

## Deliverable 6.1

### SCREENING OF TECHNICAL AND NON-TECHNICAL REGULATIONS, GUIDELINES AND RECOMMENDATIONS

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#### Summary

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## Abstract

The overall objective of the EU project WinWind is to enhance the (socially inclusive) deployment of wind energy by increasing social acceptance of, and support for, onshore wind energy in 'wind energy scarce regions' (WESR). The target regions are: Saxony and Thuringia in Germany, Lazio and Abruzzo in Italy, Latvia as a whole, Mid-Norway, the Warmian-Masurian Voivodeship in Poland and the Balearic Islands in Spain.

This report (Deliverable 6.1) provides an analysis of the existing regulations, guidelines and recommendations in the WinWind countries and target regions addressing issues, which are relevant for community acceptance. It is also investigating relevant, novel bottom-up initiatives (community wind energy), voluntary agreements and labelling initiatives, which have been recently, launched in some of the EU Member states and WinWind model regions.

The document has been elaborated by the leader of Task 6.1, the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), in cooperation with the Environmental Policy Research Centre of Freie Universität Berlin. Contributions were made by the project partners from six WinWind partner countries, Germany, Italy, Latvia, Norway, Poland and Spain.

The report covers the following issues:

- Legal and regulatory frameworks addressing technical issues relevant for community acceptance and acceptability (e.g. minimum distances from residential areas and protected areas, noise emission levels, shadow flicker, natural areas) (Chapter 2),
- Public engagement measures in relevant decision making processes, including spatial planning, authorization/permitting and support schemes (Chapter 3).
- Mechanisms promoting active and passive financial participation of citizens and local communities as well as financial compensations/other community benefits (Chapter 4).
- Voluntary agreements/self-commitments and labelling initiatives (Chapter 5).
- Community ownership and community-led bottom up initiatives (Chapter 6).

The comparative screening and assessment carried out in this report is mainly based on the information collected through a dedicated template which was completed for each country/target regions by the corresponding project partners (Appendix 1 provides the templates and corresponding country information). Complementary information has been added which is mainly on desk research and literature analysis.

This report consolidates and deepens the information and analysis contained in previous WinWind reports (Deliverables 2.1, 2.3, and 4.3).

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## 1. Background and purpose of this deliverable

This report has been prepared in the frame of the project's Work Package 6 "Policy Lessons and Guiding Principles and Criteria for Fair and Acceptable Wind Energy". The report (Deliverable 6.1) includes an analysis of existing regulations, guidelines and recommendations in the WinWind countries and target regions addressing issues, which are highly relevant for community acceptance. It also covers novel bottom-up initiatives, voluntary agreements and labelling initiatives, which have been recently launched in some of the EU Member states and WinWind model regions.

The Comparative Screening report is structured into the following sections:

- 1) Comparative assessment of key technical requirements for wind power plants (e.g. minimum distance from residential areas, protected areas, etc.). This analysis started from the information contained in the existing reports D2.1 and D2.3, which have been complemented and structured in relation to Task 6.1 objectives (Chapter 2).
- 2) Comparative assessment of public engagement measures. The analysis is based on the information collected through a dedicated template which was complemented by the project partners. Appendix 1 provides the templates filled in for each country (Chapter 3).
- 3) Comparative assessment of mechanisms promoting financial participation of citizens/communities or providing other community benefits (Chapter 4)
- 4) Comparative assessment of existing voluntary agreements/self-commitments and labelling initiatives (Chapter 5)
- 5) Comparative assessment of Community ownership and community-led bottom up initiatives (Chapter 6).

The focus of the report is mainly on the countries represented in the WinWind project: Germany, Italy, Latvia, Norway, Poland and Spain. Several chapters include examples from other countries as well.

The report includes several comparative tables and short descriptions of corresponding regulations/guidelines established by WinWind country or target regions. However, the report does not claim to be exhaustive.

## 2. Assessing key technical requirements for wind power plants

### 2.1 Relevant technical issues to be considered

This chapter aims to identify and explain existing requirements, rules and recommendations addressing selected technical issues, with respect to onshore wind farm siting which are relevant for community acceptability and acceptance.

One of the most important regulatory measures of wind turbine siting are setback distances<sup>1</sup> since they impact many different aspects, including visual impact, noise, and safety. Particularly, wind turbine setbacks from residences including individual dwellings or inhabited centres represent a controversial issue in public discourses on wind turbine development, although there is no scientific consensus about the correlations of setback distances and community acceptance of wind farms (cf. also Deliverable 2.1 of the WinWind project).

Setbacks can be a fixed distance or a distance relative to the turbine height (e.g., 1.2 times the turbine tip height) or, in some cases, identified as a function of acceptable noise levels. Also, setbacks are often defined on a project basis, for instance, as part of an Environmental Impact Assessment, taking into account the regulations on maximum permissible noise levels.

Setbacks can be set by federal, state, and/or local governments.

There is no comprehensive agreement on appropriate setback distances from housing<sup>2</sup>:

- There is limited awareness of wind turbine setbacks in many countries. The same applies to the question why a particular setback distance was chosen;
- Frequently, setback distances are not determined based on visual impacts, but on noise limits, health and shadow flicker concerns.

Several international studies propose for large wind turbines a minimum distance of at least 1,000 m for individual houses and larger distances for population centers<sup>3</sup>; associations opposing wind energy developments even request higher distances; proponents of the wind industry and several other stakeholders consider that increasing the minimum distances would imply an unacceptable reduction of the contributions from wind power to domestic energy production.

Repowering of wind farms in Europe, i.e. the replacement of older and less productive wind turbines with new and modern ones, usually less in number, but with better performance, is therefore also closely influenced by the setback distances since the number of wind plants in the same location might be reduced and therefore might be installed far away from residential areas.

<sup>1</sup> A “setback” for wind turbines defines the minimum distance a turbine may be built from residential structures, property lines, roads, environmentally or historically sensitive areas, and other locations.

<sup>2</sup> A summary of the separation distances and rationale for them as reported in Haugen (2011a,b), Bryant (2012) and Mills and Manwell (2013)

<sup>3</sup> Social Acceptance of Wind Energy Projects-Task 28 - IEA Wind; Fostering Social Acceptance for Wind Power, Wise Power project, GP Wind Project:<https://ec.europa.eu/energy/intelligent/projects/en/projects/gpwind>  
<https://ec.europa.eu/energy/intelligent/projects/en/projects/gpwind>, REShare project, Wind2050 project.

Another key issue that arises with wind turbine siting, as already mentioned, refers to the acoustic emissions and perceived noise of the plants, which is closely related to the setbacks from residential buildings. Although the sound produced by wind turbines can be easily measured, the sound that will be perceived at a given distance from a wind power site will vary considerably, based upon factors such as wind farm design, the types of turbines used, topography and meteorological conditions. Different individuals have differing levels of sensitivity to the same noise levels, making regulation complex and challenging.

The same can be said of wind turbine shadow-flicker<sup>4</sup>. The maximum exposure to shadow flicker allowed at residences near wind turbines is based on different normative approaches, as there are any empirical evidence on the harmful effects<sup>5</sup> (cf. also WinWind Deliverable 2.1). Not all countries have guidelines or regulations in place for assessing or mitigating shadow-flicker impacts.

There are also several other issues, which are not directly addressed in this analysis, but which might deserve consideration in the context of wind turbine siting and planning:

- encouraging wind plant installations in areas with lower population densities and with lower natural/cultural/landscape values;
- encouraging the concentration of plants to maximize the energy produced in areas characterized by good wind conditions (anemological regime);
- evaluating whether to involve those regions that have limited potential or significant constraints and, therefore, in which only a few wind installations are feasible.

### **2.1.1 Setback distances, noise emissions and other concerns**

Some research has demonstrated that annoyance and complaints decline with increased distance from turbines (Kaliski & Neeraj, 2013; Nissenbaum et al., 2012), but there is no general consensus about the setback distance required to minimize or mitigate annoyance (Nissenbaum et al., 2012) as distance is just one component of how sound from turbines propagates to nearby residents. Accordingly, researchers (and stakeholders in general) often rely on a sound-specific threshold to reduce annoyance and stress impacts and concerns from local residents, which is commonly 40-45 dB(A) (Knopper & Ollson, 2011; Knopper et al., 2014; Paller, 2014; Phadke, 2013).

On 10 October 2018 the World Health Organization (WHO) released new WHO Environmental Noise Guidelines for the European Region (World Health Organization Regional Office for Europe 2018). The document identifies levels at which noise has significant health impacts and recommends actions to reduce exposure. Compared to the previous version from 2009 the updated document adds noise limits for wind turbines to the already existing thresholds for

<sup>4</sup> As underlined in the WinWind Deliverable 2.1, shadow-flicker (also known as wind turbine blade flicker) is the result of wind turbine blade rotation causing alternating periods of shadow and light. Concerns have been raised that shadow-flicker could result in photo induced epilepsy.

<sup>5</sup> Knopp & Olison 2011

aircraft, rail and road traffic. Wind power generators can cause health problems if they result in people being exposed to excessive noise levels. Exposure to wind turbines should not exceed 45 decibels during daytime. In comparison, soft radio music has 50 decibels.

To give a sense of heterogeneity of wind turbine setbacks from residences, noise and shadow flicker technical parameters and the type of regulation adopted an overview is given in table 1, summarised by WinWind countries and target regions. A comprehensive description of each referenced regulation established by WinWind country or target regions is given in the following sections.

**Table 1: Comparative overview of regulations and recommendations for wind turbine setbacks from residences and for mitigation of noise and shadow flicker**

Country	Setback Distance from Residences	Noise Standard	Shadow Flicker Standard	Type of regulation* (Legally binding=LB Not legally binding=NLB)	Notes and Rationale
<b>Germany</b>	<p>Different setbacks are applied in spatial planning depending on regulations and guidance issued by the respective state governments.</p> <p>In the authorization process, legally binding setback distances are applied, taking into account provisions in the Federal Pollution Control Act. In addition, several court decisions provide guidance. This means, for instance, that an “optically distressing impact” of wind turbines can be usually excluded if the distance between turbine and housing is at least three times the total height of the wind plant (i.e. hub height + ½ rotor diameter).</p>	<p>The “Technical Instructions on Noise Abatement” (<i>TA Lärm</i>) contain binding noise limits which range from 35-70 dB(A) at night and from 45-70 dB(A) during the day, depending the type of the area.</p>	<p>Maximum exposure to shadow cast for a residential building is 30 hours per year and 30 minutes per day (worst case scenario).</p>	<p>Setback distances contained in regional plans are usually not legally binding. Setback distances in the context of authorization are legally binding. Noise pollution standards are legally binding. The Shadow flicker standard is legally binding.</p>	<p>Noise, shadow flicker concerns</p>
<b>Thuringia</b>	<p>Recommended setback distances in spatial planning:</p> <p>Residential areas/settlements: 1,000 m for turbines with a total height of &gt;150 m and 750 m for plants ≤150 m.</p> <p>Individual buildings: 600m</p>	<p>See above (Germany)</p>		<p>NLB.</p>	<p>Noise, shadow flicker concerns</p>

## D6.1-Screening of technical and non-technical regulations, guidelines and recommendations

<b>Saxony</b>	No uniform setback distances recommended.	See above (Germany)		NLB.	Environment, landscape, shadow flicker, and noise concerns
<b>Italy</b>	Minimum distance of each wind turbine from residence units 200 m. Minimum distance from residential areas no less than 6 times the maximum height of the wind generator. Specific setbacks can be determined by the regional authorities.	Noise limits for night depending on the area category (see Table in section 2.2)	Not determined	LB	Visual and environmental impact concerns
<b>Abruzzo</b>	Minimum distance of each turbine from urban building areas: 500 m; Minimum distance of each turbine from residence/commercial units: 300 m; Minimum distance from non-residential units/buildings for productive activities: 200 m.	Noise limits established according to municipal rules.	Not determined	LB	Environment, landscape and visual impact concerns
<b>Lazio</b>	Will be defined in the Energy Regional Plan (ERP)	Will be defined in the Energy Regional Plan (ERP)	Not determined		
<b>Latvia</b>	Wind power stations > 20 kW: Rural areas: minimum distance from the buildings 500 m. Dense residential buildings and public buildings: 1,000 m. Wind park: Rural areas: minimum distance which is five times larger than the maximum height of	40-45 dB for night (L <sub>night</sub> ) As a minimum distance we recommend using 500 m.	Not determined	LB	Planning, Use and Building of the Territory concerns

## D6.1-Screening of technical and non-technical regulations, guidelines and recommendations

	the wind power station Dense residential building areas and public buildings: 2,000 m.				
<b>Norway</b>	None <sup>6</sup> . Because of noise and shadow flicker rules there needs to be a distance of typically 700-900 metres from residences.	Lden 45 dB(A)	Max 30 min/day and 30 hr/ year worst case scenario, 8 hr/year actual exposure	NLB	Noise, shadow flicker concerns
<b>Poland</b>	Minimum distance from residence of at least 10 times total height of the wind turbine including blades.			LB	
<b>Spain</b>	None. Specific setbacks are determined by the Autonomous Regions/ Communities (like the Balearic Islands, see below)	50-75 dB noise limit	Not determined	LB (for noise)	Noise, safety, visual impact concerns
<b>Balearic Islands</b>	For now, setbacks apply only for the Es Milà wind power plant on Menorca. The Es Milà plant fulfils the distance criteria which in the Balearic Islands are set at 500 m from the nearest dwelling (5-8 times the diameter of the wind rotor in the main axis of the wind) and 200 m, for safety, to roads, and 100 m in Formentera (another island) from the nearest dwelling (but there is no wind development there)	Not foreseen, except the national laws apply	Not determined	LB	Visual impact , safety concerns

Sources: Information provided by WinWind partners; Haugen (2011a); Gerriant/Ferraro (2

<sup>6</sup> According to the “national frame’ for wind energy that the Norwegian licensing authority (regulator) has launched recently (1 April 2019), the regulator recommends that a minimum setback standard should be introduced, but with exceptions.

**Explanations**

**Legally binding rules:** Requirements, regulations, or including mandatory wind energy setbacks or limits required by any level of government.

**Not legally binding rules:** Recommendations or Guidelines; wind energy setbacks or limits that are suggested or encouraged, but not required, by any level of government.

**Setback (distance):** The minimum distance a wind turbine may be located from a designated location. Unless otherwise specified, setbacks refer to the minimum distance a wind turbine may be located from a residence. The term setback is also used to describe minimum distances from buildings, property lines, or historically or environmentally valuable areas. Setbacks may be a set distance or based on turbine features including turbine height, hub height, rotor diameter, or blade length. Setbacks may also be referred to as a setback distance or separation distance.

**Residence, Dwelling, or Home:** A place where people live.

**Residential Area:** An area with a number of residences, or an area where residences are the main features instead of commercial, service, industrial or agricultural facilities.

**Noise Standard or Noise Limit:** The maximum volume from wind turbines allowed in an environment. The noise limit may vary based on the time of day, size and number of turbines, and number of nearby residences or educational or work settings. Usually, the noise limit refers to the volume at nearby residences.

**Decibel (dB):** The unit used to measure the volume or intensity of a sound.

**A-weighting or dB(A):** A standard measure of sound volume that is widely used internationally, with sounds weighted more or less depending on their frequency. dB(A) is designed to measure how loud sounds appear to the normal human ear and generally weights sounds with higher frequency levels as appearing louder than lower frequency sounds.

**Day-evening-night level (Lden).** It is a descriptor of noise level based on energy equivalent noise level (Leq) over a whole day with a penalty of 10 dB(A) for night time noise (23.00-7.00) and an additional penalty of 5 dB(A) for evening noise (i.e. 19.00-23.00)

**Shadow Flicker Standard or Shadow Flicker Limit:** The maximum exposure to shadow flicker allowed at residences near wind turbines.

**Shadow Flicker Exposure:** The amount of time a location experiences shadow flicker, measured in terms of the actual or the “worst-case” scenario.

Source: Haugen (2011a)

### 2.1.2 Natural areas

Environmental protection is a major concern for wind farm installations because of the possible adverse impacts on flora and fauna. Accordingly, the distance from natural and protected areas is a factor that must be taken into account as strongly related to community acceptance. The literature review conducted in the frame of the WinWind project highlights that siting of turbines close to the most sensitive and protected landscapes provokes the most negative responses to wind energy. For the purpose of this report, the following protected areas have been considered: Special Areas of Conservation (SACs) established pursuant to Directive 92/43/EEC “Habitat” Natura 2000, Special Protection Areas (SPAs) established pursuant to Directive 79/409/EEC “Birds”, Important Bird and Biodiversity Areas (IBA), Ramsar, UNESCO and Regional protected areas.

The corresponding regulations and guidelines vary considerably across countries. An overview on policies and/or recommendations for protected areas and forests is presented in Table 2. A brief explanation of corresponding regulations/recommendations in the different WinWind countries is provided in the following sections.

**Table 2: Comparative overview on policies and/or recommendations for natural areas**

Natural areas	Germany	Italy	Latvia	Norway	Poland	Spain
Protected areas	<p>There are different natural areas, which enjoy different protection status. Generally, development of wind farms is prohibited in the following areas: nature reserves (<i>Naturschutzgebiete</i>), national parks, national natural monuments, natural monuments, protected parts of the landscape and legally protected biotopes. In other areas (biosphere reserves, landscape protection areas, nature parks, NATURA 2000 areas) siting of wind farms is at least partly possible under certain conditions. However, there are considerable differences between the federal states (<i>Länder</i>) (See tables in section 2.2).</p>	<p>There is no general prohibition to install wind plants inside natural areas. The Ministerial decree 10/9/10 (Guidelines for authorization) provides criteria to the regions for identifying “<i>not suitable areas</i>” for each specific renewable plant type and size inside the Local Energy Plans. This provision is aimed to avoid to receive instances which have few possibility to be approved.</p>	<p>SCAs: buffer of 500 m SPAs and IBAs: 2,000 m UNESCO Biosphere Reserve: specific criteria to select areas where deployment of WE is allowed based on a landscape ecological planning methodology (see also the corresponding WinWind Best Practice Case Study). However, the distances described above shall be fulfilled.</p>	<p>Protected areas are not considered suitable for wind power.</p>	<p>Spatial limitation for protected areas including “Nature 2000” network. Extended process of investment preparation for the new installations.</p>	<p>The building of wind parks is forbidden in the total Spanish territory in natural areas (the “Red Natura 2000”) or which could be affected by the building of wind parks.</p>

## D6.1-Screening of technical and non-technical regulations, guidelines and recommendations

Forests	In several federal states, particularly forest rich states (e.g. Baden-Wurtemberg, Brandenburg, Hesse, Rhineland-Palatinate, Thuringia) wind energy developments in certain forest areas are possible, under certain restrictions. Other federal states have excluded forest areas for the use of wind energy. (See tables in section 2.2).	No specific prohibition. In general, forest must be respected following the national Law (art. 142 d.lgs.42/2004).	No specific prohibition. Wind power plants shall be placed as indicated in the spatial and local plan. No experience is siting wind energy plants in forest areas. It is not clear, to what extent municipalities indicate any forest sites in their spatial or local plans.	The total load of interventions in nature is evaluated as part of the impact assessment.	In general, forest must be respected following the national Law (92/2004). The Law on Wind Farm Investments (Law Gazette 2016, pos. 961), which defines minimum setbacks also covers forest complexes.	No specific prohibition. In general, forest must be respected following the national Law 43/2003. The Autonomous Regions /Communities have the right and duty to regulate the forests (art. 8). Very few have done so (Galicia, Castilla La Mancha), but most have not.
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Source: Information provided by WinWind partners

## 2.2 Short overview for each country

### 2.2.1 Germany

Wind turbines with a size of > 50 m are subject to authorization/permitting pursuant to the German Federal Pollution Control Act (*Bundesimmissionsschutzgesetz, BImSchG*). Permitting shall ensure that no harmful effects on the environment are caused by wind turbines. Permits are usually granted by environmental authorities. The permit for a wind farm according to the Federal Pollution Control Act concentrates all other necessary permits and approvals. Hence, the permitting procedure comprises all relevant assessments of the project – no other permissions are required (“one stop shop”). The permitting authority disseminates the application documents to all concerned authorities (*Träger öffentlicher Belange*) and obtains their reasoned opinions.

Siting of wind energy is strongly based on regional and municipal spatial planning processes, particularly on the designation of suitability or priority areas in regional plans or on the designation of concentration zones on the level of municipal preparatory land use plans (*Flächennutzungspläne*).

Designation of suitable/priority areas or concentration zones follows normally a consecutive, three step process based on:

1. Mapping and elimination of categorical “no-go areas” where the installation of wind turbines is absolutely ruled out for factual or legal reasons (“hard taboo zones”, e.g. residential and industrial areas, settlements, infrastructure objects, strictly protected nature conservation areas, areas with high sensitivity of landscape scenery, etc.) and corresponding buffer zones. According to recent jurisdiction, forests cannot be generally declared as hard taboo zones.
2. Mapping and elimination of “soft” taboo zones where the construction and operation of wind power plants is factually and legally possible, but where no wind power plants are to be set up according to the priorities of the corresponding planning bodies, i.e. regional planning bodies or municipalities. Soft taboo zones include, for instance, protected areas, additional buffer zones around residential areas and protected areas, landscape protection areas etc.). Soft taboo zones are subject to a balancing process and disposable.
3. The remaining areas (“potential areas”) are subject to a process of careful balancing and weighing-up of wind energy use with competing interests. This will lead to further elimination of areas and finally to an identification of priority/suitability areas.

The criteria for no-go areas, particularly the soft no go areas and buffer zones in detail differ among federal states. Most states have enacted rules and recommendations guiding the designation of priority/suitability areas, which usually must be followed by regional planning organizations.

In Saxony, according to the Saxon State Development Plan of 2013, the four planning associations<sup>7</sup> are required to designate corresponding priority and suitability zones for wind energy. Construction of wind energy plants is only possible within these areas but excluded outside them. When designating corresponding areas, the planning associations need to differentiate between “hard taboo zones” and “soft taboo zones”

The Decree on minimum setback distances between residential areas and priority/suitability zones for wind energy (2015) addresses the regional planning associations responsible for regional planning and designation of priority/suitability zones for wind energy. In contrast to the previous government, which favoured fixed set back distances between wind turbines and residential areas (1,000 meters), the new government favours flexible setback distances and gives the regional planning bodies discretion in defining those distances.

In Thuringia, four regional planning communities<sup>8</sup> are in charge of elaborating and implementing regional plans, including the designation of priority zones for wind energy. Flexible setback distances are defined but in compliance with minimum thresholds set out in Federal Pollution Control Act (turbines located < 750 m from residential areas subject to height limit ≤ 150 m). The *Wind Energy Decree 2016* specifies the framework for designating priority zones for wind energy via regional planning. It seeks to guide the planning communities in designating priority zones for wind energy. The decree includes a detailed description of 19 hard and 22 soft “taboo zones”. Soft “taboo zones” include, inter alia, buffer zones around nature protection areas or national parks, setback distances/buffer zones around residential areas, or NATURA 2000 habitats. According to the decree, wind energy developments in forest areas are not generally excluded. They have been excluded only for specified types of forests (e.g. protection forests, recreational forests).

Different setbacks applied in regional plans or municipal land use plans, taking into account recommendations and guidance issued by the respective state governments are shown below (Table 3-5).

Within the authorization procedures, legally binding setback distances are indirectly applied, taking into account provisions in the *Federal Pollution Control Act* (see below). In addition, several court decisions provide certain guidance. Hence, an “optically distressing impact” of wind turbines can be precluded if the distance between turbine and housing is at least three times the total height of the wind plant (i.e. hub height + ½ rotor diameter).

<sup>7</sup> Region Chemnitz, Region Oberlausitz–Niederschlesien, Region Oberes Elbtal – Osterzgebirge, Region Leipzig – Westsachsen.

<sup>8</sup> Nordthüringen, Mittelthüringen, Südwestthüringen and Ostthüringen.

**Table 3: Selected setback distances specified in regional plans of WinWind target and model regions in Germany**

Region/ federal state	Responsibility for designating priority/suitability zones	Setback distances for residential areas	Setback distances for individual dwellings, splinter settlements
Thuringia	Regional Planning Communities	Turbines <150m: 750 m Turbines >150m: 1,000 m	600 m
Saxony	Regional Planning Associations	No uniform setback distances	No uniform setback distances
Brandenburg	Regional Planning Communities	1,000 m (recommended)	1,000 m (lower distances possible)
Schleswig-Holstein	State Planning Authority (state level)	800 m (planned: 1,000 m)	400 m (planned: 500 m)

### Natural areas

The *Federal Nature Conservation Act* includes provisions for landscape planning, designation of reserve areas and protection of endangered species and habitats.

Parts of nature and of landscapes may be designated as:

- Nature reserves, national parks, biosphere reserves, landscape reserves, nature parks, or
- Natural monuments or protected parts of landscapes.

The use of wind energy is not permitted in **nature reserves** (*Naturschutzgebiete*), **national parks** and **national natural monuments**. These areas are to be excluded within the framework of planning. The same applies in principle to **natural monuments**, **protected parts of the landscape** and **legally protected biotopes**. In addition, precautionary setback distances are recommended in many regional planning regulations. **Biosphere reserves** are divided into three zones - core area, buffer zone and transition area - which are subject to graduated protection and must be assessed differently with regard to their compatibility with uses. Within the core area, the use of wind energy is prohibited. However, there is no general exclusion for the buffer and transition areas. In the buffer zones of biosphere reserves, wind energy use is often restricted by state (*Länder*) legislation or land use planning by the states does not recommend the designation wind energy zones in these areas. In some federal states, the transition zone has been excluded for wind energy in the regional planning regulations. Several states (e.g. Mecklenburg-Western Pomerania, Thuringia) generally exclude wind energy in biosphere reserves, whereas others allow wind energy developments in buffer zones (Bavaria: case by case assessment) or transition areas (Hesse). In the case of **landscape protection areas** and **nature parks**, there is no federal resp. general exclusion of wind energy use, so that the requirements of state (*Länder*) law and land use planning as well as the respective protection purpose have to be considered. The areas of the European network of protected areas **Natura 2000** have a special protection status. These areas, which include Special Areas of Conservation and Special Protection Areas designated respectively under the Habitats Directive and Birds Directive and serve the protection of habitats of protected animal and plant species as

well as habitat types. Any changes and disturbances are prohibited which could lead to a significant impairment of a Natura 2000 site in its components relevant to the conservation objectives or the protection purpose. Hence, the possibility to develop wind energy projects in NATURA 2000 areas depends in principle on whether and to what extent these can impair the conservation status of the protected habitats or species. If a significant impairment of the protected species or habitat types in the area cannot be ruled out, an impact assessment must be carried out. The *Länder* have different ways of dealing with these areas depending on the extent to which they are affected. Several federal states in Germany designated NATURA 2000 areas generally as 'no go areas' for wind energy developments (e.g. Schleswig-Holstein, Thuringia), others allow wind energy developments under certain conditions (e.g. Hesse, where Natura 2000 areas cover more than 20% of the total area). (FA Wind 2017). Due to the diversity of the areas and habitat types covered by the Natura 2000 network, a careful case-by-case assessment is generally recommended.

**Table 4: Setback distances between wind turbines and natural areas in Germany**

Region/ federal state	Nature protection areas	National parks	Nature park	Landscape Conservation Areas	Protective forest, recreational forest
Thuringia	300 m	600 m	-	-	300 m (natural forest plots, 100 m natural forest reservations)
Saxony	No uniform setback distances				
Brandenburg	-	-	-	-	-
Schleswig-Holstein	300 m + rotor radius	300 m + rotor radius			> 2 ha: 100 m + rotor radius

**Table 5: Possibility to develop wind turbines in forests in Germany**

Region/ federal state	Share of forested areas in total area	Wind energy in forests
Thuringia	33 %	Not generally excluded (but protective forests and recreational forests are „hard taboo zones“)
Saxony	28.5 %	WE in forests shall be generally avoided (particularly in protected forests)
Brandenburg	35.5 %	Not generally excluded (in 3 of 5 planning regions WE in forest is possible)
Schleswig-Holstein	11 %	Excluded

## Mitigating the impact of noise and shadow flicker

The *Federal Pollution Control Act* calls for the protection of people, animals, and the environment from harmful air pollution, lighting, shadows, and vibration. Along with this law, the “*Technical Instructions on Noise Abatement ((Technische Anleitung Lärm, TA Lärm)*” were published to assess and mitigate noise generated from industrial or commercial installations, including wind turbines.

