# **IFRO Report**



Mapping of the legal framework for siting of wind turbines – Denmark

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#### **IFRO Report 239**

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# Mapping of the legal framework for siting of wind turbines – Denmark

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#### 1. Introduction

This report has been elaborated as a first deliverable in Work Package 2 on local acceptance and public regulation as part of the Wind2050 project on local acceptance and development of wind power projects.<sup>1</sup> Work Package 2 seeks a better under-standing of the relationship between local acceptance and public regulation and decision-making. As part of this work package an initial mapping of the legal and regulatory framework has been carried out in this report. The mapping aims to provide an overview of the Danish legal framework for the siting of wind turbines and the safeguarding of local concerns, including also the specific policy measures that are aimed at increasing local acceptance.<sup>2</sup> More detailed analyses of the functioning of the legal framework and the specific policy measures will be carried out during the project period. It must be kept in mind that the legal and regulatory framework for wind energy projects is much wider than the legislation referred to in this report. In particular legislation on price regulation, subsidy schemes, connection to networks, expanding electricity transmission etc. is important for the further development of wind energy. Such legislation is, however, not included in the report or subject to further analysis in Work Package 2.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> The Wind2050 project is funded in 2014-2017 by the Danish Strategic Research Council – now part of Innovationsfonden. We would like to thank Birgitte Egelund Olsen and Anita Rønne for comments on an earlier draft of this report.

<sup>&</sup>lt;sup>2</sup> A detailed guidance regarding the planning procedures etc. for onshore wind turbines has been published by the Danish Nature Agency: Naturstyrelsen (2015) Vejledning om planlægning for og tilladelse til opstilling af vindmøller, available at http://naturstyrelsen.dk/media/131731/vejledning\_06012015\_web.pdf. See also http://vindinfo.dk for general information about wind energy in Denmark. As regards relevant literature we refer to Olsen, B.E. & Anker, H.T. (2014) Local acceptance and the legal framework – the Danish wind energy case, in Squintani & Vedder et al. (eds.), *Sustainable Energy United in Diversity – Challenges and Approaches in Energy Transition in the European Union*; Olsen, B.E. (2014) Regulatory financial obligations for promoting local acceptance of renewable energy projects, in M. Peeters & T. Schomerus (eds.), *Renewable Energy Law in the EU: Legal Perspectives on Bottom Up Approaches*, Edward Elgar, p. 180-209. See also Basse, E.M. (2011) *Vedvarende energi: de lovgivningsmæssige rammebetingelser*, Jurist- og Økonomforbundets Forlag.

<sup>&</sup>lt;sup>3</sup> For further analysis of Danish energy legislation see e.g. Rønne, A. (2007) Danish Energy Law Ch. 7, in M.M. Roggenkamp, C. Redgwell, A. Rønne & I. del Guyao (eds.), *Energy Law in Europe: National, EU and International Regulation*, 2. ed., Oxford University Press; Rønne, A. (2012) Smart Grids and Intelligent Energy Systems: A European Perspective, in M. M. Roggenkamp, L. Barrera-Hernández, D. N. Zilman, & I. del Guayo (eds.), *Energy networks and the law: Innovative Solutions* 

As part of the overall policy framework it should, however, be noted that Denmark has a wind energy production covering close to 35 per cent of the total electricity consumption with a total wind energy capacity of almost 5.000 MW in 2015 of which about 26 per cent is offshore wind.<sup>4</sup> According to the 2012 Energy Agreement<sup>5</sup> onshore capacity should be increased by 1800 MW (net 500 MW), offshore with 1000 MW and nearshore with 500 MW by 2020. The objective is to reach a 50 per cent wind energy share of electricity consumption by 2020. Different subsidy schemes have applied over the years. Currently, a price supplement of 0.25 DKK/kWh is paid to onshore and offshore wind turbines not subject to tender with a ceiling of 0.58 DKK/kWh for the first 22,000 peak load hours for wind turbines connected to the grid in 2008-2013.<sup>6</sup> For wind turbines connected to the grid after 1 January 2014 the calculation model is different, but equivalent to approximately the first 25,000 peak load hours. The price for offshore wind energy subject to tender procedure is determined in the tender negotiations and may, thus, vary from one site to another.

*in Changing Markets*, vol. 1, p. 141-161, Oxford University; Rønne, A. (2012) The Interface between EU Energy, Environmental and Competition Law in Denmark, *Oil, Gas & Energy Law Intelligence* 10(4), 1-16.

<sup>&</sup>lt;sup>4</sup> Data is available at <u>http://www.ens.dk/info/tal-kort/statistik-noegletal/oversigt-</u> energisektoren/stamdataregister-vindmoller

<sup>&</sup>lt;sup>5</sup> The Danish Energy Agreement on Danish Energy Policy 2012-2020, March 2012. The agreement was a broad political agreement between the Government and four opposition parties reflecting a certain degree of consensus on the long-term objectives and overall measures in Danish energy policy.

 $<sup>^{\</sup>rm 6}$  If the market price exceeds 0.33 DKK/kWh the price supplement will be reduced in order not to exceed 0.58 DKK/kWh in total.

### 2. The legal and regulatory framework

The Danish legal framework for siting of wind turbines is characterised by a regulatory split between onshore and offshore wind turbines.

The *siting of onshore wind turbines* is generally regulated under the Danish Planning Act and the local authorities (municipalities) are as the main rule responsible for planning as well as environmental assessment procedures. For larger onshore wind turbines (above 150 m) the Ministry for the Environment is the relevant EIA authority. The Minister for the Environment may in cases of national importance – in particular larger turbines – also subsume the planning powers of the relevant municipality or decide to adopt a national planning circular for the project. Decisions regarding siting of onshore wind turbines can normally be appealed to the Nature and Environment Appeals Board. In very specific cases a project can be decided by an Act of Parliament as it was the case for the Østerild testing station.<sup>7</sup>

The siting of offshore wind turbines is generally regulated under the Renewable Energy Act and the Danish Energy Agency (Energistyrelsen) is the relevant authority with the possibility of appeals to the Energy Appeals Board. For offshore wind turbines a distinction is made between coastal-near (or nearshore) turbines and offshore large-scale wind farms. There are no formal distance requirements separating the two types of offshore wind turbines. The 6 potential nearshore turbine sites that have been designated as a follow-up to the 2012 Danish Energy Agreement<sup>8</sup> are located 4-8 km off the coast. Certain differences in the legal and regulatory framework exist as regards nearshore and large-scale offshore turbines – in particular as regards the specific policy measures.

<sup>&</sup>lt;sup>7</sup> Act no. 647/2010 on a testing centre for large-scale wind turbines at Østerild (lov om et testcenter for store vindmøller ved Østerild). In this case the Act replaced most planning and permit requirements, while an EIA (and Natura 2000) assessment was carried out prior to the adoption of the Act. Due to certain flaws a supplementary EIA was carried out after the adoption of the Act. In 2013 the Western High Court rejected claims that the process had violated the EU EIA and Habitats Directives (MAD2013.816V).

<sup>&</sup>lt;sup>8</sup> The Danish Energy Agreement, March 2012.

| Onshore                                                                                                                    | Nearshore                                              | Offshore (large-scale)                   |
|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------|
| <ul> <li>Planning Act:</li> <li>Municipalities</li> <li>Ministry for the<br/>Environment (&gt; 150<br/>m) - EIA</li> </ul> | Renewable Energy Act:<br>• Energy Agency               | Renewable Energy Act:<br>• Energy Agency |
| <ul><li>Renewable Energy Act</li><li>policy measures:</li><li>Energinet.dk</li></ul>                                       | Renewable Energy Act - policy measures: • Energinet.dk |                                          |

# Table 2.1 General legal framework and administrativeresponsibilities for siting of wind turbines

In the following the legal and regulatory framework has been divided into spatial planning requirements, environmental assessment requirements, permit requirements and noise requirements. Furthermore, a short account will be made as regards the specific policy measures that have been adopted with the purpose to promote local acceptance of wind turbines. In this respect Energinet.dk plays an important role as regards the administration of the policy measures. Energinet.dk is an independent state-owned enterprise who owns the Danish electricity and gas transmission system.

While the different instruments may to some extent be overlapping or incorporated into the same procedure, they do nevertheless represent different characteristics and challenges from a legal and administrative point of view. The Danish legal framework is to a certain extent the result of implementation of EU and international legislation. This will be noted where relevant, but the report will not include an analysis of EU and international legislation relevant to the siting of wind turbines.<sup>9</sup> It must also be kept in mind that general administrative law may play an important role, e.g. the rules on consultation, access to documents, provision of information etc. These rules are not included in this report either.

#### 2.1. Spatial planning requirements

Planning requirements in this report refer to spatial or physical planning for wind turbines as opposed to sector or infrastructure planning such as strategic energy planning. A distinction is drawn

<sup>&</sup>lt;sup>9</sup> An introduction to relevant EU and international law can be found in Anker,H.T., Olsen, B.E. & Rønne, A. (2008).

between strategic (spatial) planning involving a designation of potential wind turbine areas as opposed to project planning linked to individual wind energy projects. *Strategic planning* often aims at ensuring an overall balancing of different (land use) interests, including landscape characteristics as well as the prevalence of wind resources. *Project planning* on the other hand includes the more detailed planning for individual projects, including the specific siting, size and characteristics of the wind turbines as well as the safeguarding of specific local interests, e.g. landscape interests.

#### Spatial planning

Strategic planning, e.g. designation of potential wind turbine areas (DK: municipal plans or thematic plans)

Project planning, detailed planning for individual wind energy projects (DK: local plans) Spatial or land use planning is generally not subject to EU or international legislation. In 2014 the EU, however, adopted a new Directive on Maritime Spatial Planning<sup>10</sup> which sets up general requirements for the planning and coordination of offshore activities, inter alia with the purpose to achieve the EU renewable energy targets. It has been carefully argued that EU legislation on maritime spatial planning does not contradict the restrictions in the Treaty on the Functioning of the European Union (TFEU) on land use planning, cf. Article 192(2) TFEU. EU legislation has also in other ways established requirements that are linked to land use and spatial planning, including the Strategic Environmental Assessment Directive, <sup>11</sup> the EIA Directive <sup>12</sup> and the Habitats Directive. <sup>13</sup> Furthermore, the Aarhus Convention<sup>14</sup> sets up certain requirements as regards access to information, participation and appeals.

#### 2.1.1. Strategic planning

Strategic planning for *onshore wind turbines* is an important element of the Danish planning system. The municipalities shall as part of the municipal plans – possibly as a separate planning document –

 $<sup>^{\</sup>rm 10}$  European Parliament and Council Directive 2014/89/EU of 23 July 2014 (2014) OJ L257/135.

