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Who influences windpower licensing decisions in Norway? Formal requirements and informal practices

Tor Håkon Jackson Inderberg[a,*], Helga Rognstad[a], Inger-Lise Saglie[b], Lars H. Gulbrandsen[a]

[a] Fridtjof Nansen Institute, P.O. Box 326, 1326, Lysaker, Norway
[b] Institute for Urban and Regional Planning, Norwegian University of Life Sciences P.O. Box 5003 NMBU 1432 Ås, Norway

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ABSTRACT

Licensing processes for renewable electricity plants have been surprisingly little studied. Yet, how public and private stakeholders influence the process, formally and informally, is crucial to the outcome of the licensing decision. This article analyses how the organisation of the Norwegian windpower licensing process affects actor influence, and the consequences for licensing outcomes as well as the transparency and predictability of the process. Drawing on licence application and decision documents, official regulations, policy documents and reports, as well as research papers, media articles and 19 interviews, we map and discuss formal rules and informal practices. Changes in regulations and organisation of the licensing process, along with locating the licensing body within a sector authority instead of generalised planning, have given the licensing body considerable room for decisional discretion. This gives rise to the issue of transparency, where the grounds for the licensing outcome and the weighting of various factors are unclear, and also makes it difficult to predict the results for similar projects. We argue that the superficial impression of a centrally driven and controlled process should be modified somewhat, as some local stakeholders have more influence on the licensing outcome than is immediately apparent.

1. Introduction

Total European investments in wind power continue to increase, and costs continue to fall [1]. Along with solar power, wind power has now become Europe's preferred choice for increasing the share of renewable energy sources. Due partly to its vast hydropower resources, Norway has been lagging behind many other European countries in installed windpower capacity, but in recent years electricity generation from wind power has increased sharply and several windpower licences are in the process of being realised. Since the first wind park over 10 MW was finalised in 1998, the Norwegian licensing authority has granted almost 100 windpower licences in total, 63 of which have not yet started production [2]. Falling investment costs make it likely that many of these licences will be used: the Norwegian Water Resources and Energy Directorate (NVE) predicts a manifold increase in windpower production over the next few years [3].

Windpower construction and siting have received due attention in the academic literature, but the organisation and influence structures of the licensing *process* itself, including the established practices, have been less studied. This leads to a lack of understanding of how these processes and actor influences affect the decision output. Some actors may exercise greater influence than others, following the official requirements for the process, but also as a consequence of established informal practices. Some exemptions, particularly in the European context, have demonstrated that *how* the licensing process is organised can be important for the licensing outcome, and thus for windpower deployment. Through document analysis and individual case studies, Söderholm et al. [4] show how the legal-based Swedish system gives room for interpretation and decisional leeway based on legal interpretation. Petterson et al. [5] find that the degree of hierarchical state steering influences windpower construction rates. They conclude that legal provisions offer insufficient guidance on how to weigh various considerations in the Swedish licensing process, and that this reduce predictability and represents a barrier for windpower projects. Toke and others show how differences in planning institutions and interest representation lead to differences in windpower implementation, a finding that provides further grounds for our investigation [6,7]. Blindheim [8] finds that time-use is important for deployment rates, and that inconsistencies and thus lack of outcome predictability have posed challenges for windpower deployment in Norway [9]. Institutional coordination, clear integration of priorities and transparency in the involvement of stakeholders are also found to be weaker in Norway

* Corresponding author.
E-mail address: thinderberg@fni.no (T.H.J. Inderberg).

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than, for instance, in Scotland [10].

By contrast, there is a rich academic literature on matters like windpower development related to public acceptance, fairness and involvement, environmental integration, efficient deployment of renewable energy technologies and energy democracy. While all these clearly have relevance to the licensing process, there has generally been less research on how official stakeholders within and outside the public administration are involved and how they may influence licensing decisions, as well as the implications of this for a transparent and predictable process. The literature focusing on efficiency often holds that excessive use of hearings and appeals may represent an obstacle to necessary construction of renewables [8]. However, scholars of acceptance and justice see broad-based involvement as an important measure for ensuring perceptions of fairness – and thereby trust in the licensing process [11] as well as positive licencing decisions [12].

The formal rules, practices and norms that govern stakeholder involvement in and influence on the licensing process have received little scholarly attention. With the exception of the public acceptance literature, the few analyses of licensing processes have tended to focus on formal regulatory provisions. However, considering only the formal rules restricts the picture significantly, and may lead to biased or poorly grounded conclusions about influence, unless actual practices are included. These gaps are puzzling, as such involvements are known to influence process outcomes, as well as the legitimacy of windpower licensing and siting decisions [11,13].

We ask: How do formal requirements and informal practices affect actor influence in the licensing process in Norway? What consequences does this have for the process and outcomes?

It is essential to analyse the formal requirements of the process as well as informal practices. As formal requirements do not always dovetail with practice, the official process and actual power structures cannot be fully grasped unless account is taken of the informal rules as well. Some actors may become marginalised, while others enjoy significant influence – perhaps at the expense of others. Gaining a better understanding of the interplay between formal requirements and actual practices may have implications for the outcome of licensing decisions and for actor involvement. Moreover, if the distance between formal requirements and actual practices is considerable, that may prove problematic in itself, significantly reducing the transparency and predictability of the licensing process. ‘Transparency’ in processes here means that information about input, meetings, decisions and the specific background and weighing of factors is clear and specific, and made available to all involved stakeholders. ‘Predictability’ refers to similar treatment of the same factors across different cases.

The Norwegian windpower licensing process is a relevant case for study, for several reasons. First, due to its massive hydropower resources, Norway has an electricity power surplus in nine years out of ten, and exports the surplus to consumers on the European continent. The construction of Norwegian windpower is highly relevant to the European energy market through various interconnectors and participation in the exchange of renewable energy in this integrated market. However, windpower construction in Norway has proven controversial, with several nature protection organisations and other stakeholders finding the country’s windpower policy misguided. Windpower installations are typically erected in wilderness areas and other valuable nature types, where construction often requires building roads and installations in vulnerable, pristine areas. Third, and most importantly in our context, it is important to examine the licensing process itself, because of the formal rules and informal practices that regulate stakeholder access and influence. As the windpower licensing process is hierarchically organised and driven primarily by the Norwegian Water Resources and Energy Directorate (NVE), much depends on the rules and practices of that directorate. Closer scrutiny of these aspects can offer important insights into the Norwegian licensing process, whereas simply mapping the formal requirements is inadequate to explain licensing outcomes.

We analyse the process of windpower licensing, focusing on who is involved and how, and applying two perspectives from institutional theory: the organisation-instrumental perspective and the institutional-cultural perspective [14]. These shed light on different aspects of the licensing process, and together cover the formal rules and regulations, as well as the informal practices and norm-based approaches. Further, we analyse the consequences of the design and practices of the current licensing process for transparency and predictability of outcomes.