The TA Lärm establishes binding noise limits specific to settings and noise measurement techniques:

- range from 35-50 dB(A) at night and from 45-70 dB(A) during the day, depending the type of the area (e.g. residential, commercial, industrial) (Lewke 2017).

Germany has also specific guidelines addressing the impact of shadow flicker. The “Guidelines on the Determination and Assessment of Optical Immissions from Wind Turbines” (*Hinweise zur Ermittlung und Beurteilung der optischen Immissionen von Windenergieanlagen*) were issued by the Federal States Committee for Pollution Control in 2002.

These Guidelines state shadow flicker must be considered up to the distance where at least 20 % of the sun disk is covered by the rotor blade. At larger distance the shadow flicker will be to diffused to cause annoyance.

The limit values for the worst-case scenario – the possible astronomical maximum – shadow flicker impact are:

- 30 minutes per day, and
- 30 years per year.

If a shadow flicker control is used the real case shadow flicker must be limited to 8 hours per year.

The guidelines have been adopted by many federal states and are considered common practice for wind turbines and wind farms in Germany<sup>9</sup>.

<sup>9</sup> Cf. Koppen, E. et al., 2017

## 2.2.2 Italy

By law, construction of wind power plants can be treated as a matter of public interest, and it is qualified as urgent and not deferrable. Therefore, the related approval procedure is submitted to the special rules applied to public works. Apart from EIA - when needed - all requirements related to the necessary permits and approvals are assessed by the competent authorities in a single authorisation procedure, named “Autorizzazione Unica” (AU).

### Mitigating the impact of noise

In Italy, the current framework law on outdoor noise impact is the Law n. 447/1995, which provides general rules. Six noise classes - on the base of different surrounding characteristics - and related limits to the noise pollution are provided by the Decree of the Ministers Council President of November 14<sup>th</sup>, 1997. Municipalities divide their territory in classes according to the law and apply the pertinent limits. These limits are considered for the noise impact assessment of activities requesting the noise impact approval. The noise impact approval enter in the single authorisation (AU) collecting all the necessary permits and licences to build and to exercise a wind power plant.

The classes and the related limits are reported in the following table.

**Table 6: Noise classes in Italy and related limits to the noise pollution**

Noise Class	Daytime (06:00 - 22:00) dB (A)	Night time (22:00 - 06:00) dB(A)
Class I	45	35
Class II	50	40
Class III	55	45
Class IV	60	50
Class V	65	55
Class VI	65	65

The framework law was modified, according to the Directives 2002/49/CE and (UE) 2015/996 by the legislative decree n. 42/2017 and, consequently, specific limits for wind power plants will be settled by the Ministry for the Environment.

## Cultural Heritage

In order to protect the widespread national cultural heritage and the peculiar characteristics of several specific areas, the *Cultural Landscape and Heritage Code* - legislative decree n. 42/2004 - provides a legislative framework and several specific instruments for protecting and preserving artistic sites and property, archaeological and historic sites and landscape. The Ministry of Cultural Heritage and Activities is the competent authority for the implementation and the protecting actions.

For the wind power plants authorization inside protected areas - according to the *Landscape and Cultural Heritage Code* - the Ministry of Cultural Heritage and Activities takes part to the AU procedure and expresses its advice. This Ministry also takes part in case the Superintendence verifies that the power plant is set in archaeological areas, object of safeguarding ongoing procedures or assessment procedures for the presence of archaeological heritage.

## Environmental protection

For the wind power plants authorization, the compliance with environmental requirements is assured by EIA (where needed) and by the participation of the Ministry for the Environment to the AU procedure where it expresses its advice.

In the case of negative advice by Ministry for the Environment and/or by the Ministry for the Cultural Heritage, the authorization documents are submitted to the Government for the final decision.

## Natural areas

There is no general prohibition for installing wind power plants inside natural or protected areas. In order to accelerate authorization procedures, the Ministerial decree of 10 September 2010 (*National guidelines for RES plants authorization*) in its Annex III (point 17) provides criteria to the Regions for identifying and establishing “non-suitable areas” for each specific renewable plant type and size.

Regions cannot simply identify protected areas as unsuitable, but they have to identify specific environmental protection objectives not compatible with the impacts associated to each plant type and size. This provision aims to avoid receiving instances, which have little chance to be approved. Annex IV of the decree provides some indications for wind power plants to avoid visual and environmental impact.

### Visual impact:

- Minimum distance of each wind turbine from housing units (regularly surveyed and permanently inhabited) 200 m;
- Minimum distance of each wind turbine from the inhabited centres identified by the town planning instruments in force no less than 6 times the maximum height of the wind generator;
- Respect land geometries, avoid territorial design fragmentation;
- Use of natural materials for new roads construction;
- Underground placing of medium and low voltage cable duct;

- Minimum distance from panoramic viewpoint must be not less than 50 times maximum height of the nearest wind turbine;
- Use of neutral colour and anti-reflective finishes;
- Grouping of identical turbines instead of scattered single turbines;
- Favour plants installation close to already existing relevant infrastructures;
- Shape, colour and dimension coherence of new turbine with already existing wind plants;
- Avoid high concentration of turbines by increasing power output and reducing number of turbines;
- Minimum distance between turbines must be 5-7 diameters on wind direction and 3-5 diameters perpendicular to wind direction.

#### Environmental impact:

- Minimization of habitat modifications;
- Reduction of the construction phase duration;
- Use of tubular wind tower with low rotational speed;
- Use of new road limited to plant maintenance phase;
- Restoring of initial conditions of areas related to construction phase;
- Use of specific colours for wind turbines to increase birds perception of risk;
- Placement of switches and transformers inside the turbines;
- Underground placement or isolation of medium and low voltage transmission lines.
- Use of spirals or aerial marker balls for high voltage transmission lines.

The Regions develop *Energy Regional Plans* (ERP) that define rules and priorities for new installations eventually indicating a buffer zone to be respected to install new WTGs and/or a list of sites with particular restrictions. ERPs are not yet available for all regions. In the ERPs areas are defined which are considered '*not suitable*' for wind plant installation. Projects falling in critical areas are subject to EIA procedure.

For all projects falling within the European ecological network (Directives 92/43/EEC and 79/409/EEC) the projects have meet specific conditions established by the local administration and subject to Impact Assessment ("Valutazione di incidenza"), in accordance with art. 6 of D.P.R. n. 120/2003.

No specific prohibition applies for installing wind power plants in forest areas. In general, forest must be respected following the national Law (art. 142 d.lgs.42/2004). A preliminary assessment on the basis of the data from 2014 showed that 6.39% of WTGs are installed in forest land (the total number of WTG was 6,500 in 2014 and 7,000 in 2017). The specific shares are 1.63% in coniferous forest, 4.03% in broad-leaved forest and 0.73% in mixed forest (CORINE Land Cover

classes). These figures might be overstated because some WTGs are located on the forest boundary.

### 2.2.3 Latvia

At present, there is no national thematic spatial plan addressing specifically onshore wind energy in Latvia, which would identify permissible areas directly, i.e. by stating the precise geographic coordinates. The national planning framework includes the Republic of Latvia Cabinet of the Ministers Regulation No. 240 “*General Regulations for the Planning, Use and Building of the Territory*” (adopted on April 2013) issued pursuant to the current Spatial Development Planning Law (in force from 1st December 2012). Pursuant to Article 161 of the noted Cabinet of Ministers Regulation, it shall be allowed to place wind power stations with a capacity of more than 20 kW in an industrial building territory, technical building territory and agricultural territory or in the places indicated in a spatial plan and local plan. The minimum setback distances (in meters) from rural residential houses, dense residential and public building areas of villages and towns, specially protected nature territories of different types, health resorts are specified in this national regulation. The provisions on minimum setback distances are the same for the whole territory of Latvia:

#### Wind power plants > 20 kW:

- Rural areas: minimum distance from buildings: 500 m.
- Dense residential building areas and public buildings: 1,000 m.

#### Wind park:

- Rural areas: minimum distance which is five times larger than the maximum height of the wind power station
- Dense residential building areas and public buildings: 2,000 m.

### **Natural areas**

Suitable areas for siting wind farms partly include the UNESCO Biosphere Reserve in North Vidzeme. Clear criteria were developed for determining areas where deployment of wind farms should be allowed based on a specific landscape ecological planning methodology (see also corresponding WinWind Best Practice case study). At the same time, the setback distances indicated above in the Table 2 shall be fulfilled.

So far, Latvia has no experience in developing wind energy plants in forest areas. Forest land is not explicitly included in the list of possible areas contained in the Article 161 (The Cabinet of Ministers Regulation No. 240). However, taking into account the existing regulations, wind energy plants are not generally prohibited on forest areas. It is not clear, yet, to what extent municipalities indicate any forest sites in their spatial or local plans.

Currently, the final version of the Latvia National Energy and Climate Plan (NECP 2020-2030) is under discussion. The proposed measures of the NECP include also a regulation that forest land, owned by the state, can be used for wind park siting<sup>10</sup>.

## 2.2.4 Norway

### Environmental protection

There are two key laws that safeguard environmental protection related to wind power plants in Norway: The *Nature Diversity Act* and the *Planning and Building Act*.

The purpose of the *Nature Diversity Act* is to protect biological, geological and landscape diversity and ecological processes through conservation and sustainable use, and in such a way that the environment provides a basis for human activity, culture, health and well-being, now and in the future, including a basis for Sami culture. It forms the basis for a series of laws and regulations. It includes a general duty of care and principles for official decision-making, which serve as guidelines for the exercise of public authority. These principles are related to requiring a knowledge base, the precautionary principle, ecosystem approach and cumulative environmental effects, user-pays principle and environmentally sound techniques and methods of operation.

The other piece of legislation is the *Planning and Building Act*. Since 2008, energy installations are exempted from the land-use planning procedures following this Act. The *Energy Act* regulates land-use for energy installations. It means that the national level authorities, and not the municipalities, make land-use decisions related to energy installations; however, the local municipalities have a formal right to be heard.

The *Energy Act* requires that all wind power projects larger than 1 MW obtain a licence from the Norwegian Water Resources and Energy Directorate. All projects above 10 MW have to go through an *Environmental Impact Assessment*. For wind power projects, such assessments follow the Environmental Impact Assessment guidelines in the *Planning and Building Act*. It states that plans and development measures that have significant consequences for the environment and society must be carefully assessed. The assessment should be presented in the form of an impact assessment related to an application and include consultations with private individuals and organizations.

In addition to these laws there are sectoral laws related to, inter alia, use of forest, agriculture and cultural heritage that need to be followed, when the authorities are providing permits. The total load of interventions in nature is evaluated as part of the impact assessment.

### Environmental noise and shadow flicker impact

Noise from wind turbines can bother neighbours in the same way as noise from other sources. The recommended limit value of Day-evening-night level (Lden) is equal to 45 dB(A)<sup>11</sup>. This limit

<sup>10</sup> [https://em.gov.lv/lv/nozares\\_politika/nacionalais\\_energetikas\\_un\\_klimata\\_plans/](https://em.gov.lv/lv/nozares_politika/nacionalais_energetikas_un_klimata_plans/)

value is based on assessments of the degree of noise that should be allowed in society, and is harmonised with limit values for other sources of noise. In the license processing, noise is always considered. The regulator normally requires that the limit value should not be exceeded.

There are no limit values for shadow flicker in Norway; however, the regulator has developed guidelines for how to calculate shadow flicker. The regulator recommends that shadow sensitive buildings should not be exposed to actual shadowing for more than eight hours per year, or theoretically, for more than 30 hours per year or 30 minutes per day. The limit values can be deviated under certain conditions, for example, if shading of a summer cabin largely occurs during winter.

Because of noise and shadow flicker rules, there needs to be a distance of typically 700-900 m from houses. In the new National Frame for wind energy, the regulator recommends that a minimum setback standard should be introduced, but with exceptions.

### 2.2.5 Poland

Areas suitable for renewable energy use are usually specified in the local land use plans. The planning process implies that wind turbines/farms must be accepted by the local authorities in their land use planning, where the municipality assesses the conditions and directions of spatial development and decides upon a development plan.

The *Wind Farm Investment Act* – the so-called “distance act” - entered into force on 16 July 2016 (Law Gazette 2016, pos. 961) and introduced, inter alia, requirements for the distances of wind farms from residential buildings or mixed-use buildings with a residential function. Respectively, wind farms must be built at a distance from housing of at least 10 times height of the turbine (measured as the height of the tower with the length of the blade). This new restriction should work in both ways; i.e., residential buildings, which might be built near the existing wind power plants, must also comply with the minimum distance requirement.

The minimum distance requirement for wind farms is also obligatory in relation to nature protection areas such as national and landscape parks, nature reserves, Natura 2000 areas, and promotional forest complexes. Moreover, location of new wind farms is possible only based on the provisions of local spatial development plans.

#### **Natural areas**

The large share of protected areas, including those belonging to the “Nature 2000” network, provide a spatial limitation to the development of wind energy. However, protected areas do not always exclude the location of wind farms, but considerably extend the process of investment preparation.

There are only very few special regulations regarding wind farm siting in forests. Pursuant to the Law of Environment Protection the *Law of Environment Protection* - Law Gazette 2004, No. 92, pos. 880 (and further amendments) there are forest areas or areas of special protection status

<sup>11</sup> See definitions page 13 of the report.

as National Parks, Nature Reserves, Landscape Parks and Nature 2000 areas, where location of civil structures is highly restricted or even prohibited.

The 2014 Supreme Audit Office (NIK) report (covering the period of 2009-2013, which investigated the wind turbines permission procedures) indicates only one wind turbine location (Rzepin) on the area belonging to the State Forest Company. 80% of forest areas belong to the State Forest Company.

## 2.2.6 Spain

In Spain, the legal competence in all planning has largely shifted from the Spanish state to the Autonomous Regions/Communities (Comunidades Autónomas), except for very rare cases. Concerning financial support schemes for wind energy, there are only feed-in-tariffs or remuneration determined via auctions paid by the National Commission on Markets and Competition (the Comisión Nacional de Mercados y la Competencia, CNMC). The CNMC is located in Madrid and is based on Spanish (national) regulation.

The Autonomous Regions/Communities are responsible for determining wind turbine setback distances, but it is recommended (in the Balearic Law 12/2016, please see further down) that wind turbines have minimum setbacks of 500m to the nearest dwelling. Further distance regulations include 5-9 times the diameter of the wind rotor in the main axis to the wind, 3-5 times parallel to the wind. These distances are recommended due to safety concerns as well as noise limits.

### Mitigating the impact of noise

Environmental noise was not regulated in Spain before 1990 and is by now regulated in RD 1038/2012 (modifying the RD 1367/2007, which in turn modified the Law 37/2003). This national framework-law was adopted after the EU published its Directive 2002/49/CE and it differentiates by types of soils:

**Table 7: Noise levels by types of soil in Spanish legislation**

Area or type of soil		Noise level <sup>(1)</sup>		
		L <sub>d</sub>	L <sub>e</sub>	L <sub>n</sub>
e	Soil with a predominant sanitary, teaching or cultural requiring a special protection against acoustic pollution.	60	60	50
a	Soil with a predominant residential use.	65	65	55
d	Soil, different than c) (see below), with a predominant tertiary use.	70	70	65
c	Soil with a predominant recreational and show/performance use.	73	73	63
b	Soil with a predominant industrial use.	75	75	65
f	Soil with a general transport infrastructure or other public equipment use. It refers to article 18.2 stipulating that the least acoustic incident technology should be used.	(2)	(2)	(2)

(1) =  $L_n$ ,  $L_e$  and  $L_d$  is calculated by noise type (cars, trains, etc.) and a software (following ISO 17534-1) by decibel (dB), and it means that  $L_n$  is valid for the night, being 23.00h-07.00h,  $L_e$  being the afternoon from 19.00h-23.00h and  $L_d$  is the day time being 07.00-19.00h. This is calculated on average during the year.

(2) = The same acoustic limits apply as the perimetral limits of the other types of soils.

In Spain, shadow flicker is not addressed in the planning regulations at present.

## Natural areas

On the entire Spanish territory construction of wind farms is forbidden in natural areas or in areas of the Nature 2000 Network (La Red Natura 2000, LIC or Ley de Interés Comunitaria (Special Law of European Interest), ZEPA or Zona Especial de Protección de Aves (Special zone of bird protection, etc.), by law 42/2007, following Directive 92/43/EEC. The Nature 2000 Network has been regulated in the Spanish State Law 42/2007, modified by Law 33/2015 and by Law 5/2005 (which introduced the LECO, or Lugar de Conservación de los Espacios de Relevancia Ambiental (Special zone of environmental protection). In Spain, there are 13 million hectares in the Red Natura 2000, in particular “forest soil”, meaning that, at least, 10 million hectares are considered “forests”.

In Spain, the use, restauration as well as the improvement and rational exploitation of forests is regulated by Law 43/2003 (modified by the Law 21/2015), modifying a law from 1957. However, Law 43/2003 stipulates that the Autonomous Regions (or Comunidades Autónomas) have the right and duty to regulate the use of forests. No specific data are available for the number of wind energy projects in forests, which have been mainly implemented in the autonomous communities (Galicia, Asturias, La Rioja and Castilla y Leon).

## 2.3 Interim findings and conclusions

The comparative analysis of the regulatory frameworks addressing relevant technical issues shows a considerable disparity across WinWind countries and target regions. One of the main differences found is related to the typology of regulations adopted: national vs. regional and / or prescriptive /discretionary.

Concerning residential areas, setbacks can be based on a fixed distance (e.g. Latvia: 1,000 m for single turbines or 2,000 m for wind parks) or a distance relative to the turbine height which varies significantly between countries (e.g. Italy: 6 times and Poland: 10 times). In some cases, setback distances are recommended, for instance as a function of acceptable noise levels (Norway: 700-900 m and Spain: 500m). Setbacks can be recommended or set as a binding obligation. Setbacks can be developed by national, regional (e.g. Thuringia: 750-1000 m and Abruzzo: 500m) and/or local governments. Moreover, setback distances are often defined on a project basis in the permitting/authorization process or Environmental Impact Assessments and,

thus, are legally binding, and have to take into account provisions on maximum acceptable noise levels (e.g. Germany and Spain) or, the expected noise profile of each specific projects to be installed<sup>12</sup>.

Only two WinWind countries (Germany and Norway) have guidelines or regulations for assessing and limiting the effect of shadow flicker. Moreover, there are differences at international level in the implementation of Regulation for Wind Turbine Shadow Flicker Impact, like the consideration of only the worst case, only the real case or both the worst and the real shadow impact <sup>13</sup>. This later case for instance applies in Germany and Norway.

Given the different natural contexts of the WinWind countries, it is difficult to compare the regulations and guidelines concerning natural protected areas connected with the specific territorial characteristics. The cases of Germany and Italy show that even within one country the rules can vary between different federal states or regions. Depending on the protection status of each area category, the countries under investigation designate natural areas where wind energy development are strictly prohibited and areas where wind plans or farms can be partly allowed under certain conditions or in exceptional cases.

Natura 2000 is a network of nature protection areas in the territory of the European Union. It is made up of Special Areas of Conservation and Special Protection Areas designated respectively under the Habitats Directive and Birds Directive. A guidance document published by the European Commission in 2011 (European Commission, 2011) states that the Habitats and Birds Directives do not, a priori, exclude wind farm developments in or adjacent to Natura 2000 sites. However, many countries including several WinWind countries have defined NATURA 2000 areas generally as 'no go areas'. In Germany, only few federal states allow wind energy developments in NATURA 2000 areas in exceptional cases.

Regulations specifically targeting wind turbine installations in forests are mostly lacking. No dedicated provisions were found except for Germany.

<sup>12</sup> Dalla Longa, F. et al., 2018

<sup>13</sup> Koppen, E. et al., 2017

### 3. Assessing public participation and engagement measures in decision-making processes

Developing public participation and engagement measures to address the reasons for community discontent does not concern actions to counter the negative impacts of installations (e.g. minimum distances to settlements or protected areas, protection from noise). This is rather a matter of a cultural approach oriented to build knowledge throughout a two ways process, involving interaction and listening, with the goal of generating mutual benefits.

In several countries, the current decision making processes for the siting of the wind power plants are focused on simplifying and streamlining the authorisation procedures without adequately taking into account the needs for proper public participation. The more laws and institutions exclude local communities, the more they fail to translate the abstract concept of public interest in the local frameworks and wind power plants are perceived as a threat rather than an opportunity. This applies not only to small communities the economy of which relies on farming and tourism. The relationship between people and places in which they live refers to fundamental human needs (which goes far beyond economic concerns) and are strongly connected with community identity and its peculiar heritage (including environment, landscape, urban features, community knowledge, culture and crafts).

As a result, we are seeing a widespread and growing public opposition against wind installations, which feeds a general loss of trust in public institutions and, at worst, a decline of confidence in the political system.

As mentioned in the Literature review carried out in the WinWind project (Deliverable 2.1), Aitken (2010) strongly advises against making such assumptions: “Opposition cannot be dismissed as ignorant or misinformed. Instead, it must be acknowledged that objectors are often very knowledgeable. Public attitudes and responses to wind power should not be examined in order to mitigate potential future opposition, but rather in order to understand the social context of renewable energy.” They advise researchers to abandon the assumption that they know who is ‘right’ and engage in the possibility that objectors to wind power are not always ‘wrong’.

The good results achieved by several community-led, bottom-up initiatives and voluntary agreements founded on trust and perceived equity, show the principles, which should guide national policies.

#### 3.1 Objectives and methodological approach

WinWind seeks to support the socially inclusive market uptake of wind power plants. Taking into account the results of Work Package 2 of the project, particularly the Taxonomy of Social Acceptance Barriers and Drivers (Deliverable 2.3), and the importance of procedural justice (fair and participative decision-making process, transparency and inclusiveness), and distributional justice (fair distribution of costs and benefits) as key drivers for community acceptance, a methodological approach has been developed to analyse the main stages of the decision-

making processes including spatial planning, authorisation procedures and financial support schemes.

The purpose of the following analysis is to describe:

- How the general public and stakeholders are involved in the setting up of spatial development plans (or other plans) that concern the siting of wind power plants;
- Referring to the plans and authorisation procedures, the way in which the wind power production interests are balanced with other competing public policies and concerns (for instance environmental and landscape protection, safeguard of tourist activities, safeguard of property rights in the event of expropriation, or in the case of decreasing property values and prices);
- The policies providing incentives/benefits supporting energy from renewable sources and the effectiveness of the communication strategy concerning the related results and costs.
- Measures promoting active and passive financial participation of citizens and communities as well as other community benefits.

The following stages of the decision-making process addressing the siting of wind power plants were investigated:

- presence or absence of a spatial plan, at national, regional or municipal level, steering the siting of wind energy plants;
- legal precondition procedures (authorisation/licensing, environmental impact assessment) for wind energy plants and associated transmission and distribution network infrastructures;
- policies providing incentives to support wind energy.

A dedicated template has been developed by the Task leader ENEA in co-operation with the Work package leader FUB-FFU to collect information from all WinWind partner countries for each stage of analysis. Annex 1 contains the completed templates for all WinWind countries.

The key elements of the template which provided the basis for data collection for assessing the public engagement measures in each stage of analysis are described in the following sections.

### 3.1.1 Regional and spatial development plans for siting of wind power plants

First, the template asked about the existence and the characteristics of spatial (development) plans steering the siting of wind power plants and their associated transmission and distribution network infrastructures. Planning procedures provide an ideal occasion to enable widespread public participation. Therefore, the template also addresses the possibilities of public engagement, providing also information on the path followed by the national or regional governments to handle conflicts that may arise from competing private and public interest.

#### A. How do regional and spatial plans take into account specific features in the countries?

- a) Assess the existence of regional/spatial plans to select/identify suitable areas for wind energy installations, or of guidelines steering the siting of wind energy installations bearing in mind the specific features of the territories.

If such regional or spatial plans exist:

- b) Check and assess the presence of consultation procedures involving competent authorities for other public policies (environment, landscape, local development etc.).
- c) Check and assess the presences of procedures allowing for public participation.

#### B. Assessment of the participation of competent authorities for potentially affected public interests in the development of the plan

To assess how competing concerns and interests are balanced in the planning process the following issues were investigated:

- Direct participation / agreement/ consultation/ information of the competent authorities representing public interests potentially affected by the construction of wind power plants (environment, landscape, tourism, local development etc.)
- Resolution of institutional disputes between authorities of different administrative levels (e.g. state /regions/ local authorities).

#### Case 1: Regional or spatial plan does not exist

If a regional or spatial plan to direct wind power plant does not exist, one should consider the political willingness - either explicit or not - of delegating the siting decisions in a way that favours investors' participation and of delegating the safeguard of general interests to the authorization processes.

**C. Assessment of public participation in the planning process**

The following parameters were selected in order to assess public involvement within the planning process, according to the following three growing grades: information, consultation, participation -:

- a) Citizens' access to the information about the planning processes
- b) Public consultation and participation including
  - accessibility and availability of information (open to all or only to specific stakeholders);
  - ways of participating and expressing views and concerns (individuals and /or collective initiatives);
  - duration of process;
  - degree/intensity of participation (e.g. information, consultation, active participation);
  - outcomes and trajectories of the consultation process about the plan;
  - any informal public participation possibilities and formats (going beyond the formal, statutory participation and procedures, e.g. informal information events, informal working groups etc.).

**3.1.2 Approval procedures for wind power plants**

Approval procedures for wind power plants (authorisation/permitting/licencing) are assessed to highlight:

- the simplification with respect to the ordinary procedures (i.e. procedures for conventional power plants);
- public involvement - according to the following three gradations: information, consultation, participation ;
- special regulatory measures (e.g. modifying land designed use, expropriation procedures).

**A. Assessment of public involvement in the authorization processes**

- a) Ways of informing citizens about authorisation procedures, according to the type/size of the plant
- b) Access to consultation (free or restricted to entities safeguarding legitimate and public interests)
- c) Ways of involvement (individual/collective; public debate)
  - Consultation process duration
  - Degree/intensity (e.g. information, consultation, active participation)

- Outcomes and trajectories of the consultation/participation processes
- Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.).

## **B. Specific circumstances of conflict between investor and community interests**

- d) Simplified expropriation procedures;
- e) Simplified procedures for changing the purpose, related in particular to regions, forest, natural areas or protected areas etc.;
- f) Simplified procedures for tree felling authorization, related in particular to mountain areas;
- g) Lack of proponent requirements in the authorization request stage (property right/availability of the area on which it is planned to site the plant, obligation to realize the installation/plant after obtaining the authorization to realize the installation/plant and to connect to the distribution chain.
- h) Other issues.

### **3.1.3 Public policies to support wind energy**

In those cases where electricity production from wind energy benefits from financial support in accordance with public policies, information was collected about measures for raising awareness about the costs and benefits of financial support.

In particular, the following elements have been assessed:

- Government incentives and other advantages for wind energy
- Total amount of public financial support over the last 5 years
- Effectiveness of the information provided to citizens on the purposes of financial support to wind energy and on the results achieved.

### **3.2 Interim findings and conclusions**

The information gathered by help of the template allows to analyse several factors which affect how wind energy development impacts - on the nature, the economy, human health and wellbeing - can be perceived by the communities. These factors are related to the ability of public actors to manage renewable energy developments in a transparent and inclusive way.

Involving a public hearing phase in the process is a key factor to drive the clean energy agenda forward (cf. Deliverable 2.1). It is possible to draw some general conclusions concerning the following items analysed:

- Existence of a spatial plan at national or regional level steering the siting of wind energy plants and the public involvement before and after the planning approval;
- Legal precondition procedures, in particular authorization procedures and Environmental Impact Assessment procedures, for wind power plant and associated transmission and distribution network infrastructures with a specific focus on public involvement.
- Policies providing incentives to wind energy at national level and the possibility for private actors to contribute to or coordinate with the national support schemes.

The first and most important finding is that, despite the evident differences or similarities across countries in terms of geography, weather and wind conditions or institutional frameworks, the existence of a transparent and participatory spatial planning process - at national or regional level - to identify the suitable areas where to locate wind power plants can be an useful tool:

- to rationalise implementing actions (i.e. suitable developing of the distribution network, rationalise the public expenditure ...);
- to balance, in a common strategic pattern, RES development with other relevant concerns that come at stake in the wind power plant siting (i.e. preservation or regional/national cultural heritage or landscape, protected areas);
- to simplify the authorization procedure for the wind power plant siting not just in terms of procedures and timing but in terms of the actual contents of the procedures themselves;
- to reduce competent authorities' discretion in decision-making concerning the authorization requests;
- to increase trust in actors and institutional arrangements;
- to engage the public and stakeholders and to share a general vision and development plan, that can help not only to streamline authorization procedures and avoiding or mitigating legal conflicts between parties, but also to respect the environmental and cultural heritage and the need of people living in the interested area;

Germany, Norway and Poland have siting plans for wind farms and the public participation arrangement is described in the template.