<sup>&</sup>lt;sup>11</sup> European Parliament and Council Directive 2001/42/EC of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (2001) OJ L197/30.

<sup>&</sup>lt;sup>12</sup> European Parliament and Council Directive 2011/92/EU of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (2012) OJ L261/1.

<sup>&</sup>lt;sup>13</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (1992) OJ L206/7.

<sup>&</sup>lt;sup>14</sup> Convention on access to information, public participation in decision-making and access to justice in environmental matters (Aarhus Convention, 1998), UN ECE, 2161 UNTS 447; 38 ILM 157 (1999).

designate potential wind turbine areas, under the general requirement in Sec. 11a, no. 5 of the Planning Act to produce municipal planning guidelines for technical installations (kommuneplanretningslinjer). The Planning Act does not stipulate how many areas that should be designated and there are no formal obligations on each municipality to plan for a certain level of wind energy capacity.<sup>15</sup> The issuance of municipal planning guidelines for wind turbine areas is a prerequisite for the subsequent elaboration of project plans (local plans) for wind turbine projects. The municipal plan shall also set framework provisions for local plans (rammebestemmelser). If a site has not been designated in advance through strategic planning - it is possible to adopt a municipal planning supplement (kommuneplantillæg) together with the local (project) plan. Thus, there is a possibility that the purpose of strategic planning for wind turbines may be undermined by an adhoc project planning for individual wind energy projects. The more traditional planning approach of strategic planning may thus be challenged by an ad-hoc approach to the siting of wind turbines.

Strategic planning requirements for onshore wind turbines have formally been part of the Danish planning system since the adoption of the first Wind Turbine Circular in 1994 requiring the municipalities to determine where and to what extent wind turbines could be established in the municipality. Later in the 1999 Wind Turbine Circular it was stipulated that the designation of potential wind turbine areas by the county councils in the regional plans was a prerequisite to subsequent municipal and local planning for wind turbines. The county councils (and the regional plans) were abandoned by 1 January 2007 as a consequence of the local government reform. Most planning and environmental tasks of the county councils were transferred to the now 98 municipalities (replacing the former 274 municipalities).

<sup>&</sup>lt;sup>15</sup> The 2008 Renewable Energy Act included a requirement for all municipalities to plan for a total of 75 MW wind energy capacity in both 2010 and 2011.

#### Table 2.2 Strategic planning

| Onshore                                                                                                                                                                                                                                                                                            | Offshore                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| <ul> <li>Municipal plan (possibly thematic plan or plan supplement):</li> <li>mandatory (municipal planning guidelines and framework provisions)</li> <li>maximum expected number and size of turbines</li> <li>minimum distance to neighbours</li> <li>assessment of landscape effects</li> </ul> | Possibly designation of areas for tender |
| NB: SEA                                                                                                                                                                                                                                                                                            | NB: SEA                                  |

Executive Order 1590/2014 on Wind Turbine Planning<sup>16</sup> in Sec. 3(2) sets up certain requirements for wind turbine planning – at both strategic and at project level. The planning requirements do not apply to small "household" turbines up to 25 m that are located in connection with existing buildings. According to the Executive Order the municipalities can only designate areas for turbines with a total height of more than 150 m if it is testing turbines, cf. Sec. 2(2). For non-testing turbines above 150 m the Minister for the Environment must provide the relevant plans, e.g. a national planning circular.

The Executive Order lays down a minimum distance to neighbouring dwellings of 4 x total height, cf. Sec. 2(3-4). There are no formal requirements as regards the distance to roads or railroads. A 2011 Working Group recommended a minimum distance of 1xtotal height and indicated that within 1-1.7 x total height safety issues should be considered. The Executive Order now stipulates that the municipalities cannot adopt municipal planning guidelines that in general extend the minimum distance requirement of 4xtotal height or set general guidelines for the total height.<sup>17</sup>

An important question is what content municipal planning guidelines for wind turbines could have. It is quite clear that the guidelines should designate potential areas, i.e. indicated on a map. A certain

<sup>&</sup>lt;sup>16</sup> Bekendtgørelse nr. 1590/2015 om planlægning for og tilladelse til opstilling af vindmøller. The Executive Order replaced the former Wind Turbine Circular 9295/2009 with effect from 1 January 2015.

<sup>&</sup>lt;sup>17</sup> In some municipalities it appears that general height requirements have been set in the municipal plans, e.g. a maximum height of 80 m for all potential wind turbine areas in Svendborg municipality.

level of detail is also required as regards the accompanying framework provisions for potential wind turbine areas as they shall determine the expected maximum number and size of turbines. Executive Order 1590/2015 also stipulates a requirement to assess landscape effects and in particular to explain that the landscape effects are insignificant if the turbines are to be located within 28 x total height from existing or planned turbines, cf. Sec. 2(7). This requirement has not previously been considered a requirement under the strategic planning (or designation of potential wind turbine areas), but a requirement linked to project planning (local plans), see e.g. the decision by the Nature and Environment Appeals Board in the Sønderborg case (MAD2014.204). It is not quite clear why this requirement now has been linked to the strategic planning as the assessment of landscape effects is likely to require a certain level of detail, e.g. the precise siting of the wind turbines.

The strategic designation of potential onshore wind turbine areas is subject to procedural requirements according to the Planning Act. This includes a general requirement to call for ideas and proposals from the public before drawing up a plan proposal, cf. Sec. 23c of the Planning Act. After the drawing up of a plan proposal there is a public consultation period of minimum 8 weeks prior to the final adoption of the plan. If there are any major changes from the plan proposal to the final plan an additional consultation might be required, cf. Sec. 27 of the Planning Act. It is possible within 4 weeks after the announcement of the decision to appeal the decision to adopt a plan proposal as well as the final plan on issues of legality, i.e. procedural flaws, lack of compliance with legal requirements or general principles of law, to the Nature and Environment Appeals Board, cf. Sec. 58 of the Planning Act. It should be kept in mind that a strategic environmental assessment (SEA) is likely to be required prior to the adoption of the plan, see below 2.3.1

Several municipalities have recently faced difficulties in their designation of potential wind turbine areas. Up to the general municipal elections in November 2013 some municipalities withdrew or postponed their proposed strategic designation of wind turbine areas, including the municipalities of Aarhus, Roskilde, Slagelse and Holbæk. Furthermore, appeal cases against municipal plans for potential wind turbine areas have pinpointed procedural flaws and the Nature and Environment Appeals Board have turned down some strategic plans (e.g. Sønderborg, MAD2014.204) while confirming others (e.g. Ikast-Brande, MAD2011.1761). In the Sønderborg case the number of designated areas had been reduced from the originally proposed 18 sites to 8 sites in the final plan without a new consultation period, thereby violating Sec. 27(2) of the Planning Act.

Furthermore, consultations with a private landowner whose land was taken out of the designation had not been carried out and the strategic environmental assessment was inadequate on a number of points. In a case from Vejle the designation of one out of four sites was declared invalid by the Nature and Environment Appeals Board as the minimum distance requirement to a summer house had not been complied with. Furthermore, the SEA for this area was insufficient (MAD2012.3200). It must be noted that compliance with the minimum distance requirement to dwellings can be complied with if the dwellings are to be abandoned (e.g. Kappel, MAD2012.1007).

Strategic planning for offshore wind turbines is not a formal legal requirement. According to the Renewable Energy Act Sec. 22 the Minister for Climate, Energy and Buildings may designate areas for tender for both large-scale offshore wind turbines and nearshore turbines. It is, however, also possible within the current legal framework to apply for permits outside such designated areas (open door). In practice potential wind turbine areas offshore and nearshore have been designated by the Danish Energy Agency, including the designation of six potential nearshore sites, through an informal planning process involving public consultations. Strategic environmental assessments have also been carried out in accordance with the Environmental Assessment Act. It is likely that the implementation of the EU Maritime Spatial Planning Directive will lead to the establishment of formal strategic planning requirements for offshore wind turbines as well as for other offshore activities. The Maritime Spatial Planning Directive shall be transposed into national legislation by September 2016 and a maritime spatial plan shall be adopted by 31 March 2021 at the latest.

#### 2.1.2. Project planning

Project planning for onshore wind turbines is also a common feature in the Danish planning system. In most cases the establishment of wind turbines will require a local plan (lokalplan). The criterion for requiring a local plan is whether the project will lead to a significant change considering the character of the area. This means that a smaller expansion of an existing wind farm may not require a local plan. Normally, small "household" turbines (less than 25 m) do not require a local plan. If a local plan is not required a rural zone permit is normally required, cf. Sec. 35 of the Planning Act. As mentioned above a local (project) plan for wind turbines can only be adopted if the area has been designated in the municipal plan. A local plan shall also comply with the planning requirements in the Executive Order 1590/2014 on Wind Turbine Planning, including the minimum distance requirement to dwellings of 4 x total height and the requirement to explain the "insignificance" of landscape effects when planning for new wind turbines closer to existing or planned turbines than 28 x total height. A local plan for a wind turbine project shall lay down the precise siting, number, minimum and maximum height as well as the design of the turbines.

#### Table 2.3 Project planning

| Onshore                                                                                                  | Offshore                         |
|----------------------------------------------------------------------------------------------------------|----------------------------------|
| <ul> <li>Local plan (in most cases):</li> <li>precise siting, number, height</li></ul>                   | No project planning requirements |
| and design <li>min. distance to neighbours</li> <li>landscape assessment</li> <li>NB: EIA (and SEA)</li> | (permit requirements in RE Act)  |

In most cases project planning for onshore wind turbines will also require an environmental impact assessment (EIA) as well as an EIApermit. If a strategic environmental assessment (SEA) has not been carried out prior to the project plan it might also be required together with an EIA. A project plan proposal shall be subject to a public consultation period of minimum 8 weeks prior to the final adoption of the plan. A written notice on the proposed plan shall also be sent to owners of properties (as well as tenants or users) likely to be significantly affected as well as to local organisations that have notified their interest in such plans. If there are any major changes from the proposed plan to the final plan an additional or new consultation might be required, cf. Sec. 27 of the Planning Act. It is possible to appeal the decision to adopt a plan proposal as well as the adoption of the final plan on legality issues to the Nature and Environment Appeals Board, cf. Sec. 58 of the Planning Act. An appeal will not suspend the decision, unless the Appeals Board decides otherwise, cf. Sec. 60(3) of the Planning Act. This means that the planned work can continue despite an appeal. If the Appeals Board declares a decision invalid on procedural grounds it will normally be possible to correct such flaws and adopt a new plan for the project.