We argue that the superficial impression of a centrally driven and controlled process should be modified somewhat, as some local stakeholders have greater influence on the licensing outcome than is immediately apparent. Local municipalities in Norway have significantly more influence than is evident from the formal regulations concerning the licensing process. The final decision is up to the NVE, or the Ministry of Petroleum and Energy in case of appeals, at the discretion of the licensing body. In our view, all stakeholders would benefit from greater transparency.

After presenting our analytical framework and methodological approach, we describe the Norwegian licensing process, including how the various actors are involved, according to the formal rules as well as actual practice. We then discuss the implications of actor involvement, noting the differences between formal rules and informal practices, and also how issues relating to transparency and predictability are affected. In conclusion, we note how some practices of the licensing process represent a challenge to transparency, and how the gaps between formal requirements and informal practices result in significant influence for a few actors, whereas others are marginalised.

2. Analytical framework

Analyses of behaviour in public administration of energy often highlight general formal factors like resources and information, or take a more cultural approach [15]. Our study combines the two, exploring how and why different actors are accorded weight in the licensing process. These two perspectives – the *organisation-instrumental* and the *institutional-cultural* [16] – can help to shed light on how formal rules and informal practices in licensing processes interact, affecting who is heard and who is not, as well as the transparency and predictability of the process.

With the *organisation-instrumental perspective,* a key assumption is that formal organisational structures influence actions, and can therefore be seen as tools or instruments for steering and directing behaviour [14]. A consequential logic drives action, and modifying structures are embedded within the intra- or inter-organisational structure. Boundedly rational organisational agents, who satisfy goals and yield limited information, will act on the basis of formal rules, creating incentives for desired behaviour and sanctions against undesired behaviour. Organisations seek to maximise their windpower interests within the formal licensing process. The formal rules can be changed according to the goals desired, thereby modifying or channelling rationality limitations to satisfy different organisational goals [17,18].

In this perspective, licensing outcomes are influenced by formal structures in the licensing process, especially the formal weight accorded to various actors and their access to crucial information. These formal structures – determining who can do what and when – may restrict or enable different actors and their perspectives, at the expense of others [19,20], and are therefore crucial to the licensing outcome. By changing the rules or structures, the formal structure can affect and channel attitudes and actions as well as which organisations have influence and access to the process, in turn leading to different outcomes [16].

According to this perspective, high approval rates for licence applications would indicate a formal distribution of responsibility in the licensing process that favours actors who advocate windpower development. Conversely, a formal distribution of responsibility that favours actors opposed to windpower development would be expected to result

in low rates of licences granted. Unclear and less transparent considerations, along with varying requirements as to the factors to be considered, would serve to obfuscate the process, giving the licensing body greater discretion in decisionmaking.

By contrast, the *institutional-cultural perspective* sees organisational actors as constrained by institutional factors – dominant and stable routines, norms, and values that can both restrict and empower action [21]. 'Institutionalisation' is here understood as the process whereby organisations or organisational fields gradually become infused with values beyond the technical requirements of the given task [22]. Such values and norms provide stability but may lead to organisational inertia [23] – also if they conflict with formal structures. Behaviour is based on perceptions of 'appropriateness' as defined by shared tacit assumptions – norms, values, beliefs – which underlie administrative behaviour [24,25]. Individuals and organisations thus fulfil or enact identities by following informal rules and procedures that they consider appropriate to the situation at hand, matching roles and situations through such informal 'rules' [25,26].

According to this perspective, high rates of licences granted should indicate informal practices that favour actors who advocate windpower development, as well as weighting other considerations that may challenge such developments lower in the licensing decision. Conversely, informal practices that favour actors opposed to windpower development and weight accorded to value-issues (like local nature concerns) would be expected to result in low rates of licences granted. Specifically, licensing process outcomes here are likely to depend on who gets more weight based on institutionalised norms and values, with some organisations being accorded more weight than others. Some types of actors and mandates may find themselves constantly fighting an uphill battle where the institutionalised values leave them only superficially involved in the licensing process. By contrast, other organisations may find that their perspectives are considered more frequently if the prevailing culture in the organisational field provides a legitimate basis for their role, perspectives or considerations [19]. If the organisational culture in the licensing authority is pro-renewables production, this is likely to affect the number of licences granted; by contrast, if environmental protection is widely regarded as a legitimate goal, the organisational culture will contribute to reducing the number of windpower licences granted.

3. Methods

To acquire the depth of information required to identify actor influences in the Norwegian licensing process, we utilise official reports, legal documents and public reports and research papers, as well as media reports and articles as written sources. Official legal and policy documents are particularly important for mapping the formal requirements necessary, to acquire qualitative data for analysing the organisation-instrumental perspective. We have also examined the 182 Norwegian windpower licence processes above 10 MW on land, with their notifications, applications and their decisions. These were coded for descriptive statistics (license outcome and municipality standing) with a focus on distribution of outcome, and official municipal standing. Of the 182 project processes initiated, 65 were withdrawn and 117 submitted final license applications. Out of these, licenses were granted to 66, while 51 were not. For 71 of the total, a clear municipal standing could be coded from the application documents; for the remaining 47, there was no clear municipal standpoint, or the information is not available (see also Table 1 below).

Especially as regards mapping the informal practices required by the institutional-cultural perspective we draw on interviews with 19 organisations represented by 34 elite representatives. The interviews were conducted between the end of 2017 and first half of 2018 with representatives of the NVE, various electricity producers, opposition groups/NGOs, municipal officials and politicians, and state and regional authorities. Interviewees were selected for their connections with specific geographical windpower pressure-areas based on documentary sources, in combination with a snowball approach during the interview period. The two areas selected were the Fosen Peninsula in Trøndelag county in mid-Norway, and the Dalane district of Rogaland county in southwestern Norway. We focused on windpower projects with higher installed capacity than 10 MW, as such applications require full Environmental Impacts Assessments and processes. However, we have not studied the detailed planning that takes place during the realisation of projects granted a licence.

Table 1
Windpower license outcome and municipality stance.

Wind power projects 1999–2017	N	Municipality in favour	Municipality against
Total projects initiated	182		
Projects applied for license	117		
Projects withdrawn	65		
Projects granted license	66	43	2
Projects refused license	51	17	9

Efforts were made to achieve a balance in the organisations represented and to incorporate critical voices from environmental opposition groups, public bodies with various mandates, and windpower supporters. All groups we approached responded positively to being interviewed, but it proved easier to identify pro-windpower groups than resistance groups or individuals. That was compensated by wider mapping and recruitment of local resistance actors – using media sources to identify them. One possible weakness in our material is that the municipal representatives interviewed all came from districts that proved positive to windpower projects in their areas. This might have influenced our findings, but not significantly. In all municipalities there were some opposing voices, and interview questions included how the local process for deciding on projects was approached. This information was also triangulated with other interviewees and information from the areas, to ensure accuracy.

