as qualified supporters (Bell *et al.*, 2005). These politicians supported offshore wind development only when certain conditions, such as extra income tax for the affected municipality, were met.

A part of the environmental movement that was more technology-oriented and focused on climate change mitigation was also in support of offshore wind energy. However, environmental organizations only provided qualified support, tying the development of offshore wind to conditions such as the protection of biodiversity. A few supporters who lacked institutional affiliation focused on the potential positive effects on local development and hence argued contrary to the assumption of the ‘social gap’ (Bell *et al.*, 2005). In addition, some local initiatives expressed support for offshore wind energy in connection with their protest against onshore wind power plants. Again, offshore wind was made comprehensible in relation to onshore wind.

Collected, the arguments employed by the supporting actors can be divided into four categories, relating to: (1) economic benefits, (2) environmental friendliness, (3) moral responsibility and (4) resistance prevention.



The first category of arguments employed by the supporting actors in their sense-making of offshore wind energy in Norway referred to anticipated national economic benefits, emphasizing the considerable advantage that the technological development of offshore wind energy could bring to Norwegian industry. In these arguments, Norway was considered a potentially leading industrial actor in the European supply industry. As the Research Director of Aker Solutions stated: ‘There is a giant market out there and we are well prepared to supply this market with equipment’ (*Fædrelandsvennen*, 29 November 2010).

Although Norway has limited experience with wind energy, supporters emphasized the country’s abundant experience with offshore oil, gas and marine technology. A Labor Party member wrote: ‘Norway has big industrial expertise when it comes to installations and solutions offshore. In addition, we are a great energy nation. We have to make sure that this expertise will make us world leading within renewable energy’ (*Adresseavisen*, 3 April 2010).

Offshore wind was also considered a solution for Norwegian industry in a post-oil era. Some supporters thought that offshore wind energy had the potential to become Norway’s next industrial adventure and to create new jobs (*Adresseavisen*, 3 April 2010; *Trønder-Avisa*, 5 July 2010; *Nationen*, 20 October 2010). A few supporters also pointed to possible positive local consequences of offshore wind farms, such as new jobs and sport and cultural activities, as well as advantages for the national economy (*Adresseavisen*, 30 November 2010).

The second category of arguments the supporting actors used in their sense-making centered on the environmental friendliness of offshore wind, mainly in relation to climate change. Most Norwegian politicians and some members of the environmental movement considered the development of offshore wind energy a strategy for reducing CO<sub>2</sub> emissions and for meeting the EU directive of increasing the proportion of new renewables in Norway’s energy mix. A Labour Party member wrote that ‘the world has to solve the climate crisis and at the same time billions need access to more energy to get out of poverty. We won’t manage this without big technological leaps. Offshore wind technology can be an important Norwegian contribution’ (*Trønder-Avisa*, 17 July 2010).

This official statement also refers to the third category of argument, which employed a moral perspective. Norway has greater wind resources than most countries, and offshore wind conditions are considered better and more stable than conditions onshore. Accordingly, some supporters felt that Norway should use these resources to contribute to solving global energy challenges.

Furthermore, electricity from offshore wind power plants was thought to potentially contribute to electrifying oil platforms and meeting the increased needs of electric vehicles.

According to some supporters, Norway could become Europe's green battery by combining hydropower and wind power and providing surplus power to Europe. This energy export was seen from an economic, as well as a moral, perspective:

The country is not only rich on energy. We do also have a high level of technological competency to find out how Norway best can exploit and interconnect the renewable energy resources. With our oil wealth on top of this, we have a moral responsibility to deliver green energy to the world. (*Aftenposten*, 15 June 2010)