It appears that an increasing number of project plans are subject to appeals to the Nature and Environment Appeals Board. In a recent case from Varde (Ulvemose and Bækhede – MAD2014.349) a project plan for 10 turbines (150 m) was declared invalid by the Nature and Environment Appeals Board primarily on the grounds

that the municipality had not made sufficient account on the "insignificance" of landscape effects when planning for new wind turbines closer than 28 x total height to existing or planned turbines. The Appeals Board indicated that the interplay with existing turbines within this distance requirement should be reconsidered – possibly resulting in the decommissioning of existing turbines. In addition the EIA was inadequate on certain issues. In two other recent cases (Randers/ Kærby – MAD2014.366 and Lemvig/Volder Mark – MAD2014.341) the Appeals Board was satisfied with the accounts made on the "insignificance" of landscape effects when planning for new wind turbines closer than 28 x total height to existing or planned turbines.

*Offshore and nearshore wind turbines* are not subject to project planning requirements. They are generally subject to permit requirements according the Renewable Energy Act and it shall be determined on a case-by-case basis whether an EIA is required.

#### 2.2. Permit requirements

For onshore projects a local (project) plan will normally lay down the project details and replace the rural zone permit which would otherwise be required, cf. Sec. 35 of the Planning Act.<sup>18</sup> It should be specified in the local plan that it replaces the rural zone permit. If a local plan is not required, e.g. for "household" turbines (below 25 m), a rural permit should be obtained by application to the municipality. According to the Building Act wind turbines in rural zones shall be notified to the municipality; a building permit is normally not required in rural zones.<sup>19</sup> According to the Building Regulation Sec. 1.5.7 a notification of a wind turbine shall be accompanied by the permits required according to the relevant legislation.

If an EIA has been carried out an EIA permit will be required. The EIA permit may lay down details and conditions for the project, e.g. addressing potential adverse environmental effects such as visual intrusion, noise or shadowing/flickering as well as decommissioning requirements. According to the Guidance on wind turbine planning a maximum of 10 hours of shadowing/flickering per year is

<sup>&</sup>lt;sup>18</sup> Rural zones are all areas that have not been designated as urban zones or summer cottage areas, cf. Planning Act Sec. 34. A general permit requirement for new construction and other activities apply in the rural zones.

<sup>&</sup>lt;sup>19</sup> Cf. Building Regulation (BR) 2010, Sec. 1.5.1. The Danish Energy Agency has in 2011 issued a guidance note explaining that considering the extensive regulation under the Planning Act a notification would normally be sufficient allowing the municipality to check compliance with the legislation, Energistyrelsen (2011) Vejledende udtalelse om byggesagsbehandling ved opførelse af vindmøller.

recommended.<sup>20</sup> It is not a formal requirement, however, that all adverse effects should be addressed in an EIA permit. A local (project) plan can be appealed to the Nature and Environment Appeals Board on the grounds of legality, whereas an EIA permit can be appealed in full, cf. Sec. 58 of the Planning Act within 4 weeks from the announcement of the decision. An appeal will not suspend the permit, unless the Appeals Board decides otherwise.

Specific permit requirements may apply if the wind turbines are to be established in an area that is subject to special protection requirements, e.g. according to the Nature Protection Act or the Forest Act. Such permits may in general be subject to a restrictive practice. As an example, constructions above 8.5 m are prohibited within 300 m from churches, cf. the Nature Protection Act. An exemption may, however, be granted by the municipalities.

#### **Table 2.4 Permit requirements**

| Onshore                                                                                                                                                                                                 | Offshore                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <ul> <li>EIA permit</li> <li>Rural zone permit (if no local plan)</li> <li>Building Act notification (no permit requirement)</li> <li>Other permits (e.g. Nature Protection Act, Forest Act)</li> </ul> | <ul> <li>Preliminary investigation permit</li> <li>Establishment permit</li> <li>Operation permit</li> </ul> |

*Offshore projects* are subject to different types of permits according to the Renewable Energy Act. This includes a preliminary investigation permit (Sec. 22), a permit for establishment (Sec. 25) and a permit for operation (Sec. 29). There are two different procedures for initiating offshore wind energy projects by applying for a preliminary investigation permit either under 1) a tender procedure or 2) an "open door" procedure. The Ministry for Climate, Energy & Buildings may initiate a tender procedure by designating areas where a preliminary investigation permit has not yet been granted. When an area has been designated for tender, it is no longer possible to apply for a permit under the "open door" procedure in that area. In designated areas preliminary investigations may be carried out by Energinet.dk – the costs should, however, be borne by the developer

<sup>&</sup>lt;sup>20</sup> Naturstyrelsen (2015) *supra* n. 2, p. 20.

obtaining a subsequent permit for establishment. The permit for establishment may lay down conditions for the project, e.g. addressing adverse environmental impacts. An operation permit is granted for applicants that comply with the conditions set in a preliminary investigation and/or establishment permit. An operation permit is granted for 25 years, and can be extended. The RE Act provides for a specific access to administrative appeal to the Energy Appeals Board on environmental matters of establishment permits if the EIA and Natura 2000 rules apply, cf. Sec. 67 of the RE Act.

In the 2013 amendment of the RE Act it was made clear that the Minister can issue criteria for preliminary investigation permits which in particular would be relevant to "open door" projects. The criteria could include a minimum distance to the shore. Such rules have, however, not yet been issued and there appears to be some uncertainty as to which criteria that applies for granting a permit. It can be noted that in relation to the former rules regarding so-called test areas the RE Act explicitly referred to the involvement or ownership of consumers, citizens and local organisations – although not as a decisive criterion, see e.g. the Nissum Bredning case (see EKN decision of 15 April 2011, 1131-10-3-78). The Energy Appeals Board stated in the case that the Energy Agency has as wide discretion in determining the relevance of the area for wind energy production. However, it appears desirable that more clarity is provided as regards relevant permit criteria and possibly also the relationship between the different permit procedures in the RE Act.

#### 2.3. Environmental assessment requirements

Environmental assessment requirements include both (strategic) environmental assessment of plans and programmes (SEA) and environmental impact assessment (EIA) of projects. Furthermore, specific assessment requirements apply in accordance with the EU Habitats Directive as regards potential effects on Natura 2000 areas (and/or Annex IV species).

#### 2.3.1. Strategic environmental assessment (SEA)

The Act on Environmental Assessment of Plans and Programmes (EA Act) transposes the EU SEA Directive into Danish legislation. The Environmental Assessment Act applies to plans and programmes across different sectors and pieces of legislation, including plans for onshore as well as offshore activities. Plans and programmes that set a framework for subsequent development consents (or permits) to

#### Strategic Environmental Assessment (SEA)

refers to environmental assessment of plans and programmes, e.g. municipal plans or local plans, in accordance with the requirements of the EU SEA Directive and as implemented in Denmark by the Act on Environmental Assessment (miljøvurderingsloven) wind turbines projects shall as a main rule be subject to an SEA, cf. Sec. 3(1). If the plan or programme only determine the use of small areas at local level and minor modifications to plans or programmes a screening shall establish whether the plan or programme may have a significant effect on the environment and require an SEA, cf. Sec. 3(2). The Danish Environmental Assessment Act not only applies to formal plans, but also to informal plans that are drawn up by the authorities with the purpose of serving as a basis for administration. The Nature and Environment Appeals Board has adopted a very wide interpretation of the concept of plans.<sup>21</sup> While the intended application of SEA primarily is the strategic planning level, the use of local project plans for wind turbines in Denmark may lead to the application of both SEA and EIA at project level. This may cause some confusion in practice, although the two procedures can be combined.

When an SEA is required an environmental report on the likely significant effects shall be prepared by the relevant authority. The report shall include information on e.g. the environmental characteristics of areas likely to be significantly affected and the likely significant effects on the environment, including biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, materials assets, cultural heritage and landscape. It shall also include reasonable alternatives as well as a description of envisaged monitoring measures. The draft plan and the environmental report shall be subject to consultations with the public and concerned authorities, cf. also Executive Order 1102/2009. Transboundary consultations involving neighbouring countries might also be required where relevant. SEA decisions can be appealed according to the rules of the relevant legislation, e.g. the Planning Act or the Renewable Energy Act. If there is no access to administrative appeal under the relevant legislation, decisions can be appealed to the Nature and Environment Appeals Board.

An important issue is what level of detail the environmental report should have. According to the Environmental Assessment Act the report shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan, its stage in the decision-

<sup>&</sup>lt;sup>21</sup> See e.g. MAD2014.54 on the Metro Cityring where a framework decision to allow extending working hours during night at certain construction sites was considered a plan according to the Environmental Assessment Act.

making process and the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment. This means that the level of detail in the report is highly dependent upon the level of detail in the plan. This has also been confirmed by the Nature and Environment Appeals Board in its decisions.

In a recent case the Nature and Environment Appeals Board found that the strategic plan designating potential wind turbine areas in Sønderborg was invalid partly on the ground that the SEA/ environmental report only included general descriptions of most environmental topics and not a proper assessment (MAD2014.204). Furthermore, other authorities had not been consulted and a summary was not included in the report. In another case from Vejle (MAD2012.3200) the assessment of the effects on nature and cultural heritage as regards one of four proposed areas was regarded as insufficient. On the other hand the Nature and Environment Appeals Board has in other cases rejected claims that a more detailed assessment was required at the strategic planning level, e.g. MAD2011.1761 (Ikast-Brande).

#### 2.3.2. Environmental impact assessment (EIA)

In Denmark EIA requirements for wind turbines differ significantly for onshore projects as opposed to offshore or nearshore projects. For onshore projects an EIA is mandatory for turbines higher than 80 meter and for groups of more than 3 turbines, while smaller projects shall be subject to a screening, cf. Executive Order no. 1684/2014 on EIA. For offshore wind energy projects there is – as in the EU EIA Directive – no mandatory EIA requirement, cf. Executive Order no. 68/2012 on EIA of offshore electricity producing installations.<sup>22</sup> A screening shall be carried for projects – and for changes to existing projects. If the screening concludes that the project may have significant adverse effects on the environment a full EIA shall be carried out.

For onshore projects the EIA rules have up until 2014 been closely linked to the planning process and incorporated into the Planning Act. If an EIA was required it was necessary to produce a municipal plan supplement as well as an EIA permit. Following an amendment of the Planning Act which entered into force 1 January 2014 the EIA procedure may now operate independently from the planning process. In most cases the competent authority is the municipality.

#### Environmental Impact Assessment (EIA)

is an environmental assessment of individual projects in accordance with the requirements of the EU EIA Directive as transposed into national legislation.