Interviews included questions about practices, formal rules and behaviour in the licensing process; the main actors involved; and emphasis given to considerations from various actors. Interviews were semi-structured, tailored to the particular areas of expertise of each interviewee. At least three researchers from the research group were present at all interviews. The interviews were immediately transcribed and checked by the other interviewers. Interviewees were informed of ethical aspects, including the option of being anonymised, active consent, and quotation checks. Interviews were our primary source of information for understanding the formal and informal processes involved in licensing outcomes, but the information was triangulated against other interviewees, as well as official documents and research papers. Throughout, the aim was to produce reliable and robust information about the licensing process. As the empirical data give rather clear findings about the process and the influences, the material in the interview transcripts was not coded but has been intersubjectively interpreted by the four researchers in the research group.

4. Background

4.1. The Norwegian electricity sector and wind power

Norway is among the countries with the highest share of renewable energy in its energy mix worldwide. While hydropower dominates electricity supply, constituting 97% of electricity generation in 2016 [27], use of other energy sources, including wind power, has been encouraged, in order to diversify the electricity sector in periods of low precipitation, electricity shortages and high prices [28]. This was the backdrop when the Norwegian Parliament in 1999 adopted the target of 3 TW h new wind power to be achieved by 2010 [29]. Despite the target and the accompanying windpower subsidies, by 2010 only

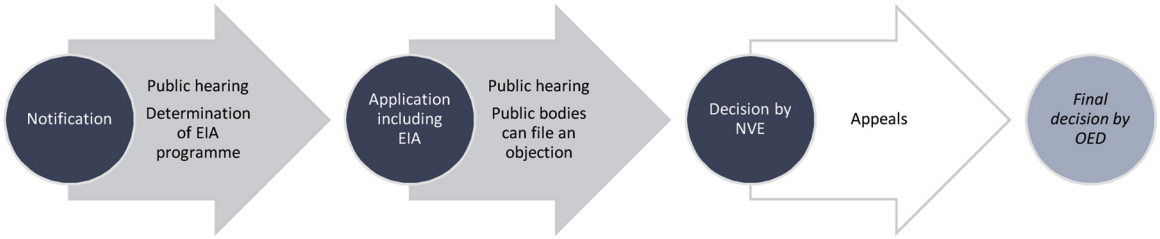

Fig. 1. Main stages of the windpower licensing process (above 10 MW).

1 TW h new wind power had been realised [8], although Norway experienced some significant booms in licence applications. Referred to as 'Klondike' times by several of our interviewees, this put heavy pressure on the licensing authorities.

Under the EU's Renewable Energy Directive, Norway has agreed to a target of 67.5% renewable energy in total energy consumption [30]. To this end, Norway and Sweden agreed on a green certificates scheme in 2010 (operational from 2012), with a common target of 28.4 TW h new renewable electricity supply by 2020 [30]. By January 2016, the scheme had contributed to 11.6 TW h in Sweden, but only 2.2 TW h in Norway [30]. Most of the increase in Norway came from small-scale hydropower (85%), with wind power contributing the remaining 15% [31]. Total windpower production was 2.85 TW h in 2017 [3]. Norway will discontinue its participation in the scheme after 2021.

5. The windpower licensing process in Norway

As per Norway's Energy Act of 1990, all windpower projects larger than 1 MW require a licence from the Norwegian Water Resources and Energy Directorate (NVE), a directorate under the Ministry of Petroleum and Energy (OED). The Act distinguishes between projects of 1 MW to 10 MW and projects larger than 10 MW, where the former undergo a simplified licensing process. Most applications to the NVE concern projects larger than 10 MW, and they are the focus of this study. From 2005, Environmental Impact Assessments (EIAs) has been mandatory for all projects above 10 MW [32]. The EIA procedure for windpower projects follows the EIA guidelines in Norway's Planning and Building Act (PBA).

The formal licensing decision also includes approval of land-use changes within the area designated for windmill farms. For all other sectors than energy, such competence resides with the local municipality, with reserve powers for regional and state authorities. Up until 2008, windpower developers had to apply to the NVE for a windpower licence and to the host municipality for land-use changes – a lengthy and bureaucratic process for the developer [33]. The new PBA from 2008 exempted energy installations from these land-use planning procedures; today, this competence rests within the energy sector. The 2008 Act has implied considerable changes in municipal-level decision-making competence: land-use decisions have been moved to the state level in energy issues, whereas the local municipalities have retained the formal right to be heard. According to the government, there were two main arguments for this change: First, energy is a crucial sector and should be under central state control. Second, the EIA procedure will still provide sufficient knowledge base and participation to ensure the quality and legitimacy of the licensing process [33].

The official licensing process is formally initiated when an energy company/project developer has identified a feasible area for windpower development and sent notification of the project to the NVE. This early notification represents the first public announcement of a planned windpower project; it must include project details and a proposed mapping programme for the EIA. The notification is then sent to public hearing, and the NVE organises public input meetings in the host municipalities. The main objective here is for NVE to receive concrete inputs on the aspects to be mapped in the EIA. Then the NVE sets an EIA programme. The developer is responsible for conducting the EIA, which is to be included in the application. When the full application has been submitted, the NVE organises a second round of public hearings and meetings.

During the licence hearing process, any instance within the public administration that finds the proposed windpower project to be in conflict with its specific field of authority may file a formal objection to the application [32]. Such actors may be Sami authorities (representing the indigenous people in Norway), environmental authorities, local or regional authorities. If an objection is raised, the NVE is obliged to organise a mediation meeting to discuss the objection and possible mitigation measures. If the objection is sustained after this meeting, it will automatically become an appeal if the NVE decides to grant the licence [32]. Any mediation is to be undertaken with the licence authority.

On the basis of information compiled throughout the licensing process, NVE makes its decision to grant or decline the licence application. Stakeholders with 'due reason' may appeal this decision to the OED. During the appeal process, the OED organises meetings and on-site inspections with the parties involved. The OED may decide to abide by the NVE's decision or change it, or recommend supplementary mitigation measures to the licensing terms set by the NVE.

A licence granted entitles the developer to build and operate a windpower plant, including grid connection. A licence is usually granted for 25 years. It includes a set of mitigation measures and terms for the developer to follow in the construction and operation phase [32]. Although a license outcome may have more subtle nuances, screening of the Norwegian licenses as well as interviews with the NVE and developers indicate that the license terms usually do not constitute significant barriers to construction, and a license granted can be seen as a pro-development decision, even though the time involved has been regarded as an obstacle [9]. See Fig. 1 for a simplified overview of the licensing process.