These three categories of argument, which the supporting actors employed in their sense-making of offshore wind energy in the news media, expressed a belief in progress informed by technological optimism. The first category (relating to economic benefits) dominated the debate and represented the self-interest of Norway as a nation, of local communities and of industrial and R&D actors. Similar to what Rygg finds in relation to onshore wind, offshore wind technology was conceptualized as a 'modernization hybrid' (Rygg, 2012, p. 175), promising industrial development and new job opportunities. The second category (relating to environmental friendliness) corresponded with more altruistic thinking – however with arguments that were mainly directed towards nature. Hence, this second category exemplified a perspective on nature and the environment that focused on abstract global concepts such as sustainability and climate. Similar to the group of environmentalists on the one side of the 'green on green' conflict that Warren and colleagues (2005) describe, the supporting actors made offshore wind comprehensible as green clean energy. They demonstrated the second perspective on nature described by Castree and Braun (1998), which emphasizes the integration of nature and culture. The third category of argument (focusing on Norway's moral responsibility) shifted the emphasis to altruism, arguing that Norway should be willing to bear costs for a global benefit.

As we have seen, these three categories of argument mostly discussed offshore wind energy on an abstract, general level, and did not relate the discourse to particular local plans for development. However, the category relating to economic benefits was sometimes also employed in the context of planned or envisioned local offshore wind farms, such as specific plans promising local economic development and jobs. Thus, the theory of the 'social gap' (Bell *et al.*, 2005) – that support of offshore wind focuses on the general, abstract level – is

basically supported in this analysis of the news media discourse in Norway. However, some exceptions, focusing on local benefits, can also be observed.

In addition, supporters emphasized the argument that placing wind turbines offshore would prevent public resistance; this emphasis comprises, in effect, the fourth category of argument. Supporters believed that, because offshore wind power plants would be ‘out of sight’ and far from people’s homes and recreational areas, they would also be ‘out of mind’. Thus, it was assumed that conflicts with the local population would be avoided: ‘Gradually most wind parks will end up far at sea, where they just bother the seagulls’ (*Bergensavisen*, 1 November 2010). In this category, arguments addressed an anticipated public resistance to wind energy based on its visual impact, and constructed offshore wind parks installed outside the range of vision as a solution.

This general argument for offshore placement was frequently made in the context of opposition to particular onshore wind power plants in local and regional newspapers (*Fædrelandsvennen*, 22 April 2010; *Stavanger Aftenblad*, 18 June 2010; *Fosna-Folket*, 28 September 2010; *Bergens Tidende*, 1 October 2010; *Adresseavisen*, 28 October 2010; *Adresseavisen*, 29 October 2010). Sense-making of the emerging offshore wind technology thus occurred in relation to the familiar technology on land. Haggett (2008, p. 292) describes this phenomenon as follows: offshore wind energy ‘is seen as a good thing not just in its own right, but because it may be the answer to many of the problems encountered with onshore developments’.

To summarize, the news media functioned as arenas for a diversity of actors in support of offshore wind energy, whose sense-making about offshore wind energy took place by means of economic, environmental and moral arguments. The supporters focused mainly on economic concerns, while environmental perspectives played a minor role. This stands in contrast to the findings of earlier studies on onshore wind debates in Norway (Bye and Solli, 2007) and the controversy over the planned offshore wind farm Havsul (Thele, 2008).

### **Expensive turbines, endangered birds, and area conflicts: The opponents**

As mentioned above, only 10 percent of the newspaper articles from 2010 included purely oppositional arguments with respect to offshore wind energy. The aim of this section is to identify the opposing actors and analyze their arguments they employed in their sense-making about offshore wind energy.

Similar to the supporting group, the opposing group consisted of publics representing various interests. Among the political parties I identified in the debate, only the small Coast

Party (without national influence) expressed a skeptical outlook. However, as mentioned above, there were local exceptions to the general positive attitude of other political parties. This opposition was directed towards the placement of particular offshore wind power plants, which was considered to conflict with local interests. Thus, this opposition could be seen as an expression of the ‘social gap’ (Bell *et al.*, 2005). Also, a part of the environmental movement was critical towards offshore wind energy, more generally. Representatives of the Norwegian fishing industry also participated in the opposition; they took a clearly negative position, focusing on potential area conflicts. Further skeptical statements came from tourism and recreational organizations, and a few individuals with no institutional affiliation.