In Denmark this includes for onshore projects an:

EIA Statement (VVMredegørelse), and an EIA Permit (VVMtilladelse)

 <sup>&</sup>lt;sup>22</sup> Bekendtgørelse nr. 68 af 26. januar 2012 om vurdering af virkning på miljøet (VVM) ved projekter om etablering m.v. af elproduktionsanlæg på havet.

However, for wind turbines above 150 m the Minister for the Environment is the competent authority.

If an EIA is required the competent authority shall make a public call for ideas and suggestions with the purpose to determine the scope of the assessment, i.e. a pre-consultation phase. Then an EIA statement shall be produced and be subject to a public consultation for a minimum of 8 weeks. After the expiry of the public consultation procedure an EIA permit can be issued. A project cannot be commenced before either 1) an EIA permit has been granted, or 2) it has been decided that an EIA is not required.

According to the Danish legislation the authority has the responsibility to draw up the EIA statement and present it for public consultation. The authority may, however, request the developer to supply information to the EIA statement. This may make it difficult to distinguish clearly between the information provided by the developer and the assessment - and possibly additional information - provided by the authority. An EIA statement shall include detailed information on the potential effects on the environment, including humans, fauna, flora, soil, water, air, climate, landscape, material assets and cultural heritage. The statement shall also include an overview of the most important alternatives examined by the developer as well as other alternatives that have been examined, including the zero-alternative. Following the public consultation period an EIA permit can be granted setting conditions for the project. An EIA permit can be appealed in full, i.e. both on matters of legality and discretion, to the Nature and Environment Appeals Board, cf. Sec. 58 of the Planning Act. An appeal does not suspend the decision, unless the Appeals Board decides otherwise. If the Appeals Board finds that the EIA statement or the EIA permit is invalid on matters of legality, e.g. inadequate assessment of adverse effects, such flaws can be corrected in a new process (or supplementary EIA).

Appeals relating to the EIA statement are quite common. However, there are only few examples where the Nature and Environment Appeals Board have found that an EIA statement did not meet the requirements. A recent example is the Varde case (MAD2014.349) in which the Appeals Board found that the potential effects on groundwater by construction works in an ochre sensitive area had not been adequately assessed. Considering also the failure to comply with the landscape assessment requirement in the former Wind Turbine Circular the Appeals Board declared the plans and the EIA invalid and referred the case back to the municipality. Minor mistakes or inconsistencies in an EIA statement will normally not lead to setting aside an EIA statement, see e.g. MAD201.1007 (Kappel).

For offshore projects the Renewable Energy Act and the Executive Order 68/2012 on EIA of offshore electricity producing installations apply. The EIA procedure is linked to the permit to establish wind turbine projects, cf. Sec. 25 and 26 of the RE Act. It is the Danish Energy Agency (Energistyrelsen) that determines on a case-by-case screening whether a wind turbine project shall be subject to an EIA. If an EIA is required the applicant or Energinet.dk shall draw up an EIA statement. In most cases the EIA statement will be prepared by the developer. If Energinet.dk is carrying out preliminary investigations, e.g. for the six nearshore wind turbine sites, this will normally also include an EIA. An EIA statement shall be made available to the public for a consultation period of minimum 8 weeks by the Danish Energy Agency. There is no requirement to consult the public prior to the drawing up of an EIA statement. According to Sec. 67 of the RE Act appeals on environmental matters can be made to the Energy Appeals Board by anyone with a significant and individual interest in the case. Local and nationwide environmental organisations may also submit an appeal to the Board within four weeks after the granting of a permit.

In a case on 6 new offshore turbines near Frederikshavn the Energy Appeals Board declined the right of appeal by a resident in Frederikshavn located 4 km from the turbines as not being individually affected, see EKN decision of 8 June, 1131-10-5-50. In the same project the Energy Appeals Board, however, accepted the right of appeal by a few permanent as well as temporary residents at a group of very small islands – Hirsholmene – located 1.2 km from the turbines. The Appeals Board did not, however, support the views of the appellants that the EIA was inadequate or that the project would significantly affect nearby Natura 2000 areas or birds, see EKN decision of 8 June 2011, 1131-10-5-50. In a case on the preliminary investigation permit for wind turbines in Aarhus Bay (Mejlflak) the Appeals Boards declined the rights of appeal of a local NGO for the preservation of the coastal landscape mainly representing local landownership organisations on the grounds that the decision was not subject to appeals under Sec. 67 and that the individual members of the NGO did not fulfil the requirements under the general rule in Sec. 66 on being individually and significantly affected (EKN, 12 Dec. 2014, 1131-14-4-25).

| Onshore                                                                                                                                                                           | Offshore                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul> <li>Mandatory (unless &lt; 80 m or &lt; 3)</li> <li>Prior public consultation</li> <li>EIA statement (authority)</li> <li>Public consultation</li> <li>EIA permit</li> </ul> | <ul> <li>Screening</li> <li>EIA statement (developer or<br/>Energinet.dk)</li> <li>Public consultation</li> <li>Establishment permit</li> </ul> |

#### Table 2.5 Environmental Impact Assessment (EIA)

An important question in relation to EIA is the potential need to make new or supplementary EIAs if there are amendments to the project. If the amendments take place after the project plans or permits have been adopted – or during/after the construction of the project, an EIA screening is required if the amendment may have a significant effect on the environment, cf. Executive Order 1164/2014 and Executive Order 68/2012 – for onshore projects the establishment of additional turbines (above 80 m) will require an EIA. If a project amendment, however, occurs before the final adoption of the project, it may be necessary to produce a supplementary EIA.

In the Hagesholm case the Eastern High Court in 2012 found that the issue of producing a supplementary EIA due to a change in the projected 22 1.8 MW turbines to 15 2.3 MW turbines had been neglected by the authorities (MAD2012.394). The Eastern High Court thus declared the plans and assessments invalid and referred the case back to the Nature and Environmental Appeals Board. The Nature and Environment Appeals Board after having examined e.g. noise issues in 2014 found that a supplementary EIA was not required (MAD2013.2987 - Hagesholm).

#### 2.3.3. Natura 2000, Annex IV species and birds

The EU Habitats Directive sets up specific requirements for the protection of the so-called Natura 2000 areas and Annex IV species. As regards birds the EU Birds Directive<sup>23</sup> also lays down a general prohibition on the deliberate killing or disturbance of birds particularly during the period of breeding or rearing. These rules shall be taken into consideration when planning for wind energy projects onshore as well as offshore.

The Natura 2000 areas consist of special protection areas (SPAs) designated at national level under the EU Birds Directive and special areas of conservation (SACs) designated under the EU Habitats

<sup>&</sup>lt;sup>23</sup> European Parliament and Council Directive 2009/147/EC on the conservation of wild birds (codified), (2009) OJ L20/7.

#### Natura 2000

are areas designated according to the EU Birds Directive and Habitats Directive. A special protection regime applies to the Natura 2000-areas.

Annex IV species are species listed on Annex IV of the EU Habitats Directive, e.g. bats, and subject to a strict protection regime. Directive. In Denmark the Natura 2000 areas are designated under the Executive Order 408/2007 on international nature protection areas and they cover approximately 9 per cent of the land area and 18 per cent of the marine area. In accordance with Article 6(3) of the Habitats Directive and the rulings of the Court of Justice of the European Union an impact assessment of plans or projects is required if it cannot be excluded on the basis of objective information that it may have a significant effect. Furthermore, the plan or project cannot be authorised if it will adversely affect the integrity of the site. In case of adverse effects an authorisation can only be granted if there are imperative reasons of overriding public interest, no alternative solutions and all compensatory measures are taken, cf. Article 6(4). It is not decisive whether the wind turbines are located within or outside a Natura 2000 area. It is the potential effect on the Natura 2000 site that is decisive.

The Natura 2000 assessment requirements for onshore projects are incorporated into Executive Order 408/2007 stating that plans or EIA permits cannot be authorised unless the assessment and permit requirements have been complied with, cf. Sec. 6-7. The Executive Order prohibits planning for wind turbines - except small "household" turbines - within Natura 2000 areas cf. Sec. 5, unless an exemption is granted by the Nature Agency. For offshore wind energy projects Article 6(3) and (4) have been implemented in Sec. 27 of the RE Act linking the Natura 2000 assessment requirement to the Sec. 25 permit for establishment. According to Executive Order 1476/2010 the Natura 2000 assessment requirements also applies to permits for preliminary investigations cf. § 22 of the RE Act. The Danish Energy Agency determines whether an impact assessment is required. If it is required, the assessment shall be elaborated by the applicant or Energinet.dk (in case Energinet.dk carries out preliminary investigations). The RE Act in Sec. 28 also provides that measures shall be taken to prevent deterioration or disturbance of species in Natura 2000 areas. As there are no formal planning requirements or procedures in the RE Act, there is no Natura 2000 assessment requirement for the drawing up of informal plans, including designation of areas. Nevertheless, Article 6(3) is likely to be directly applicable in such situations in accordance with the rulings of the Court of Justice of the European Union.

The question of potential adverse effects on Natura 2000 sites has been subject to a couple of court rulings regarding wind turbines. In 2012 the Supreme Court did

not find that the siting of two 126 m turbines 600 m from a bird protection area violated the protection of Natura 2000 areas (MAD2012.1947H – Tåsinge), see also the Supreme Court ruling in MAD2009.1612H (Kyndby Huse). In 2013 the Western High Court also accepted the habitat assessments for a large-scale testing site (Østerild) which was adopted by an Act of Parliament (MAD2013.816V). More recently, the Nature and Environmental Appeals Board rejected plans and assessments for a small-scale testing site (up to six 25 m turbines) within a bird protection area and surrounded by other Natura 2000 areas as the assessments had not without reasonable doubt established that there would be no adverse effects (MAD2013.1426 – Thisted/Sindrup Vejle).

The Habitats Directive also requires a strict protection of certain species outside Natura 2000 areas - the so-called Annex IV species, including bats. According to Article 12 of the Habitats Directive all forms of deliberate capture, killing or disturbance as well as the deterioration or destruction of breeding sites or resting places shall be prohibited unless specific circumstances apply. In Denmark a general prohibition was in 2009 incorporated into the Nature Protection Act Sec. 29a; this rule applies for onshore as well as offshore activities. Furthermore, Executive Order 408/2007 stipulates that a plan or a permit cannot be authorised if it will lead to the deterioration or destruction of breeding sites or resting places - this rule applies to plans and permits for onshore turbines. For nearshore and offshore turbines similar rules are laid down in Executive Order 1476/2010 for permits granted under the RE Act §§ 22 or 25. The rules also apply if Energinet.dk is responsible for preliminary investigations, cf. RE Act § 23. According to Executive Order 1476/2010 consultations of concerned parties shall normally be carried out prior to the granting of § 25 permits. In case of preliminary investigations the Danish Energy Agency will determine whether consultations are appropriate.