In Italy, Latvia and Spain siting plans do not exist.

The plan, at national or regional level, can be a key factor in the management of RES developments to create a reliable space for public debate on wind farm siting and plants, which sometimes tends to be completely eliminated for the sake of accelerating the permitting processes.

Regarding the authorization, in some countries there is a one-stop shop procedure where one authority is responsible for permitting integrating all necessary permits (Germany, Latvia, and Norway). In other countries (Poland) different authorities seem to bear responsibility.

In some countries, the public has to be informed of a project rather early, i.e. in the pre-application stage (Norway). In other countries like Germany there is no mandatory public

information/consultation envisaged in the pre-application stage (before submitting the application documents by the developer).

In Germany, Italy, Spain and Latvia, the public consultation is performed only within the EIA procedures.

For all countries under investigation, except Norway, the way in which the EU Directive on Environmental Impact Assessments (EIA)<sup>14</sup> is applied has been described. There are different thresholds in terms of number and capacity of wind turbines determining when an EIA is mandatory. The arrangements for informing and consulting the public concerned is also determined by each country.

Having compared the different legal frameworks – refers to the spaces for public involvement, in all aspects of the analysis, it appears evident that in countries where public involvement is increasingly confined and limited in time and space, the probability of dissent, opposition and organized protest is growing.

Often in the case the public has barely possibility to express its opinion, it tries to create itself a space to give voice to the dissent. This scenario is, indeed, dangerous because it negatively affects the whole relationships between the political/administrative institutions and citizens. Within the lack of trust, the dissent finds a good environment to swell and to trigger a vicious circle by further reducing trusting relationships. In addition, lack of public participation has also other negative consequences, for instance, on the length of the authorization procedures. In fact, institutional disputes, appeals to the decisions of the competent authority and other forms of dissent extend the length of decision-making processes, undermines the efforts to simplify the authorisation procedures.

Hence, it is possible to conclude that the key issues to be addressed are almost common to all countries involved in the WinWind project. This means that by taking into account good or bad practice examples, it is possible to improve domestic regulatory frameworks in order to give the public adequate space or - where existing - to improve the quality of this space and its tools, especially when it comes to the socio-political and community acceptance of wind energy and other RES.

Below we provide two tables presenting a comparative analysis of the public involvement in the context of spatial planning (Table 8) and the authorization process (Table 9). Public involvement has been assessed according to the three stages information, consultation and participation.(cf.. section 3.1.2). In a third table (Table 10), we summarize the comparative findings related to the support schemes for wind energy at national level.

<sup>14</sup> EIAs are regulated in the EIA Directive (85/337/EEC) and national legislation. The EIA Directive applies to a wide range of defined public and private projects, which are defined in Annexes I and II. Projects listed in Annex I are considered as having significant effects on the environment and require an EIA (e.g. long-distance railway lines, motorways). For projects in Annex II (which also includes installations for the harnessing of wind power for energy production (wind farms), Member States have discretion to decide in which cases an EIA is necessary. This is done by the "screening procedure", which determines the effects of projects on the basis of thresholds/criteria or on a case by case examination. However, the national authorities must take into account the criteria laid down in Annex III.

**Table 8: Comparative analysis of public involvement in spatial planning and siting of wind power plants**

<b>WIND POWER PLANT SITING</b>					
<b>Country</b>	<b>Spatial plan</b>	<b>Public involvement</b>	<b>Participation</b>	<b>Consultation</b>	<b>Information</b>
<b>Germany</b>	Designation of suitable areas for wind energy developments is mainly made in regional plans and partly in the municipal preparatory land use plans. The federal government provides the overall legal and planning framework, formulates general guidelines and principles for spatial planning which is performed and concretized on the level of the federal states, regions and municipalities.	The different levels of involvement are provided in a different way, depending on whether the plan is made by the region or by the municipality. In any case, the consultation results have the possibility to affect the plan approval.	Limited	Zoning of wind energy in spatial planning is accompanied by more or less intense public consultation processes in which stakeholders, citizens and associations can take part and which can last several months. Moreover, for regional plans there are at least two successive consultations (on the outline and on the draft of the plan). For local plans, there is a two-stage approach, where the first stage involves an announcement of the general purposes of the plan and the second involves the possibility for the public to express their views and have more clarifications.	Before the plan approval, at regional level, there are formal and informal activities by the responsible regional planning bodies. The scope and the intensity of the information activities differs between federal states and regions. For local plans there is a two-stage approach, where the first stage involves an announcement of the general purposes of the plan and the second involves the possibility for the public to express their views and have more clarifications
<b>Italy</b>	Spatial development plans for wind power plant siting are not provided for, neither at national or regional level. All assessments on wind farm siting are committed to the authorization procedure and made, case-by case, for each project..	None	None	None	None
<b>Latvia</b>	There is no spatial development plan for wind power plant siting at national or regional level. The current national regulation defines only minimum set back distances to site wind power plants, which are the same for the whole country.	None	None	None	None

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<b>Norway</b>	A national spatial plan for wind farms is under consultation and is not legally binding. It identifies the most suitable areas to site the plants. The aim of this frame is to help ensuring that applications for wind power permits are directed towards the most suitable wind power locations. Regional wind farm siting plan are provided for..	Public involvement has been promoted for the purpose of providing information, consultation and participation.	The regulator has consulted relevant actors in all parts of the work with the framework, including national authorities and enterprises, regional and local authorities, Sami interests and other interest organisations. Since the plan was launched (1 April 2019), it has been on hearing for (the deadline for the hearing is after 183 days). During this hearing period five regional public meetings are taking place in different cities.	Relevant actors have participated in all parts of the work with the framework, including national authorities and enterprises, regional and local authorities, Sami interests and other interest organisations. During the current hearing period, five regional public meetings are taking place in different cities.	21 thematic reports with updated knowledge are published on the regulator's homepage, maps have been published, there are press releases and ongoing meetings with the public..
<b>Poland</b>	There is no spatial development plan for wind power plant siting at national level, but there are many municipalities that have a Local Plan for Spatial Development. The procedures related to these plans are time consuming and costly so they are sometimes difficult to perform. In cases where such a local plan is not in place, the Decision of Building Conditions and Spatial Development might be used as a guideline for siting of wind power plants.	Public involvement is promoted via information, consultation and participation stages. In particular in the consultation and participation phases there are very similar actions that are undertaken.	Before the plan adoption, it is provided a consultation stage in which stakeholders, associations and citizens can take part. The duration is around 63 days and there is the possibility to affect the plan on the basis of the public consultation. Moreover, organizations have the right to submit their proposals and the right of opposition after the plan approval, as in the participation level. After plan adoption, citizens have the right to oppose the resolutions of the municipal council, which sets the plan.	Before plan adoption, there is a consultation stage in which stakeholders, associations and citizens can take part. The duration is around 63 days and there is the possibility to affect the plan on the basis of the public consultation. Moreover, organizations have the right to submit their proposals and the right of opposition after the plan approval, as in the participation level. After the plan adoption, citizens have the right to oppose the resolutions of the municipal council, which sets the plan.	Before plan adoption, the starting work for the plan should be announced by local authorities. After plan adoption, the plan itself is available.
<b>Spain</b>	There is no spatial development plan for wind power plant siting at national level (the competence for spatial	None	None	None	None

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	planning has been transferred to the level of Autonomous Regions or Comunidades Autónomas). Thus the assessment on the feasibility of the power plant is mainly performed within the authorization process and EIA (Environmental Impact Assessment or Evaluación de Impacto Ambiental) procedure, which is mandatory for each power plant..				
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**Table 9: Comparative analysis of public involvement within the authorization procedure**

AUTHORIZATION PROCEDURES				
Country	Public involvement	Participation	Consultation	Information
<b>Germany</b>	Public involvement is expressed in all three stages. Before the authorization approval, in case a certain threshold is achieved (turbine number $\geq 20$ ), EIA including public consultation is mandatory. Below this threshold, EIA and public consultation can be mandatory depending on the outcome of an environmental pre-assessment. If this pre-assessment comes to the conclusion that a complete EIA is necessary, public consultation is mandatory. Moreover, developers can also voluntarily opt for the EIA procedure accompanied by a public consultation. In this consultation only those parties can take part that can prove their legitimate interests. There is an objection period of around 6 weeks.	Formal public consultation processes are not carried out very often, mainly due to the comparatively high thresholds defining when public consultation is mandatory ( $\geq 20$ turbines). In the frame of an EIA, the permitting authority has discretion to organize a public hearing after the objection period.  However, there are sometimes informal public participation measures employed by developers or municipalities (e.g. information events, workshops, citizens' conferences, reports and juries, planning cells) which enable local residents to incorporate their views and expectations within the project. After approval, no participation is institutionally expected.	Before the authorization approval, in case of a certain threshold in terms of turbine number is achieved ( $\geq 20$ ), public consultation is mandatory. Public consultation possibilities are linked to the question whether an EIA is necessary. Moreover, developers can also voluntarily opt for an EIA procedure. In this consultation only those parties can take part that can prove their legitimate interests. There is an objection period of around 6 weeks. The permitting authority has discretion to organize a public hearing after the objection period. After approval, no consultation is institutionally expected.	Before the authorization approval, local media, brochures and flyers are the classical means to enter in direct contact with the citizens, communicate the project and address possible concerns. After approval, many developers, communities and wind farm operators actively inform the citizens about the construction phases.
<b>Italy</b>	There are no institutionally provided spaces for public involvement within the authorization procedure process, a part from the case in which the project is submitted to the EIA procedure. In this case, the public is informed, through the competent authority website and there are 45 days during which it is possible for the public to submit comments and suggestions.	None	None	None
<b>Latvia</b>	Public involvement within the authorization procedure is allowed thanks to the submission of an EIA. Anyone who desires can participate through public debates and individual or committee initiatives. Moreover, the direct participation of the public can affect the approval of the authorization procedure. The entire process for public involvement during EIA procedure can last about 60 days	Before the authorization approval any person within 20 days following the public display of the announcement on the Initial Discussion may submit written proposals to the State Environmental Bureau on the eventual environmental impact of the project. Moreover, the EIA procedure should be performed taking into account the results on the Initial Discussion and all the public suggestions. After the publishing of the elaborated EIA statement, any person has the right to send a	Before the authorization approval, there is a Public Discussion on the impact assessment of the intended activity, whose results are collected and sent to the State Environmental Bureau. The participation to the Public Discussion of the representatives of significant part of population is promoted.	Before the authorization approval some specific measures are undertaken, such as: informing the owners of the involved territories, announcement on local newspaper and websites, publicly available information on the project at local administrative level. After the elaboration of the EIA Statement, public information on the EIA Statement is promoted to help the public in becoming familiar with the EIA

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		written proposal regarding the EIA Statement, within 30 days following the publication and each participant to the public discussion meeting on EIA Statement has 7 days to submit a separate opinion.		Statement and the related documents.
<b>Norway</b>	Public involvement is expressed in all the three phases. Before the approval, no matter the turbine size, a consultation phase is provided with a duration of 60 days. Anyone who desires can participate in the public consultations, which the regulator organizes as local public meetings. During these meetings, information about the project is provided. Before the national regulator takes the decision, it makes a final inspection with important local interest groups and public authorities.	Once the developer has provided a notification of planned project, the national regulator initiates a hearing among the relevant municipalities, counties, county governors and relevant state agencies based on the notification. Usually the regulator organises a local public meeting during the period of the hearing. This gives input to the programme for an impact assessment. The regulator also initiates a hearing of the permit application and the impact assessment. The regulator organises meetings with local authorities and open public meetings about the application. Before the authorization approval the national regulator also meets with stakeholders representing single interests, who wants a meeting with the regulator. Such informal meetings are common. After the approval, there is no further participation.	Before the authorization approval, a consultation group is consulted three times during the investigation work. There is also a consultation phase of 60 days, when the regulator organizes local public meetings. Before the final decision, the regulator goes on an inspection with important local interest groups. After the approval, complaints can be submitted to the Ministry for Petroleum and Energy via national regulator, who makes the preparatory assessment.	As a first step in an approval process, the developer gives a notification of a planned project. The notification is supposed to provide information to all affected parties. It should include a programme for investigating topics that, in the opinion of the developer, should be assessed further through an impact assessment. The aim of the notification is to provide a provisional assessment of the possible impacts on the surroundings. NVE recommends that the developer distributes a brochure with a short version of the notification to all households and landowners in the area. Before the authorization approval, information is provided on the host municipality website, given at public meetings, or through announcement in the national and local newspapers. After the approval, a press release is distributed and everyone who has commented on the case receives a copy of the approval or a letter with a link. Copy of the approval or a letter with a link.
<b>Poland</b>	The public involvement is expressed in all the three phases, according to the regulations governing the Local Plan of Spatial Development (Plan). Anyone who wishes can take part in the consultation stage in form of a public debate and has the possibility to affect the approval within a time of 63 days.	Before the authorization approval, the starting work on the plan should be announced by local authorities. After the approval, the adopted plan becomes available.	Before the authorization approval, citizens and organizations have the right to submit their proposal for a duration not shorter than 21 days, during which a draft is publicly presented. Within the next 21 day, citizens and associations have the right to submit remarks. After the approval, citizens have the right to opposition in the resolution of the municipal council.	Before the authorization approval, citizens and organizations have the right to submit their proposal for a duration not shorter than 21 days, during which a draft Plan is publicly presented. Within the next 21 day, citizens and associations have the right to submit remarks. After the approval, citizens have the right to opposition in the resolution of the municipal council.

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<b>Spain</b>	There is no possibility for public involvement within the authorization procedure, but there is a general formal process of consulting the public which in the Balearic Islands was based on three pillars: i) face to face meeting with coordinating team; ii) participation in citizens' workshops; iii) answering of the coordinating team based on an online form.	None, but increasingly <sup>15</sup> , the Autonomous Regions (or Comunidades Autónomas) include the promoter/developer and the affected persons in an official hearing on the subject in relationship with the EIA (see further down in the Annexe on the EIA in the Balearic Islands)..	None	None

<sup>15</sup> See, for example, DOG of 22/10/18, or <https://blogs.publico.es/ignacio-martil/2018/09/19/situacion-actual-y-perspectivas-de-futuro-de-la-energia-eolica/>

**Table 10: Comparative analysis of public involvement in the context of financial support schemes**

FINANCIAL SUPPORT			
Country	National support scheme	Total budget (in EUR)	Public information methods
<b>Germany</b>	The main instrument for the expansion for renewable energy (RES) in the electricity sector in Germany is the Renewable Energy Sources Act. This law includes long-term targets for RES based electricity and provisions for grid connection and represents the key support scheme for RES generated electricity, which is mainly based on a market premium scheme. Since 2017, for most renewable energy installations, the award and the level of the market premium is determined through auctions. Onshore and offshore wind projects <750 kW are exempted from auctions and still supported by feed-in tariffs.	In Germany, electricity from wind energy and other RES is mainly supported via a surcharge paid by customers with their electricity bills. The size of the surcharge is determined by the four Transmission System Operators (TSO). In 2017, Germany spent 26.3 billion EUR on supporting renewable energy development in the field of electricity. According to the 2017 balance sheet compiled by the four TSOs, feed-in tariffs and market premium payments for renewable power production totalled 25.7 billion EUR. The remainder consists of other expenditures associated with Germany's RES expansion. In 2016 over 5.3 billion out of 25.5 billion EUR in RES support were paid to onshore wind power producers, compared to 10.5 billion to solar power producers and 6.7 billion to bioenergy producers. RES based electricity is also supported via public budgets, e.g. for R&D. In 2016, the Ministry for Economic Affairs had destined 86.24 million EUR to finance 93 new projects within the area of wind power.	The Ministry for Economic Affairs and Energy, which is responsible for the energy transition with five other ministries and all the federal states, provides detailed information about the public support of renewable energy through its website. The annual report on renewable energy sources development includes general information about support levels, renewable energy sources investments, value creation and employment effects and related information. The government publishes regular monitoring reports about the process of the <i>Energiewende</i> including financial support schemes. These reports are accompanied by reports by an independent expert commission. The four transmission system operators (TSO) provide regular information about support schemes. Further information about the financial support and the expansion of wind energy can be found in the classical media such as Internet, TV, radio and the press, but increasingly also via social media.
<b>Italy</b>	There is a complex national support scheme, with several incentive mechanisms. Costs are covered by a surcharge included in the electricity tariff to be paid by the electricity customers...	The sum paid for incentivizing electric renewable energy, - excluding biomass, biogas and biofuels,- from 2014 to 2017 is 64 billion EUR.	Specific methods meant to inform citizens are not provided. GSE, the national energy sector operator, provides annual reports on RES support schemes - by typology and source - freely available on its website.
<b>Latvia</b>	Feed-in tariffs for existing projects; presently no financial support available for newcomers.	Total sum paid above market price from 2014 to 2018 is 31.8 million EUR.	Detailed information about feed-in-tariff payments are available since 2011 on the website of the Ministry for Economics, at the level of individual wind parks. More general information on GHG emissions reduction possibilities are given by the programmes and projects supported by the Latvian Environmental Protection Fund.
<b>Norway</b>	Renewable energy certificate system that will be phased out in 2021.	It is a market based system, where the price goes up and down.	Information on the website of the competent authority.
<b>Poland</b>	Auctions; Green Certificates (for installations in operation before the first half of 2016).	Support is being provided in form of auctions and still existing; for older facilities, support is provided	None.

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		through a green certificates scheme	
<b>Spain</b>	Auctions are the new way to promote the use of renewable energy in the electricity sector, after the reduction, due to the financial crisis, of feed-in tariffs and feed - in premiums (late 1990ies - today)	Total sum paid from 2014 to 2018 is 6,710 million EUR.	There are no methods to inform citizens on the purposes of the financial support.

## **4. Policies and measures to support the financial participation of citizens/communities and other community benefits**

### **4.1 Methodology and data collection**

Besides effective procedural participation, financial participation of citizens and the provision of community benefits have been identified as promising means to promote community acceptance.

Therefore, the project partners were asked to provide information about measures promoting active and passive financial participation of citizens and communities as well as other provision of community benefits in the frame of the support schemes. Community ownership and community-led bottom up novel initiatives have also been investigated. In particular, the following issues have been assessed by help of the template:

- The extent to which key support schemes for wind energy like e.g. feed in tariffs or auctioning systems consider or promote citizen/community based wind energy and active participation of local citizens;
- The extent to which key support schemes for wind energy consider or promote passive financial participation of citizens and communities or financial compensations/other community benefits;
- Other policies and measures providing for the active or passive financial participation of citizens and local communities in wind energy or for financial compensations/other community benefits;
- Voluntary agreements between public actors and the wind energy industry;
- Labelling initiatives;
- Voluntary self-commitments by the wind industry;
- Community ownership and community-led bottom up initiatives.

### **4.2 Promoting active financial participation for wind energy**

#### **Examples from WinWind countries**

This section analyses to which extent support schemes for wind energy like e.g. feed in tariffs, auctioning systems, fiscal incentives or tax exemption etc. consider or promote citizen/community based wind energy and active financial participation of local citizens.

The revised Renewable Energy Directive (EU 2018/2001) requires Member states to take the specificities of renewable energy communities into account when they are developing support

schemes for renewable energy sources. Tenders can be modified to foster a diversity of actors and community-driven renewable energy projects through the use of corresponding tendering design options. Several member states started to integrate provisions and privileges for renewable energy communities and community led approaches in their auction systems.

However, we could only identify such measures for Germany and Poland WinWind countries.

In **Germany**, the Renewable Energy Source Act (EEG), which took effect in 2017, includes special provisions and privileges for citizen based wind energy projects. Their rationale is to compensate for structural disadvantages that community based initiatives face in the new auctioning system compared to commercial or professional project developers and institutional investors. For instance, community led initiatives including RES cooperatives usually lack large portfolios with several farms to disperse risks. Several federal states in Germany provide complementary support to renewable energy communities (e.g. financial support, capacity building, networking etc.). In 2018, the government of the state of Schleswig-Holstein introduced a revolving fund providing seed money for citizen/community energy projects to pre-finance their upfront costs.

In **Poland**, the Renewable Energy Sources Act “RES Act” (July 2016) introduced the so called Energy Clusters. Energy clusters are defined as civil law agreements, which may involve natural persons, legal persons, scientific units, research institutes, and local-government units, which aim at becoming energy efficient regions through a more effective use of local renewable energy sources. These energy clusters are entitled to participate in separate energy auctions and have access to additional government support subsidies. The energy clusters, certified by Ministry of Energy, may benefit from financial national funding provided by the National Fund for Environmental Protection and Water Management (NFOSiGW).

## Examples from other European countries

In **Belgium**, local authorities can tender out the development of renewable energy projects on publicly owned land. In doing this, they often integrate policy or development objectives, including citizen involvement's and public acceptance. The tendering criteria may be basis on points, or specific criteria that the authority will take into account when assessing the bids.

Amel and Bulingen are two municipalities in the German speaking region of Belgium that decided to start up a large wind farm on municipal property. 60% of the project will be public and owned by the municipalities (30% Amel and 30% Bulingen). The remaining 40% will be privately owned by two local energy cooperatives: 27% will be owned by Courant d’Air, and 13% by Ecopower. A Special Purpose Vehicle (SPV) will be put in place to accommodate this Public Civic Partnership<sup>16</sup>.

The support regime for renewable electricity in **Greece** is currently amended. In January 2018, a new law on energy communities was voted in the Greek Parliament, which defines the role of

<sup>16</sup> Friends of the Earth Europe et al., 2018

citizens in the energy sector, and gives wide scope for energy communities. The law encourages citizens, local authorities and private and public agencies to participate in the production, distribution and supply of energy; essentially, it gives electricity consumers a possibility to become electricity producers. Larissa, Thessaloniki and some municipalities in Athens are already preparing to use virtual net metering and to develop plans that would provide free solar energy to households suffering energy poverty. Although still in its early stages, with the broad definition of energy community and the possibility of virtual metering, the new law has the possibility of completely revolutionizing the ability of energy communities to form and operate in Greece<sup>17</sup>.

Currently, community-owned renewable energy in **Ireland** is a small, but rapidly growing industry. Compared to Germany and Denmark, there is currently a limited number of community energy projects in operation due to significant barriers as lack of a national strategy for it. However, in recent years with Ireland's National Energy White Paper (December 2015) and National Mitigation Plan (June 2017) the role of citizens and communities has been emphasised in meeting targets for a low carbon future. Community ownership of, community participation in and community benefits from renewable electricity projects are a cornerstone of the new Renewable Electricity Support Scheme (RESS). The High Level Design of the RESS scheme was approved by the Government in July 2018. It envisages to put in place specific community policies and support measures, including:

- Financial support for community-led projects including the delivery of key capacity building measures,
- A mandatory community benefit fund and register
- Mandatory investment opportunities for communities and citizens
- A separate community category in the RESS auction process (up to 10% capacity)<sup>18</sup>.

Throughout 2018, the Dutch government has been holding dialogues with stakeholders across the country in order to agree on goals for a Climate Agreement for **the Netherlands**, including the value of local and community ownership of renewable energy projects. The final agreement contains a non-binding objective stating that all new wind and solar projects should be 50% owned by the local community. The objective will serve as a basis for municipal planning of renewable energy development and feed into the planning permission process. This will guarantee that developers, when seeking permission for new projects, talk with community to understand how they want to be involved. The control over and revenues from renewable energy projects where citizens, farmers and local entrepreneurs can attain ownership, benefit directly the local community<sup>19</sup>.

<sup>17</sup> <https://www.rescoop.eu/blog/energy-communities-in-greece-new-legislation>

<sup>18</sup> Government of Ireland, 2018

<sup>19</sup> <https://www.rescoop.eu/blog/dutch-climate-agreement>

As underlined in the draft National Energy Climate Plan (NECP), the government of the **Netherlands** has introduced a fiscal incentive scheme for energy cooperatives that stimulates regional renewable energy communities (energy cooperatives). Members of such cooperatives within the first energy tax bracket are no longer required to pay tax on the percentage of the jointly produced renewable electricity attributed to them. At present, the government is also examining whether this scheme can be integrated into the subsidy for feeding back energy in the future. In addition, the government is examining whether a development facility can be set up that allows energy cooperatives to fund development costs<sup>20</sup>.

In **Scotland**, the Government is committed to developing at least 500 MW of community and locally-owned renewable energy by 2020. This non-binding objective has served as the basis for a number of supportive policies and financial measures that have been put in place. Seeing that they would surpass their target early, the Government updated the target to 1 GW of community and locally-owned renewable energy by 2020, and 2 GW by 2030. Furthermore, at least half of all newly-approved renewable energy projects will need to have some element of shared ownership with the local community<sup>21</sup>.

#### 4.3 Promoting passive financial participation for wind energy

This section analyses to which extent support schemes provide for passive/indirect financial participation of citizens and communities or provide for other community benefits. However, with the exception of Germany we could not find any examples from the other WinWind countries.

In **Germany**, a parliamentary working group has been set up in 2018 by the two parties represented in the federal government to develop proposals for complementary measures to increase acceptance of onshore wind, including measures promoting the active and passive financial participation of municipalities and citizens in wind energy developments and corresponding benefit sharing. Based on the findings, by autumn 2019 the federal government plans to take concrete decisions. Several proposals have been developed by different policy and market actors, which are currently under discussion, including a nationwide special levy for new wind farms to be paid to municipalities hosting the wind farms, which might be introduced under the Renewable Energy Sources Act.

<sup>20</sup> Friends of the Earth Europe et al., 2019

<sup>21</sup> <https://bit.ly/2T0ZW3r>

#### 4.4 Other policies and measures promoting financial participation or providing compensations/other community benefits

In **Germany**, local business taxes (*Gewerbesteuer*) are charged for profits from the operation of wind turbines, which means that wind farms can provide a stable source of revenue for local governments. On January 1, 2009, the federal government amended its local business tax law. Regarding the allocation of business tax revenues from wind energy projects, at least 70 % of the tax revenues is transferred to the local community where the wind project is sited, with the remaining 30 % paid to the municipality where the operating company has its headquarters. In addition, local communities can apply to retain up to 100 % of the tax. This means that in the case of community-owned or community led wind farms, usually 100 % of the business tax remains within that community.

A parliamentary working group has been set up in 2018 by the two parties represented in the federal government to develop proposals for complementary measures to increase acceptance of onshore wind, including measures promoting the active and passive financial participation of municipalities and citizens in wind energy developments and corresponding benefit sharing mechanisms.

In June 2019 the left wing government of the **federal state of Brandenburg** together with the Christian Democratic Union (CDU), one of the opposition parties in the state parliament, adopted a new law which obliges operators of wind farms to pay a special levy of 10,000 EUR annually to municipalities in a three-kilometre radius of new turbines. The levy will only apply to new plants. The municipalities must use the funds accruing from the special levy for measures in their municipalities to increase the acceptance of wind turbines.

In **Mecklenburg-Western Pomerania**, the Citizens' and Municipalities' Participation Act (*Bürger- und Gemeindenbeteiligungsgesetz*) entered into force in May 2016. The law obliges project developers to set up a limited liability company for new wind farms and to offer shares of at least 20 percent of this company to citizens and municipalities within a radius of five kilometres of their turbines. One share may cost a maximum of 500 EUR. Alternatively, the developers can offer the municipalities compensation payments. Project developers may also opt to offer citizens a savings product instead of shares. Developers can also offer special electricity tariffs for the region concerned. The Act is currently under review by the Federal Constitutional Court (*Bundesverfassungsgericht, BverfG*). Many developers in Germany provide possibilities for active or passive financial participation of citizens on a voluntary basis.

In contrast to Brandenburg and Mecklenburg-Western Pomerania, the federal state government of **Thuringia** so far preferred a voluntary approach. It has established a *Wind Energy Service Unit* under the state's *Energy and GreenTech Agency* (ThEGA) (cf. corresponding Best Practice case study). The establishment was motivated by the political will to increase trust in wind energy projects by promoting fair and more transparent planning and decision-making procedures. The Service Unit in Thuringia provides free, comprehensive and neutral advisory and technical assistance services for citizens, municipalities and developers. The unit seeks to increase

procedural and distributive fairness and promotes benefit sharing mechanisms and local added value creation. The unit also developed the label for fair wind energy, which includes procedural participation and active/passive financial participation and benefit-sharing mechanisms (see below).