5.1. Main actors in the licensing process

In addition to the licensing authority NVE and the appeals body OED, national actors such as the Ministry of Climate and Environment (KLD) and the Norwegian Environment Agency (a directorate under the KLD) are involved in certain parts of the process, especially for advice in appeals or regarding the EIA. At the regional level, the main actors are the County Council *(fylkesting)* a political body representing the county, and the County Governor *(fylkesmann)*, representing the state. The County Council has formal authority regarding cultural heritage issues in the licensing process. Many counties have also developed regional plans to guide windpower siting. The County Governor is the state's regional authority for environmental issues, including noise and landscape pollution. At the local level, the host municipality, landowners and private interests are generally involved in the licensing process. In addition, various environmental NGOs operate at all three levels: central, regional and local.

Among windpower developers and energy companies there are state-owned and private companies, national as well as international. Several national and regional power companies traditionally active in

hydropower, such as Statkraft, Lyse, Trønder Energi and Agder Energi, were involved in windpower projects throughout the period studied here. Also among the developers are smaller companies specialising in wind power, such as Norsk Vind Energi, Sarepta Energi and Zephyr. The first is privately owned; the other two are owned by public regional energy companies. Several of these companies rely on international financial institutions to fund their windpower projects in Norway [34].

6. Actor involvement in the various phases of the licensing process

6.1. Early project planning: private–public agreement preceding public involvement

A windpower project is usually initiated by a developer who has identified a suitable site, although in a few cases, the landowners approach windpower developers to propose a power project. In looking for a site, the two most important factors developers assess are windpower resource and access to grid connection. Other factors, such as conflict with nature and landscape protection, and local or regional area plans, may also be included in the initial assessment, according to our energy-company interviewees. Then the next step is usually to contact the local landowners.

In some areas, landowners have formed formal groups to negotiate collectively with developers. However, developers may prefer negotiating with landowners separately. Contracts between developers and landowners are undisclosed documents, but one developer explained that such contracts typically ensure the developer the right to access the area and to conduct necessary interventions if a licence is granted. The landowner may also receive some form of economic compensation – for example, a lump sum when construction work starts, and then annual compensation during the operational period of the windpower park.

Developers usually contact the host municipality at this early stage. Interviewees from energy companies explained that this might involve applying for permission to erect wind-measurement equipment, but could also serve to get an impression of the municipality's interest in wind power, and access to local information of relevance to further project development. Interviewees highlighted that at least tentative acceptance from landowners and the host municipality alike is crucial to further project development. Without such acceptance, most respondents noted that the project would probably be shelved. As one developer put it, a negative attitude from the municipality would serve as a 'red flag'; if other siting locations were a possibility, the company would opt to go elsewhere.

In contrast to the agreements reached with landowners,[1] the developer will not necessarily enter into a compensation agreement with the municipality. Several municipal and energy company interviewees described this as a 'grey legal area', occasionally verging on the unethical, as it might give the impression that local democratic consent had been 'bought' – especially if such an agreement were concluded before the municipal council had issued an official statement about the project. In recent years, developers have been increasingly reluctant to enter into any type of agreement with municipalities, and the energy-company interest organisation Energy Norway has advised against it, based on legal counsel [35]. However, municipal interest organisations are urging better agreements or schemes for compensation of municipalities. For most municipalities, the main source of income from a windpower park is the municipal property tax (up to 0.7% of the windpower plant's value annually). As wind resources are unevenly distributed, small rural municipalities along the coast are frequently involved in windpower plans. For these municipalities, extra revenues and entrepreneurial activity are very welcome.

[1] There is a formal option whereby property may be expropriated from landowners, but this is rarely used in connection with windpower projects.

The developer will usually establish informal contact with the NVE before officially sending project notification, to get early warning in case the NVE considers the area in question to be unsuitable.

6.2. Project notification: formal public procedures and public participation

The notification is the first official announcement of a planned windpower project, setting in motion the formal licensing process. In the notification, the developer describes the project and proposes an EIA Programme, in order to provide stakeholders with adequate information about project plans and a first estimate of anticipated impacts. If the notification is accepted (in line with certain criteria) the NVE distributes it for public hearing. Relevant municipalities, landowners and neighbours, the regional County Council, the County Governor and various NGOs often submit inputs to such hearings.

The NVE also holds open public meetings in host municipalities, where the project is presented and discussed with members of the local community. These meetings follow a standard format: the NVE holds an introduction explaining the licensing process, and the developer presents project plans and the proposed EIA programme. Thereafter, the floor is open for questions and inputs. Interviewees explained that critical questions are always raised, but that these meetings usually proceed in a civilised manner. Officially, the main objective of the hearing process and public meeting is to get input on issues that need to be addressed in the EIA. However, interviewees from the NVE and developers underlined how the public meeting is important for informing the public about the project and creating legitimacy for it. Further, the meeting provides the NVE and developers with an impression of any local resistance to the planned project.

Although the licensing process is open to the public at this stage, and any party to the project may provide input, it is steered by the NVE. In addition to organising meetings, public hearings and determining the EIA programme, the NVE has developed a practice of 'advising' developers to withdraw projects regarded as unfeasible. According to our interviewees, developers are likely to withdraw projects that receive such feedback from the NVE, as this is widely seen as an advance indication that a licence will be denied. Exactly why the NVE recommends withdrawing a project is often not clearly stated in official documents, but several reasons are usually mentioned, sometimes accompanied by reference to 'holistic assessment'. Interviewees explained that many concerns could be involved here, like grid connection problems, conflicts with special interests such as the Sami people or the Armed Forces, and environmental issues.

Due to the changes in the PBA in 2008, the formal role of the host municipality is now the same as that of any other hearing party to the licensing process. However, the actual influence of the host municipality differs from that of other actors. Concerning the pre-planning stage, interviewees from the NVE and among developers indicated that a negative statement from the municipality in the hearing process of the notification would probably halt the project, or lead to major modifications.

6.3. Licence application and EIA

If the NVE finds no reason to recommend that a project be withdrawn, it determines the EIA programme. For the developer, the next step is then to prepare the full licence application, which must include descriptions and technical details of adapted project size and shape, the results from the EIA that has been conducted, as well as any proposed mitigation measures [32]. The EIA is the main source of information about estimated impacts on nature and local communities, as well as possible ripple effects and consequences for society.