In general it is possible to adopt mitigation measures to avoid deterioration or destruction of breeding sites or resting places. This does not, however, included compensatory measures, although it can be difficult to draw a clear line between mitigation measures and compensatory measures. Compensatory measures that are intended to compensate for deterioration or destruction can only be accepted if specific circumstances apply.

In a case from Syddjurs/Skaføgård (MAD2013.3122, NMK-33-01230, NMK-34-00182, NMK-41-00200 and NMK-34-00216) the Nature and Environment Appeals Board found that general information on bats did not provide an adequate assessment of the potential effects. The requirement to ensure no destruction or deterioration on breeding sites and resting places in Executive Order 408/2007 was

not complied with and the plans and assessments were declared invalid. In a more recent case from Randers/Kærby (MAD2014.366) the Appeals Board found that a sufficient assessment of the effects on bats had been carried out. In the Varde/Ulvemose and Bækhede case (MAD2014.349) the potential effects on birch mice had not been assessed despite knowledge about the presence of birch mice in the construction area. The Appeals Board noted that mitigation measures might be required.

The general protection of birds against deliberate disturbance, cf. the Hunting Act, should also be taken into account. This might be the case if there for example is a high risk of collision.<sup>24</sup>

#### 2.4. Noise requirements

Noise from wind turbines is in Denmark primarily regulated under public law as opposed to private law, e.g. nuisance or neighbour law. Nevertheless, claims based on neighbour law are not excluded, but so far they have not been successful and have more or less become superfluous as a consequence of the compensation scheme for neighbours to wind turbines, see below 2.5.1.

The Environmental Protection Act provides a legal basis for setting noise standards for wind turbines in Executive Order 1284/2011. In addition to the general noise standards individual noise standards may be set in an EIA permit for onshore turbines or in a permit for establishment of offshore turbines, cf. Sec. 25 of the RE Act.

The Executive Order sets maximum noise levels for dwellings (outdoor areas within 15 m) at 44 dB (8 m/s) and 42 dB (6 m/s) and for noise sensitive areas at 39 dB (8 m/s) and 37 dB (6 m/s). Noise sensitive areas are areas that in a local plan are designated for e.g. residential use, summer cottages, camping or noise sensitive recreational activities. This means that it is the municipality that determines the status of the area. It is, however, not possible to designate an area as noise sensitive if the current noise level exceeds the noise standards.

Since 1 January 2012 noise standards are also set for low frequency noise, i.e. noise within 10-160 Hz. The low frequency noise limit is 20

<sup>&</sup>lt;sup>24</sup> A recent report on the effects on birds and bats at the Østerild testing station concludes that the number of bird collisions the first year has been rather small (no bird corpses were retrieved), see DCE (2015), First year post-construction monitoring of bats and birds at wind turbine test centre Østerild, available at http://naturstyrelsen.dk/media/132695/first-year-monitoring-bats-birdsoesterild.pdf

dB at 8 m/s and 6 m/s for indoor areas in dwellings and in noise sensitive areas. The noise standards do not apply to dwellings of the wind turbine owner.

#### Table 2.6 Noise standards

| General                                                                             | Noise sensitive areas                                                                  |  |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--|
| <ul><li>44 dB (8 m/s) and 42 dB (6 m/s)</li><li>20 dB low frequency noise</li></ul> | <ul> <li>39 dB (8 m/s) and 37 dB (6 m/s)</li> <li>20 dB low frequency noise</li> </ul> |  |

The noise standards apply to both onshore and offshore turbines. The establishment of *onshore wind turbines* must be notified to the municipality presenting documentation that the noise limits will be complied with. If the area is designated for several wind turbines the municipality must ensure that the total noise level will not exceed the noise limits, e.g. by setting more strict standards for individual turbines. *Offshore wind turbines* must be notified to the Environmental Protection Agency when they are put into operation.

Compliance with the noise standards shall be supervised by the municipalities for onshore turbines and the Environmental Protection Agency for offshore turbines. Supervisory decisions cannot be appealed. The municipality may order the wind turbine owner to produce noise measurements and calculations for supervisory purposes.

In practice it appears that the Nature and Environment Appeals Board is generally satisfied when the general noise standards according to the calculations and possible noise reduction measures can be complied with. The Appeals Board has stressed that the municipalities must supervise compliance with the standards after the turbines have been put into operation, see e.g. MAD2014.91 (NMK-33-02338, Randers/Trikelshøj). In the Hagesholm case the Board found it realistic that noise measures could ensure compliance with the general noise standards (MAD2013.2987 - NMK-33-01110). In MAD2014.36 (NMK-33-02182, Kbh./Prøvestenen) they similarly found that measures could be taken to reduce noise in compliance with the standards. The Appeals Board also found that no further assessment of health effects was required. Yet, the Board stated it was not competent to examine whether the general noise standards were reasonable or appropriate. In one case (MAD2014.134 - Kappel II), however, the Appeals Board has confirmed a condition in an EIA permit for large-scale testing turbines stipulating that the - at any time applicable - noise standards shall be complied with. In addition the Appeals Board inserted a condition that the developer must adopt measures to reduce low frequency noise exceeding the at any time applicable noise standards. The Appeals Board also included a new requirement to stop turbines giving rise to shadowing at dwellings during critical hours from May until September. The Appeals Board referred to the fact that such measures were indicated in the EIA statement.

#### 2.5. RE policy measures

With effect from 1 January 2009 the Renewable Energy Act introduced four policy measures that were specifically aimed at enhancing local acceptance of wind turbine projects. The four schemes include 1) the compensation scheme to neighbours; 2) the co-ownership scheme; 3) the community benefit scheme (green scheme); and 4) the guarantee fund for local ownership initiatives.<sup>25</sup> The compensation scheme and the co-ownership scheme were subject to adjustments in 2013.

#### 2.5.1 The compensation scheme

According to the compensation scheme of the Renewable Energy Act (RE Act), wind energy developers are obliged to compensate neighbours for loss of property value of dwellings that exceeds 1 per cent. The scheme applies to onshore turbines more than 25 meters in height. Since 15 June 2013 it also applies to nearshore turbines and offshore turbines that are not subject to a tender. The compensation to neighbours may either be settled by an agreement between the developer and the neighbour or (in case of no agreement) by the Valuation Authority.<sup>26</sup>

# The compensation scheme

obliges wind energy developers to compensate neighbours for loss of property value above 1 per cent. The developer shall organise a public meeting either four weeks before the expiry of the 8 week consultation period regarding the EIA statement, or 4 weeks after a decision that an EIA is not required.<sup>27</sup> For nearshore turbines the meeting shall take place at the latest 8 weeks after the establishment permit. The developer shall make an account of the consequences of the project for neighbouring

<sup>&</sup>lt;sup>25</sup> For a more detailed overview of the three first schemes we refer to Olsen & Anker, 2014. See also the website of Energinet.dk http://energinet.dk/DA/El/Vindmoeller/De-fire-VE-ordninger/Sider/De-fire-VE-

ordninger.aspx

<sup>&</sup>lt;sup>26</sup> The Valuation Authority has been established with the specific purpose to deal with compensation claims from neighbours to wind turbines. The valuation authority is composed of one chairman (lawyer qualified as judge) and one expert (real estate agent) – regional branches have been established. Energinet.dk functions as secretariat for the valuation authority, see http://taksationsmyndigheden.dk

<sup>&</sup>lt;sup>27</sup> Individual notice about the meeting shall be given to neighbours within 6 x total height of the turbine(s) and the meeting shall be announced in local newspapers etc.

properties, while Energinet.dk shall explain how the compensation scheme and the co-ownership scheme works. Claims for compensation shall be submitted to Energinet.dk within 8 weeks after the meeting. Owners of dwellings located more than 6 x total height of the turbines shall pay a fee of 4.000 DKK. The fee will be reimbursed if compensation is granted.

The Valuation Authority determines the loss of property value on the basis of an individual assessment in each case. The Authority will normally request the developer to produce visualizations as well as calculations regarding noise and flickering. Noise, flickering/ shadowing and visual interference are the important elements in the assessment of the loss of property value. Furthermore, the distance to the turbines as well as the landscape characteristics, including the existence of other infrastructure installations, will be part of the assessment. There are huge variations as regards the properties submitting claims for compensation - and consequently also in the loss determined by the Valuation Authority which ranges from approximately DKK 10,000 up to DKK 1,250,000.<sup>28</sup> In the period from 2010-2012 the average compensation for loss of property value was DKK 100,500 (13,500 EUR) – more recent figures indicate an average compensation of DKK 127,000.<sup>29</sup> By the beginning of 2015 the Valuation Authority had made 914 decisions on compensation. In about 56 per cent of the decisions the applicants were granted compensation. The maximum total compensation determined by the Valuation Authority in one project is DKK 7,385,000 (Østerild Test Center).<sup>30</sup>

It is not possible to bring an appeal/court case against the Valuation Authority – apart from procedural matters. Yet, a court case can be brought by a neighbour against a developer claiming higher compensation (or vice versa). By the end of 2014 nine district court cases had been reported (more may have taken place) – three of

<sup>&</sup>lt;sup>28</sup> <u>http://taksationsmyndigheden.dk/DA/Afgoerelser/Sider/Afgoerelser.aspx</u>

<sup>&</sup>lt;sup>29</sup> Energinet.dk. January 29, 2015, Wind2050 workshop.

<sup>&</sup>lt;sup>30</sup> A total of 31 neighbours were granted compensation. One neighbour living 524 m from the nearest light marking tower was granted a compensation of 1 million DKK, see MAD2013.369. The Valuation Authority emphasised that the "herlighedsværdi" (recreational value) of the property which had a large influence on the total property value of 2.4 million DKK was significantly affected.

which were appealed to the High Courts. In four cases the court increased the level of compensation to the neighbours.

In three of four cases the courts increased the level of compensation as the actual adverse effects were considered to be higher than the expected effects determined by the Valuation Board – in particular as regards noise and visual interference. In these cases the compensation was raised with approximately 150 per cent from 100.000 to 250.000 DKK (MAD2013.1570V), 100 per cent from 250.000 to 500.000 DKK (MAD2014.231V) and 50 per cent from 200.000 to 300.000 DKK (MAD2013.1580V). In another case the district court increased the compensation from 150.000 to 2 million DKK arguing that the Valuation Authority had not had sufficient regard to the (recreational) characteristics of the property as a whole, e.g. for hunting purposes (Unreported 2013).