In addition, in **Germany**, there are many examples of commercial developers and community energy initiatives providing financial benefits to the local communities via active or passive financial participation of citizens. Besides active financial participation of citizens and communities as shareholders or lenders there are manifold passive financial participation forms (e.g. land lease pooling models, donations, payments to special purpose community foundations, trusts or non-profit associations, special electricity tariffs, in-kind benefits etc.). The WinWind Best Practice case study describes several of these mechanisms.

In **Norway**, municipalities may choose to introduce property tax. Municipalities that introduce this tax will benefit from wind power plants (e.g. in Fosen the municipalities will receive a 0,7% property tax from wind power installations, which is equal to 0.7% of estimated value of a new installation minus depreciations).

In **Poland**, wind turbine operators have to pay local real estate taxes. The Real Estate Tax (RET) is a local tax regulated in the Act on Local Taxes and Fees. In principle, RET is a tax payable by an owner of land or a structure to the municipality in which the land or structure is placed. The tax rate is determined by the council of each municipality independently, but in any case it may not exceed the maximum values determined in the Act on Local Taxes and Fees. In practice, a significant majority of municipalities choose RET rates equal to the maximum amount allowed under the Act on Local Taxes and Fees. The highest rate of RET applicable to a structure is 2% calculated on the value of a structure determined for income tax depreciation purposes. The tax amount is determined for the full calendar year, but is payable monthly in equal parts. Therefore, property tax on wind turbines for many municipalities provides a significant share of income.

In **Spain**, several regions and municipalities (e.g. Galicia) have established special taxes for wind (so called "canon eólico") with the purpose of taxing negative externalities associated with the installation of wind farms. In Galicia, the tax revenues feed a special fund (ECF), which distributes a significant part of its income to the municipalities affected by wind farms. The revenues shall be used to implement actions related to production, employment generation, biodiversity conservation and the sustainable use of renewable energies.

In **Italy**, the hosting municipalities were allowed to make agreements with the wind companies and received production-based royalties. The situation has changed since the Ministerial Decree of September 9, 2010 had been adopted. The decree expresses very clearly that compensatory measures are not due in favour of the municipalities merely for the fact that they are hosting the RES-production activity. In fact, differently from water, wind as well as solar energy is not regarded as a local resource and therefore compensation for its exploitation is not provided. Compensatory measures are allowed only if the requirements linked to the implementation of the national energy strategy require high territorial concentrations of activities or the installation of

high impact facilities and infrastructure. In addition, they cannot consist of pure monetary reimbursements and must be directly correlated to the impacts to be compensated, to energy efficiency interventions, to the diffusion of installations of renewable energy sources or to raise awareness of citizenship on the aforementioned themes. The effect on local acceptance of this new regulatory regime has still to be evaluated<sup>22</sup>.

But here are voluntary self-commitments by the wind industry referring to the procedural or financial participation of citizens and communities or to the provision of other community benefits. The extension of a wind farm in Sardinia by ENEL Greenpower in “Sa Turrina Manna” Tula can be regarded as an illustrative case (cf. corresponding *Best Practice case study Tax Cuts and Landscape Commitments in Sardinia*).

In **Latvia** no dedicated policies or regulations were identified. There are very few voluntary self-commitments by individual developers referring to the procedural or financial participation of citizens and communities or to the provision of other community benefits. One example relates to a large-scale wind park presently planned in the municipalities of Dobeles and Tukums. The initiators of this wind farm showed their willingness to provide financial contributions to a community fund.

## 5. Voluntary agreements/self-commitments and labelling initiatives

### 5.1 Voluntary agreements between public actors and the wind industry

#### Germany

There are numerous examples for individual voluntary agreements between municipalities, which host wind parks and individual developers, e.g. regarding active and passive financial participation of citizens and local communities including the provision of community benefits.

On a sectoral scale, there have been only punctual voluntary agreements between public actors and the wind industry. In May 2016, the regional branch of the German wind energy association in Brandenburg and the Ministry of Economy and Energy of the federal state of Brandenburg concluded an *Agreement referring to “better information and transparency in the development of wind energy (Vereinbarung zur besseren Information und Transparenz beim Ausbau der Windenergie)*. In the agreement, the wind industry committed itself to adhere to a minimum setback distance of 1,000 m to residential areas, where no respective spatial planning regulations are in place. The industry also is committed to exempt beech and oak forests from wind energy developments, provided that wind energy developments in forest is not generally prohibited. Furthermore, the industry promised, prior to issuance of a building permit, to actively inform citizens about proposed wind energy projects. In design, construction and operation of the facilities, regional companies should benefit and keep the value added locally. However,

<sup>22</sup> Cavicchioli, Chr. & Garofalo, E, 2015

there is no information publicly available about the implementation of this agreement.

In 2011/2012, the administrative district of Steinfurt in the federal state of North Rhine Westphalia developed guidelines for citizen/community wind energy containing certain minimum criteria project developers were recommended to comply with. For instance, at least 25 % of equity capital should be in the hands of individual citizens. The district also established a service unit for wind energy providing advisory services to municipalities, communities and citizens (cf. the good practice portrait developed in the frame of the WinWind project). In the district of Steinfurt usually all developers comply to these criteria and there is almost no opposition against the development of wind energy. The quality label for fair wind energy developers in Thuringia (see below) and the service unit of wind energy in Thuringia have been clearly inspired by the guidelines for community wind farms and the service unit in the district of Steinfurt.

### **Norway**

There are voluntary agreements between the municipalities, which host wind parks and the developers. The intention of such contracts is to regulate the relationship between these two partners. The contracts include information about mitigating and compensatory measures. Such agreements are voluntary as the developer is not required by law to sign such a contract with the municipalities, but it is considered wise to have a good relationship with the local authorities, as they are important consultative bodies during the process of permit. In addition, there are general economic effects from construction work, as the plans are typically large. Several examples can be found in the WinWind good/best practice portfolio and the synthesis report on best practices (e.g. WinWind Best Practice case study *Innovation house Birkenes*).

### **Italy**

There are several examples for voluntary agreements between developers and host municipalities on an individual project level. On the sector/industry level, an agreement between public and private entities (*Carta del rinnovamento eolico sostenibile - Charter of Sustainable Wind Power Renewal*) has been signed in 2015 by the main Environmental Association (*Legambiente*), wind developers (*e2ienergie speciali*, *Enel Green Power*, *ERG Renew*, *Falck Renewables*, *IVPC- Power Vento Power Corporation*) and the National Association of Italian Communities (ANCI). The Charter lays down the operational rules, application criteria, operational requirements, standards, procedures and best practices to make wind farm repowering more sustainable, i.e. in compliance with natural and social eco-systems, thus guaranteeing a greater "green" production capacity with lower environmental impact and enhancing the areas and municipalities where wind farms are located. The Charter shall help to ensure effectiveness and transparency in the wind farm repowering process.

In operational terms, implementing the "Charter" means defining a regulatory framework to:

- Simplify the procedures for the authorisation of "renewal" interventions in the sites where the wind power vocation is higher, in line with the landscape protection criteria;
- Integrate the projects with the initiatives to expand the electrical networks;
- Increase the production of "green kilowatt hours" in a satisfactory and sustainable way,

for both the operators and the community (cf. <https://www.erg.eu/en/sustainability/our-stakeholders/wind-power-renewal-charter>).

Repowering in the region of Abruzzo (cf. corresponding WinWind Best Practice case study *Wind Farm Repowering in Abruzzo*) has been implemented in the framework of the Charter.

## 5.2 Voluntary self-commitments by the wind industry

There are numerous examples from the countries represented in the WinWind project and from other countries where individual commercial developers have voluntarily committed themselves to provide opportunities for active or passive financial participation of local communities, providing community benefits, or to comply with certain self-defined minimum standards regarding transparency of information and communication as well as engagement and financial participation.

With regards to the sectoral resp. industry level, in several countries the wind industry represented by national or regional industry associations has committed itself to adhere to certain social and/or social responsibility standards enhancing engagement and transparency between wind farm promoters and communities via codes of conduct (e.g. Finland<sup>23</sup>, Sweden<sup>24</sup>, The Netherlands<sup>25</sup>) or codes of practices (e.g. Ireland<sup>26</sup>).

## 5.3 Labelling initiatives

Labels are applied to projects, services, products and enterprises in order to inform consumers of their environmental and social performance. The use of environmental and social labels can be either voluntarily adopted or mandated by law. Some green electricity labels integrate ecological and social criteria for environmentally sound and socially fair renewable energy, including wind energy, that complement or exceed requirements contained in national or regional legislation.

Moreover, because of criticism at local or regional level due to the adverse impact that the rapid deployment of the wind energy can have on the landscape, fauna and flora including protected areas, some labels have been developed based on principles and criteria for fair and sustainable wind energy complementing national or regional legislation. In some countries like Germany, there have emerged state-led or industry-led labels, which certify the compliance of wind energy

<sup>23</sup> <https://www.tuulivoimayhdistys.fi/en/wind-power-in-finland/information-for-the-developers/project-developers-code-of-conduct>

<sup>24</sup> <http://www.naturvardsverket.se/Documents/publikationer6400/978-91-620-6545-4.pdf>

<sup>25</sup> The Dutch Code of Conduct regarding onshore wind energy acceptance and participation was signed in September 2014 by the Netherlands Wind Energy Association (NWEA), the Nature and Environment Federations Foundation, the Foundation for Nature Conservation and Environmental Protection and Greenpeace Nederland (cf. [http://www.wwindea.org/wp-content/uploads/2018/06/the\\_netherlands\\_full.pdf](http://www.wwindea.org/wp-content/uploads/2018/06/the_netherlands_full.pdf))

<sup>26</sup> In fact, the Code of Practice has been developed by the Department of Communications, Climate Action & Environment and has therefore more the character of a voluntary agreement (cf.

<https://www.dccae.gov.ie/documents/Code%20of%20Practice%20community%20engagement.pdf>)

planners and developers with pre-defined principles and criteria for fair wind energy development (including provisions ensuring procedural fairness, distributional fairness).

### 5.2.1 Green electricity labels

#### International labels

The production and consumption of renewable electricity is documented and tracked via Guarantees of Origin (GO) in Europe, renewable energy certificates (RECs) in North America and International RECs (I-RECs) in a number of countries in Asia, Latin America and Africa. These are referred to as renewable energy attribute certificates. RECs, GOs and I-RECs are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable source. They can be bought and sold on various markets. Renewable energy attribute certificates can be purchased locally (from an issuer operating on the same grid as the buyer) or from non-local or national sources (the issuer operates on a grid located elsewhere in the country). They are most often unbundled (sold on their own without the energy they represent), but can also be bundled (sold together with the renewably-produced energy in a single transaction). In the latter case, the electricity purchased is often sold under green electricity tariffs, whereby the electricity supplier purchases the energy and certificate together and retires the certificate on behalf of its customer<sup>27</sup>.

EKOenergy is an international ecolabel for electricity. Buying Energy Attribute Certificates (EACs) with this ecolabel guarantees that the renewable energy fulfils strict environmental criteria and the ecolabel raises funds for new renewable energy projects in developing countries. The ecolabel is a not-for-profit initiative of the EKOenergy Network, a group of more than 40 environmental organisations from more than 30 countries. For each MWh of EKOenergy-labelled energy sold, a minimum of 0.10 € goes to a Climate Fund. With these contributions the group finances new renewable energy projects (mainly solar energy projects) supporting sustainability and alleviating energy poverty. Specific criteria which apply to wind energy include the following:

- Installations located in the following areas are only acceptable if the EKOenergy Board approves them, after consultation of relevant stakeholders: a) Nature reserves designated by the authorities b) Natura 2000 areas c) Important Bird Areas d) UNESCO World Heritage Sites;



- The areas listed above only apply in as far as they are shown on the map at [www.ekoenergy.org](http://www.ekoenergy.org);
- Decisions must be reasoned, respect the legislation in force at the place of production and take into account the conservation objectives of these areas. Decisions will be public<sup>28</sup>.

<sup>27</sup> cf. [https://www.goldstandard.org/sites/default/files/documents/gs\\_recs\\_position\\_paper.pdf](https://www.goldstandard.org/sites/default/files/documents/gs_recs_position_paper.pdf)

<sup>28</sup> cf. <https://www.ekoenergy.org/wp-content/uploads/2013/06/EKOenergy-text-english.pdf>

## Gold Standard Renewable Energy Label

Widely known as the most rigorous certification standard available for climate protection projects, Gold Standard provides strict requirements to certify that projects are developed in collaboration with local communities, safeguard against risks and deliver long-term, sustainable reductions in emissions. Under Gold Standard for the Global Goals, a new standard launching later this year, all certified climate initiatives must contribute to sustainable development through demonstrating verified impacts towards the United Nations Sustainable Development Goals (SDGs). This helps to ensure the projects are designed to benefit local communities and biodiversity as well as the environment. Gold Standard was established in 2003 by WWF and other international NGOs to ensure projects that reduced carbon emissions featured the highest levels of environmental integrity and contributed to sustainable development. With the adoption of the Paris Climate Agreement and the Sustainable Development Goals, the initiators launched a best practice standard for climate and sustainable development interventions, the Gold Standard for the Global Goals, to maximise impact, creating value for people and the planet. A Gold Standard Renewable Energy Label is a quality attribute for renewable electricity market instruments, which are also referred to as renewable energy certificates (RECs), renewable energy credits, or other names depending on the market. These market instruments are tradable, non-tangible energy commodities that represent proof that 1MWh of electricity was generated from an eligible RES and was fed into the shared system of power lines, which transport energy.

## Germany

### Ok power

OK power is a German ecolabel promoting energy from new power plants and is based on renewable energy documented with *Guarantees of Origin*. OK POWER is managed by the non-profit association EnergieVision e.V. Buying Guarantees of Origin with this ecolabel guarantees that the renewable energy product adheres to the ecolabel's requirements. The label is awarded to green electricity products that meet all criteria for ok-power certification. These include, inter alia:

1. 100% of the electricity comes from RES including hydropower, biomass, photovoltaics, wind power, geothermal energy, sewage gas (special environmental criteria apply to individual types of generation)
2. Contribution to accelerating energy system transformation and integrating RES into the supply system - in addition to state support (different requirements depending on certification criterion)
3. No participation by the green electricity provider in nuclear power plants, lignite-fired power plants and new hard coal-fired power plants
4. Fair and transparent contractual conditions, e.g. no prepayment or minimum purchase requirements.

The label is based on mandatory criteria to be fulfilled by all eco electricity products resp. the eco electricity providers and elective criteria. Electricity from offshore and onshore wind farms in national parks and other designated protected areas is not permitted. The elective criteria shall ensure that the eco electricity provider makes a contribution to the energy transition. Here, the



label recognizes, inter alia, financial participation offers to private individuals (citizen energy). However, the provider must proof the participation of private individuals or the non-existent participation of other third parties. More information can be found at <https://www.ecohz.com/renewable-energy-solutions/eco-labels/ok-power/>

### **Label *Grüner Strom***

The label *Grüner Strom* (Green Electricity) is granted for electricity 100 % sourced from renewable energy. The label is granted by the association *Grüner Strom Label e.V.* ("GSL"). GSL's supporters are seven non-profit organizations, including environmental NGOs, and consumer information groups. The label certifies electricity products delivered to customers entirely produced from renewable energy and for which a fixed amount per kilowatt-hour (kWh) is invested in the ecologically sustainable development of renewable energy. An independent party verifies compliance on a regular basis.

A key feature is that the respective electricity providers, electric utilities and power supply companies invest a fixed amount per kilowatt-hour in new renewable electricity generation plants. This amount is invested according to green electricity criteria. For every kWh of certified green electricity consumed, a fixed subsidy amount flows into energy transition projects, which the energy provider usually implements itself. More than 1,300 projects have already been implemented, mostly renewable energy systems such as solar plants or wind turbines. In the meantime, however, more and more projects are being implemented in the areas of e-mobility, storage/control and energy efficiency. Facilities may also receive funding to comply with site-specific regulatory nature conservation requirements and/or for voluntary nature conservation measures going beyond legally defined minimum requirements.

The promotion of projects has a special focus on citizen participation and stakeholder diversity, e.g. foundation of citizen energy cooperatives, regional operator models, or citizen dialogues which helps to promote genuine participation in the energy transition and to strengthen community acceptance. The label is not granted to companies directly involved in nuclear power plants, i.e. operators of nuclear companies or companies with ownership interests/capital stock in nuclear operating companies. Moreover, the label is not granted to companies directly involved in existing or new coal-fired power plants, i.e. operators of coal-fired power plants or companies with ownership interests/capital stock in coal-fired power plants.

Certification of an electricity product takes also into account criteria related to corporate social responsibility and sustainability policies. Providers have to actively advocate energy supplied ecologically from RES and energy efficient practices in their companies and to their customers. Providers shall conduct business in a responsible and environmentally sustainable manner and advance the energy transition at the local and regional levels. They also shall show fair treatment towards their customers and act responsibly towards their employees. More information can be found at <https://www.gruenerstromlabel.de/>

## Sweden

### Bra Miljoval

<https://www.ecohz.com/renewable-energy-solutions/eco-labels/bra-miljoval/>

The Swedish ecolabel was established in 2002 and is managed by Svenska Naturskyddsföreningen (The Swedish Society for Nature Conservation). The label is based on strict criteria for environmental protection. Buying Guarantees of Origin with this ecolabel guarantees that the renewable energy adheres to the ecolabel's requirements. Criteria for wind power include the following:

- Wind turbines should not be located in (A) areas that are protected by legislation in individual countries or by international convention, (B) areas that are included in national investigations of areas of specific natural significance and which are not included in (A) group areas, (C) important bird and bat habitats as well as valuable forest areas that are not included in (A) and (B) groups areas.
- Responsibility for wind power production should include and follow a written plan for personal control according to the regulation on operator's self-monitoring (or its equivalent in the respective country). The self-monitoring should include a continuous and systematic examination of the risks of the operation from health and environmental standpoints with a particular focus on the disruption to flora and fauna. A plan for self-monitoring should be included in a supplement to the application.
- Additionality in case of wind power. Companies delivering electricity, certified by the given label, must allocate funds equivalent to 500 SEG/GWh for energy efficiency (to a company account or a fund provided by the Swedish Society for Nature Conservation). The fund should be used for measures where the result can be measured in saved electricity. The measures should go beyond what is required by legislation or specified in current permits.

### 5.2.2 Fair wind energy labels

## Germany

### Quality Label for wind energy planners and developers in Thuringia

In 2016, the *Wind Energy Service Unit* of Thuringia (Germany) started to award a quality label for wind energy project developers committing themselves to adhere to certain standards concerning quality, transparency and participation of the local communities. The corresponding criteria/guidelines include:

- Involvement of all interest groups in the vicinity of a planned wind farm during the entire planning phase.
- Transparent handling of project-related information on-site, provision of assistance and informational services.

- Fair participation of all persons affected and residents, including those not directly benefiting as land owners.
- Involvement of regional energy supply companies and financing institutions.
- Development of direct financial participation opportunities for citizens, enterprises and municipalities in Thuringia.

These criteria have been further broken down into more specific requirements. Based on these criteria and requirements, the Service Units concludes individual label contracts with the developers on a voluntary base. Developers are granted the “Fair partner” label for a period of twelve months. To date, 50 project developers have been awarded the label.

### Quality label for wind farm developers in Schleswig Holstein

A quality label and certification scheme “Fair Wind Park Developer” was launched in 2018 addressing project planners and developers active in the federal state of Schleswig-Holstein (Germany). The label was initiated and developed in the frame of a public-private partnership.



The label and the corresponding guidelines for fair wind park developers have been developed by the Wind Energy Technology Institute, Flensburg University of Applied Sciences in co-operation with an expert advisory board. The label is based on an independent certification under private law. To obtain the label, companies must

comply with the guidelines, criteria and requirements for fair wind park developers in Schleswig-Holstein. The inspection/certifying body is SCS Hohmeyer|Partner GmbH in Flensburg, Germany. Thus, a private company is responsible for the certification and the costs for certification are borne by the certified project developers and planners. The guidelines are based on four key criteria:



- Provision of comprehensive information regarding the planning process
- Far reaching participation
- Possibilities for citizens and communities to participate financially
- Increased regional value creation.

These core criteria have been broken down into a set of further requirements. The guidelines and criteria are inspired by the corresponding label/guidelines in Thuringia. However, unlike in Thuringia, public authorities accompany the process, but they do not define the criteria and are not responsible for awarding the label. Another crucial difference is that Schleswig-Holstein did not establish a service unit wind energy which in Thuringia has important functions as a key contact point, information advice and service provider, also (but not exclusively) with regards to the guidelines/quality label for project developers. The certification body in Schleswig-Holstein conducts audits to ensure that developers/planners are adhering to the terms of their voluntary self-commitment. The wind energy project developer WKN AG and its subsidiary WKN WERTEWIND GmbH are the first companies that were awarded the label.

## 6. Assessing Community ownership and community-led bottom up initiatives

### 6.1 Introduction

The clean energy transition in most Member States has to date been led by major investors and large companies (Hall et al., 2016, Kempener et al., 2015), but smaller players as well as citizens and local communities are increasingly playing an active role in delivering clean energy investments. The transition toward decentralised energy systems and progressive liberalization of energy markets has already resulted in a more active role of energy users, which are turning into “prosumers<sup>29</sup>” or co-providers of energy services (IEA-RETD, 2014)

Social acceptance research highlights that renewable energy communities and community ownership of renewable energy projects, particularly wind energy can be a main driver of community acceptance (cf. Jobert et al. 2007, Ruggiero et al., 2014; Warren and McFadyen, 2010; Zoellner et al., 2008; McLaren Loring, 2007; Sonnberger and Ruddat 2017, Liebe et al. 2017; Wirth et al. 2018). Renewable energy communities can contribute to a fair distribution of the benefits from energy investments among citizens, influencing positively local acceptance of renewable energy (Breukers and Wolsink, 2007, McLaren Loring, 2007, Walker et al., 2014). Such evidence is also provided by several Best practice case-studies recently developed in the WinWind project (cf. Report Synthesis & Comparative Analysis of Best Practice Cases Studies for Promoting Social Acceptance of Wind Energy).

Renewable energy community initiatives based on local collaborative solutions will require new organizational structures and mechanisms fostering procedural and financial community participation and engagement. In practice, the organisational structures include different legal forms such as partnerships (including public-private co-ownership with local authorities), co-operatives, community trusts and foundations, limited liability companies, non-profit customer-owned enterprises, housing associations and municipal ownership<sup>30</sup>. The growth of those bottom-up initiatives can be linked to several processes:

- Remunicipalisation – the process of increasing *municipal control* over local energy management;
- Devolution - the process of increasing the strategic role of *local authorities* in energy policy;
- Participative governance – the promotion of *direct democracy and citizens’ influence* on energy and climate changes.

<sup>30</sup> European Committee of the Regions, 2018.

Remunicipalisation and devolution have resulted in *municipal ownership* of energy systems performed through, for example, public utility companies or Public Private Partnerships (PPPs). Participative governance has resulted in a growing number of citizen-led energy initiatives, often taking the forms of *cooperatives*.

There are numerous examples in Europe for renewable energy communities where local communities (co-)own and operate RES facilities including wind turbines. Community ownership of wind farms and other RES facilities has successfully developed in many European countries (e.g. Austria, Belgium, Denmark, France, Ireland, Sweden, UK, The Netherlands), although with different designs and models. In the following section, we provide several illustrative examples of REC both from WinWind target or model regions. Some of the examples, particularly those from the WinWind target and model regions, have been assessed in more detail in the WinWind Good/Best Practice Portfolio (Deliverable 4.2) and in the WinWind Report Synthesis & Comparative Analysis of Best Practice Case Studies for Promoting Social Acceptance of Wind Energy (Deliverable 4.3).

## Examples from WinWind countries

### a) Community ownership in a broader sense

#### Germany

Germany is a frontrunner regarding the development of renewable energy communities. In 2016, 31.5 percent of Germany's total installed renewable energy capacity (without pumped storage) of 100.3 gigawatts (GW) was under the ownership of private individuals, and another 10.5 percent by farmers, bringing citizens' energy ownership in the narrower sense to 42 percent (compared to 46 percent in 2012)<sup>31</sup>. The most common legal form of community energy in the German wind energy sector is that of a limited partnership with a limited liability company as a general partner (German: *GmbH & Co.KG*). Usually, the limited liability company is founded by the initiators of the project, the wind energy developer or sometimes utility, whilst the limited partnership is made up of the local people wanting to invest in wind power. This special legal form allows limiting the financial risks of citizens actively participating in the wind farm as shareholders. The profit from the project is distributed according to the number of shares a stakeholder has purchased. Community ownership of wind farms is very common in the federal state of Schleswig-Holstein in the north of Germany, but also in several other federal states (e.g. North Rhine-Westphalia). Community ownership of wind farms is less developed in the Eastern federal states (former GDR) due to historical and socio-economic reasons, but also due to different land ownership structures.

There are numerous examples of community wind farms in **Schleswig-Holstein, one of the**

**WinWind model regions.** Three community wind farms located in the administrative districts of Northern Friesland (*Ellhöft, Grenzland Vindtved*) and Dithmarschen (*Neuenkirchen*) have been described in the WinWind Best Practice case study *Community Wind Farms in Schleswig Holstein*. Both districts can be regarded as pioneering regions in Germany regarding the deployment of wind energy. The wind farms contribute towards raising local purchasing power and local added value through the generation of local profits and income, tax revenues, employment and additional benefit sharing mechanisms.

## b) Co-operatives models

### Italy

A cooperative energy initiative, *Enostra* was founded in 2014 as Italy's first non-profit and democratic supplier of renewable energy in Italy. The cooperative, which started delivering renewable energy to its now over 700 members in early 2016, places a high priority on sustainability when selecting renewable energy projects to include in its energy mix by ensuring that each is first rated on the basis of a special created sustainability matrix<sup>32</sup>. *Cooperativa Retenergie* is a cooperative whose purpose is to produce energy from renewable sources for its members in any part of Italy. The initiative plans to build a network of self-financing to make citizens aware actors in the world of power generation, stressing the ethical and environmental aspects, and creating a model of energy democracy. Retenergie has more than 900 shareholders.

### Spain

Som Energia (cf. corresponding *WinWind Best Practice case study Som Energia Energy Cooperative*) is the first and now largest energy cooperative in Spain. Cooperatives are commonly guided by the principles of self-help, self-responsibility, democracy, equality, equity and solidarity. In the context of energy, unlike investor-owned utilities, an energy cooperative is an enterprise run by and for the benefit of their members. Thus, members are able to participate directly in the energy transition. Som Energia is involved in the marketing and consumption of sustainable energies: it provides a 100% guarantee that the energy that members purchase comes from renewable energy production facilities. Such energy transparency had not previously existed in Spain. Additionally, Som Energia has in recent years begun to play a significant role in encouraging and facilitating its members to invest in sustainable energy production facilities. Currently, wind energy accounts for 47% of the total energy used by Som Energia members.

<sup>32</sup> <https://citizenenergy.eu/post/enostra-and-invesdor-two-new-additions-citizenenergy-family> and <https://www.enostra.it/>

## 6.2 Interim findings and conclusions

Bottom up initiatives in the sense of community owned energy are not a new phenomenon and have developed since the late 19<sup>th</sup>, early 20<sup>th</sup> century in several European countries. However, it is from the 2000s that they began emerging as new paradigms of citizen engagement in the energy transition, facilitated and driven by the last decade's energy system liberalization and transition toward more decentralised energy systems (REN 21, 2016).

Currently, the degree of deployment of these bottom up initiatives still varies considerably, with community energy strongly spread in the North European countries, particularly in countries such as Denmark, Germany, and far less developed in Southern and Eastern Europe.

Several tools have been implemented to facilitate the creation of energy communities.

National and regional governments are increasingly developing support schemes and enabling frameworks for community energy. Examples from Germany and Poland have been provided above. In Poland, energy clusters provide a practical framework to expand the cooperation between different stakeholders at the municipal level (see sub-chapter 4.2).

Other instruments adopted at national level are: tax exemptions (United Kingdom and Denmark); privileged access to seed money or loans deriving from specific government funds (Germany and Scotland); energy planning that limits the ownership of the renewable plants (or at least a portion of them) to local actors (Denmark); differentiated incentives for community projects (in the United Kingdom this mechanism is provided for within the Energy Account, while in Germany in auctions; the experience of Greece in the promotion of Virtual net metering in local communities, with the involvement of municipalities, in the fight against energy poverty.

Particularly, the energy co-operative models contribute to a more democratic energy system and social economic development by creating employment and benefits at local level. Nevertheless, their success also depends on the regulatory framework that governs their operations and particularly their access to the energy system<sup>33</sup>.