While the supporters mostly presented a range of arguments in favor of offshore wind, opponents tended to concentrate on a few arguments that lay within their particular areas of interest. I observed four categories of arguments that the opposing actors employed in their sense-making of offshore wind energy, relating to: (1) cost, (2) visual impact and biodiversity conservation, (3) opposition to energy export and (4) area conflict.

The first category consisted of arguments about the costs of wind turbine production, installation and maintenance, which were thought to be too high to enable profitability without heavy subsidy. Opponents argued that offshore wind energy could not compete with other energy forms, be they modern gas power plants, hydropower or onshore wind power (*Stavanger Aftenblad*, 19 March 2010; *Teknisk Ukeblad*, 24 June 2010; *Bergens Tidende*, 23 December 2010). They did not share the technological optimism observed among the supporters. This category of arguments was mainly employed in general discussions of offshore wind energy on a national level. However, in some cases it was also mentioned in the context of plans for particular offshore wind farms, in terms of anticipated higher electricity prices. The opponents constructed offshore wind as an expensive technology that would not be profitable in the short and medium term, and hence would have negative consequences for people’s economy.

The second category consisted of arguments emphasizing the visual and environmental impacts of offshore wind energy and the sentiment that Norway’s extraordinary landscape should be protected from visual pollution. Wind turbines were thought to potentially destroy views to the open sea, which are advertised as a main tourist attraction (*Andøyposten*, 14 October 2010). In this context, the aim of the opposition was nature conservation. Norwegian nature and landscapes play a special role in the Norwegian identity and Norway’s international image. Thus, dimensions of place attachment and identity were at stake in arguments of nature conservation. However, it is important to note that, in contrast to most other categories of

argument, which referred to far offshore sites, arguments connected to visibility mainly referred to near-shore sites that would be visible from the coast.

In addition, opponents declared a danger for biodiversity – in particular birds and sea animals. Very polemically, the writer Gjelsvik wrote: ‘The windmill parks will also make up a holocaust for the natural environment. Where should the birds go in a renewable paradise?’ (*Bergensavisen*, 4 December 2010). Furthermore, the planned Havsul wind power plant was criticized by the Norwegian Society for the Conservation of Nature for being placed in a migration corridor for seabirds and the feeding ground for South Norway’s biggest seal colony (*Klassekampen*, 25 November 2010). Arguments about the environmental and visual impact of offshore wind energy were related to particular offshore wind farms and to offshore wind development, in general. This category can be described by what Weber (2007) terms the traditional discourse of ‘nature as worthy of protection’, and aligns with the first perspective on nature defined by Castree and Braun (1998), which focuses on protecting nature from human intervention.

The third category opposed the supporters’ moral arguments for offshore wind. Although most of the opponents welcomed Norway’s involvement in offshore wind technology and the nation’s potential for supplying a global offshore market, specific plans to erect offshore wind farms in Norway and to export energy to other countries were criticized. Due to Norway’s hydropower resources, the opponents saw offshore wind farms as unnecessary and felt that Norwegian taxpayers should not provide Europe with highly subsidized green energy (*Bergens Tidende*, 23 December 2010). Such arguments created a division between Norway and the rest of Europe, as well as between rural coastal areas and cities such as Oslo and Bergen, where decisions affecting rural areas are often made (*Nynorsk Pressekontor*, 15 October 2010). This opposition towards energy export to other countries was expressed, on an abstract level, in debates over offshore wind energy.