#### 2.5.2 The co-ownership scheme

The purpose of the co-ownership scheme is to increase the local interest in and support to the establishment of new wind turbines. The scheme applies to onshore (above 25 m) and nearshore wind turbine projects located no more than 16 km from the coastline as well as offshore turbines within the 16 km zone unless they are established by a tender procedure.

The developer shall offer at least 20 per cent ownership shares to local residents. If the project developer does not comply with the coownership rules it will result in the loss of the price supplements for energy produced by the wind turbines. Furthermore, a criminal penalty consisting of a fine can be imposed, cf. Sec. 72 of the RE Act. Specifically for nearshore wind turbines an additional incentive has been established as projects that can document that at least 30 per cent of a project is owned by local citizens and enterprises will receive an additional price supplement of 0.01 DKK/kWh.

The right to buy shares is linked to the permanent residential address and is different for onshore and nearshore projects. For onshore projects persons over 18 years registered with a permanent residence no more than 4.5 km from the installation site have a preferential right to buy 50 shares per person. Furthermore, persons over 18 years registered with a permanent residence in the municipality where the project is established are entitled to make a purchase offer and buy remaining shares after the preferential rights have been exercised. A specific distribution scheme has to be

# The co-ownership scheme

obliges wind energy developers to offer a minimum of 20 per cent ownership shares to local residents followed. If there are any remaining shares after the offer has been made to the local residents the developer may dispose of them freely.

Regarding nearshore (or offshore) wind turbines the persons entitled to buy shares are citizens over the age of 18 years registered with a permanent residential address in municipalities with a coastline within 16 km from the installation site.

The ownership shares of onshore wind turbines can at the earliest be offered for sale when the developer has made sure, that the turbines can be installed according to the Building Act<sup>31</sup> and before grid connection. As regards nearshore wind turbines and offshore turbines shares can at the earliest be offered for sale after the establishment permit has been granted and before grid connection.

The developer prepares sales material on the project according to specific economic, financial, legal and authorisation requirements. The price of the shares shall reflect the cost price, including compensation to be paid to neighbours. The cost price of one share varies but will typically range from 3,000-4,000 DKK. Energinet.dk shall approve the sales material and the procedure of the sale. Furthermore, Energinet.dk shall provide guidance on the co-ownership scheme, e.g. at public meetings. Energinet.dk has also established a website with information on co-ownership tenders.<sup>32</sup>

The offer for sale of shares shall be advertised in at least two local newspapers and one regional newspaper. The advertisement shall include information about a public meeting on the tender to be held by the developer at least 4 weeks before the sales offering expire. The deadline for making an offer shall be at least 8 weeks from the advertisement.

According to the Energinet.dk website approximately 74 onshore wind turbine projects and no nearshore projects have been subject to the co-ownership procedure by the end of January 2015.

<sup>&</sup>lt;sup>31</sup> In practice this implies that the relevant permits have been granted.

<sup>&</sup>lt;sup>32</sup> <u>http://www.energinet.dk/DA/El/Vindmoeller/De-fire-VE-</u> ordninger/Sider/Vindmolleprojektoversigt.aspx?udbud=kommende+aktuelle#

Certain decisions taken by Energinet.dk on the co-ownership scheme can be appealed by the developer to the Energy Appeals Board (Energiklagenævnet). No decisions have been brought to the Board, so far. After the final decision of the Energy Appeals Board it is possible to bring the decision to the court.

#### 2.5.3 The community benefit scheme (green scheme)

The green scheme has the purpose to enhance local acceptance of onshore wind turbine projects. The main idea of the green scheme is to grant subsidies to initiatives enhancing local landscape and recreational values in communities that establish onshore wind turbines.

For each municipality an amount corresponding to 0.004 DKK per

KWh for 22,000 peak load hours for each onshore wind turbine that has been connected to the grid since 21 February 2008 has been set aside in a public funding scheme. This is approximately 88,000 DKK per MW installed effect. The costs of the green scheme are paid by

the electricity consumers through general energy taxes.

Energinet.dk administers the green scheme. On the basis of an application from the municipalities Energinet.dk may grant a subsidy to cover expenses for local projects that either 1) enhance the landscape or recreational values or 2) promote cultural and informative activities in local associations in order to promote acceptance of the use of renewable energy source in the municipality. The municipality may apply for a preliminary commitment in connection with the planning process and EIA procedure on the wind turbine project or at a later stage. The final grant of subsidies can only take place after grid connection. Decisions of Energinet.dk on commitment for granting subsidies cannot be appealed to the Energy Appeals Board or other administrative authorities.

The projects supported have in practice been physical site development projects enhancing citizens possibility of recreational activities such as nature or biking trails, recreational areas, playgrounds, renovation of village halls or sport facilities. A few informative activities have been subsidized such as energy consultancy and teaching materials on renewable energy for schools.

#### The green scheme

provides funding for local projects that enhance landscape or recreational values or promote cultural and informative activities The amount of subsidies granted to projects has been ranging from approximately 20,000 to 4 million DKK.<sup>33</sup>

However, only few municipalities have utilized the full amount of funding available to the municipality. By the end of January 2015 an amount of 76.2 million DKK was available, while only 24.8 million had been used under the scheme.

#### 2.5.4 The guarantee fund

The guarantee fund supports financing of preliminary investigations etc. by local wind turbine owners' associations. The purpose is to increase the local engagement in an increasing establishment of wind turbines. The scheme applies to onshore, nearshore or offshore wind turbines, except for offshore turbines that are being established by a tender procedure.

#### The guarantee fund

provides guarantees for loans to preliminary investigations by local wind turbine owner associations An amount of 10 million DKK is available under the scheme which is administered by Energinet.dk and financed by the electricity consumers through general energy taxes.

Local wind turbine owners or other local initiative groups of at least 10 members can apply for a guarantee for loans taken out on market terms to finance preliminary investigations for installing one or more turbines. The majority of the members shall have permanent local residence<sup>34</sup> and these members shall have a controlling influence in the initiative group.

Preliminary investigations include activities such as to investigate locations, technical and financial considerations, to prepare applications for the authorities, e.g. EIAs.

Energinet.dk decides whether the guarantee should be granted within the amount available at any time. A maximum guarantee of 500,000 DKK in a 3 year period can be granted per project. If a project is not completed there is no requirement to reimburse the guarantees unless the project is transferred to other persons.

Decisions taken by Energinet.dk on the guarantee fund can be appealed to the Energy Board of Appeal. No such appeals have been

<sup>&</sup>lt;sup>33</sup> Energinet.dk. Annual Report on the Green Scheme 2012-13. <u>http://www.energinet.dk/SiteCollectionDocuments/Danske%20dokumenter/El/Års</u> <u>rapport%202012-2013%20Grøn%20Ordning.pdf</u>

<sup>&</sup>lt;sup>34</sup> Specific requirements are defined in the Renewable Energy Act.

brought so far. It is possible to bring a decision of the Energy Board of Appeal to the courts.

### 3. Preliminary observations

On the basis of the initial mapping of the legal framework it is possible to make some preliminary observations regarding challenges in the legal framework that may have implications as regards local acceptance of wind turbines. These challenges, which will be further analysed as part of Work Package 2 in the Wind2050 project, include:

- The level of complexity in the legal framework, including interplay between different regulatory instruments and procedures, may challenge local administration in the municipalities. There is a relatively high risk of not meeting all (procedural) requirements and thereby a risk of decisions (or plans) being declared invalid by the Nature and Environment Appeals Board.
- The level of complexity in the legal framework may also be a challenge to local citizens related to e.g. planning and environmental assessment procedures and public participation. A particular issue could be the unclear relationship between the authorities and the developer in EIA procedures. Such issues may create a lack of trust in public decision-making and possibly influence local acceptance of wind energy projects.
- Extensive public regulation and in particular procedural requirements – creates ample opportunities for appeals to the Nature and Environment Appeals Board. Decisions by the Appeals Board declaring decisions or plans invalid on procedural grounds can be particularly difficult to handle by local politicians and citizens due to the possibilities of correcting procedural flaws in a new procedure.
- Strategic planning (designating potential wind turbine areas in municipal plans) is (increasingly) being challenged by ad hoc project planning – possibly due to more proactive developer practices, e.g. buying up properties, as well as (increased) political sensitivity at the strategic planning level.
- Linkages between planning procedures, environmental assessment procedures and permit procedures can be difficult to grasp for non-experts.
- The relationship between local authorities (municipalities) and national authorities could be subject to further consideration.
- The pro-active policy measures in the RE Act may raise different challenges due to their very different character, e.g. in addressing negative versus positive effects of wind turbines.

- The compensation scheme to neighbours appears to raise particular challenges, e.g. reflected in court cases increasing the level of compensation. This may create some uncertainty among developers as well as neighbours.
- The compensation scheme is (partly) linked to the planning and environmental assessment process and the compensation is determined prior to the establishment of the turbines. This may create particular problems in situations where projects subsequently are amended, e.g. due to appeals or decisions by the Appeals Board.
- The functioning of the compensation scheme and the coownership scheme and their role in relation to local acceptance will be analysed through in-depth case studies.
- The green (community) benefit scheme appears to be challenged by a fairly low – and unevenly – distributed use at local level. The functioning of the scheme and its role in relation to local acceptance is expected to be analysed in the project.
- The guarantee scheme will not be subject to separate analyses.