The new Clean Energy Package, agreed by the EU institutions in 2018 and 2019, starting with the revised Renewable Energy Directive (REDII), provides a unique opportunity for citizens to advocate for a high-level target for self-consumption, or for energy community ownership. However, a brief assessment of the draft NECPs delivered by those Member states represented in the WinWind consortium (Germany, Italy, Latvia, Poland and Spain)<sup>34</sup> revealed that political commitment to match the requirements was modest at best and there is still much room for improvements. So far, none of the countries did formulate any specific quantitative target for the development of renewable energy communities (REC). The draft NECPs of Italy, Poland and

<sup>34</sup> The assessment has been prepared in the context of a policy roundtable organized by the WinWind consortium in Brussels on June 17 2019. Its results will also flow into a corresponding input paper targeting policy makers and other stakeholders at European level.

Spain acknowledges the role of RECs, but remain rather vague regarding the proposed policies and measures to be developed. Germany, so far one of the pioneers regarding the development of RECs in Europe, completely omitted the role of REC in its draft NECP and Latvia only briefly mentions its intent to establish a framework for REC.

## 7. General conclusions

The purpose of this document is to comparatively screen and assess regulatory and policy instruments addressing selected technical and non-technical issues, which are relevant for community acceptance. The report builds upon, consolidates and extends the work undertaken in Work Package 2 of the WinWind project, particularly the literature review and the taxonomy of acceptance barriers and drivers. The analysis is part of Work Package 6 (Policy Lessons and Guiding Principles and Criteria for Fair and Acceptable Wind Energy) and provides the basis for WP6' further work. Particularly, it introduces a number of items, which serve as starting points for the Guiding Principles and Criteria for Fair and Acceptable Wind Energy.

The focus of the report is mainly on the countries represented in the WinWind project: Germany, Italy, Latvia, Norway, Poland and Spain. Several chapters include examples from other countries as well.

The report provides comparative assessments of:

- 1) Some key technical requirements for wind power plants (e.g. minimum setback distances from residential areas, protected areas, etc.);
- 2) Formal and informal procedural public involvement measures, particularly related to spatial planning, authorization procedures and financial support schemes;
- 3) Policies and measures promoting the active and passive financial participation of citizens/communities or providing other community benefits;
- 4) Existing voluntary agreements/self-commitments and labelling initiatives;
- 5) Community ownership and community-led bottom up initiatives.

This analysis is mainly based on the information collected through a dedicated template, which was completed by the project partners for each WinWind country/target region. Data collection was complemented by selective desktop research.

Firstly, it is important to pinpoint that comparisons between countries are rather difficult due to the high complexity of the issues analyzed and the specificity of the solutions for the many different contexts. On the other hand, almost all WinWind countries have key issues in common, which means that good or bad practices can be shared or re-used to improve domestic regulatory frameworks and favour community acceptance of wind energy.

Below we summarize a number of key findings of the analysis:

- There is a large diversity of technical requirements including minimum setback distances across the countries analysed. Concerning residential areas, setbacks are either based on a fixed distance (e.g. Latvia: 1,000 m for single turbines or 2,000 m for wind parks) or a distance relative to the turbine height which varies significantly between countries (e.g. Italy: 6 times and Poland: 10 times). In some cases, setback distances are recommended, for instance as a function of acceptable noise levels (Norway: 700-900 m and Spain: 500m).
- Regulations adopted differ in type (national vs. regional and / or prescriptive /discretionary).
- There is a need of effective and institutionally regulated public engagement measures, which can positively affect both processes and relationship between citizens and institutions.
- Out of the six countries analysed in depth, zoning of wind energy, i.e. the designation of suitable areas for wind energy in spatial planning is only performed in Germany, Poland and Norway. In Italy, Latvia and Spain siting plans do not exist. Siting plans may be national, regional or local.
- In Germany, Italy, Spain and Latvia, formal public consultation within the authorization process is performed only as a part of the EIA procedures. There are different thresholds, in terms of number and capacity of wind turbines, determining when an EIA and consequently public consultation is mandatory. Arrangements for informing and consulting the public concerned vary among countries.
- In some countries, the public has to be informed about a project rather early, i.e. in the pre-application stage (Norway). In other countries, like Germany, no mandatory public information/consultation is envisaged in the pre-application stage (before submitting the application documents by the project developer).
- In all countries analysed there are examples where individual project developers provide opportunities for active and/or passive financial participation or other community benefits, on a voluntary basis.
- In most countries, policies and measures promoting passive financial participation of citizens and local communities are applied. These mostly include taxation schemes and special levies to be paid by the developers.
- Renewable energy communities are increasingly growing in importance in most of the analysed countries. However, in the area of wind energy their role is still very limited except for Germany.
- Political commitment to support REC is rather limited in the six WinWind countries analysed. None in the National Energy and Climate Plans (NECPs) draft did formulate any specific quantitative target for REC or did specify any enabling policy frameworks for REC. Only in Germany and Poland, financial participation of citizens in wind energy developments is active and currently promoted via RES support schemes.

- Green electricity labels include sustainability requirements mostly for the use of biomass and hydropower. Several electricity labels provide environmental performance criteria also for wind energy, particularly, to avoid damaging of valuable areas. However, sustainable and socially acceptable production of wind power and other renewables is rarely addressed and the social dimension is not adequately dealt with in most of the “classical” green electricity labels. Often, money is transferred from each unit of sold labelled electricity to new investment projects. However, the use of this money (implementation of the projects) depends on the policy of label organisations. There are only few labels, which consider social acceptance criteria and, thus, explicitly support renewable energy communities.
- Out of the six countries analysed, Germany is the only one where dedicated labels for fair wind energy apply on a regional scale. These labels explicitly address informal procedural and financial participation of citizens as well as the provision of other community benefits. In WinWind desk research, we could not find any other comparable labelling approaches from third countries.
- There are different examples of individual commercial developers voluntarily committing themselves to provide opportunities for active or passive financial participation of local communities or some other community benefits. They also voluntarily comply with self-defined minimum standards regarding transparency of information and communication as well as engagement and financial participation. In several countries the wind industry represented by national or regional industry associations has committed itself to adhere to certain social and/or social responsibility standards enhancing engagement and transparency between wind farm promoters and communities via codes of conduct or codes of practice.

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## Annex 1: Templates for collecting information on public participation and engagement measures by country

### Germany

#### Stage1: Information about regional and spatial development plans for siting of wind power plants

Query A	YES/NO
Do regional/spatial plans meant to select/identify suitable areas for wind power plant siting exist? Alternatively: are they meant to take into account the criteria that reflect the specific features of the territories in relation to intended sources to be exploited?	YES

If YES, please fill in the following sets of queries A1, A2 and A3:

#### A1. Plan characteristics

Set of queries A1									
1.1 Plan title and act reference	Regional plans ( <i>Regionalpläne</i> ) Municipal land use plans ( <i>Flächennutzungspläne</i> )								
1,2 Main features description, with particular regard to:	<p>The German spatial planning system consists of different planning levels and regulations. The planning levels essentially reflect the administrative structure of the German state (see table below). Each level of planning is based on its own specific legal basis, The various levels interact with each other reflecting the so-called „principle of countervailing influence“ (or „feedback principle“). This is accompanied by application of statutory requirements calling for the exchange of information, participation and co-ordination, and adherence to designations or guidelines contained in certain plans emanating from a higher level.</p> <table><tr><th>Administrative level</th><th>Tiers of Planning</th><th>Legal foundations</th><th>Planning instruments</th></tr><tr><td>Federation</td><td>Spatial planning at Federal</td><td>Spatial Planning Act</td><td>–</td></tr></table>	Administrative level	Tiers of Planning	Legal foundations	Planning instruments	Federation	Spatial planning at Federal	Spatial Planning Act	–
Administrative level	Tiers of Planning	Legal foundations	Planning instruments						
Federation	Spatial planning at Federal	Spatial Planning Act	–						

		Level		
Federal States ( <i>Länder</i> )		Spatial planning at federal state level ( <i>Länder</i> )	Spatial Planning Act, state planning legislation	Spatial structure plan
		Regional planning		Regional plan
Municipalities		Urban land-use planning	Federal Building Code	Preparatory land-use plan
				Local development plan

Source: adapted from Plappert 2019<sup>35</sup>

**Federal Government:**  
The Federal Government provides the overall legal framework for spatial planning. The legislation consists of the following legal acts:

- Spatial Planning Act (*Raumordnungsgesetz, ROG*)
- Spatial Planning Ordinance (*Raumordnungsverordnung, ROV*)
- Federal Building Code (*Baugesetzbuch, BauGB*)
- Federal Land Utilisation Ordinance (*Baunutzungsverordnung, BauNVO*)

The legal acts contain key provisions and guiding principles for spatial planning. Fundamental matters are discussed between the ministries at federal level and the federal states in regular consultations.

**Federal States:**  
The Federal states (*Länder*) are responsible for the development of state spatial planning laws (*Landesplanungsgesetze*) and state spatial development plans (*Landesentwicklungspläne*). These concretize the objectives of the federal spatial planning principles on the state level. Furthermore, the public and private interests are balanced. The procedure is strongly based on the spatial planning law (ROG) and the spatial planning ordinance (ROV).

**Regions:**  
Regional planning is organised differently from state to state. In most states regional planning is entrusted to special bodies (e.g. regional planning associations/communities/committees) set up primarily by

<sup>35</sup> Plappert, M.-L., 2019

	<p>local authorities, differing in organisational detail (e.g. Brandenburg, Saxony, Thuringia). These planning or regional associations are legal persons (statutory bodies) with their own planning staff and an assembly composed of representatives from county-free cities and counties. Usually, preparation of the plans is made by corresponding planning units, decisions are taken by the elected bodies (assemblies).</p> <p>In Saxony, there are four planning regions responsible for spatial planning. There have been established corresponding public bodies called “regional planning associations” (<i>Regionale Planungsverbände</i>), each with a regional planning office staffed by professional planning officials and a decision-making body, an assembly of elected political representatives.</p> <p>In Thuringia, four planning regions have been established as public bodies being called “regional planning communities” (<i>Regionale Planungsgemeinschaften</i>). Each of them has a regional planning office staffed with professional planning officials and a decision-making body, the assembly of elected political representative from the district/counties.</p> <p>In Hesse and North Rhine-Westphalia, the planning regions coincide with administrative districts (<i>Regierungsbezirke</i>), i.e. middle-tier state bodies. Here, the regional planning bodies make use of district administrative authorities. In other federal states, regional planning is assigned to counties (Lower Saxony), or to the state government (Schleswig-Holstein).</p> <p>Usually, regional planning bodies develop the regional plans for defined regions of the federal states. Altogether, the 16 federal states comprise some 100 planning regions. The regional plans are coordinated with the spatial development plans of the federal states.</p> <p>Setting up regional plans differs between each region. Despite the different organisational structures, the development of the regional plans underlie the general regulations of the ROG, the ROV and the respective state planning legislation. These regulations have the aim to coordinate the different interests which show up in the planning processes.</p> <p>Regional plans are drawn up on the basis of the spatial structure plans (<i>Raumordnungspläne</i>) and state development plans for the territory of the respective federal state.</p> <p>Regional planning allows to coordinate land use matters of supra-local interest transcending municipal boundaries (e.g. bird protection, avoidance of landscape fragmentation). Hence, it defends the general interests of a region against the particular interests of local</p>
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	<p>authorities<sup>36</sup>.</p> <p><b>Municipalities:</b></p> <p>The main responsibility of the municipalities is urban-land use planning (<i>Bauleitplanung</i>) which is based on the Federal Building Code (BauGB) and the Federal Land Utilisation Ordinance (BauNVO). Urban land use planning (<i>Bauleitplanung</i>) comprises preparatory land-use plans (<i>Flächennutzungspläne</i>) and binding land use plans (<i>Bebauungspläne</i>). Preparatory land use plans identify, for example, general land-use areas (<i>Bauflächen</i>) and specific land-use areas (<i>Baugebiete</i>) (cf Land Utilisation Ordinance), land for public amenities, green spaces, agricultural and woodland areas. The preparatory land-use plan is binding only for the municipality and does not have any direct legal effects vis-à-vis the general public. At local level, preparation can be done in a public-private partnership with project developers.</p> <p><b>Designation of priority/suitable/reserve zones for wind energy</b></p> <p>Siting of wind energy is strongly based on regional and municipal spatial planning processes, particularly on the designation of suitability or priority areas in regional plans or on the designation of concentration zones on the level of municipal preparatory land use plans (<i>Flächennutzungspläne</i>). Local plans, however, have always to be in accordance with regional plans. In the majority of the federal states, regional planning steers the final spatial control of wind energy. In some federal states, final spatial control of wind energy developments shifted from the regional planning level to the level of municipal land use planning (e.g. North Rhine-Westphalia, Baden-Württemberg). In those states regional planning abstains from exclusive designation of wind energy zones which means that municipalities have more room to steer siting of wind turbines in the frame of land use planning.</p>
a) energy and environmental targets	<p>Some overall energy and environmentally related principles and targets are laid down in the Federal Spatial Planning Act (ROG) (§ 1 para. 2 ROG). The spatial needs for a cost-effective, safe and environmentally sound energy supply, including the development of energy grids has to be taken into account. Furthermore, the act stipulates that the spatial requirements of climate protection have to be taken into account, both by measures that mitigate climate change, as well as adaptation measures. This means that the spatial conditions for the expansion of renewable energies, for the efficient use of energy, as well as for the preservation and the development of natural sinks for climate-damaging substances and for the storage of these materials shall be created.</p>

<sup>36</sup> Pahl-Weber, E.; Henckel, D. (Eds.), 2008, The Planning System and Planning Terms in Germany A Glossary. Academy for Spatial Research and Planning Studies in Spatial Development No.7, Hannover 2008.

	<p>The state spatial planning legislation and the regional plans usually also formulate own energy and environmental targets or refer to those of the federal government.</p> <p>In its State Development Plan of 2013 the Saxon state government emphasizes that designation of new priority areas for wind energy should always refer to the energy policy targets of the corresponding state government. This means that currently regional plans should be based on the energy policy targets defined in the Energy and Climate Programme 2012 which have been broken down proportionally to the four planning regions. According to the Saxon State Development Plan, all four planning associations are required to designate corresponding priority and suitability zones for wind energy.</p> <p>In Thuringia, the State Development Programme 2025 (<i>Landesentwicklungsprogramm Thüringen 2025</i>) aims to increase the share of renewable energy in final energy consumption to 30% and in net electricity consumption to 45% by 2020. It also contains quantitative targets for RES-based electricity for each of the four planning regions. The regional planning regions are to designate priority zones for wind energy having the effect of suitability areas. The Wind Energy Decree of Thuringia (<i>Windenergieerlass</i>) specifies the framework for designating priority zones for wind energy via regional planning. It aims to guide the planning communities in designating priority zones for wind energy. The ultimate goal is to increase the land area for wind energy developments to reach a share of 1% of the total state area. Other states have formulated even more ambitious territorial targets. The federal state governments of Brandenburg, Hesse and Schleswig-Holstein aim at a share of 2% of the total area to be reserved for wind energy.</p>
b) implementation responsible authorities	<p>Since the organisational structures differ between the federal states, also the responsible authorities for regional planning differ. Below we listed the responsibilities in those states which are in the focus of the WinWind project:</p> <ul style="list-style-type: none"> <li>• Schleswig Holstein: There are three planning regions but spatial planning is the key responsibility of the Federal State Ministry of the Interior.</li> <li>• Brandenburg: There are five planning regions. Responsibility for regional planning is with the corresponding five regional planning communities (<i>Regionale Planungsgemeinschaften</i>). Key institutions are the regional assembly (<i>Regionalversammlung</i>), regional executive committee (<i>Regionalvorstand</i>) and the regional planning unit (<i>Regionale Planungsstelle</i>)</li> <li>• Saxony: There are four planning regions. Responsibility for regional planning is with the corresponding four regional</li> </ul>

	<p>planning associations (<i>Regionale Planungsverbände</i>). Key institutions are the assembly of the association, the planning committee, the chairperson of the association and the regional planning unit.</p> <ul style="list-style-type: none"> <li>Thuringia: There are four planning regions. Responsibility for regional planning is with the corresponding four regional communities (<i>Regionale Planungsgemeinschaften</i>). Key institutions are the planning assembly, presidency, planning committee, advisory committee, and the regional planning unit.</li> </ul>
c) priorities activities to implement	<p>Regional planning is the task of settling the desired future course of the spatial structure and development for sections of a state (regions) by drawing up regional plans. Regional planning is thus spatial planning for subdivisions or regions of states. It gives concrete definition in the region to the spatial structure plan drawn up for the state as a whole, and specifies the regional goals of spatial planning (Pahl-Weber/Henckel, 2008). The planning process is always a balancing process between the types of areas and their use in the future.</p>
d) main procedures and technical items	<p>Siting of wind turbines in Germany is strongly based on regional and partly municipal spatial planning processes and on the designation of suitable areas or priority areas in regional plans or by designation of concentration zones on the level of municipal preparatory land use plans (<i>Flächennutzungspläne</i>). Local plans, however, have always to be in accordance with regional plans.</p> <p>§ 35 of the Federal Building Code (<i>Baugesetzbuch, BauGB</i>) stipulates that wind turbines are privileged projects outside built-up areas of municipalities if there are no conflicting public interests. Conflicting public interests also exist if, for instance, priority/suitable areas for wind energy have been designated in a regional plan or if corresponding concentration areas have been designated in a (municipal) preparatory land-use plan.</p> <p>Taking into account the jurisdiction of the Federal Administrative Court (<i>Bundesverwaltungsgericht</i>) regarding § 35 BauGB, several criteria have to be considered for effective spatial planning of wind turbines. Designation of priority/suitable areas needs to be based on a “coherent planning concept”. Furthermore, the bodies being responsible for spatial planning and designation of priority/suitable/concentration zones should in their plans ensure that wind energy is provided space in a “substantial manner”. However, this abstract legal term has not been clearly specified by the legislator and also jurisdiction does not provide any clear, unequivocal guidance.</p> <p>The Spatial Planning Act envisages different categories of areas. For the designation of wind energy the following categories are the most</p>

	<p>important ones:</p> <ul style="list-style-type: none"> <li>• <b>Priority areas</b> (<i>Vorranggebiete</i>) (§ 8 para. 7 Sentence 1 No. 1 ROG) are areas in which priority is given to specific functions or uses which are of special significance for overall spatial structure, and where any other uses with spatial impacts which are not compatible with the designated priority functions, uses or goals are excluded. Priority areas reflect the goals of spatial planning; designation of a priority area represents the binding outcome of a weighing process and rules out any further room for discretion on the function to which the site is to be put (though not on other details). Priority areas of different types are only allowed to overlap where this does not give rise to conflicts of use.</li> <li>• <b>Suitable or suitability areas</b> (<i>Eignungsgebiete</i>) (§ 8 para. 7 Sentence 1 No. 3 ROG) are areas suitable for certain spatially significant measures which are to be assessed in terms of urban development in accordance with § 35 BauGB and are excluded elsewhere in the planning area. The implication of such a designation is that such measures will in general not be permitted outside these areas. This is the case for privileged undertakings in the outside built-up areas of municipalities, e.g. the planning and construction of wind farms. Suitable areas differ from priority and reserve areas, where a certain use is granted privileged status over others without being prohibited outside the designated area.</li> <li>• <b>Priority areas with the effect of suitable areas</b> (<i>Vorranggebiete mit der Wirkung von Eignungsgebieten</i>) (§ 8 para. 7 sentence 2 ROG) can give priority to a spatially significant use over other uses in an area and at the same time achieve an exclusion effect for this use at other points in the planning area.</li> </ul> <p><b><u>Municipal land use planning</u></b></p> <p>Preparatory land-use plans enable municipalities to concentrate privileged development projects including wind turbines outside built-up areas in specific locations. In this context, the degree of planning autonomy of the municipalities depends very much the extent to which spatial planning at state and regional makes use of or abstains from an exclusive designation of wind energy zones (via the designation of wind energy suitable areas or priority areas with the effect of suitable areas, see above). As mentioned above, in some federal states (e.g. Baden-Württemberg, North Rhine Westphalia) municipalities have more leeway to determine siting of wind energy plants.</p>
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<p>e) strategic decisions concerning wind energy production (i.e. definition zoning criteria for suitable/prohibited areas, setback distances from housing and protected areas, possibility to install wind energy in forests)</p>	<p>Designation of suitable/priority areas or concentration zones follows normally a consecutive, three step process based on :</p> <ol style="list-style-type: none"> <li>(1) Mapping and elimination of categorical “no-go areas” where the installation of wind turbines is absolutely ruled out for factual or legal reasons (“hard taboo zones”, e.g. residential and industrial areas, settlements, infrastructure objects, strictly protected nature conservation areas, areas with high sensitivity of landscape scenery, etc.) and corresponding buffer zones. According to recent jurisdiction, forests cannot be generally declared as hard taboo zones.</li> <li>(2) Mapping and elimination of “soft” taboo zones where the construction and operation of wind power plants is factually and legally possible, but where no wind power plants are to be set up according to the priorities of the corresponding planning bodies, i.e. regional planning bodies or municipalities. Soft taboo zones include, for instance, protected areas, additional buffer zones around residential areas and protected areas, landscape protection areas etc.). Soft taboo zones are subject to a balancing process and disposable.</li> <li>(3) The remaining areas (“potential areas”) are subject to a process of careful balancing and weighing-up of wind energy use with competing interests. This will lead to further elimination of areas and finally to an identification of priority/suitability areas.</li> </ol> <p>Strategic decisions regarding no go areas or setback distances are usually taken on the state level. The criteria for no-go areas, particularly the soft taboo zones differ among federal states and often even between regional planning within one federal state. Most states have enacted corresponding rules guiding the designation of priority/suitable areas, which have to be followed or serve as an orientation for the regional planning organizations.</p> <p>In most cases, there are two successive consultations of authorities, stakeholders and the general public – the first consultation on the outlines of the plan and the scope of environmental assessments, the second consultation on the draft plan. Planning procedures may take several years.</p>
<p>f) monitoring and control systems</p>	<p>There are different spatial monitoring provisions and control systems including spatial planning reports/ state development reports (reports on the status of spatial planning, goal attainment, spatial development trends and major planning projects). The regional spatial plans are directly bound to the regulations provided by the federal and state governments.</p>

**Selected setback distances specified in regional plans of WinWind target and model regions**

Region/ federal state	Responsibility for designating priority/suitability zones	Setback distances for residential areas	Setback distances for individual dwellings, splinter settlements
Thuringia	Regional Planning Communities	Turbines <150m: 750 m Turbines >150m: 1,000 m	600 m
Saxony	Regional Planning Associations	No uniform setback distances	No uniform setback distances
Brandenburg	Regional Planning Communities	1,000 m (recommended)	1,000 m (lower distances possible)
Schleswig-Holstein	State Planning Authority (state level)	800 m (planned: 1,000 m)	400 m (planned: 500 m)

Region/ federal state	Nature protection areas	National parks	Nature park	Landscape Conservation Areas	Protective forest, recreational forest
Thuringia	300 m	600 m	-	-	300 m (natural forest plots, 100 m natural forest reservations)
Saxony	No uniform setback distances				
Brandenburg	-	-	-	-	-
Schleswig- Holstein	300 m + rotor radius	300 m + rotor radius			> 2 ha: 100 m + rotor radius

Region/federal state	Special Protection Areas (SPAs) in accordance with Art. 4 of the EU Birds Directive (2009/47/EC)	Special Areas of Conservation (SACs) in accordance with the EU Habitats Directive (92/43/EEC)	UNESCO Biosphere Reserves	Legally protected biotopes
Thuringia	-	-	-	-
Saxony	No uniform setback distances			
Brandenburg	-	-	-	-
Schleswig- Holstein	300 m + rotor radius	300 m + rotor radius	-	Case by case

**Wind energy in forests**

Region/ federal state	Share of forested areas in total area	Wind energy in forests
Thuringia	33%	Not generally excluded (but protective forests and recreational forests are „hard taboo zones)
Saxony	28.5%	WE in forests shall be generally avoided (particularly in protected forests)
Brandenburg	35.5%	Not generally excluded (in 3 of 5 planning regions WE in forest is possible)
Schleswig- Holstein	11%	Excluded

## A2. How does the plan balance wind power production interests with other competing public interests

Set of queries A2		
2.1 Apart from the entities responsible for energy, which authorities responsible for other public policies have been involved in setting up the plan? <i>Please indicate it</i>	<p>These authorities are already listed in A1. 1.2 b)</p> <p>The regional plans are developed by the responsible planning bodies for each region with the participation of those federal and state authorities being affected by the planning as well as country, municipalities and municipal associations and persons of private law.</p>	
2.2 Degree of involvement ( <i>Mark your answer X</i> )		
Authority responsible for the environment	Binding opinion	x
	Advisory	
Authority responsible for the landscape	Binding opinion	x
	Advisory	
Authority responsible for local development	Binding opinion	
	Advisory	x
Other authorities	Binding opinion	
	Advisory	x

## A.3 Public consultation on the plans

Set of queries A3		
3.1 Access to public consultation (YES/NO)	Stakeholders	YES
	Associations	YES
	Citizens	YES
3.2 Possibility to affect the plan, on the basis of the outcomes of public consultation (YES/NO)		YES
3.3 Time to carry out public consultation activities		Example In SH, 6 months

Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Prior to plan adoption	<p><b>Regional plans</b></p> <p>Public consultation in the context of regional planning is regulated in the Federal Spatial Planning Act and the planning acts of the federal states.</p> <p>There are formal and informal (i.e. voluntary) information activities by the responsible regional planning bodies. Particularly, the scope and intensity of informal information activities differ between federal states and even regional planning regions within one federal state.</p> <p>Below we will shortly describe the process of developing the regional plans in the federal state of Schleswig-Holstein (SH). As we pointed out already above, in SH the state government through its state planning authority is responsible for preparation of the regional plans for the three planning regions.</p> <p>On 20 January 2015 the Higher Administrative Court (<i>Oberverwaltungsgericht, OVG</i>) of Schleswig-Holstein declared two regional plans designating wind energy zones legally void. Hence, a revision of the regional plans was necessary. Updating state development plan and regional plans designating wind energy priority areas was initiated with the publication of the Planning Decree on 23 June 2015. In this decree, the principles of the planning procedure had been laid down, in particular a first draft of the planning criteria building the foundation for designating priority areas for wind energy.</p> <p>In November 2015 the first informal maps of potential areas (not yet the priority areas!) were published online which served as a foundation for the further balancing and assessment process which would finally lead to the designation of priority areas. These maps were updated in March 2016 and presented again to the public.</p> <p>In December 2016, the first draft of the regional plans including the proposed wind energy priority areas was published and the formal public consultation process started. For six months, the public had the opportunity to comment on the draft plans. This public consultation ended on 30 June 2017. Within the framework of the consultation process, the public was informed in various ways. All relevant information was provided online on an online participation portal (BOB SH). In addition, the plan documents were made available in paper form in</p>

		<p>the district administrations and municipalities. Altogether, the state planning authority received 6,500 opinions.</p> <p>The evaluation of opinions was documented in the form of tabular synopses which were published online. They showed all opinions in the text with respective comments of the state planning authority. Where relevant, opinions were considered in the assessment decisions leading to the second draft of the plans.</p> <p>On 21 August 2018 the state government launched the second drafts of the new state development plan and of the regional plans including the updated priority areas. The second draft plans included in total 361 priority areas for wind energy which amounts to approximately 2% of the total state territory. About one-fifth of the land designated as priority areas in the previous draft of the plan were removed, however, one-fifth was added as new areas.</p> <p>All materials (texts, maps, environmental assessments/SEA) were directly published online. Furthermore, all materials were publicly displayed for one month in the respective district administrations. Again, the public had the chance to comment on the draft plans until 3 January 2019 in the frame of a formal consultation process.</p> <p>Overall, around 5,200 opinions, about 1,300 less than in the first consultation round were submitted. The real number is lower as several opinions were made both online and in written form. The online tool has been used for approximately 2,650 comments. More about 650 comments were submitted by e-mail. The remaining 1,900 comments have been submitted by mail and fax. Presently, all comments are evaluated. The state government recently announced that a third draft version of the plans accompanied by a third formal public consultation process will be necessary.</p> <p><b>Informal participation elements</b></p> <p>Since 2016, the State planning authority has informed in numerous public events about the regional plans. In spring of 2016, five public information events were held which comprehensively informed about the planning intentions and the current planning status. After the publication of the first draft of the plan and the beginning of the first consultation, the State planning authority has informed in spring 2017 on four additional regional events on the design and process of the plans.</p>
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	Following the plan adoption	Depending on each federal state/planning body
Consultation	Prior to plan adoption	<p><b>Regional plans</b></p> <p>Usually, there are at least two successive consultations of authorities, stakeholders and the general public – the first consultation on the outlines of the plan and the scope of environmental assessments, the second consultation on the draft plan. There is no fixed time frame for the relevant planning authority to make a decision. Planning procedures take several months at least, and may take several years. Above we shortly described the example of Schleswig-Holstein. Already before the start of the formal public consultation procedure, municipalities, districts and associations were asked to engage at an early stage in the planning process, e.g. by delivering opinions or by developing informal planning concepts. This possibility was used</p>

		<p>quite actively. Also the general public was encouraged to provide comments and input in advance, which was at least partly considered by the state planning authority during the preparation of the first draft of the plan.</p> <p><b>Municipal land use plans</b></p> <p>The procedure for public participation in the preparation of municipal land-use plans is standardized and follows a two-stage approach. The first stage ensures that the public is informed at the earliest possible date through public announcement of the general aims and purposes of the plan and of alternative proposals for the re-organisation or development of the planning area and of the foreseeable impacts of the plan. At this point the public is given the opportunity to express their views and to gain further clarification. In a second step, the draft plans and the accompanying explanatory memorandum are publicly displayed for a period of one month. During this period, members of the public are entitled to voice any objections to the plan or to make recommendations. The municipality is subsequently required to consider these objections and recommendations and to communicate the outcome of its deliberations to the people concerned..</p>
	Following the plan adoption	
Participation	Prior to plan adoption	
	Following the plan adoption	

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.)?)*

Usually, the formal public participation procedures in the context of regional planning and the designation of wind energy suitable or priority zones are accompanied by informal (i.e. voluntary) participation elements complementing

the statutory participation procedures. In Schleswig-Holstein, one of the German WinWind model regions, prior to 2015, the administrative districts invited by the planning authority to develop “informal wind energy concepts” with own proposals for suitable areas reflecting the views of all municipalities in the corresponding district. These informal concepts provided the basis for the formal planning and final designation of wind energy suitable areas by the state planning authority. Hence, in practice, the municipalities could make proposals for the designation of wind energy suitable areas on their territories, but they could also reject proposals formulated by the districts or the state planning authority. A number of municipalities held even local referenda about whether to notify to the district administration wind energy suitable zones on their territories or not. The results of local referenda or council decisions were usually taken into account by the planning authority, which was responsible for the final approval of the regional plans. However, in 2015, the Higher Administrative Court of Schleswig-Holstein rejected this practice. Since then, the designation of suitable/priority areas has to be based on purely objective criteria. The political will of a municipality is no more a decision criterion of its own. The new, more technocratic planning approach reduces the scope of the municipalities to genuinely influence the siting of wind farms on their territory, which has been heavily criticized by many stakeholders. Another example from Schleswig-Holstein are informal information events which were organized by the state government in 2016 and 2017 in all three planning regions of SH in the context of developing new regional plans (see above). Examples for informal participation can be found in other federal states resp. planning regions of Germany. In the regional planning region of Oderland-Spree (in the federal state of Brandenburg), the planning bodies organized a public wind plan dialogue (*Windplandialoge*) and citizen dialogues (*Bürgerdialoge*). In Saxony, in the planning region of Oberes Elbtal/Osterzgebirge an informal working group has been established to complement statutory spatial planning which developed a dialogue with both representatives from the wind industry and from citizen groups opposing wind energy<sup>37</sup>.