The fourth category, relating to area conflicts, consisted of arguments mainly connected to the fishing industry. These arguments were employed in the context of particular local plans for offshore wind farms. According to a regional fishing association, the sites chosen for offshore wind power plants tend to be the best areas for fishing (*Stavanger Aftenblad*, 6 March 2010; *Nynorsk Pressekontor*, 15 October 2010). This area conflict created opposition, even within political parties that were generally supportive of such developments, such as the Conservative Party, whose mayor from the island of Andøy commented:

Concerning the area conflict with the fisheries, I am sure that Andøy as well as Vesterålen will speak completely in line with the opinion of the Norwegian Fishing Association; that is to say that this type of installations [offshore wind farms] is not compatible with fishing activities because it will close a considerable area of the shelf (*Harstad Tidende*, 1 December 2010)

Such opposition indicates the symbolic importance of the Norwegian fishing industry. Other area conflicts suggested by the opponents were with the petroleum, shipping and military surveillance industries (*Bergens Tidende*, 23 December 2010).

In summary, the scope of the arguments that the opposing actors employed in their sense-making of offshore wind energy was local, national and partly European, relative to the supporting arguments, which focused mainly on the national and global levels. The opposing categories relating to costs and subsidized energy export included national, as well as individual, interests. The area conflicts category represented the local interest of opponents. Only the environmental perspective included altruistic thinking towards nature. However, the global and moral responsibility articulated by supporters was absent in these opposing arguments.

Supporting arguments were employed mainly on a general, abstract level, while opposing arguments often referenced plans for particular offshore wind developments. This is in line with the ‘social gap’ (Bell *et al.*, 2005) between high general support and opposition towards particular local developments. However, supportive arguments also related to plans for particular wind farms (e.g., emphasizing the economic benefits of local development and jobs). Likewise, opposing arguments were also employed on a more general level (e.g., relating to costs, environmental and visual impact and energy export).

	Supporters	Opponents
Economic issues	<i>Industrial development</i> <i>Energy export</i> <i>Local development</i> <i>Jobs</i>	<i>High costs</i> <i>Electricity prices</i>
Environmental issues	<i>Climate change mitigation</i> <i>Green clean energy</i>	<i>Environmental impact</i> <i>Visual impact</i> <i>Biodiversity</i>
Moral issues	<i>Moral obligation to produce and export renewable energy</i>	<i>No production of renewable energy for export</i>

Site-specific (offshore) issues	<i>Prevention of public opposition through siting at sea</i>	<i>Area conflicts at sea (fishery)</i>
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**Figure 2:** Overview of the arguments in the Norwegian media coverage relating to offshore wind energy.

The different scope of supporting and opposing arguments in the media discourse analyzed here contrasts with Rygg’s (2012) findings of local perceptions of onshore wind energy in Norway, which indicate that both supporting and opposing arguments have local references. One explanation for this difference in findings may be that offshore wind energy is in an emerging state, and, as yet, there are no commercial installations in Norwegian waters. Thus, apart from a few contributions around particular planned wind farms (such as Havsul), wind turbines, in their physical form, were largely absent from the media discourse. Also, contrary to prior studies of offshore wind controversies in the news media (Kuehn, 2005; Thompson, 2005), the present study found that visual aspects played a minor role in the Norwegian news media discourse.

## **Conclusion**

The news media are important reference points for public sense-making of environmental issues. It could be claimed that the media construct virtual futures for, as an example, emerging technologies. This paper has analyzed the discursive promises of the emerging offshore wind technology in the Norwegian news media with a particular focus on how different actors performed sense-making of the technology in the controversy.

Moving renewable energy production offshore is commonly believed to prevent controversies about area use and environmental consequences. However, previous studies have claimed that the debate over offshore wind energy can often be seen as a continuation of the onshore debate, with an emphasis on aesthetics (Haggett, 2011). Offshore wind energy technology is not always ‘out of sight’, and seascapes are as valued as landscapes (Wolsink, 2010).