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### Annex I

| AIIIIEX I                                   |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                              |                                                                                                           |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
|                                             | Onshore turbines                                                                                                                                                                                                                                                                                                                                                                                              | Nearshore turbines                                                                                           | Offshore turbines                                                                                         |
| Planning                                    |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                              |                                                                                                           |
| requirements                                |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                              |                                                                                                           |
| Strategic<br>planning (area<br>designation) | <ul> <li>Municipal plan wind<br/>turbine area designation<br/>(PA + Exec. Order<br/>1590/2014)</li> <li>Expected number and<br/>total height (max. 150<br/>m)</li> <li>Min. 4xtotal height to<br/>dwellings</li> <li>If less than 28xtotal<br/>height to other<br/>turbines – special<br/>landscape assessment</li> </ul>                                                                                     | Designation of potential<br>sites possible (not<br>mandatory) – RE Act § 22<br>• Guidelines can be<br>issued | Designation of potential<br>sites possible (not<br>mandatory) – RE Act § 22<br>• Guidelines can be issued |
|                                             | Prior public participation<br>Public consult. – min. 8<br>weeks                                                                                                                                                                                                                                                                                                                                               | No public participation<br>requirements in RE Act<br>(NB: SEA – EA Act)                                      | No public participation<br>requirements in RE Act<br>(NB: SEA – EA Act)                                   |
|                                             | Appeals to NMKN (legality)                                                                                                                                                                                                                                                                                                                                                                                    | Appeals to EKN                                                                                               | Appeals to EKN                                                                                            |
| Project<br>planning                         | <ul> <li>Local (project) plan (PA +<br/>Exec. Order 1590/2014)</li> <li>Precise siting, number,<br/>height, design</li> <li>Min. 4 x total height to<br/>dwellings</li> <li>If less than 28 x total<br/>height to other<br/>turbines – special<br/>assessment</li> <li>Easily comprehensible<br/>geometric pattern</li> <li>Public consult. – min. 8<br/>weeks</li> <li>Appeals to NMKN (legality)</li> </ul> | No project planning<br>requirements (NB:<br>permit/EIA)                                                      | No project planning<br>requirements (NB:<br>permit/EIA)                                                   |
| Permit                                      |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                              |                                                                                                           |
| requirements                                |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                              |                                                                                                           |
| Project permits                             | EIA permit – (PA + Exec.<br>Order 1184/2014)                                                                                                                                                                                                                                                                                                                                                                  | Tender procedure<br>(designated areas) or                                                                    | Tender procedure<br>(designated areas) or                                                                 |

| requirements    |                                                                                                                                                                                     |                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project permits | EIA permit – (PA + Exec.<br>Order 1184/2014)<br>• Appeals to NMKN (full)<br>Rural zone permit (PA – if<br>no local plan)<br>• Appeals to NMKN (full)<br>Notification – Building Act | Tender procedure<br>(designated areas) or<br>"open door" permit, RE Act<br>• Prel. investigation permit<br>(§ 22)<br>• Establishing permit (§ 25)<br>• Production (or operation)<br>permit (§ 29) | <ul> <li>Tender procedure<br/>(designated areas) or<br/>"open door" permit, RE Act</li> <li>Prel. investigation<br/>permit (§ 22)</li> <li>Establishing permit (§<br/>25)</li> <li>Production (or<br/>operation) permit (§ 29)</li> </ul> |
|                 |                                                                                                                                                                                     | NB: Any land-based<br>installations are (also)<br>subject to the PA                                                                                                                               | NB: Any land-based<br>installations are (also)<br>subject to the PA                                                                                                                                                                       |

| Impact                                                                 |                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| assessments                                                            |                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                        |
| Strategic env.                                                         | SEA of "plans" – EA Act                                                                                                                                                                                                                                                                                                                                                       | SEA of "plans" – EA Act                                                                                                                                                                                                                                                                                                                                                                        | SEA of "plans" – EA Act                                                                                                                                                                                                                                                                                                                                                                |
| assessment                                                             | (e.g. municipal plans, local plans)                                                                                                                                                                                                                                                                                                                                           | (e.g. designation of sites)                                                                                                                                                                                                                                                                                                                                                                    | (e.g. designation of sites)                                                                                                                                                                                                                                                                                                                                                            |
| Env. impact<br>assessment                                              | <ul> <li>EIA of projects - PA + Exec.</li> <li>Order 1184/2014</li> <li>Mandatory above 80<br/>m/more than 3 turbines</li> <li>EIA statement<br/>(municipality +<br/>developer)</li> <li>Public consult min. 8<br/>weeks</li> </ul>                                                                                                                                           | Linked to § 25 permit (§ 26<br>+ Exec. Order 68/2012)<br>• Screening (EA)<br>• EIA statement<br>(developer or<br>Energinet.dk)<br>Public consult min. 8<br>weeks                                                                                                                                                                                                                               | <ul> <li>Linked to § 25 permit (§ 26<br/>+ Executive Order 68/2012)</li> <li>Screening (EA)</li> <li>EIA statement<br/>(developer or<br/>Energinet.dk)</li> <li>Public consult min. 8<br/>weeks</li> </ul>                                                                                                                                                                             |
|                                                                        | Appeals to NMKN                                                                                                                                                                                                                                                                                                                                                               | Appeals to EKN                                                                                                                                                                                                                                                                                                                                                                                 | Appeals to EKN                                                                                                                                                                                                                                                                                                                                                                         |
| N2000<br>assessment                                                    | Of plans and projects –<br>Exec. Order 408/2007<br>(linked to plans and<br>permits)                                                                                                                                                                                                                                                                                           | No rules re. "plans"<br>Linked to §§ 22 and 25<br>permits (§ 27-28 + Exec.<br>Order 1476/2010)                                                                                                                                                                                                                                                                                                 | No rules re. "plans"<br>Linked to §§ 22 and 25<br>permits (§ 27-28 + Exec.<br>Order 1476/2010)                                                                                                                                                                                                                                                                                         |
|                                                                        |                                                                                                                                                                                                                                                                                                                                                                               | Consultations                                                                                                                                                                                                                                                                                                                                                                                  | Consultations                                                                                                                                                                                                                                                                                                                                                                          |
| Annex IV<br>species and<br>birds                                       | <ul> <li>Appeals to NMKN</li> <li>Exec. Order 408/2007 § 11<br/>(linked to plans and<br/>permits)</li> <li>ensure that no<br/>destruction or<br/>deterioration of<br/>resting or breeding<br/>sites</li> <li>Appeals to NMK</li> <li>NPA § 29a – general<br/>prohibition</li> <li>Hunting Act § 7 – general<br/>prohibition on deliberate<br/>disturbance of birds</li> </ul> | <ul> <li>Appeals to EKN</li> <li>Exec. Order 1476/2010<br/>(linked to §§ 22 and 25<br/>permits)</li> <li>no deliberate<br/>disturbance</li> <li>no destruction or<br/>deterioration of resting<br/>or breeding sites</li> <li>Appeals to EKN</li> <li>NPA § 29a – general<br/>prohibition</li> <li>Hunting Act § 7 – general<br/>prohibition on deliberate<br/>disturbance of birds</li> </ul> | <ul> <li>Appeals to EKN</li> <li>Exec. Order 1476/2010 (linked to §§ 22 and 25 permits) <ul> <li>no deliberate disturbance</li> <li>no destruction or deterioration of resting or breeding sites</li> </ul> </li> <li>Appeals to EKN <ul> <li>NPA § 29a – general prohibition</li> <li>Hunting Act § 7 – general prohibition on deliberate disturbance of birds</li> </ul> </li> </ul> |
| NB: Other<br>assessment or<br>permit<br>requirements<br>(e.g. NPA, BA) | NPA<br>BA – notification                                                                                                                                                                                                                                                                                                                                                      | NPA                                                                                                                                                                                                                                                                                                                                                                                            | NPA                                                                                                                                                                                                                                                                                                                                                                                    |

| Noise<br>requirements |                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | <ul> <li>General rules - Exec. Order<br/>1284/2011:</li> <li>Outdoor areas min 15 m<br/>from dwellings<br/>Max. 44 dB (8 m/s) and<br/>max. 42 dB (6 m/s)</li> <li>Noise sensitive areas<br/>Max 39 dB (8 m/s) and<br/>37 dB (6 m/s)</li> <li>Low frequency noise<br/>(indoor)<br/>Max. 20 dB</li> <li>Notification</li> <li>Supervision<br/>(municipalities)</li> </ul> | <ul> <li>General rules - Exec. Order<br/>1284/2011:</li> <li>Outdoor areas min 15 m<br/>from dwellings<br/>Max. 44 dB (8 m/s) and<br/>max. 42 dB (6 m/s)</li> <li>Noise sensitive areas<br/>Max 39 dB (8 m/s) and 37<br/>dB (6 m/s)</li> <li>Low frequency noise<br/>(indoor)<br/>Max. 20 dB</li> <li>Supervision (Env. Prot.<br/>Agency)</li> </ul> | <ul> <li>General rules - Exec. Order<br/>1284/2011:</li> <li>Outdoor areas min 15 m<br/>from dwellings<br/>Max. 44 dB (8 m/s) and<br/>max. 42 dB (6 m/s)</li> <li>Noise sensitive areas<br/>Max 39 dB (8 m/s) and<br/>37 dB (6 m/s)</li> <li>Low frequency noise<br/>(indoor)<br/>Max. 20 dB</li> <li>Supervision (Env. Prot.<br/>Agency)</li> </ul> |
|                       | Individual permit<br>conditions (EIA permit)                                                                                                                                                                                                                                                                                                                            | Individual permit conditions?                                                                                                                                                                                                                                                                                                                        | Individual permit conditions?                                                                                                                                                                                                                                                                                                                        |
|                       | Other technical<br>requirements (RE Act § 33<br>+ Exec. Order 73/2013)                                                                                                                                                                                                                                                                                                  | Other technical<br>requirements (RE Act § 33<br>+ Exec. Order 73/2013)                                                                                                                                                                                                                                                                               | Other technical<br>requirements (RE Act § 33<br>+ Exec. Order 73/2013)                                                                                                                                                                                                                                                                               |
|                       | <ul> <li>Service control of e.g.<br/>specific noise<br/>restrictions</li> </ul>                                                                                                                                                                                                                                                                                         | • Service control of e.g. specific noise restrictions                                                                                                                                                                                                                                                                                                | <ul> <li>Service control of e.g.<br/>specific noise<br/>restrictions</li> </ul>                                                                                                                                                                                                                                                                      |

| <b>RE</b> measures |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                     |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Compensation       | RE Act:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RE Act:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RE Act:                                                                                                                             |
| scheme             | <ul> <li>Compensation from<br/>developer to owners of<br/>dwellings for loss of<br/>property value above 1<br/>% - agreement with<br/>developer or decision by<br/>Valuation Authority</li> <li>Claims submitted to<br/>Energinet.dk maximum 8<br/>weeks after public<br/>meeting organised by<br/>developer (linked to EIA<br/>process) – refundable<br/>fee of 4.000 DKK if<br/>distance to dwelling is<br/>more than 6 x total<br/>height. Energinet.dk<br/>provides information on<br/>the scheme (and the co-<br/>ownership scheme) at<br/>the meeting</li> </ul> | <ul> <li>Compensation from<br/>developer to owners of<br/>dwellings for loss of<br/>property value above 1 %         <ul> <li>agreement with<br/>developer or decision by<br/>Valuation Authority</li> </ul> </li> <li>Claims submitted to<br/>Energinet.dk maximum 8<br/>weeks after public<br/>meeting organised by<br/>developer – refundable<br/>fee of 4.000 DKK if<br/>distance to dwelling is<br/>more than 6 x total<br/>height. Energinet.dk<br/>provides information on<br/>the scheme (and the co-<br/>ownership scheme) at<br/>the meeting</li> </ul> | <ul> <li>The compensation<br/>scheme applies to<br/>offshore turbines that<br/>are not subject to a<br/>tender procedure</li> </ul> |