### **Space for comments A**

*Add any further details/information/considerations useful to the purposes of Stage 1*

<sup>37</sup> Cf. <https://rpv-elbtalosterz.de/regionalplanung/ak-wind>; see also Leibenath, M. et al., 2016

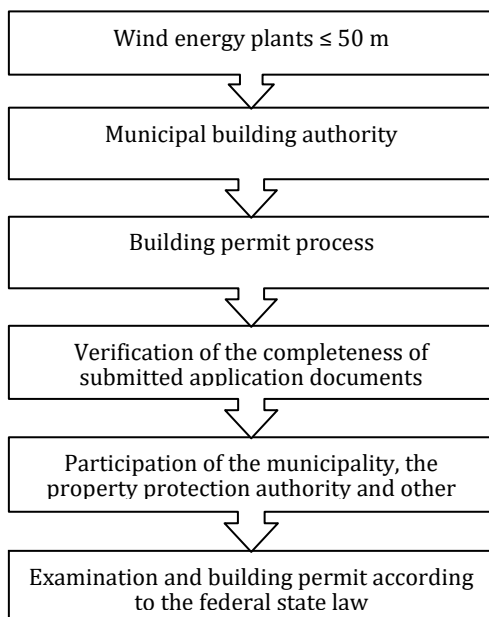
## Stage 2: Analysis of wind energy plant approval procedures

### B1. Approval procedures

#### Set of queries B1

*Please, provide the act references and shortly describe the approval processes (authorisation/permit/licence) for wind energy plants including linkages with the planning and environmental impact assessment procedures.*

The approval process for wind energy plants is depending mainly on the plant size. The plant size classification defines two groups. The first group contains plants  $\leq 50$  m, the second group contains all plants which are higher than 50 m. The approval process for the first group is shown below:



Wind turbines with a size of  $> 50$  m are subject to approval pursuant to the German Federal Pollution Control Act (*Bundesimmissionsschutzgesetz, BImSchG*). Permitting shall ensure that no harmful effects on the environment are caused by wind turbines. Permits are usually granted by environmental authorities. The permit for a wind farm according to the Federal Pollution Control Act concentrates all other necessary permits and approvals. Hence, the permitting procedure comprises all relevant assessments of the project – no other permissions are required. The permitting authority allots the application documents to all concerned authorities („Träger öffentlicher Belange“) and obtains their reasoned opinions. For all wind energy plants  $> 50$  m also the total number of installed plants is an important factor for the approval process. Here we can define three subgroups. If the number of plants reaches three the approval process contains in the first step an environmental pre-assessment through the approval authority). After this pre-assessment, the approval process can continue as shown below.

*Please, provide the act references and schematically describe Environmental Impact Assessment requirements*  
National EIA legislation is based on European legislation. The EIA of wind farms is regulated at the federal level in the EIA Act, which was amended in 2017 in order to transpose and implement European legislation. The act requires a mandatory EIA for large projects with 20 turbines or more and a conditional EIA for projects with 3–

19 turbines, depending on the results of an environmental pre-assessment. The EIA provides a framework for assessing the effects of a project on the environment and includes an evaluation of possible alternatives.

- *Projects with 20 or more turbines:* Formal procedure including EIA and public consultation.
- *Projects with 3 to 19 turbines:* A formal procedure including EIA and public consultation is required only if an environmental pre-assessment ("scoping" for 3-5 turbines, screening for 6-19 turbines) leads to the conclusion that significant negative effects for the environment can be expected. In all other cases a simplified procedure without EIA and without public consultation is sufficient.
- *Projects with 1 or 2 turbines:* Simplified procedure without public consultation.

Developers can also opt for a voluntary EIA with public consultation, i.e. to increase local acceptance or to avoid later appeals or legal disputes.

Consultation and participation of the public is not mandatory for all wind farm developments and depends on the necessity of an EIA. If the number of planned wind turbines remains below 20 and if the permitting authority decides that an EIA is not necessary, a simplified permitting procedure can be applied. This means that no public consultation is envisaged at all. It has to be emphasized that many projects are approved in a simplified procedure, which means without any public consultation and public hearings. This also means that sometimes local communities get informed about ongoing project approval procedures only rather late.

1. Is a public consultation phase envisaged before the approval act adoption for wind power plants? (YES/NO)

Partly. There is usually no mandatory information/consultation in the pre-application phase (i.e. before submitting the application documents). Public consultation after submission of the documents for approval is mandatory only if the number of wind turbines reaches or exceeds 20. Pre-existing wind turbines near the wind farm might have to be considered when determining the actual number of wind turbines. If the number of wind turbines is between 3-19, the need to carry out a public consultation procedure depends on the results of an environmental pre-assessment process (see above). Developers can also opt for a voluntary EIA with public consultation. This option is increasingly used by developers although this is more costly and requires more time. Developers can also employ informal, i.e. voluntary information and consultation measures.

1.1 Specify for which power plant size

For projects with 20 or more turbines a formal procedure including public consultation and EIA is mandatory. For projects with 3 to 19 turbines a formal EIA procedure including public consultation is required only if an environmental pre-assessment comes to the conclusion that significant negative effects for the environment could be expected. In all other cases a simplified procedure without public consultation and without EIA is sufficient.

Independent of the size of the plant, consultation of the municipality where the plant is going to be built is mandatory.

*1.2 Describe the arrangements for informing the public (i.e. publication in local newspapers, social media...)*

If a formal approval procedure with public consultation has to be carried out, which in practice is not often the case, the responsible authority has to publicly announce the project plans after it has received the complete request for approval with the corresponding documentation. Public announcement has to be made in the authority's official gazette and in the internet or alternatively daily newspapers. The respective documents have

<p>to be publicly displayed at the premises of the authority and municipality for one month. During this period plus two additional weeks the public can submit written opinions, also electronically. After this time limit, the authority decides about the necessity of a public hearing. As a rule, the approval procedure shall be concluded after 7 months, however, in practice the approval process takes often longer.</p> <p><input checked="" type="checkbox"/> see also the table below</p>		
<p>1.3 Describe the arrangements for consulting the public concerned (i.e. written submissions, public inquiry...)</p> <p><input checked="" type="checkbox"/> see the description above for the formal procedure and table below</p>		
<p>2. Who may take part in the consultation stage?</p> <p>Mark your answer X</p>	Anyone who desires to participate can do it directly	
	Only those parties that can prove having a legitimate interest	X
	Participation is open only to recognised associations	
<p>3. Is any tool for public participation provided?</p> <p>Mark your answer X</p>	If the formal approval procedure applies, public consultation is mandatory. Documents have to be publicly displayed for 4 weeks. There is an objection period of 4+2 weeks. Depending on the objections of the public, the permitting authority can decide to carry out an additional public hearing ( <i>Erörterungstermin</i> ).	X
	Individual/committee initiatives	
	Not provided	
Possibility to affect the approval, on the basis of the outcomes of public consultation (YES/NO)		YES
Time to carry out public consultation activities		Duration in days (formal procedure envisages an objection period of 4+2 weeks)

Stages of public involvement		Please describe the arrangement (press release, meetings...)
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Information	Before the approval	<p><b>Pre-application stage</b></p> <p>There is no general legal requirement in Germany for the developer to consult and engage with local communities in the stage of pre-application (before submission of the application documents by the developer). Only in few federal states is public involvement prescribed already in this stage. However, often there are informal (voluntary) information and engagement activities by the developers and municipalities. Classical informal arrangements are local media, brochures, information sheets or flyers. In many cases, developers enter into direct contact with the citizens to communicate the planned project and to address possible concerns. Sometimes developers and/or municipalities offer excursions to existing wind farms or organize information events. There are no standard approaches. In several federal states there are voluntary self-commitments by developers or voluntary agreements between public authorities/agencies and developers which aim to address information disclosure. For instance, in order to qualify for the label “Fair wind energy” in Thuringia or for a similar label in the federal state of Schleswig-Holstein, developers have to adhere to certain minimum standards related to early and transparent information disclosure and fair participation of citizens and communities.</p> <p><b>Post-application stage</b></p> <p>If the formal approval procedure with public consultation has to be carried out, information about the project must be publicly displayed. The application and corresponding documents must be open to public inspection for one month. During this period and two weeks beyond, the public may submit written objections to the permitting authority. After expiry of the objection period, the permitting authority shall decide after due consideration whether a public hearing is to be convened pursuant to § 10 para. 6 BlmSchG. In such a hearing, the objections raised shall be discussed to the extent that they may be relevant for the examination of the permitting prerequisites. In particular, the objectors should be given the opportunity to explain their objections. On the basis of the comments received from the public and the authorities involved, the permitting authority then decides on the granting of the permit.</p>
	Following the approval	<p>Following the approval, many developers including community wind farm companies actively inform the citizens about the construction phases. There have been very good experiences with information disclosure and reporting about the construction progresses, e.g. construction diaries on webpages, social media etc.. Another example is a public inspection of the construction sites for the citizens.</p> <p>After completion of the project information centres and boards are often implemented on public spaces to inform the citizens about the</p>

		wind farms and wind energy in general to inform and educate about the benefits of wind energy for society and technical aspects. Sometimes the wind farms are for tourists (walking trails, excursions for tourists).
Consultation	Before the approval	<p>see above</p> <p><b>Pre-application stage</b></p> <p>There is no mandatory public information/consultation envisaged in the pre-application stage (before submitting the application documents by the developer).</p> <p><b>Post-application stage</b></p> <p>If the formal approval procedure with public consultation has to be carried out, information about the project must be publicly displayed. The application and corresponding documents must be open to public inspection for one month. During this period and two weeks beyond, the public may submit written objections to the permitting authority. After expiry of the objection period, the permitting authority shall decide after due consideration whether a public hearing (<i>Erörterungstermin</i>) is to be convened pursuant to § 10 para. 6 BImSchG. In such a hearing, the objections raised shall be discussed to the extent that they may be relevant for the examination of the permitting prerequisites. In particular, the objectors should be given the opportunity to explain their objections. On the basis of the comments received from the public and the authorities involved, the permitting authority then decides on the granting of the permit.</p>
Participation	Before the approval	<p>For the formal public consultation procedure which in practice not often applies, see above</p> <p>The opportunities for genuine and meaningful public participation in the sense of substantially influence the design of the project is usually very limited and usually only possible in informal settings. Through informal formats such as future workshops and citizens' conferences, citizen reports, citizen juries, planning cells, consensus conferences or mediation, local residents get the possibility to incorporate their expectations into the project. In large-scale projects in the area of grid expansion, objections can even lead to a very specific planning variant being implemented or routes being changed. The situation is different with wind energy. For example, relocations can only be discussed if the project planner has sufficient alternative locations. In practice unfortunately this is not often the case.</p> <p>After application, the possibilities for the public to substantially influence the project design are very limited.</p>

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.)?)*

## *B2. Other regulatory measures impacting community acceptance of wind power plants*

<b>Set of queries B2</b>	
2.1. As needed, is any of the following facilitating measure provided for the siting of wind power plants and/or distribution network infrastructures ?	(YES/NO )
<p>a) Simplification of expropriation procedures</p> <p><i>Please, provide the act references and shortly describe the procedure</i></p> <p>Under certain circumstances, it is possible to get hold on the land for the construction of the wind turbine without the consent of the affected owner on his/her the property. § 45 para 1 No. 2 of the Energy Industry Act (<i>Energiewirtschaftsgesetz</i>) stipulates that it is principally possible to utilize property for "projects for the purpose of supplying energy" against the will of the property owner. This also applies to the construction of wind turbines. In a recent decision, the Federal Court of Justice (<i>Bundesgerichtshof</i>) emphasized that expropriation of land for the development and grid connection of wind farms according to § 45 para 1 No. 2 EnWG is possible only under very strict conditions. However, this would not mean full deprivation of ownership but the entry of a limited personal easement (<i>beschränkte persönliche Dienstbarkeit</i>) for utilizing the property. Ownership of the property itself is not questioned.</p>	
<p>b) Simplification of procedures for modifying designed use, with particular reference to crop land, forest or natural areas etc.</p> <p>To our knowledge, there are no simplified procedures for modifying designed use, with particular reference to crop land, forest or natural areas etc. The Federal Forest Act (<i>Bundeswaldgesetz</i>, BWaldG), as well as the respective state forest laws include rules for the afforestation or compensatory measures for the conversion of forest into another uses (including for wind energy).</p> <p><i>Please, provide the act references and shortly describe the procedure</i></p>	
<p>c) Simplification or elimination of tree felling licence procedures</p> <p>To our knowledge, there are no simplified procedures or any elimination of tree felling licence procedures for wind energy developments in forest areas.</p> <p><i>Please, provide the act references and shortly describe the procedure</i></p>	

## Stage 3: Information about the financial support to increase the electricity production from wind energy in terms of transparency of information on costs and results

### *C.3 Support schemes to support electricity production from wind energy and other renewables*

Set of queries C1	
<p>3.1 Please describe the key national support schemes (e.g. Feed in tariff, feed in premium, auction/tender, renewable energy certificate system, investment grants/subsidies from state budget)</p>	<p>The main support scheme for the expansion of renewable energy in the electricity sector in Germany is the Renewable Energy Sources Act (<i>Erneuerbare-Energien-Gesetz</i>). The act includes long-term targets for RES based electricity, rules for remunerating RES-based electricity and provisions for grid connection. RES based electricity is mainly supported through a market premium scheme. Since 2017, for most RES installations, the award and the level of the market premium is determined through auctions. Onshore and offshore wind projects &lt;750 kW are exempted from auctions and still supported by feed-in tariffs (see also below).</p> <p>In 2017, the German federal government took a fundamental switch from legally fixed, predetermined feed-in tariffs/premiums to auctions, aimed at increasing wind power's market exposure.</p> <p>From 2021 onwards, many older installations will pass the 20-year mark and cease to be eligible for bonuses under the Renewable Energy Sources Act. These plants will be dismantled or repowered based on technical or financial considerations. This will apply to many onshore wind farms from the early 2020s, and also to biomass plants from 2025 onwards.</p> <p>In Germany, electricity from wind energy and other renewable energy sources is mainly supported via a surcharge paid by consumers with their electricity bills. The size of the surcharge is determined by the four Transmission system operators (TSO). Energy intensive enterprises are partially exempted from the surcharge, which increases the financial burden for non-exempted consumers. The surcharge ("EEG surcharge"-<i>EEG-Umlage</i>) counterbalance the difference in costs for the generation of RES based electricity and its market price. The surcharge is paid by the electricity customers with the price for every kWh of consumed electricity. The surcharge almost constantly increased from 1.17 ct/kWh in 2008 to 6.88 ct/kWh in 2017. In 2018, the surcharge started to decrease and currently amounts to 6.405 ct/kWh<sup>38</sup>.</p>

<sup>38</sup><https://www.bundesnetzagentur.de/SharedDocs/FAQs/DE/Sachgebiete/Energie/Verbraucher/Energielexikon/EEGUm Lage.html> (May 2019)

	<p><b>The Renewable Energy Sources Act (<i>Erneuerbare-Energien-Gesetz, (EEG)</i>)</b></p> <ul style="list-style-type: none"> <li>• In order to qualify for support, plants operators have to successfully participate in a public tender and auctioning process</li> <li>• Plants qualifying for support benefit from market premiums and feed-in remuneration</li> <li>• Difference between generation costs and market price is covered by a surcharge included in the electricity price.</li> <li>• Small-scale PV systems, wind-turbines up to 750 kW and biomass plants up to 150 kW have not to take part in auctions and qualify for special remuneration regime.</li> <li>• Special provisions/privileges for citizen/community based wind energy projects (see below)</li> </ul> <p>Offshore wind energy plants are regulated by the Offshore Wind Energy Act (<i>Windenergie-auf-See-Gesetz, WindSeeG</i>). The aim of the WindSeeG is to increase the installed power from offshore wind energy from 2021 to 2030 up to 15 GW.</p>
<p>3.2 Please provide the total budget allocated to the support of wind energy over the last 5 years (euros)</p>	<p>In principle there are two main mechanisms for the funding of RES support schemes, either through public budgets/general taxation or through non-tax surcharges/levies paid via the electricity bill by some or all electricity consumers.</p> <p>In Germany, electricity from wind energy and other renewable energy sources is mainly supported via a surcharge paid by consumers with their electricity bills. The size of the surcharge is determined by the four TSO. Energy intensive enterprises are partially exempted from the levy, which increases the financial burden for non-exempted consumers. The surcharge is calculated as follows: operators of RES installations including wind turbines usually have to market the electricity themselves, e.g. on the electricity exchange. The market premium offsets the difference between the market price and the amount needed to operate the installation. The difference is passed on to the other electricity consumers via the EEG surcharge. Hence, this surcharge enabled massive investments in wind, solar, biomass, hydro and geothermal facilities without tax-funded subsidies.</p> <p>In 2017, Germany spent 26.3 billion EUR on supporting renewable energy development. This is an increase of almost 4 percent compared to 2016. According to the 2017 balance sheet compiled by the four TSOs, feed-in tariffs and market premium payments for renewable power production totalled 25.7 billion EUR. The remainder consists of other expenditures associated with Germany's renewables expansion<sup>39</sup>.</p>

<sup>39</sup> [https://www.netztransparenz.de/portals/1/20180105\\_EEG-Konto\\_Finanzieller-HoBA\\_Dezember2017\\_Internet.pdf](https://www.netztransparenz.de/portals/1/20180105_EEG-Konto_Finanzieller-HoBA_Dezember2017_Internet.pdf);  
<https://www.cleanenergywire.org/news/north-sea-wind-power-47-record-renewables-support-expenses/expenditure-germanys-renewable-energy-support-hits-record-high>

	<p>According to estimates by the German Association of Energy and Water Industries (BDEW), in 2016 over 5.3 billion out of 25.5 billion EUR in RES support were paid to onshore wind power producers, compared to 10.5 billion to solar power producers and 6.7 billion to bioenergy producers.</p> <p>From 6.35 ct/kWh of the EEG surcharge paid by electricity customers in 2016, 1.33 cents went to onshore wind power installations. In total, German wind power producers received an average remuneration of 9.5 ct/kWh in 2016 according to the Federal Ministry for Economic Affairs (BMWi)<sup>40</sup>.</p> <p>Money from public budgets is spent for research and development of RES. In 2016, BMWi approved 93 new research projects with a funding volume of 86.24 million EUR in the area of wind power. Ongoing research projects have been funded with some 49.69 million EUR<sup>41</sup>. Further public support for RES including wind energy is provided by federal state governments.</p> <p>The budget for the expansion of wind turbines for the period 2013 – 2017 amounts in total to 44.8 m €. Unfortunately, there were no more recent data available and there were no official data which could be allocated to expenses such as research and development.</p>
3.3 Please describe the methods to inform citizens on the purposes of financial support to renewable energy and on the results achieved.	<p>The Federal Ministry for Economic Affairs and Energy (BMWi) is mainly responsible for implementing the energy transition. In addition, five other ministries and all federal states share competences and responsibilities. BMWi provides detailed information about the public support of RES including wind energy through its website and related websites.</p> <p>The annual report on RES development “<i>Erneuerbare Energien in Zahlen - Nationale und internationale Entwicklung</i>” includes general information about support levels, EEG surcharge, RES investments, value creation and employment effects and related information<sup>42</sup>.</p> <p>The government publishes regular monitoring reports about the process of the <i>Energiewende</i> and the financial support for RES. These reports are accompanied by reports by an independent expert commission.</p> <p>The four transmission system operators (TSO) provide regular information about support levels for RES<sup>43</sup>.</p>

<sup>40</sup> <https://www.cleanenergywire.org/factsheets/german-onshore-wind-power-output-business-and-perspectives>

<sup>41</sup> [https://www.bmwi.de/Redaktion/EN/Publikationen/Energie/bundesbericht-energieforschung-2017.pdf?\\_\\_blob=publicationFile&v=2](https://www.bmwi.de/Redaktion/EN/Publikationen/Energie/bundesbericht-energieforschung-2017.pdf?__blob=publicationFile&v=2)

<sup>42</sup> [https://www.bmwi.de/Redaktion/DE/Publikationen/Energie/erneuerbare-energien-in-zahlen-2017.pdf?\\_\\_blob=publicationFile&v=27](https://www.bmwi.de/Redaktion/DE/Publikationen/Energie/erneuerbare-energien-in-zahlen-2017.pdf?__blob=publicationFile&v=27)

<sup>43</sup> [https://www.netztransparenz.de/portals/1/20180105\\_EEG-Konto\\_Finanzieller-HoBA\\_Dezember2017\\_Internet.pdf](https://www.netztransparenz.de/portals/1/20180105_EEG-Konto_Finanzieller-HoBA_Dezember2017_Internet.pdf)

	<p>The Federal Grid Agency (<i>Bundesnetzagentur</i>) performs a variety of tasks related to the German Renewable Energy Sources Act (EEG) including conducting the auction process for renewable energy installations, monitoring of the nationwide EEG equalisation process between the distribution network operators, the transmission system operators and the electricity suppliers and determining the level of financial remuneration for the RES based installations. It also provides information about the auction results and support levels for RES.</p> <p>Concerning the regular amendments of the Renewable Energy Sources Act, BMWi has the obligation to provide a regulatory impact analysis (<i>Gesetzesfolgenabschätzung</i>) explaining the likely consequences of the act including the support scheme. Part of this assessment is the detailed documentation of the economic consequences and risks of the regulations, inter alia, in terms of the cost effects for the economy, effect on unit prices and price levels and impact on consumers.</p> <p>The Federal Court of Auditors (<i>Bundesrechnungshof</i>) also provides regular reports on the expenses of the <i>Energiewende</i>. It has repeatedly criticised the government for failing to come up with a transparent overview of expenses associated with the <i>Energiewende</i>, such as the RES surcharges, grid fees, administrative staffing, and lost revenue due to tax rebates. According to the court, the controlling and coordination of <i>Energiewende</i>-related costs is insufficient and fails to address “fundamental questions.”</p> <p>There are several agencies and associations providing information about support levels for RES including wind energy. Some of these associations and agencies work on a national level on the topic; some are more specialized and work on the federal-state-level. Below some of these associations and agencies are listed:</p> <p>National associations and agencies for wind energy:</p> <ul style="list-style-type: none"> <li>- Fachagentur Windenergie an Land</li> <li>- Agentur für Erneuerbare Energien</li> <li>- Bundesverband Windenergie e.V.</li> <li>- Bundesverband Erneuerbare Energien e.V.</li> </ul> <p>Federal state associations and agencies providing information about state support for RES including wind energy:</p> <ul style="list-style-type: none"> <li>- Thüringer Energie- und GreenTech-Agentur (ThEGA)</li> <li>- Sächsische Energieagentur (SAENA)</li> <li>- Wirtschaftsförderung Brandenburg (WFBB)</li> </ul> <p>Further information about the financial support and the expansion of wind energy in Germany can be found in the classical media such as Internet, TV, radio and the press, but increasingly also via social media.</p>
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## Stage 4: Mechanism to support the financial participation of citizens/communities or providing other community benefits

### D1. Active and passive financial participation of citizens and communities in national support

Set of queries D1	
<p>4.1 To what extent do support schemes for wind energy consider/promote citizen/community based wind energy? (i.e. ownership of wind energy plants by local communities/citizens)</p>	<p>The Renewable Energy Sources Act (<i>Erneuerbare-Energien-Gesetz, EEG</i>) with its last major amendments, which took effect in 2017 explicitly acknowledges the role of citizen based renewable energy facilities. One of the objectives of the Act was to secure the broad diversity of actors engaged in the RES sector under an auction based support scheme and to ensure that citizen/community based projects do not face competitive disadvantages.</p> <p>There are special provisions/privileges for citizen based wind energy projects envisaged in the Renewable Energy Sources Act as already mentioned above (C3.1). Their rationale is to compensate for structural disadvantages that community based initiatives face compared to professional/commercial project developers and institutional investors. For instance, community led initiatives including RES cooperatives usually lack large portfolios with several wind farms to disperse risks.</p> <p>According to the EEG 2017, citizen energy companies (<i>Bürgerenergiegesellschaften</i>) are defined as follows:</p> <ul style="list-style-type: none"> <li>• They consist of 10 natural persons who are members or shareholders entitled to vote;</li> <li>• At least 51 per cent of votes are owned by natural persons whose primary residence is in the urban municipality (kreisfreie Stadt) or administrative district in which the wind turbines are to be installed;</li> <li>• No member or shareholder has more than 10 per cent of the voting rights.</li> </ul> <p>If a citizen energy company submits a bid it has to declare that the municipality in which the planned wind energy installations are to be installed holds a 10 percent financial stake in the citizens' energy company, or the corresponding municipality has been offered a financial stake of 10 percent of the citizens' energy company. (Alternatively, the stake can be offered to a company in which the municipality is the sole shareholder).</p> <p>Below we summarize the special auctioning rules for citizens' energy companies introduced with the last major amendments of the Renewable Energy Sources Act which took effect in 2017:</p>

	<ul style="list-style-type: none"> <li>• Simplified bidding (participation in auctions without having to provide already the costly permit under the Federal Pollution Control Act which is usually the case),</li> <li>• Reduced initial security deposit,</li> <li>• Eligibility for the highest successful bid rate (uniform pricing) instead of the “pay as bid rule” which usually applies,</li> <li>• Longer project realization period – i.e. 54 months instead of 30 months.</li> </ul> <p>The special rules and privileges applying for community energy/citizen energy companies helped to make this actor group apparently the "big winner" in the first three rounds of the auctions. There is evidence, however, that several commercial project developers artificially created citizen energy companies in order to benefit from the privileges. At least part of the successful citizen projects were “dummy organizations” of commercial developers<sup>44</sup>. It turned out that one of the drawbacks of the act was that the eligibility rules for community/citizen energy were flawed and prone to misuse. Therefore certain privileges were abolished in 2018, which means, for instance, that citizen/community based projects have now also to have the permit in order to take part in the auctions.</p> <p>In 2018, a parliamentary working group has been set up by the two coalition partners in the federal government to develop proposals for complementary measures increase acceptance of onshore wind, including measures promoting the financial participation of municipalities and citizens in wind energy developments and corresponding benefit sharing. Based on the findings, by autumn 2019 the federal government plans to take concrete decisions. Several proposals have been developed by different policy and market actors, which are currently under discussion, including a nationwide special levy for new wind farms to be paid to municipalities hosting the wind farms, which might be introduced under the Renewable Energy Sources Act<sup>45</sup>.</p>
4.2 To what extent do support schemes promote passive/indirect financial participation of citizens and communities or provide financial compensations/other community benefits?	<p>See above</p> <p>In 2018, a parliamentary working group has been set up by the two coalition parties in the federal government CDU/CSU and SPD to develop proposals for complementary measures increase acceptance of onshore wind, including measures promoting the financial participation of municipalities and citizens in wind energy developments and corresponding benefit sharing. Based on the findings, by autumn 2019 the federal government plans to take concrete decisions.</p>
4.3 Are there any other	Many developers provide opportunities for active or passive financial

<sup>44</sup> See Morris 2017; Wehrmann 2017, also <http://www.klimaretter.info/energie/hintergrund/23913-windkraft-droht-der-absturz>

<sup>45</sup> An overview of the most important proposals can be found at Altrock 2019.