The project developers are responsible for the EIA and for selecting the consultants to perform it. Some interviewees, particularly those from environmental NGOs and protest groups, but also from official bodies, were concerned that price may matter more than quality when

the developers themselves choose the consultants. Some also assumed that consultants would be cautious about giving too negative statements, for fear of losing later tenders. These are general problems for EIAs, as pointed out by several authors [36–38]. Several interviewees cited examples of irregularities, such as mapping studies conducted outside of nesting times, which then concluded that the site was not in conflict with bird nesting in the area. It has been difficult to establish the frequency of such problems, or if these examples are mainly anecdotal. When asked, most interviewees, with some exceptions for representatives of certain NGOs, did not seem to regard this as a fundamental flaw in the EIA process, but did note that it could lead to legitimacy issues. Others perceived the EIAs as adequate, and held that quality issues related more to time and resource constraints than lack of knowledge or excessive caution among the consultants chosen.

When the application has been received, the NVE organises a second public hearing on the licensing application, including the EIA, combined with a public meeting in host municipalities. Many stakeholders also submit written statements to the NVE in the hearing process. These statements usually come from municipalities, environmental NGOs, private persons and regional authorities, and typically concern matters such as landscape changes and protected areas, noise, endangered species and concerns regarding the consequences for leisure and tourism in the area.

At the application stage, the process is again opened to the public during the hearing process, and public bodies have the opportunity to file objections. Once again, interviews with developers and the NVE noted that if the host municipality submitted a negative statement to the licence application, the application would probably be turned down. The justification for this *de facto* municipal veto was conciderations of local democracy, and that local opposition would be likely to result in difficult working conditions throughout the construction and operation phase. A further explanation offered was that the high number of windpower projects in the NVE pipeline leads the NVE to prioritise those where municipalities are positive and avoid the transaction costs of going against the will of local communities.

6.4. Decision by NVE

Based on the compilation of the information revealed in the licence application, the EIA and the public hearing, the NVE then grants or declines the application. According to the general guidelines set out by the OED and the Ministry of Environment in 2007, the NVE must weigh the benefits of the project against the negative impacts in an 'overall assessment' [39], to be presented in an official document following the licensing decision.

County councils in many regions have adopted regional windpower plans. Such plans have been encouraged by the national authorities, to enable regional guidelines to be developed for windpower siting, and identify suitable areas and 'no go' zones. According to official guidelines, NVE should avoid granting licences in areas identified as unsuitable in a regional plan for wind power [39].[2] However, these plans remain advisory and without legal status, so the NVE may take them into consideration at its own discretion [32]. The diffuse role of such regional plans has created room for conflict and uncertainty regarding the importance of these plans and their weight in licensing decisions. The examples from Rogaland and South Trøndelag (below) show the considerable room for discretion available to the NVE in deciding which regional plans to heed in licensing decisions, and when they are relevant for the licensing outcome.

In 2007, the *Rogaland* County Council adopted a regional plan identifying 'yes-areas', 'no-areas' and 'maybe-areas' for windpower development [40].[3] According to interviewees, there were significant discrepancies between the regional plan and the areas identified as suited for windpower by the developers and host municipalities. When the plan was adopted, several projects in the no-areas were already in the pipeline or in process. Although the NVE had participated in the plan's working group, the NVE was critical to the criteria applied in developing the plan and did not give much emphasis to the plan when distributing licences [41]. This led to objections and appeals from the regional authorities in cases where licence applications concerned an area identified as ill-suited for wind power by the regional plan. The County Governor in Rogaland has become a vocal critic of NVE and licensing processes in the region.

The *South Trøndelag* County Council adopted a windpower plan in 2008 [42]. Considerable parts of the Fosen area, where most interest in wind power is concentrated, were identified as suitable for windpower development. Here the overlap between the regional plan and proposed projects was greater than for Rogaland, so there has been less conflict between the regional authorities and the NVE, municipalities and developers in this area. The main conflict in the Fosen area has been between representatives of the Sami population and the project developers [43].

Several interviewees claimed that it was difficult to know how much weight had been accorded to various issues solely from reading the official decision document. Especially environmental NGOs were concerned that because the NVE is a directorate under the OED, it would focus on issues related to energy supply and security, rather than the impacts of windpower development on nature and landscape concerns. Moreover, most interviewees mentioned that the NVE was mandated to promote more renewable energy in light of Norway's obligations under the EU's Renewables Directive, and indicated that this obligation might outweigh other concerns raised by stakeholders.

Municipal and project developer interviewees evinced considerable confidence in NVE's process and decision-making competence: however, the municipality representatives interviewed were all from 'yes' areas. These interviewees trusted that the licensing process would allow for all relevant concerns to be raised, and that NVE would weigh these concerns duly, in accordance with the mandate.

6.5. Appealing to the OED

Stakeholders may appeal the decisions of the NVE – and this happens for 95% of NVE's decisions [40, p. 13]. When an appeal case comes to the OED, the ministry will first assess which appellants are entitled to have their appeals processed. The next step is to organise a meeting in the host municipality and an on-site inspection. The OED invites all concerned parties to participate, including appellants, host municipality, the regional authorities and representatives of other relevant ministries.

In making its decision the OED has the same instructions as the NVE: to weigh project benefits against the likely negative impacts in an overall assessment. It is to base its decision on the information in the application, the hearing documents, appeals and information from the appeals meeting and the on-site inspection. In some cases, the OED will ask for additional reports and hold separate meetings with appellants. The OED also engages in discussions with other relevant ministries and national bodies before handing down its final decision. As most appeals concern environmental issues, the Ministry of Climate and Environment is therefore involved in almost every case. The OED draws largely on the assessments made by the NVE, but may view issues differently. One

[2] In 2016 the government decided to develop a national plan for wind power, to identify suitable/not-suitable areas for further windpower development in Norway. This plan, due spring 2019, will replace all existing regional windpower plans, and was initiated to reduce conflicts among sector interests and to increase predictability in NVE decision-making [30].

[3] Such plans were developed by several county councils prior to the changes in the PBA, on request from the central government. The NVE participated in the development of several of these, including the Rogaland plan.

example concerns the position of the municipality, where interviewees underlined the strong political priority accorded to local government and autonomy. In the rare instances where the NVE has granted a licence in a negative municipality, due to its assessment and weighting of societal benefits and energy needs, the OED would likely modify the decision in an appeal case. This was explained with reference to the strong standing of the principle of local governance and autonomy in Norway: the OED, representing the government, would be extremely wary of going against local democratic resolutions.

Out of a total of 182 license application documents, 64 were withdrawn while 118 full applications were fully managed by the NVE. Scrutinising the application documents to triangulate the interview statements concerning municipality 'negative veto', we identified the official stance of the municipality in 71 of the cases. This gives a missing number of 47. Table 1 shows a descriptive overview of the correlation between municipality stance and application outcome for these projects.