| Co-ownership                | RE Act                                                                                                                                                                                                                                                                                                                                                                            | RE Act                                                                                                                                                                                                                                                                           | RE Act                                                                                                                                                                                                                                                                                                                                |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| scheme                      | <ul> <li>A minimum of 20 % of<br/>ownership shares shall<br/>be offered to:         <ol> <li>Local citizens<br/>registered with<br/>permanent address<br/>within 4,5 from the<br/>nearest wind turbine<br/>– preferential right to<br/>minimum 50 shares</li> <li>Local citizens<br/>registered with<br/>permanent address<br/>within the<br/>municipality</li> </ol> </li> </ul> | • For nearshore turbines<br>located within 16 km<br>from the coastline a<br>minimum of 20 % of<br>ownership shares shall<br>be offered to local<br>citizens registered with<br>permanent address in a<br>municipality with a<br>coastline within 16 km<br>from the wind turbines | • For offshore turbines<br>that are not subject to a<br>tender procedure and<br>located within 16 km<br>from the coastline a<br>minimum of 20 % of<br>ownership shares shall<br>be offered to local<br>citizens registered with<br>permanent address in a<br>municipality with a<br>coastline within 16 km<br>from the wind turbines. |
|                             | <ul> <li>The developer prepares<br/>sales materials,<br/>advertises the offer and<br/>organises a public<br/>meeting</li> </ul>                                                                                                                                                                                                                                                   | <ul> <li>The developer prepares<br/>sales materials,<br/>advertises the offer and<br/>organises a public<br/>meeting</li> </ul>                                                                                                                                                  | • The developer prepares<br>sales materials,<br>advertises the offer and<br>organises a public<br>meeting                                                                                                                                                                                                                             |
| Community<br>benefit scheme | RE Act + Exec. Order<br>400/2009<br>The municipalities can<br>apply for subsidies to<br>local projects from<br>allocated funds (approx.<br>88.000 DKK/MW inst<br>alled in the municipality)<br>Energinet.dk grants<br>funding                                                                                                                                                     |                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                       |
| Guarantee<br>scheme         | <ul> <li>Loan guarantees for<br/>preliminary<br/>investigations etc. for<br/>local wind ownership<br/>groups</li> </ul>                                                                                                                                                                                                                                                           | <ul> <li>Loan guarantees for<br/>preliminary<br/>investigations etc. for<br/>local wind ownership<br/>groups</li> </ul>                                                                                                                                                          | <ul> <li>Loan guarantees for<br/>preliminary<br/>investigations etc. for<br/>local wind ownership<br/>groups</li> </ul>                                                                                                                                                                                                               |

BA: Building Act - consolidated Act no. 1185/2010 (bekendtgørelse af byggeloven)

EA Act: Environmental Assessment Act – consolidated Act no. 939/2013 (bekendtgørelse af lov om miljøvurdering af visse planer og programmer)

• Executive Order 1102/2009 on consultation of concerned authorities (bekendtgørelse om berørte myndigheder og om offentliggørelse efter lov om miljøvurdering af planer og programmer)

EP Act: Environmental Protection Act – consolidated Act no. 879/2010 (bekendtgørelse af lov om miljøbeskyttelse)

• Executive Order no. 1284/2011 on noise from wind turbines (bekendtgørelse om støj fra vindmøller – vindmøllebekendtgørelsen)

NPA: Nature Protection Act – consolidated Act no.

• Executive Order 408/2007 on international nature protection areas and species (bekendtgørelse om udpegning og administration af internationale naturbeskyttelsesområder samt beskyttelse af visse arter)

PA: Planning Act – consolidated Act no. 587/2013 (bekendtgørelse af lov om planlægning)

• Executive Order no. 1590/2014 on planning for and permits to wind turbines (bekendtgørelse om planlægning for og tilladelse til vindmøller)

RE Act: Renewable Energy Act – consolidated Act no. 122/2015 (bekendtgørelse af lov om fremme af vedvarende energi)

- Executive Order no. 273/2009 on the compensation scheme (bekendtgørelse om værditab på fast ejendom ved opstilling af vindmøller)
- Executive Order no. 400/2009 on the administration of green scheme subsidies (bekendtgørelse om administration af tilskud til grøn ordning)
- Executive Order no. 1476/2010 on impact assessment re. Natura 2000 areas and protection of species (bekendtgørelse om konsekvensvurdering vedrørende internationale naturbeskyttelsesområder samt beskyttelse af visse arter ved projekter om etablering m.v. af elproduktionsanlæg og elforsyningsnet på havet)
- Executive Order 68/2012 on EIA of offshore electricity producing installations (bekendtgørelse om vurdering af virkninger på miljøet (VVM) ved projekter om etablering af elproduktionsanlæg m.v. på havet)
- Executive Order 73/2013 on technical certification of wind turbines (bekendtgørelse om teknisk certificeringsordning for vindmøller)

#### Cases:

Supreme Court:

- MAD2012.1947H Tåsinge
- MAD2009.1612H (Kyndby Huse)

Eastern High Court:

• MAD2012.394 (Hagesholm)

Western High Court:

- MAD2013.816V (Østerild)
- MAD2014.231V
- MAD2013.1570V
- MAD2013.1580V

District courts:

• Unreported 2013, Retten i Randers BS-5-1590/2011, 10 October 2013

Nature and Environment Appeals Board:

- MAD2014.349 (Varde Ulvemose and Bækhede), NMK-34-00318, NMK-34-00365, NMK-41-00264 og NMK-33-02171, 15 September 2014
- MAD2014.366 (Randers Kærby), NMK-33-01845 and NMK-34-0026926, 26 September 2014
- MAD2014.341 (Lemvig Volder Mark), j.nr. NMK-33-02282, NMK-34-00334, NMK-41-00274, 4 September 2014
- MAD2014.204 (Sønderborg), NMK-33-01663 and NMK-41-00157, 30 June 2014
- MAD2014.134 (Kappel II), NMK-34-00293, 9 April 2014
- MAD2014.91 (Randers/Trikelshøj), NMK-33-02338
- MAD2014.36 (Kbh./Prøvestenen), NMK-33-02182,
- MAD2013.3122 (Syddjurs/Skaføgård), NMK-33-01230, NMK-34-00182, NMK-41-00200 and NMK-34-00216, 2 December 2014)
- MAD2013.2987 (Hagesholm), NMK-33-01110, 12 November 2013
- MAD2013.1426 (Thisted/Sindrup Vejle), j.nr. NMK-33-01158 og NMK 34-00168, 17. juni 2013
- MAD2012.1007 (Kappel), NMK-34-00028, 28 March 2012
- MAD2012.3200 (Vejle), NMK-41-00063, j.nr. NMK-41-00063, NMK-41-00094 og NMK-41-00097, 16 November 2012
- MAD2011.1761 (Ikast-Brande), NMK-41-00023, 7 July 2011

#### Energy Appeals Board:

- Mejlflak (EKN decision of 12 Dec. 2014, 1131-14-4-25)
- Hirsholmene (EKN decision of 8 June 2011, 1131-10-5-50)
- Frederikshavn (EKN decision of 8 June, 1131-10-5-50)
- Nissum Bredning (EKN decision of 15 April 2011, 1131-10-3-78)

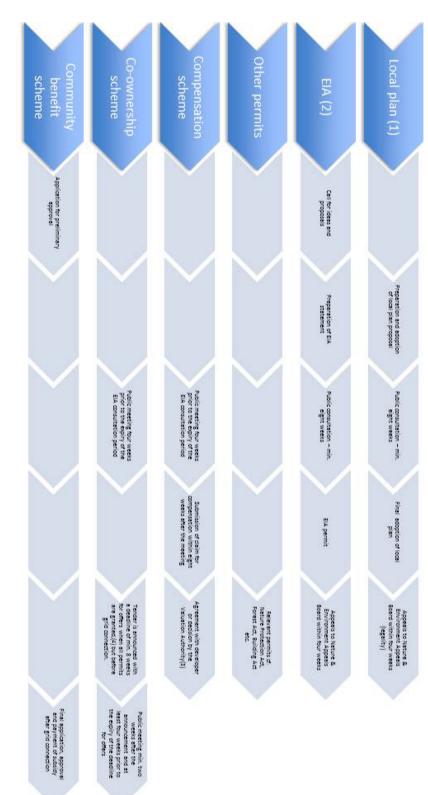
## Annex II:

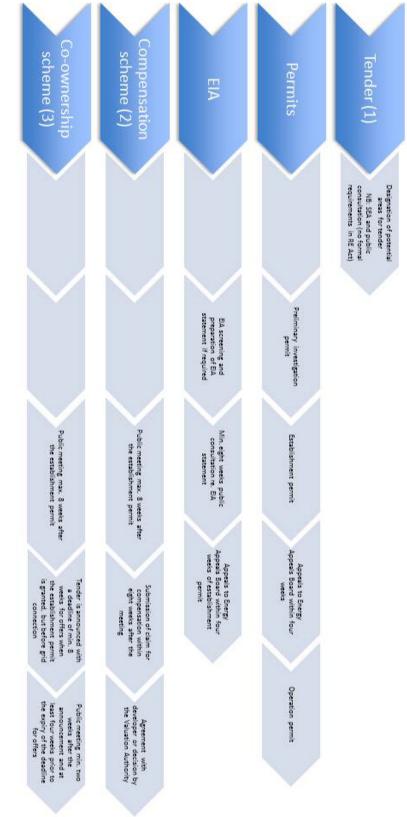
4

Public decision-making processes - onshore projects

ω 2 <u>+</u> If the area is not designated as potential wind turbine area in the municipal plan a municipal plan supplement must be elaborated – For turbines < 80 m (and for groups less than three turbines) a screening decision shall determine whether an EIA is required or not including possibly a call for ideas and proposals. A local plan is only required if the project will lead to a significant change in the area – if a local plan is not required a rural zone permit is needed

- The Valuation Authority will normally not examine the case prior to the final adoption of the local plan.
- The RE Act refers to the Building Act according to which the local authority must ensure that relevant permits have been granted





## Public decision-making processes – offshore projects

- <u>+</u> Tender procedure is normally used for both large-scale offshore and nearshore
- 2 turbines. Open door applications are, however, possible outside designated areas.
- Applies to nearshore turbines (i.e. not large-scale offshore turbines subject to
- tender in designated areas)

ω

scale offshore turbines subject to tender) Applies to nearshore/offshore turbines < 16 km from the shoreline (but not large-