<p>regulations/incentives/guidelines etc. providing for the active or passive financial participation of citizens and communities in wind energy (e.g. seed-money for citizen/community owned wind energy plants) or providing community benefits (e.g. taxation of wind energy etc.) ?</p>	<p>participation of citizens on a voluntary basis.</p> <p>Local business taxes (<i>Gewerbesteuer</i>) are charged for profits from wind turbines, which means that wind farms can provide a stable source of revenue for local governments. On January 1, 2009, the federal government amended its local business tax law. Regarding the allocation of business tax revenues from wind energy projects, at least 70% of the tax revenues is transferred to the local community where the wind project is sited, with the remaining 30% paid to the municipality where the operating company has its headquarters. In addition, local communities can apply to retain up to 100% of the tax. This means that in the case of community-owned or community led wind farms, usually 100% of the business tax remains within that community.</p> <p>In 2018, a parliamentary working group was set up by the two coalition partners in the federal government to develop proposals for complementary measures increase acceptance of onshore wind, including measures promoting the financial participation of municipalities and citizens in wind energy developments and corresponding benefit sharing. Based on the findings, by autumn 2019 the federal government plans to take concrete decisions.</p> <p>There are various initiatives at the level of the federal states addressing/promoting active or passive financial participation of citizens and communities, e.g. the label for fair wind energy in Thuringia (see above, cf. corresponding best practice case study), or a corresponding industry-led label in Schleswig-Holstein (see above).</p> <p>In June 2019 the left wing government of the <b>federal state of Brandenburg</b> together with the Christian Democratic Union (CDU), one of the opposition parties in the state parliament, adopted a new law<sup>46</sup> which obliges operators of wind farms to pay a special levy of 10,000 EUR annually to municipalities in a three-kilometre radius of new turbines. With this so called "wind power euro", the government coalition and the CDU aim to increase acceptance among local communities hosting wind farms. The levy will only apply to new plants. The municipalities must use the funds from the special levy to increase the acceptance of wind turbines for measures in their municipalities. In order to achieve this objective, the following measures might be considered:</p> <ul style="list-style-type: none"> <li>• Upgrading the view of the site and the local infrastructure,</li> <li>• Information on electricity generation from RES and on possibilities for using renewable energy sources,</li> <li>• Promoting municipal events, social activities or facilities for</li> </ul>
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<sup>46</sup> Gesetz zur Zahlung einer Sonderabgabe an Gemeinden im Umfeld von Windenergieanlagen (Windenergieanlagenabgabengesetz – BbgWindAbgG) - Act on the payment of a special levy to municipalities in the vicinity of wind turbines).

	<p>culture, education or leisure, or entrepreneurial activities in the municipality, with residents recognising a link to the funds generated from wind energy production.</p> <p>According to data provided by Deutsche Windguard GmbH, in 2018 Brandenburg had 3,821 wind turbines with an installed capacity of 7,081 MW, which places Brandenburg second among all federal states, surpassed only by Lower Saxony (6,305 wind turbines, 11,165 MW). The decision was taken because political efforts at the federal level to find a nationwide solution have not yet borne fruit so far. However, this means that developers in Brandenburg might face economic disadvantages in the nationwide auction system.</p> <p>In <b>Mecklenburg-Western Pomerania</b>, the Citizens' and Municipalities' Participation Act (<i>Bürger- und Gemeindenbeteiligungsgesetz</i>) entered into force in May 2016. The basic idea of this law is the obligation of project developers to set up a limited liability company for new wind farms and to offer shares of at least 20 percent of this company to citizens and municipalities within a radius of five kilometres of their turbines. One share may cost a maximum of 500 EUR. Alternatively, the developers can offer the municipalities a compensation payment. The municipalities decide whether to accept such an annual payment for the operating time of the wind turbines or to opt for the legal procedure of participation in the project company. Project developers may also opt to offer citizens a savings product instead of shares. This reduces the risk for private investors. With the acquisition of shares, citizens and municipalities would not only bear the profits but also the losses of a project within the scope of their respective contributions. Hence, the wind turbine operator can decide to transfer profits amounting to 10 percent of the project company to a bank. At this bank, citizens within a five-kilometre radius of the plant can set up savings bonds or fixed-term deposits, for example. The interest on the money invested is dependent on the profit of the wind farm. As a result, the interest rate is generally higher than current market rates. Developers can also offer special electricity tariffs for the region concerned. The Act is currently under review by the Federal Constitutional Court (<i>Bundesverfassungsgericht, BverfG</i>).</p> <p>In 2015, a <i>Wind Energy Service Unit</i> was set up in the federal state of <b>Thuringia</b> by the state's <i>Energy and GreenTech Agency</i> (ThEGA) (cf. corresponding Best Practice case study). The establishment was motivated by the political will to restore trust in the wind energy project by promoting fair and more transparent planning and decision-making procedures. Also, the state government formulated the goal to increase the area on which wind energy plants are built from 0.3% to 1% of the total state territory. It is therefore the task of the Service Unit, mandated by the Thuringian Government, to support this goal. The Service Unit in Thuringia provides free, comprehensive and neutral advisory and technical assistance services for citizens, municipalities and developers. The unit seeks to increase procedural and distributive</p>
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	<p>fairness and promotes benefit sharing mechanisms and local added value creation. The unit issues the label for fair wind energy which addresses procedural participation and active/passive financial participation and benefit sharing mechanisms.</p> <p>Many federal state governments and/or related agencies provide advisory services, capacity building and networking assistance addressing municipalities, citizens and/or community energy initiatives including guidance for community wind farms.</p> <p>In 2018, the state government Schleswig-Holstein introduced a revolving fund providing seed money for citizen/community energy projects to pre-finance their upfront costs.</p>
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## *D2. Voluntary self-commitments and agreements for active or passive financial participation of local residents/communities?*

<p>4.1 Are there any voluntary agreements concluded between national/regional public authorities/actors and the wind industry providing for active or passive financial participation of local residents/communities or providing other community benefits?</p>	<p>So far, no voluntary agreements concluded between national public authorities/actors and the wind industry providing for active or passive financial participation of local residents/communities or providing other community benefits.</p> <p>However, some examples can be found on the federal state (<i>Länder</i>) level: In Thuringia the wind energy service unit under the <i>Energie- und GreenTech Agentur (TheGA)</i> issues the label "<i>Partner für faire Windenergie</i>" for project developers which adhere to specific procedural and financial participation standards on a voluntary basis (cf. WinWind Best practice in-depth case study).</p> <p>In May 2016 the regional branch of the German wind energy association in Brandenburg and the Ministry of Economy and Energy of the federal state of Brandenburg concluded an agreement referring to "better information and transparency in the development of wind energy (<i>Vereinbarung zur besseren Information und Transparenz beim Ausbau der Windenergie</i>). In the agreement the wind industry commits itself to adhere to a minimum setback distance of 1,000 m to residential areas, where no respective spatial planning regulations are in place. The industry also is committed to exempt beech and oak forests from wind energy developments, provided that wind energy developments in forest is not generally prohibited. The industry also promised, prior to issuance of a building permit, to actively inform citizens about proposed wind energy projects. In design, construction and operation of the facilities, regional companies should benefit and keep the value added locally. However, there is no information publicly available about the progress of implementation of this agreement.</p>
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	<p>Already in 2011, the administrative district of Steinfurt (in the federal state of North-Rhine-Westphalia) adopted Guidelines for Community Wind Farms (<i>Leitlinien für Bürgerwindparks</i>) which served as an informal steering instrument for the development of wind energy in the district. The district aims to become energy autonomous/self-sufficient by 2050. RES and wind energy play a central role for achieving this target, the district's vision being: "regional – decentral – CO<sub>2</sub>-neutral". The district aims to support local and regional value creation and to maintain (decision-making) competences in the region.</p> <p>First, the guidelines for community energy define community wind farms as wind farms in which, in addition to the landowners, the local citizens, municipalities or municipal institutions can participate conceptually and financially. Furthermore, the guidelines include objectives of community wind farms:</p> <ul style="list-style-type: none"> <li>• Optimal utilization of regional wind energy potentials</li> <li>• Building and maintaining acceptance for wind turbines through financial and conceptual participation</li> <li>• Achievement of maximum local and regional added value</li> <li>• Achievement of a sound balance between economic, social and nature conservation interests</li> <li>• Maintaining local decision-making competence (shareholders and decision-makers from the circle of land owners, residents and citizens, municipalities and municipal institutions)</li> </ul> <p>At least 25% of equity capital should be in the hands of individual citizens. In the district of Steinfurt usually all wind energy developers comply with these criteria. In 2012, the district also established a service unit for wind energy providing advisory services to land owners, municipalities; communities and citizens (cf. the good practice portrait developed in the frame of the WinWind project). The Service Unit provides comprehensive, independent, and free advisory and technical assistance services for citizens, municipalities and project developers. It serves as a key contact, networking and consultation point for all relevant actors and stakeholders. In order to support a balanced and environmentally sound expansion of wind energy, all stakeholders, in particular municipal and district authorities, land owners, farmers, nature protection organizations and municipal multi-utility companies (<i>Stadtwerke</i>) are involved in the process. A major concern is procedural and financial participation of citizens. Project developers active in the district mostly follow these guidelines on a voluntary basis. There is a high share of community energy in this district and almost no opposition against the development of wind farms. The quality label for fair wind energy developers in Thuringia (see below) and the service unit for wind energy in Thuringia have been clearly inspired by the experience in the district of Steinfurt.</p>
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<p>4.2 Are there any voluntary self-commitments by the wind industry referring to the procedural or financial participation of citizens and communities or to the provision of other community benefits?</p>	<p>See also above 4.1</p> <p>There are many developers committing themselves to pro-actively involve citizens/communities in the planning process or offer special active or passive financial participation possibilities or offering other benefit sharing mechanisms.</p> <p>On sectoral/branch/industry level, the authors did not identify any voluntary self-commitments.</p> <p>In Schleswig-Holstein a quality label and certification scheme “Fair Wind Park Developer” was launched in 2018 addressing project planners and developers active in Schleswig-Holstein. The label was initiated and developed in the frame of a public-private partnership. However, implementation of the certification scheme is market based, and builds upon a voluntary self-commitment of project planners/developers complying to pre-defined quality criteria. The guidelines have been developed upon initiative of the regional branch of the German wind energy association in Schleswig-Holstein (BWE). The development of the guidelines/label has been inspired by the examples of the federal state of Thuringia and the experiences of the rural district of Steinfurt (see above). An Expert Advisory Board of planners, operators, associations, institutions, funding institutions and authorities was involved in the development of the guidelines.</p>
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## Italy

### Stage1: Information about regional and spatial development plans aimed at the wind power plant siting

Query A	YES/NO
Do regional/spatial plans meant to select/identify suitable areas for wind power plant siting exist? Alternatively: are they meant to take into account the criteria that reflect the specific features of the territories in relation to intended sources to be exploited?	NO

If YES, please fill in the following sets of queries A1, A2 and A3:

#### A1. Plan characteristics

Set of queries A1	
1.1 Plan title and act reference	
1,2 Main features description, with particular regard to:  a) energy and environmental targets  b) implementation responsible authorities  c) priorities activities to implement  d) main procedures and technical items  e) strategic decisions concerning wind energy production (i.e. definition zoning criteria for suitable/prohibited areas, setback distances from housing and protected areas, possibility to install wind energy in forests)  f) monitoring and control systems	

#### A2. How does the plan balance wind power production interests with other competing public interests?

Set of queries A2	
2.1 Apart from the entities responsible for energy, which	

authorities responsible for other public policies have been involved in setting up the plan? <i>Please indicate it</i>		
2.2 Degree of involvement ( <i>Mark your answer X</i> )		
<b>Authority responsible for the environment</b>	Binding opinion	
	Advisory	
<b>Authority responsible for the landscape</b>	Binding opinion	
	Advisory	
<b>Authority responsible for local development</b>	Binding opinion	
	Advisory	
<b>Other authorities</b>	Binding opinion	
	Advisory	

### A.3 Public consultation on the plan

<b>Set of queries A3</b>		
3.1 Access to public consultation (YES/NO)	Stakeholders	
	Associations	
	Citizens	
3.2 Possibility to affect the plan, on the basis of the outcomes of public consultation (YES/NO)		
3.3 Time to carry out public consultation activities		Duration in days (0, n)

Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Prior to plan adoption	
	Following the plan adoption	
Consultation	Prior to plan adoption	
	Following the plan adoption	

Participation	Prior to plan adoption	
	Following the plan adoption	

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.) ?*

### Space for comments A

*Add any further details/information/considerations useful to the purposes of Stage 1*

The absence of a regional/spatial plan has negative repercussions mainly in three fields: **relationship with the communities** living in the areas affected by the power plants siting, **national electricity transmission network development** and **cooperation among institutions** responsible for different policies (i.e. industrial and energetic development, local development, environment, cultural heritage).

Concerning the first aspect (relationship with the communities), the absence of a plan prevented the establishment of a suitable environment for wide participation by stakeholders and by the public to a general renewable energy development.

As far as the development of a national electricity transmission network is concerned, the lack of a plan prevented the efficient planning of the network development, generating inefficiencies within the systems and consequent additional costs.

Referring to the third issue - cooperation among institutions responsible for different policies - the absence of a plan hindered reaching a general agreement upon a reference framework, which would have facilitated agreements within the wind power plants authorization processes. It would have acted on the content, instead of constraining administrative procedures and timing. The wind power plant siting has been a matter of widespread disputes between the national government and the regions or municipalities.

## Stage 2: Analysis of wind energy plant approval procedures

### B1. Approval procedures

<p><b>Set of queries B1</b></p> <p><i>Please, provide the act references and shortly describe the approval processes (authorisation/permit,/licence) for wind energy plants including linkages with the planning and environmental impact assessment procedures.</i></p> <p><b>Act references</b></p> <p>Legislative Decree n. 387/03 - Promotion of electricity produced by renewable energy sources in the electricity market</p> <p>Legislative Decree n. 28/2011- Promotion of energy production from renewable energy sources</p> <p>Minister Decree 21/9/2010 - Guidelines for renewable energy power plants approval</p> <p>Law 241/1990 - concerning administrative provisions</p> <p>Legislative Decree 152/06 - Environmental Code</p> <p>Legislative Decree 42/04 - Landscape and Cultural Heritage Code</p> <p><b>Approval procedure</b></p> <p>The construction of wind power plants can, by law, be treated as a matter of public interest, and it is qualified as urgent and not deferrable. Therefore, the related approval procedure is submitted to the special rules applied to public works. It consists of a single authorisation named “<b>Autorizzazione Unica</b>” (<b>AU</b>), collecting all the necessary permits and licences to build and to exercise the plant. If needed, the <b>AU</b> changes the designed use of the interested area, automatically modifying the spatial development plan. Public interest justifies even the possibility to expropriate, by simplified procedures, the land for building the power plant and the associated transmission and distribution network infrastructure.</p> <p>The <b>AU</b> has a maximum duration of 90 days, apart from the expected time for the <b>Environmental Impact Assessment</b> procedure (EIA), when needed.</p> <p>The competent authority for the approval procedure is the <b>Ministry for Infrastructure and Transport</b> for the offshore power plants and the <b>regional governments</b> for all the other power plants subject to unique authorisation (AU).</p> <p>For the offshore wind power plants, the Ministry for Economic Development and the Ministry for the Environment express their opinion concerning the authorisation inside an organism named “<b>Conferenza dei Servizi</b>”. It is convened by the Ministry for Infrastructure and Transport authority, after the applicant has obtained the use licence from the competent authority for maritime state property. For the onshore wind power plants, the Ministry for the Environment expresses its advice concerning the authorisation inside the “<b>Conferenza dei Servizi</b>”, convened by the Region. For the authorization of wind power plants in protected areas - according to the Landscape and Cultural Heritage Code - the Ministry for the Cultural Heritage takes part to the “<b>Conferenza dei Servizi</b>” and expresses its advice. This Ministry also takes part if archaeological areas or areas, object of safeguarding ongoing procedures for the presence of archaeological heritage, are involved.</p> <p>In the case of positive advice by the competent authority for the AU and negative advice by Ministry for the Environment and/or by the Ministry for the Cultural Heritage, the authorization documents are transmitted to the Government for the final decision.</p>
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For small power plants, two simplified procedures - **PAS** and **Communication** - are provided. **Municipality** is the competent authority for these simplified procedures.

A simplified authorization procedure named “**Procedura Abilitativa Semplificata**” (**PAS**) - (D.Lgs. 28/2011) is applied for wind power plants, up to set power thresholds (0 - 60 kW), and for anemometric towers of more than 36 months duration. The application for the PAS is submitted to the **Municipality** at least 30 days before the operations starting date, together with a detailed project - signed by a qualified designer - and with the documents indicating the compatibility of the project with the spatial development plan and the urban regulations. The application has also to respect the safety and health measures. The tacit agreement is provided and, 30 days after the application submission without any notification from the Municipality, it is possible to start building.

**Communication to the Municipality** – An even more simplified procedure is provided for several small wind power plants that can be treated as free building. After the communication of the operation starting date - together with a detailed project, signed by a qualified designer - it is possible to start without waiting for a reply.

Tab 1: Scheme of the authorization procedures provided for wind power plants

WAYS OF OPERATING / INSTALLING	POWER (kW)	PROCEDURE
Single wind power plants installed on existing building roofs with a total height up to 1.5 m and diameter up to 1 m. The power plant does not have to be set within the field of application of the Landscape and Cultural Heritage Code.	Any	COMMUNICATION
Anemometric towers for the wind temporary measurement (up to 36 months duration) made by moving structures, in not protected areas	Any	COMMUNICATION
Power plants not falling in the first category	0-60	PAS
Anemometric towers destined to wind measurement (+36 months duration)	Any	PAS

In the authorization procedure, there are some relevant elements, defined by the “guidelines for the authorization” of the power plant siting in the landscape.

*Please, provide the act references and schematically describe Environmental Impact Assessment requirements*

**Act references**

D.Lgs. 152/06 - Environmental Code

**Environmental Impact Assessment requirements**

Tab. 2: Schematic description of Environmental Impact Assessment requirements

COMPETENT AUTHORITY	WIND POWER PLANT SIZE (MW)	WIND POWER PLANT SITING	PARTICULAR CONDITIONS	SUBJECT TO PRELIMINARY ASSESSMENT / EIA
Ministry for the Environment	Any	Offshore	None	EIA
Ministry for the Environment	Any	Offshore	Working duration < 2 years	Subject to preliminary assessment
Ministry for the Environment	> 30	Onshore	None	EIA
Ministry for the Environment	> 30	Onshore	Working duration < 2 years	Subject to preliminary assessment
Region	> 1 and $\leq 30$	Onshore	In protected areas	EIA
Region	> 1 and $\leq 30$	Onshore	None	Subject to preliminary assessment

1. Is a public consultation phase envisaged before the approval act adoption for wind power plants?

**NO**, a public consultation phase is not envisaged in the authorisation procedures. In the case of mandatory EIA, public information and public concerned consultation is performed within the EIA procedure. Only in this case, the public is **informed** by the publication of the preliminary environmental report on the competent authority website. Public concerned can submit written observations on the preliminary report, within 45 days from the report publication on the competent authority website. EIA Commission takes into account, **as general suggestions**, the observations received.

*If yes, specify:*  
1.1 Specify for which power plant size

1.2 Describe the arrangements for informing the public (i.e. publication in local newspapers, social media)		
1.3 Describe the arrangements for consulting the public concerned (i.e. written submissions, public inquiry...)		
2. Who may take part in the consultation stage?  Mark your answer X	Anyone who desires to participate can do it directly	
	Only those parties that can prove having a legitimate interest	
	Participation is open only to recognised associations	
3. Is any tool for public participation provided?  Mark your answer X	Public debate	
	Individual/committee initiatives	
	Not provided	
Possibility to affect the approval, on the basis of the outcomes of public consultation (YES/NO)		
		Duration in days (60 days)
Time to carry out public consultation activities		

Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Before the approval	
	Following the approval	
Consultation	Before the approval	
	Following the approval	
Participation	Before the approval	
	Following the approval	

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*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.) ?*

## *B2. Other regulatory measures impacting the community acceptance of wind power plants*

Set of queries B2														
2.1. As needed, is any of the following facilitating measure provided for the siting of wind power plants and/or distribution network infrastructures ?		(YES/NO) YES												
<p>a) Simplification of expropriation procedures</p> <p><b>Presidential decree n.327/2001</b></p> <p>The wind power plants construction is, by law, eligible to be treated as matter of public interest, and it is qualified as urgent and not deferrable (See section B1). Public interest justifies the possibility to expropriate, by simplified procedures, the land for building the power plant and the associated transmission and distribution network infrastructure.</p> <p>The table below (Tab.3) shows, which stage of the general procedure is or not simplified in the AU and whether or not the public is involved.</p> <p>Tab. 3: Comparison between stages of the general procedure and AU procedure and public participation</p> <table border="1"> <thead> <tr> <th>STAGES OF GENERAL PROCEDURE</th> <th>AU</th> <th>PUBLIC PARTICIPATION</th> </tr> </thead> <tbody> <tr> <td>Modification of the urban spatial plan</td> <td>Not necessary If needed, the AU changes the designed use of the interested area, automatically modifying the spatial development plan.</td> <td>NO</td> </tr> <tr> <td>Statement of public interest</td> <td>Not necessary The wind power plants construction is, by law, eligible to be treated as matter of public interest, and it is qualified as urgent and not deferrable.</td> <td>NO</td> </tr> <tr> <td>Expropriation constraint</td> <td>Necessary</td> <td>The competent authority is not obliged towards the land owner to respect the 20 days term for the notice of the</td> </tr> </tbody> </table>			STAGES OF GENERAL PROCEDURE	AU	PUBLIC PARTICIPATION	Modification of the urban spatial plan	Not necessary If needed, the AU changes the designed use of the interested area, automatically modifying the spatial development plan.	NO	Statement of public interest	Not necessary The wind power plants construction is, by law, eligible to be treated as matter of public interest, and it is qualified as urgent and not deferrable.	NO	Expropriation constraint	Necessary	The competent authority is not obliged towards the land owner to respect the 20 days term for the notice of the
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Statement of public interest	Not necessary The wind power plants construction is, by law, eligible to be treated as matter of public interest, and it is qualified as urgent and not deferrable.	NO												
Expropriation constraint	Necessary	The competent authority is not obliged towards the land owner to respect the 20 days term for the notice of the												

		beginning of the expropriation.	
<p>b) Simplification of procedures for modifying designed use, with particular reference to crop land, forest or natural areas etc.</p> <p><i>Please, provide the act references and shortly describe the procedure</i></p> <p>If needed, the AU changes the designed use of the interested area, automatically modifying the spatial development plan (see section B1).</p>			
<p>c) Simplification or elimination of tree felling licence procedures</p> <p><i>Please, provide the act references and shortly describe the procedure</i></p> <p>The municipality is the competent authority for issuing a tree felling licence. Concerning the AU, the opinion of the municipality is neither mandatory nor binding within the Conferenza dei Servizi, thus the tree felling licence is not required.</p>			

### Space for comments B

*Add any further details/information/considerations useful to the purposes of Stage 2*

The limited or even non-existing space for public involvement and debate within the authorization procedure prevented the creation of any other form of public participation except the manifestation of discontent and disagreement.

In particular, the simplification of the expropriation procedure in many cases has exacerbated the manifestation of the public disagreement.

## Stage 3: Information about the financial support to increase the electricity production from wind energy in terms of transparency of information on costs and results

### C.3 Support schemes to support electricity production from wind energy and other renewables

Set of queries C1	
3.1 Please describe the key national support schemes (e.g. Feed in tariff, feed in premium, auction/tender, renewable energy certificate system, investment grants/subsidies from state budget)	<p>Please, see the box (Fig. 1) below.</p> <p>Source:</p> <p><a href="https://www.arera.it/allegati/re_laz_ann/18/RAvolumel_2018.pdf">https://www.arera.it/allegati/re_laz_ann/18/RAvolumel_2018.pdf</a></p>

	<a href="https://www.gse.it/documenti_site/Documenti%20GSE/Rapporti%20delle%20attivit%C3%A0/GSE_RA2017.pdf">https://www.gse.it/documenti_site/Documenti%20GSE/Rapporti%20delle%20attivit%C3%A0/GSE_RA2017.pdf</a>
3.2 Please provide the total budget allocated to the support of wind energy over the last 5 years (euros)	Please, see the graphs (Fig. 2 & Fig.3) and the table (Tab.4) below. Source: <a href="https://www.arera.it/allegati/relaz_ann/18/RAvolumel_2018.pdf">https://www.arera.it/allegati/relaz_ann/18/RAvolumel_2018.pdf</a>
3.3 Please describe the methods to inform citizens on the purposes of financial support to renewable energy and on the results achieved.	Specific methods meant to inform citizens are not provided. GSE, the national energy sector operator, provides annual reports freely available on its website.

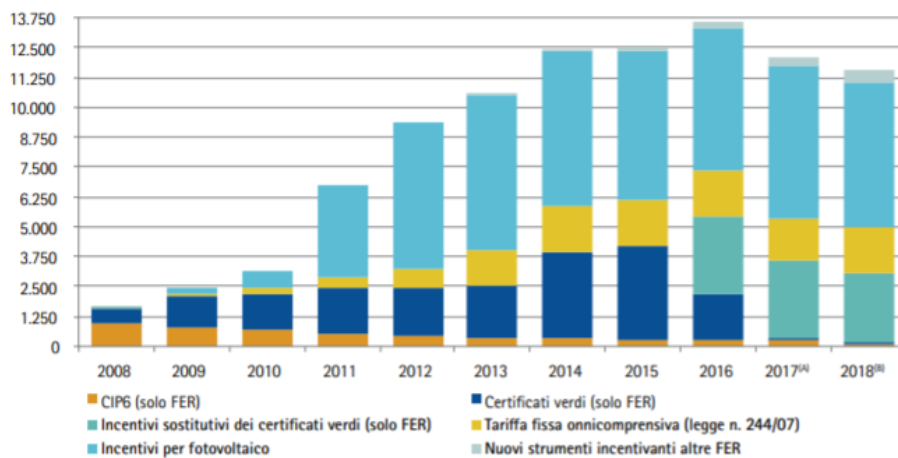
Fig. 1: National support schemes

Costs for RES support are paid by the electricity customers in the electricity tariff, according to the 2018 Activity Report from the Energy Authority (ARERA), the main current national support schemes for renewables are:

- Feed in tariffs (CIP6) for electricity produced by eligible renewable energy power plants;
- Green Certificates for net electricity produced by renewable energy power plants that have started operating by 31.12.2012. Starting from 01.01.2013, Green Certificates were replaced by Feed in premiums, recognized until the expiration date of the previous Green Certificate;
- Feed in tariffs “*Tariffa omnicomprensiva (TO)*” (all - inclusive tariff) for electricity produced by renewable energy power plants, excluding solar power plants up to 1MW of power (200kW for the wind power plant) starting operation by 31.12.2012;
- Tariffs for net electricity produced by renewable energy power plants, excluding solar plants starting to operate from 01.01.2013. These tariffs can be applied as Feed in tariffs in case of power plants up to 1 MW of power and as Feed in premium in case of all the other power plants;
- Feed in premium “*Conto Energia*” for electricity produced by solar power plants starting operation by 26.08.2012;
- Tariffs for net electricity produced by solar power plants starting to operate from 27.08.2012 until 06.07.2013 (at the moment it is not possible anymore to have access to these tariffs for recently built power plants). These tariffs can be applied as Feed in tariffs for power plants up to 1 MW power and as Feed in premium in case of all other power plants. It is also provided a bonus for the net electricity produced and immediately consumed in the place (SSP).