7. Discussion

7.1. Formal requirements

The two theoretical perspectives focus on very different aspects of the licensing process. The instrumental-organisational perspective highlights the actors who have formal roles and legal rights to have their interests heard. The process starts with the project developer and the submission of the early notification of a windpower project to the NVE. The early notification represents a first draft as to the size and location of the wind park, and early influence – in the hands of the developing company – represents a starting point for which all other inputs later in the process will seek to modify in some form. The first formal opportunity to do so is through the public meetings and first hearing rounds, which are intended to provide inputs and shape the factors to be assessed through the EIA. Here, any actor is entitled to be heard, but not all inputs count equally. As the expected impacts of various environmental and non-environmental aspects of the planned project figure under headings like 'landscape', 'nature protection' 'recreation' and 'society', the formal inputs for mapping the possible impact of a project, and later the interpretation and weighing of these, are of critical importance to the licensing decision.

Apart from in the hearings, administrative organs mandated with environmental management, particularly the county governor and the county councils, and Sami authorities, do not have significant influence. It is difficult to trace the influence from the administrative organs with environmental management mandates, but our interviewees confirmed that it is low. This could be for several reasons. First, the NVE is a sector directorate, mandated to fulfil renewables targets balanced against environmental and other concerns. Although interviewees expressed trust in the work of the NVE, this weighting is done at the directorate's discretion [44]. Even if a decision is appealed to the OED, transparency and predictability are not high, especially for actors outside the energy sector. This is partly in accordance with previous findings from Sweden, even with a differently organised licensing process [4].

Second, the changes in the PBA in 2008 reduced the formal influence available to municipalities through their local planning competence. Further, these changes transferred the right to oppose a project on certain grounds to administrative bodies, such as those representing the state (the county governor) and the counties (county councils). Moving energy installations out of local planning regulations and over to the sector authority has resulted in formal unclarities about the later mediation process. In cases where an objection is filed by the county governor on environmental grounds, for example, there will be a mandatory mediation meeting between the NVE and the respective county governor. This meeting is intended to explore the grounds for the objection, and if possible, adapt the windpower project to accommodate the concerns of the county governor. However, some interviewees described this arrangement as 'superficial' and 'pro forma': it is not a meeting between equals, but one between actors that are highly asymmetric in terms of formal influence. Even if the objection is upheld in the meeting, the NVE can still make its decision, and any opposition will take the form of an appeal, alongside other valid appeals. Regarding other areas of official objection that fall under the PBA, the mediation meeting is seen as being conducted on a more level playing field, among actors with equal levels of formal authority.

Third, as some of the regional official bodies have had their influence reduced through the changes in PBA, the formal structure of the licensing process now allows certain actors and the energy sector to dominate the process. Fundamentally, this accords relatively high levels of discretion to the NVE/OED, vested with formal authority to grant licences and the mission of promoting renewable energy. Project developers are a crucial element, as they shape the project throughout the process, under conditions decided by the NVE/OED. Formally, all relevant parties, including environmental NGOs, municipalities, landowners or private individuals, are entitled to be heard and to have their views considered.

7.2. Informal practices

This picture is not weakened by expanding the analysis to include norms and informal practices of the licensing process, but some modifying factors indicate that merely analysing the formal structure would render the conclusions skewed. The inclusion of the institutional-cultural perspective can widen the picture. Already in the phase before early notification, choices will have been made about such issues as design and location. From the very beginning of the project process, there is ongoing informal dialogue involving the project developer, the host municipality, and the NVE. Landowners are also important parties in the early discussions and shaping of the projects, but they do not usually discuss the project terms directly with the NVE or the municipality.

Meanwhile, the NVE tends to go beyond the formal requirements in terms of stakeholder involvement, at least as regards the public meetings. Organising local meetings to inform the public about a windpower project is not formally required [45], but the NVE has developed the practice of doing so in order to obtain early feedback and local anchoring.

Although the licensing process is open to the public by the early notification stage, and any party to the project can provide inputs to the NVE, the dominant actor during the notification stage remains the NVE. In addition to arranging meetings and public hearings and determining the EIA programme, it may informally recommend developers to withdraw projects that it regards as non-feasible. While this makes sense from the perspective of practical and resource effectiveness, the NVE has no legal mandate here. The NVE communicates its recommendation that a notification (in some instances also an application) be withdrawn by letter, or sometimes not even in writing. The justification offered for this practice has been the high number of projects from 2005 until recently, and most parties have accepted the approach. However, it has reduced the transparency and predictability of NVE decisions.

In sum, there are four main formal and informal veto-players as regards windpower development in Norway, at various stages of the process: the landowner, the project developer, the host municipality, and the licensing authority (NVE/OED). A necessary condition for a windpower licence to be granted is that all these actors are in favour of the project. As the landowners generally sign a contract with the project developer early in the process, the remaining three-actor network represents the actors with the most extensive (informal and formal) communication amongst themselves throughout the application process. The municipality is usually informed about a possible project even before the first formal notification of a project. This often happens in connection with the need to erect wind-measuring stations, conduct

landscape inspections or similar. Any individual or organisation not representing one of these actors is, in practice, unlikely to have chances of stopping or significantly altering the project, except in connection with the results of the EIA. For projects where serious conflicts with environmental values are identified, the EIAs result lead to licence not granted. Our observation that a few actors seem to be highly influential in the process confirms the key expectation from the institutional-cultural perspective: it is not only formal rules that matter for licensing outcomes – informal practises and routines are also important.

Clearly, there is a discrepancy between the formal requirements and the more informal practices established in the licensing process. The latter have largely been established by the NVE, gradually emerging as responses to the high volumes of windpower project applications, and changes in the PBA. The formal role of the municipalities has been weakened; with the changes in formal procedures, new norms, values and practices had to be developed within the organisations and concerning how actors cooperate informally. Developer–municipality compensatory agreements are less common today, but the municipalities do get benefits from property taxation and local construction activity, and rural municipalities seem generally supportive of windpower construction despite the PBA changes.

The special role given to the municipalities shows that different actors in the hearing process are accorded differing weight in the NVE's final determination, even though they have the same formal status. The practice of heavy weighting accorded to municipalities when they oppose windpower projects is not anchored in formal requirements, but has a normative and political basis in the NVE and OED. To some degree, it can be seen as an informal compensation for the change in previous practices that local government should be heard; and it supports findings that perceptions about appropriate behaviour tend to change more slowly than formal regulations [15,46] Further, granting this form of informal but very real veto power to the host municipality may be contingent on access to alternative sites for windpower, and is thus vulnerable to change. It gives the municipalities' stance on projects significant influence over windpower planning, although less weight is given to 'positive' municipalities. Moreover, municipalities no longer have a hand in the planning process through the PBA. That also constitutes a challenge, as some actors involved in the process may be less familiar with the different weightings and considerations the NVE gives to various factors when making a decision.