The strategic argument that offshore wind development would be ‘out of sight, out of mind’ was very common in the Norwegian news media. Offshore wind was constructed as a solution for anticipated public opposition due to the visual impact of the technology. This argument emphasized the future technological possibilities of offshore wind. It also employed an environmental perspective by focusing on nature, which was not to be destroyed – at least

not *in sight*. At the same time, the ‘out of sight, out of mind’ argument was a strategy for non-involvement to avoid public resistance. Offshore wind was thought to potentially be a pure technical solution without public opposition. The media analysis indicated that this strategy worked – at least to a certain degree. Most articles introduced supportive arguments, while opposing arguments were comparatively few in number. Onshore wind opposition groups supported offshore wind development. Hence, participating actors attempted to keep the technology ‘invisible’, so that controversy could be prevented by moving renewable energy offshore.

However, discussion of the emerging technology was accompanied by an evolving controversy, though with a different extent and focus than the controversy over onshore wind. Hence, the technology was made visible. Both supporting and opposing actors made offshore wind energy technology comprehensible by employing arguments related to economic, environmental and moral issues. Surprisingly – and contrary to previous findings (e.g., Wolsink, 2000; Kuehn, 2005; Thompson, 2005; Stephens *et al.*, 2009) – visual aspects played a minor role in the controversy.

Supportive, as well as oppositional, engagement was most frequently triggered by economic issues. Supporters emphasized economic benefits, while opponents referred to the high costs of the technology. Thus, economics emerged as a privileged frame of interpretation. This reflects the economic focus of Norwegian energy policy.

Engagement was also triggered by concerns over nature. Supporters constructed offshore wind as an environmentally friendly technology, while opponents considered it a danger for biodiversity and a visual disturbance. The idea of nature as a landscape and ‘as threatened and in need of protection’ was contrasted to ideas of nature as ‘providing resources and life support essential to human survival’ and ‘the environment’ (Macnaghten and Urry, 1998, p. 74). This corresponds to Castree and Braun’s (1998) distinction between the view that nature should be preserved and protected from human destruction and the view that humans and nature are integrated, which approves of human intervention. Thus, the different actors employed conflicting concepts of nature – a traditional nature conservation perspective (Weber, 2007) and a technology-oriented, climate-focused sustainability perspective – in the controversy. This ‘green on green’ conflict (Warren *et al.*, 2005) may represent one explanation for the divided opinions on offshore wind energy. However, aesthetic concerns and arguments centered on the value of nature experiences related to near-shore developments, only. The emphasis of the environmental concerns shifted from visual concerns and landscape protection



to sustainability, climate change and biodiversity. However, environmental concerns played a smaller role relative to the controversy over onshore wind in Norway.

Engagement was also triggered by moral issues. Supporters emphasized Norway's moral responsibility to invest in new renewables, while opponents were skeptical of energy exports subsidized by Norwegian taxpayers. In contrast to earlier studies of media discourse, in the present study, global aspects were drawn upon in environmental and moral arguments, and thus became more prominent than they were in onshore controversies. In addition, area conflicts appeared to be important.

This suggests that the offshore debate indeed differs from the debate over onshore and partly near-shore wind power, with different actors and concerns; the controversy remains, but with a changed focus. Hence, in the context of a technology that is commonly expected to be implemented without conflict, news media appeared as contested sites (Lester, 2010) with many competing voices (Cox, 2010). The news media performed their agenda-setting function (McCombs and Shaw, 1972) and assumed their responsibility to engage the public (Dahlgren, 2009). The increased and pluralized coverage after 2006 marked the beginning of a phase of mediatization (Rödder and Schäfer, 2010) of offshore wind energy technology.

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### **Notes**

<sup>1</sup> All newspaper quotes in this paper were translated from Norwegian to English by the author.

<sup>2</sup> These figures were retrieved before irrelevant articles and advertisements were removed from the data.

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## Biographical note

Sara Heidenreich is a Postdoctoral Fellow at the Department of Interdisciplinary Studies of Culture of the Norwegian University of Science and Technology in Trondheim.