Indeed, some of the interviewed municipal representatives assumed that the NVE would be likely to grant a licence even if faced with opposition from the local municipality – indicating that they were unaware of the highly informal practice of giving municipalities *de facto* veto-power in the licensing process. Thus, the informal veto held by the municipalities is available only to those who are conversant with the (informal) norms and rules of the process. This divergence between formal requirements and informal practices significantly reduces transparency and predictability. Those with experience and in-depth knowledge of the process are likely to hold an undue advantage as regards getting heard.

This situation has further led to a strengthening of groups that are part of the energy sector, or otherwise have an interest in windpower construction – with the exception of oppositional municipalities. Regional windpower plans show that it can be difficult to challenge sector actors when they are unified in their interests – and, depending on the standpoint, even in some cases where a project may compromise nationally determined environmental values, such as the now-endangered eagle-owl, or other species and nature types. The national authorities had intended regional windpower plans to steer windpower developments to areas rich in wind resources, while avoiding important areas for birdlife and valuable nature types, or other environmental conflicts. As EIAs have been criticised for focusing on the impacts of individual windpower developments and to a lesser degree on the combined impact in certain pressure areas, these regional plans were intended to help to remedy this weakness.

The informal practices are now almost fully controlled by the sector authorities. The degree to which they are subject to further changes or new directions at the discretion of the same authorities is unclear.

7.3. Implications of the licensing process

Fundamentally, the licence process for windpower means land-use changes that imply a weighing of often-competing interests. Responsibility for this weighing is given to a sector authority. While few of our interviewees could point to specific issues regarding the weighing, the fact that competence had been accorded to a sector authority with considerable room for discretion as regards the licensing decision was criticised by several interviewees, in particular representatives of environmental NGOs and the regional administrations. This was seen as significantly reducing transparency and predictability, with the possibility of interpretations that energy interests are given weight because of the strong position of the NVE. While we cannot claim that the NVE and the OED do not weigh the energy interests against other interests in a fair manner, local environmental interests do hold a significantly weaker position now. Regardless, the process is organised in such a way that suspicions are likely to continue.

What consequences then, do the practices and actor influence identified in this study have for the predictability and transparency of the licensing process? Basically, energy installation licensing (like any concession for land-use changes) represents a trade-off between various clashing considerations. These include effectiveness and efficiency, and (perceptions of) procedural justice, as well as transparency, predictability and fairness. With the sizeable discretionary room available to the licensing authorities in judging and weighing the conflicts and facts for any given project, effectiveness should be expected to be high [see 3]. Also, the high degree of informal contact between developer and municipality, and to some extent the developer and the NVE at an early stage, has probably improved efficiency, because effort is not wasted on projects in oppositional municipalities or in processes unlikely to be granted licences. Although there is not necessarily a simple contradiction between efficiency and legitimacy in such processes, there is a risk of process efficiency reducing the space for the representation of 'public interest' [40, p. 5]. However, several actors have criticised the processes for taking too long: even the Auditor-General noted that the average time needed to obtain a windpower licence in 2014 was five-and-a-half years [48]. Our interviewees mentioned processes that took up to ten years; and the numerous appeals have further slowed down many processes.

It is likely that informal practices have developed partly in connection with the high number of licensing applications processed since around the year 2005, something that according to the institutional-cultural is a typical kind of development [19,25]. Unclear steering signals from the national political level have also been noted [48], further facilitating the development of informal practices [25]. The extensive use of public meetings by the NVE is a measure that clearly improves the transparency of the *process*. However, procedural transparency does not ensure *outcome* transparency – as considerable discretion is given to the NVE. The lack of extensive requirements for referencing an explicit evidence-basis for the weighing of the various factors and conflicts reduces information disclosure about the licensing decision itself, as well as predictability for similar applications. Lack of predictability may partly be compensated by the circumstance that in Norway all windpower decisions are made by the same unit in the same national authority (the NVE), especially when compared to the frequently high number of licensing authorities in countries where this function is devolved to municipalities or regional authorities [5,47,49]. Further, the informal interactions at early stages improve predictability of the outcome for the developer – although, again, perhaps not for 'outsider' actors. This, to some degree, resembles practices in the NVE also beyond the standardised licensing processes, such as the impact of expert knowledge on other types of policy development [50].

Finally, it should be noted that influence on individual licences means more than licence granted or not. It may also mean influence over the number, placement and height of the turbines, and the shaping of the wind park more generally, although licensing authorities have shown restraint in exerting this influence at the cost of project feasibility. However, for most actors outside the energy nexus, the institutionalised channel for influencing a project is through the EIA, as any information about environmental conflicts uncovered through the EIA process may change the project – or, in cases with high conflict, lead to a licence not being granted. Any actor can do this through input to the EIA programme (on what is to be mapped in the EIA), by providing observations or contributing other data during the conduct of the EIA, or through hearings for the project or EIA findings after the EIA has been done. The consultancies performing the EIAs have been met with criticism and some suspicion, but our mapping of the EIAs clearly showed that they have improved as regards several factors, including clarity, conclusions as to the environmental impacts and the comparability of these factors. Thus, the EIAs have developed into a significantly more transparent and predictable instrument than they were less than two decades ago.

8. Conclusions

To find who influences the licensing processes in Norwegian windpower development, we have employed an analytical framework that includes formal requirements as well as informal practices. The instrumental-organisational perspective can explain influence by the formal structure – written rules and regulations about who can do what and when. The institutional-cultural perspective has complemented our analysis of which actors are most influential in the licensing process, through the mapping of informal practices based on perceptions of 'appropriate behaviour' that underlie administrative behaviour [24,25].

In Norway, unlike many other countries, the licensing process is not run by local administrations but is steered by the Norwegian Water Resources and Energy Directorate (NVE) – and, in cases of appeals, the Ministry of Petroleum and Energy (OED). The formal structure gives these authorities a very broad mandate to decide licence outcomes at their own discretion. Although based on Environmental Impact Assessments (EIAs), stakeholder group inputs and project information, the decisional discretion of the licensing authorities, as formally regulated, is so extensive as to reduce transparency and predictability for the stakeholders involved. The EIAs have gained in clarity and comparability since the earliest Norwegian windpower plants requiring licences were constructed in the late 1990s, but it is still difficult for outside actors to anticipate and predict how various factors will be weighed in the final licensing decision.

Changes in Norway's Plan and Building Act (PBA) as of 2008 have reduced the formal influence of the municipalities on licensing decisions. The regional environmental authorities have also become marginalised in the process, largely because responsibility for deciding windpower licences and related land use has been granted to a sectoral state authority. This has given rise to challenges concerning goal conflicts and power asymmetries among public administrative bodies with differing mandates.

In addition come the informal practices of the licensing process. Here, the municipalities enjoy a role far more influential than what is formally defined. After 2008, the NVE and in particular the OED have accorded heavy weight to official municipal opinions as to projects on their own territory – indeed, to such an extent as to give municipalities *de facto* veto power.

There remain a few important actors who are highly influential regarding the licensing outcome: the project developer, who prepares the proposal; the local landowner, who usually enters into a compensatory agreement with the project developer for use of the land; the municipality, which is, as noted, a *de facto* veto player throughout the process; and the NVE and OED as the licensing authority. These actors have come to dominate the licensing process to such a degree that NGOs, regional authorities, local private individuals and other stakeholders are marginalised.

The NVE has adopted measures to ensure the broad inclusion of all relevant stakeholders in connection with each windpower licence application, through extensive hearings and public meetings. But uneven access to information and influence on the outcome, the asymmetric relationship of the licensing authority relative to actors outside the energy sector, and changes in the PBA have all led to today's process, which favours the influence of pro-windpower groups. Here the local municipalities are the exception – but, as this weighing of the municipalities concerns specific projects and rests on a relatively informal basis, it may be contingent on continued support through the NVE's and OED's use of discretion, as well as broad access to alternative areas for windpower development. Windpower development in Norway tends to be proposed in rural settings in smaller municipalities – who are generally favourably inclined towards initiatives that can bring economic activity into a strained budget [51]. This makes the local municipal democratic processes one of the most important spaces for influencing windpower development in Norway.

This discrepancy between formal rules and regulations on the one hand, and informal practices on the other, has important implications for research and policy. Combining different institutional perspectives offers a feasible approach to investigate such differences and the resulting outcomes, and can fruitfully be applied to further studies of energy governance. First, it shows that analytical perspectives focusing solely on formal rules are insufficient for analysing public administrative behaviour. The marginalisation of municipalities by the changes to the PBA has been greatly compensated by the practice of heeding and integrating their attitudes to local projects. That finding – of critical importance to the conclusions of any analysis – would not have been evident through a narrow examination confined to the formal rules. Furthermore, it fits well with the institutional literature where the impact of informal practices has been found to depend partly on how tightly defined the formal structure is, and with unambiguous goals [19,22]. This can contribute to explain the large decisional discretion in the licensing processes. Bearing in mind the possible advantages for effectiveness of sizable decisional discretion, reducing this room would then mean specifying the license process in further detail. Some earlier analyses of windpower decisions have focused mainly on legal procedures [5]; other work has emphasised also other aspects of practices, but usually without an explicitly institutionalist approach [4,7].

Secondly, the policy implications are also significant. Informal practices may be unclear, as indicated by our finding that some municipalities were unaware of their own significant influence, which in turn influenced their strategies in the process. Further, changes in this practice may be contingent on alternative areas feasible for windpower projects. As land-use changes entail a weighing of often competing interests, this is a critical issue. Responsibility for weighing the costs and benefits lies with a sector authority, which, in view of its mandate, can reasonably be expected to accord significant weight to national energy interests. As there is ample room for discretion, such decisions are difficult to trace. Perhaps less consideration is given to other concerns, such as environmental or other interests. How such issues are weighed in practice is a critical area for future research.

Lastly, transparency and predictability are influenced by the organisation and practices of the licensing process. Unlike common practice in many other countries with local licensing authorities, the Norwegian licensing process is run at the state level and is controlled by a sector body. While this may appear effective and favourable to rational national steering of windpower deployment, the many resultant rounds of appeals lead to long processing times. Further, state-level licensing increases the distance between stakeholders and the licensing process and decision, and thereby also the need for formalised rule-making. Although generalisations between jurisdictions must account for system context, we argue that more transparent processes would benefit all

parts of the licensing scheme. The weighing of the different considerations would benefit from following *ex ante* formalised rules. This could for example mean using the EIA scores as thresholds for further action, like further investigations related to aspects of impacts mapping for the individual projects or in relation to nearby projects. While local siting disagreements would undoubtedly still occur, greater transparency and traceability should encourage predictable and comparable results between projects. In turn, that could enable better public understanding of the process and the weight given to the different factors, thereby reducing the impact of informal practices that now benefit those who happen to be most familiar with the system.

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Appendix A

List of interviewees

No.	Date	Place	Title	Organisation type
1	09 Jan	Oslo	Chair	NGO
2	09 Jan	Oslo	Policy Advisor	NGO
3	19 Jan	Oslo	Project Manager	Developer
4	24 Jan	Fosen	Deputy Mayor	Municipality
5	24 Jan	Fosen	Head of Administration	Municipality
6	24 Jan	Fosen	Head of Spatial Planning and Buildings	Municipality
7	24 Jan	Fosen	Head of Administration	Municipality
8	25 Jan	Trondheim	Director	Regional authority
9	25 Jan	Trondheim	Assistant Head of Section	Regional authority
10	26 Jan	Fosen	Mayor	Municipality
11	26 Jan	Fosen	Director of Spatial Planning and Buildings	Municipality
12	26 Jan	Fosen	Chair	Local NGO
13	26 Jan	Fosen	Member	Local NGO
14	26 Jan	Fosen	Member	Local NGO
15	26 Jan	Fosen	Former Chair	Regional NGO
16	6 Feb	Oslo	Senior Advisor	State Authority
17	6 Feb	Oslo	Senior Advisor	State Authority
18	7 Feb	Oslo	Senior Advisor	State Authority
19	7 Feb	Oslo	Head of Section	State Authority
20	19 Feb	Stavanger	Founder; Head of Sustainability	Developer
21	19 Feb	Stavanger	Assistant Project Manager	Developer
22	19 Feb	Stavanger	Manager	Regional NGO
23	19 Feb	Stavanger	Chair	Regional NGO
24	20 Feb	Rogaland	Mayor	Municipality
25	20 Feb	Rogaland	Director of Spatial Planning and Buildings	Municipality
26	20 Feb	Rogaland	Deputy Mayor	Municipality
27	21 Feb	Rogaland	Head of Section	Regional authority
28	21 Feb	Rogaland	Assistant Head of Section	Regional authority
29	22 Feb	Rogaland	Special Advisor, regional planning	Regional authority
30	22 Feb	Rogaland	Advisor	Regional authority
31	22 Feb	Rogaland	Project Manager	Developer
32	12 Apr	Oslo	Senior Advisor	State authority
33	12 Apr	Oslo	Department Director	State authority
34	12 Apr	Oslo	Assistant Director	State authority

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