Concerning question 3.2 a schematic description is provided by the following figures and tables.

Fig. 2 Costs for supporting electricity produced by renewable energy plants in the last 10 years – in million EUR



(A) Preliminary balance data

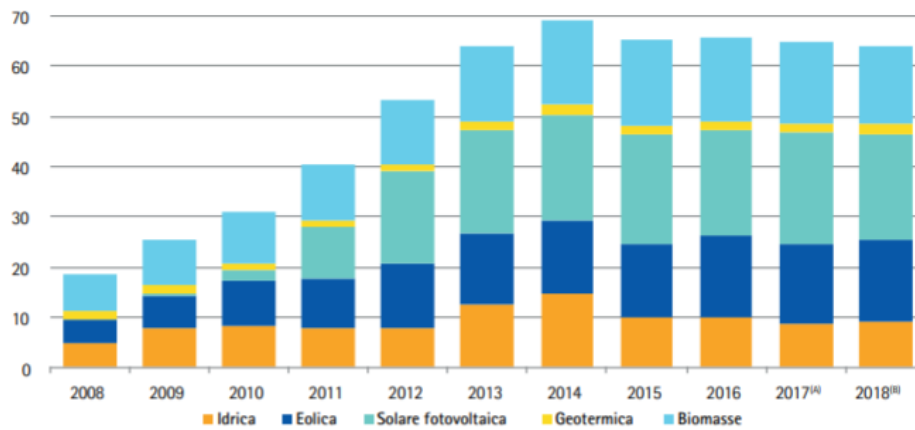
(B) Estimated data

Several of the support schemes described above, include other sources assimilated to the renewables. They consist of conventional energy sources and non-renewable waste. Table 4 summarises the annual costs covered during the last ten years.

Tab. 4: Budget allocated to support electricity produced by sources assimilated to the renewables in the last 10 years – in million EUR

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Cost for supporting the conventional sources assimilated to the renewables	3.967,2	2.871,7	2.871,4	2.306,5	2.228,5	1.494,9	909,3	662,9	582,5	445,9

Fig. 3 Support for electricity produced by renewable energy – in million EUR



(A) Preliminary balance data

(B) Estimated data

## Stage 4: Mechanism to support the financial participation of citizens/communities or providing other community benefits

### *D1. Active and passive financial participation of citizens and communities in national support schemes*

Set of queries D1	
4.1 To what extent do support schemes for wind energy consider/promote citizen/community based wind energy? (i.e. ownership of wind energy plants by local communities/citizens)	none
4.2 To what extent do support schemes promote passive/indirect financial participation of citizens and communities or provide financial compensations/other community benefits?	
4.3 Are there any other regulations/incentives/guidelines etc. providing for the active or passive financial participation of citizens and communities in wind energy (e.g. seed-money for citizen/community owned wind energy plants) or providing community benefits (e.g. taxation of wind energy etc.) ?	<p>In <b>Italy</b>, the hosting municipalities were allowed to make agreements with the wind companies and received production-based royalties. The situation has changed since the Ministerial Decree of September 9, 2010 had been adopted. The decree expresses very clearly that compensatory measures are not due in favour of the municipalities merely for the fact that they are hosting the RES-production activity. In fact, differently from water, wind as well as solar energy is not regarded as a local resource and therefore compensation for its exploitation is not provided. Compensatory measures are allowed only if the requirements linked to the implementation of the national energy strategy require high territorial concentrations of activities or the installation of high impact facilities and infrastructure. In addition, they cannot consist of pure monetary reimbursements and must be directly correlated to the impacts to be compensated, to energy efficiency interventions, to</p>

	<p>the diffusion of installations of renewable energy sources or to raise awareness of citizenship on the aforementioned themes. The effect on local acceptance of this new regulatory regime has still to be evaluated<sup>47</sup>.</p> <p>The extension of a wind farm in Sardinia by ENEL Greenpower in “Sa Turrina Manna” Tula can be regarded as an illustrative case (cf. corresponding <i>Best Practice case study Tax Cuts and Landscape Commitments in Sardinia</i>). ENEL Greenpower is the sole investor and owner of the farm. The establishment of the farm faced almost no barriers of social acceptance. This was particularly thanks to the positive determination of the local administration, mayor and municipal council who worked in coordination with the regional government of Sardinia. However, during the second expansionary stage, the project was faced with two major obstacles. Firstly, in the form of demands for a more equal distribution of financial benefits of the farm, and secondly, demands to minimize the environmental and visual impact of the extension. Through a participatory and constructive approach, the developer, local authority and the local community successfully overcame the</p>
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<sup>47</sup> Cavicchioli and Garofalo, 2015.

	barriers. This was achieved by financial contributions of the developer to the municipal budget (2% of the gross annual income would be provided to the municipality accounting for approx. 12% of the municipality's budget). Furthermore, the developer took into account the environmental and landscape concerns of the local population.
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## D2. Voluntary self-commitments and agreements for active or passive financial participation of local residents/communities?

<p>4.1 Are there any voluntary agreements concluded between national/regional public authorities/actors and the wind industry providing for active or passive financial participation of local residents/communities or providing other community benefits?</p>	<p>There are several examples for voluntary agreements between developers and host municipalities on an individual project level. On the sector/industry level, an agreement between public and private entities (<i>Carta del rinnovamento eolico sostenibile - Charter of Sustainable Wind Power Renewal</i>) has been signed in 2015 by the main Environmental Association (<i>Legambiente</i>), wind energy developers (<i>e2ienergie speciali</i>, <i>Enel Green Power</i>, <i>ERG Renew</i>, <i>Falck Renewables</i>, <i>IVPC- Power Vento Power Corporation</i>) and the National Association of Italian Communities (ANCI). The Charter lays down the operational rules, application criteria, operational requirements, standards, procedures and best practices to make the renewal projects for existing Italian wind farms more sustainable in compliance with natural and social eco-systems, thus guaranteeing a greater "green" production capacity with lower environmental impact and enhancing the areas and municipalities where wind farms are located. The Charter shall help to ensure effectiveness and transparency in the wind farm repowering process. The measure identified should be consistent with</p>
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	<p>the principles of the "Charter" and useful for building together a path of sustainability able to qualify these initiatives.</p> <p>The Charter lays down the rules and application criteria, standards, procedures and best practices. Many of these areas boast a great vocation for tourism, culture and agriculture.</p> <p>In operational terms, implementing the "Charter" means defining a regulatory framework to:</p> <ul style="list-style-type: none"> <li>• simplify the procedures for the authorisation of "renewal" interventions in the sites where the wind power vocation is higher, in line with the landscape protection criteria;</li> <li>• integrate the projects with the initiatives to expand the electrical networks;</li> <li>• increase the production of "green kilowatt hours" in a satisfactory and sustainable way, for both the operators and the community)<sup>48</sup></li> </ul> <p>The repowering process in Abruzzo (cf. corresponding Best Practice case study <i>Wind Farm Repowering in Abruzzo</i>) was implemented in the framework of the Charter.</p>
4.2 Are there any voluntary self-commitments by the wind industry referring to the procedural or financial participation of citizens and communities or to the provision of other community benefits?	

<sup>48</sup> cf. <https://www.erg.eu/en/sustainability/our-stakeholders/wind-power-renewal-charter>

At national scale, 14 cases of bottom-up initiatives in the sense of projects owned by local communities mostly operating in the field of PV (cooperatives, limited company, association) have been recently surveyed, rather diversified among them, which started operating in 2007 (Candelise and Ruggieri 2017). Initiatives in the field of wind energy have been marked in green. See the table below:

### Energy local communities in Italy

Project	Proponent	Legal form	Instrument offered to citizens	Ownership	% citizen ownership	Financing structure
Sole per tutti	Municipality	coop	Equity	Citizens	100%	40% equity (citizens) + 60% debt (bank)
Retenergie	Community	coop	Equity/Debt	Citizens	100%	70% citizens + 30% debt (bank)
E' Nostra	Associations & Companies	coop	Equity	Citizens + proponents	80%	80% equity (citizens) - 20% (proponents)
Melpignano	Municipality	coop	NA	Citizens	100%	100% debt (bank + legacoop)
Energyland	Company	coop	Equity	Citizens+Company	30%	Initially financed through private company capital, then opened to citizens
Masseria del sole	Company	coop	Equity	Citizens+Company	90%	Initially financed through debt (bank), then equity opened to citizens
Fattorie del Sole	Company	coop	Equity	Citizens+Company	Still open	Initially financed through debt (bank), then equity opened to citizens
Società Ledro Energia - SO.L.E.	Community	coop	NA	Citizens	NA	NA
Comunità Energetica San Lazzaro	Municipality	coop	Equity*	Municipality*	100%	100% equity (citizens)
Comunità solare	Municipality	Association	Equity**	Citizens + local ESCO**	0,5%	NA
Kennedy Energia	Municipality	Associations	Equity	Citizens	100%	100% equity (citizens)
Dosso Energia	Community	Ltd company	Equity	Citizens	100%	100% equity (citizens)
Impianto eolico Monte Mesa	Municipal Utility	Ltd company	Bond	Municipal Utility	0%	
Un ettaro di cielo	Municipal Utility	Ltd company	Bond	Municipal Utility	0%	Initially financed by company then opened to citizens. 50% equity (Mun. Utility) + 50% debt (citizens)

Source: Candelise and Ruggieri 2017

\* Municipality formally owner of the PV system, but investment financed by citizens association, who manages the project and gets returns out of it

\*\* Initiative proposed by municipality, PV systems developed by local ESCO which then open ownership to citizens

## Latvia

### Stage1: Information about regional and spatial development plans aimed at the wind power plant siting

Query A	YES/NO
Do regional/spatial plans meant to select/identify suitable areas for wind power plant siting exist?  Alternatively: are they meant to take into account the criteria that reflect the specific features of the territories in relation to intended sources to be exploited?	Partially, however, thematic wind energy spatial plans do not exist

**For the time being there are no specific national level thematic spatial plan on on-shore wind energy elaborated in Latvia, which identify directly, by stating the precise geographic coordinates, the permitted areas.**

**Regional level.** Currently Latvia has no regional governments. There are five planning regions in Latvia. At present, the sustainable development strategies of planning regions express only a general support for wind energy development, but it is not reflected in the spatial development perspectives of the planning regions or is only reflected in a very schematic way with insufficient level of detail. **Thematic regional maps for wind power plants siting have also not been developed at the level of planning regions.**

Thus, permitting of on-shore wind power follows the general spatial planning procedures of the local governments for their administrative territory, approved by local government regulations which also includes functional zoning maps for the administrative territory and regulations for the use and building of the territory.

#### Relevant regulations at national level

**Republic of Latvia Cabinet of Ministers Regulation No. 240 “General Regulations for the Planning, Use and Building of the Territory”** (adopted in April 2013, <https://likumi.lv/doc.php?id=256866>). According to this Regulation, it shall be allowed to develop wind power stations with a capacity of more than 20 kW in an industrial building territory, a technical building territory and agricultural territory or in the areas indicated in the spatial plans and local plans. The territories where the construction of wind power stations is prohibited may be laid down in the spatial plan or local plan. The minimum set-back distances (in meters) from rural residential houses, dense residential and public building areas of villages and towns, specially protected nature territories of different types, health resorts are provided by this national Regulation. **The provisions on minimum setback distances are the same for the whole territory of Latvia.**

#### Relevant regulations at local level

Local governments can include the additional requirements to reflect the specific features of the particular territories and use the right to prohibit siting of wind power plants in certain areas of the territory of the municipality. We found several examples of how this is done in practice in Latvian municipalities, in addition to requirements set by national level legislative framework. The level of local amendments differs

quite considerably, when comparing municipalities. In general, it can be concluded that those local governments that already have the experience of existing wind power plants develop more detailed conditions, marking, in greater or lesser detail, the particular areas permitted for wind power plants siting in the functional zones of spatial plans. However, in general, the precise designation (by coordinates) of permitted areas within the spatial planning cannot be considered as common practice in Latvia. Instead, the designation of permitted general functional zones in which wind power plants siting may be available with reference to further elaboration of the detailed plan and its acceptance prevails.

### **Public consultation and public participation in local government spatial planning**

- The public participation plan is one of the components of the terms of reference of the development of the municipal planning document. Specific forms of public participation usually include public surveys, the possibility to submit written opinions, or the possibility to participate in thematic working groups.
- Public consultation of the municipal sustainable development strategies, draft development programmes, spatial planning and local planning drafts is at least four weeks. If the local councils decides to revise the draft or re-formulate the particular document, the duration of the consecutive public consultation is at least three weeks.

### **Participation in detail planning**

A notice within four weeks regarding the elaboration of a detailed plan to the owners (legal possessors) of the real estate located in the territory of the detailed plan and of the real estate, which borders to the detailed planning territory. The term of public consultation of the detailed planning project amounts to three to six weeks. If the solutions included in the detailed plan are directly related to real estate not included in the detailed plan territory, the written consent of the owners or legal possessors of these real estate properties must be obtained prior to approval of the detailed plan.

### **Opinions of relevant institutions**

As a common practice, Strategic Environmental Assessments (SEA) are applied to local government spatial plans. In case a SEA had been already performed for another development planning document (e.g., local government development plan), the regional Environmental Board of the State Environmental Service considers whether it is necessary and substantiated to require a SEA for the actual spatial planning document. The developer consults with the State Environmental Bureau regarding the list of institutions and non-governmental organizations to which the planning document and Environment Review of SEA shall be sent for comments (comments should be submitted within 20 days after receiving of the noted documents). The Environmental Review of the SEA is available for the public. The public may submit written opinions (for at least 30 days after the publication of the announcement). Any person may submit a written opinion and participate in the public hearing. The public hearing on the Environmental Review is organized, if necessary (based on consultation results with the State Environmental Bureau), though a common practice is to organize this hearing together with the public discussion on spatial plan or local plan.

If YES, please fill in the following sets of queries A1, A2 and A3:

### *A1. Plan characteristics*

Set of queries A1	
1.1 Plan title and act reference	
1,2 Main features description, with particular regard to:  a) energetic and environmental targets  b) implementation responsible authorities  c) priorities activities to implement  d) main procedures and technical items  e) strategic decisions concerning wind energy production (i.e. definition zoning criteria for suitable/prohibited areas, setback distances from housing and protected areas, possibility to install wind energy in forests)  f) monitoring and control systems	

### *A2. How does the plan balance wind power production interests with other competing public interests?*

Set of queries A2		
2.1 Apart from the entities responsible for energy, which authorities responsible for other public policies have been involved in setting up the plan? <i>Please indicate it</i>		
2.2 Degree of involvement ( <i>Mark your answer X</i> )		
<b>Authority responsible for the environment</b>	Binding opinion	
	Advisory	
<b>Authority responsible for the landscape</b>	Binding opinion	

	Advisory	
<b>Authority responsible for local development</b>	Binding opinion	
	Advisory	
<b>Other authorities</b>	Binding opinion	
	Advisory	

### *A.3. Public consultation on the plan*

<b>Set of queries A3</b>		
3.1 Access to public consultation (YES/NO)	Stakeholders	
	Associations	
	Citizens	
3.2 Possibility to affect the plan, on the basis of the outcomes of public consultation (YES/NO)		
3.3 Time to carry out public consultation activities		Duration in days (0, n)

Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Prior to plan adoption	
	Following the plan adoption	

Consultation	Prior to plan adoption	
	Following the plan adoption	
Participation	Prior to plan adoption	
	Following the plan adoption	

## Stage 2: Analysis of wind energy plant approval procedures

### B1. Approval procedures

#### Set of queries B1

*Please, provide the act references and shortly describe the approval processes (authorisation/permit/licence) for wind energy plants including linkages with the planning and environmental impact assessment procedures.*

#### Licensing process for wind energy projects

1. The applicant completes the **application to receive a permit** for introduction of new electricity production capacities and **submits the application to the Ministry of Economics**
2. The **Ministry of Economics** examines the submitted documents, verifies the information indicated therein and **takes a decision regarding the issuance of a permit.**
3. The Building Authority issues the Construction permit. Development of the construction project shall correspond to the regulations of the respective local government, local government **spatial plan/zoning**, and **shall incorporate the provisions of an Environmental Impact Assessment**, stated by the competent state authority.

#### Public information

The Ministry of Economics publishes a list of projects referred to decisions on its website, indicating the date of issuance thereof, the applicant/company, the registration number, the legal address, the type of power plant and the capacities installed. However, it has to be noted that only the legal address of the electricity producer is published in this list, not the address of the site where the plant is to be located.

**Cabinet of Ministers Regulation No 883** (adopted 11.08.2009, in force 15.08.2009) "Regulations regarding Permits for Increasing Electricity Production Capacities or the Introduction of New Production Equipment" (*Noteikumi par atļaujām elektroenerģijas ražošanas jaudu palielināšanai vai jaunu ražošanas iekārtu ieviešanai*, <https://likumi.lv/doc.php?id=196123>).

#### Conclusions related to the linkage of permitting with the planning and environmental impact assessment procedures

- The applicant submits to the Ministry of Economics the information including the address and the cadastre number of the site in which the power plant shall be located. This means, the application shall correspond to the permitted use of the given territory as defined by the spatial planning of the relevant local government.
- Currently the Environmental Impact Assessment (EIA) procedure is applied before issuing the building permit by the Building authority. Within the EIA, it can be stated particular requirements regarding the operation regime of the wind power stations and other requirements.
- The Law on Environmental Impact Assessment states that prior to the performance of an EIA the initiator shall consult with the local government regarding the possibilities of implementing the intended activity on the territory of the local government and the local government shall send its opinion on the compliance of the planned activity with the existing spatial development planning framework.

**Please, provide the act references and schematically describe Environmental Impact Assessment requirements**

- Republic of Latvia, **Law on Environmental Impact Assessment**, actual consolidated version, in force from 07 June 2018, <https://likumi.lv/ta/id/51522>
- The details of the EIA procedure, including public information and consultation rules, are provided by the Cabinet of Ministers Regulation No 18 (2015) "**Procedures for Assessing the Environmental Impact of Intended Activity and Accepting the Intended Activity**", actual consolidated version, in force from 01 June 2018, <https://likumi.lv/doc.php?id=271684>
- In case the EIA procedure is not applied, Technical Regulations shall be issued. Public information and public consultations provisions for this case is provided by the Cabinet of Ministers Regulation No 30 (2015) "**Procedures by Which the State Environmental Service Shall Issue Technical Regulations for the Intended Activity**", actual consolidated version, in force from 01 January 2017, <https://likumi.lv/ta/id/271841>

1. Is a public consultation phase envisaged before the approval act adoption for wind power plants? (YES/NO) **YES**

The Law on Environmental Impact Assessment envisages that within the EIA procedure a mandatory consultation phase shall be performed before the approval act.

1.1 If yes, specify for which power plant size

**According the Law on Environmental Impact Assessment** (Section 26<sup>1</sup> of the Annex 1 of the Law), **the EIA procedure is mandatory for** construction of on-shore wind farms, if their:

- 1) number is 15 plants (turbines) and more;**
- 2) total capacity is 15 megawatts and more**

Depending on the results of an initial assessment, the EIA procedure might be also required for lower thresholds of number (5 turbines) and capacity (5 megawatts) or in some particular cases related to setback distances (see details below) as well.

After performing an initial assessment, the State Environmental Service shall decide about the further procedural options, i.e. (1) to apply formal EIA procedure or (2) to issue the Technical Regulations for the intended activity.

**Technical Regulations** shall be issued for installation or construction of wind power plant (turbine) of any capacity.

**An initial Environmental Impact Assessment shall be applied** (Section 3.8 of the Annex 2 of the Law) **for construction of on-shore wind farms, if:**

- a) their number is 5 plants (turbines) and more,
- b) their capacity is 5 megawatts and more,
- c) it is intended within the distance of less than 500 metres from residential houses (except cases when a wind farm is intended for the supply of electricity to a residential house and its capacity is 20 kilowatts and more),
- d) the height of the construction exceeds 30 metres and it is intended in a specially protected nature territory or within the distance of less than 1 kilometre from a specially protected nature territory [except the territory of natural monuments - protected stones (secular stones) and protected trees

	(secular trees)], or from a micro-reserve established for the protection of specially protected bird species.
<p><b>1.2 Describe the arrangements for informing the public (i.e. publication in local newspapers, social media)</b></p> <p>Below we summarize the procedure based on the Law on Environmental Impact Assessment and the Cabinet of Ministers Regulation No 18 (2015) “<b>Procedures for Assessing the Environmental Impact of Intended Activity and Accepting the Intended Activity</b>”, issued pursuant to this Law.</p> <p><b>Arrangements for informing the public include different stages. Particular arrangements related to each of the stages are presented below, in a table asking about the Stages of Public Involvement (Information, Consultation Participation):</b></p> <ul style="list-style-type: none"> <li>• Informing the public on the Initial Public Discussion of the Impact Assessments and the possibility to submit written opinions;</li> <li>• Informing the public on Impact Assessment Statement (in general these arrangements are similar as for the stage of Initial Public Discussion)</li> <li>• Arrangements on Information of Public Organisations</li> <li>• Information on Opinion on an Environmental Impact Statement of an intended activity and on a Decision taken.</li> </ul>	
<p><b>1.3 Describe the arrangements for consulting the public concerned (i.e. written submissions, public inquiry)</b></p> <p><b>Initial Public Discussion</b></p> <ul style="list-style-type: none"> <li>• Upon a written request of the competent state authority (State Environmental Bureau) or the local government in the administrative territory of which the intended activity is planned, an initiator shall ensure an initial public discussion of the impact assessment of the intended activity.</li> <li>• The initiator may organise the initial public discussion upon his or her own initiative.</li> <li>• The initiator organizes the initial public discussion meeting no earlier than 10 days after the publication in the newspaper issued by the local government or in another local newspaper.</li> <li>• The initiator collects and submits to the State Environmental Bureau and the local government the results of the initial public discussion.</li> </ul> <p><b>Impact Assessment Statement and Public Discussion</b></p> <ul style="list-style-type: none"> <li>• An initiator <b>has the duty to</b> ascertain the opinion of the public, promoting the participation of a representative part of the population who may be influenced by an intended activity in a public discussion or to poll this part of the population.</li> <li>• The initiator shall organise a <b>public discussion</b> at least 7 days following the publishing of the announcement in the newspaper and not later than 10 days prior to the expiry of the time period determined for the submission of proposals of the public.</li> </ul> <p><b>If information of the public has not been performed, or a public discussion has not taken place in compliance with the requirements of the Law on Environmental Impact Assessment and other laws and regulations, the competent authority shall assign the initiator to ensure the informing of the public and a public discussion.</b></p>	

2. Who may take part in the consultation stage?  <i>Mark your answer X</i>	Anyone who desires to participate can do it directly	X
	Only those parties that can prove having a legitimate interest	
	Participation is open only to recognised associations	
3. Is any tool for public participation provided?  <i>Mark your answer X</i>	Public debate	X
	Individual/committee initiatives	X
	Not provided	
<b>Possibility to affect the approval, on the basis of the outcomes of public consultation (YES/NO)</b>  An initiator shall, upon having accessed the opinions submitted by the public and the results of the public discussion, develop an Environmental Impact Statement. The Statement shall provide information regarding the result of the public discussion by appending a report on participation measures of the public and proposals submitted by the public and specifying how the submitted proposals are taken into account or providing specific arguments if the proposals are not taken into account. The initiator shall submit this statement together with the copies of written proposals of the public in a printed form and electronically to the competent authority, as well as place a statement on the initiator website. Public opinion serves as one of the arguments on the decision of the local government or another relevant authority laid down in Law to accept or not accept an intended activity.		YES
		Duration in days (0, n
<b>Time to carry out public consultation activities</b>  1. The stage of initial public discussion – <b>within 20 days</b> following the publishing of the announcement of the initial public discussion in the local newspaper. 2. The stage of discussion on Environmental Impact Statement - <b>within 30 days</b> following the publishing of the announcement in the local newspaper. 3. The stage after the public discussion on Environmental Impact Statement – <b>within 7 days</b> following the public discussion meeting there is a right to submit a separate opinion on the information included in the minutes of the public discussion meeting to be added to the minutes.		

Stages of public involvement		Please describe the arrangement (press release, meetings...)
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<b>Information</b>	Before the approval <b>EIA</b>	<p><b>Initial Information. Initial Public Discussion</b></p> <ul style="list-style-type: none"> <li>• Initiator to inform the owners (possessors) of immovable properties which are located next to the territory of the intended activity,</li> <li>• Announcement in at least one newspaper issued by a local government or another local newspaper,</li> <li>• Announcement on the initiator's own website or the duly authorised person's website,</li> <li>• Announcement submitted by the initiator for the website of local government</li> <li>• Announcement submitted by the initiator for the website of competent state authority (State Environmental Bureau), (All electronic announcements shall include the reference to the publication in the local newspaper)</li> <li>• Publicly available information at local public administration premises: an information on the intended activity and the documents necessary for the initial public discussion shall be placed by initiator at local government's council building and municipal administration building. The competent state authority (State Environmental Bureau) sends the Information on the decision of EIA application to associations and foundations that have the objective of protecting the environment under their Statute and provided their e-mail addresses.</li> </ul>
	Following the approval <b>EIA Statement</b>	<p><b>Public information on elaborated Environmental Impact Statement</b></p> <p>Public information on Environmental Impact Statement and announcement regarding the possibility of the public to become familiar with the Statement and documents related thereto, to submit written proposals or opinions and participate in the public discussion:</p> <ul style="list-style-type: none"> <li>• Initiator's own or the duly authorised person's website,</li> <li>• Announcement in at least one newspaper issued by a local government or another local newspaper</li> <li>• Initiator submits the Statement and announcement in a printed form and electronically to the local government that ensures the placement of the announcement on local government's website and availability of the Statement for the public.</li> <li>• Initiator submits the announcement electronically to the competent state authority (State Environmental Bureau) which places it on the website thereof, providing also a link to the initiator's website.</li> <li>• Initiator provides the necessary information, documents and material to be publicly available at local government's council</li> </ul>

		<p>building and municipal administration building.</p> <ul style="list-style-type: none"> <li>• The announcement of the Statement is displayed in public places where the announcement reaches as many recipients as possible</li> <li>• The minutes of public discussion meeting are available at the State Environmental Bureau and local government websites, and on the initiator's own or the duly authorised person's website.</li> <li>• All electronic announcements shall include the reference to the publication in the local newspaper.</li> </ul> <p>The initiator shall ensure on its own or the duly authorised person's website access to information on the intended activity (including opinions provided by other institutions as well as environmental information available to the initiator) also after the date of the public discussion meeting until the day when State Environmental Bureau's Opinion on the Environmental Impact Statement is received.</p> <p>The Environmental Impact Statement on the website of the initiator or its authorised person is available for not less than 3 months or until the day when relevant local government or another relevant authority, specified by the Law on EIA, has taken decision of the intended activity.</p> <p><b>Information on Opinion on a Statement</b></p> <ul style="list-style-type: none"> <li>• On the website of the state competent authority (State Environmental Bureau),</li> <li>• Announcement to be published by the State Environmental Bureau in at least one newspaper issued by the local government or in another local newspaper that an Opinion on the Statement has been provided, as well as inform regarding the possibility to become acquainted with the referred to Opinion and Statement</li> <li>• The Opinions on a Statement, sent by the State Environmental Bureau to local government (in a printed form and electronically) shall be published on the local government website.</li> </ul> <p><b>Provision of Information Regarding a Decision Taken</b></p> <p>The local government, or another relevant authority specified by Law, has to post this information on its website and send it for publishing in at least one newspaper issued by a local government or in other local newspaper. The publication shall indicate the local government or the state authority in which the concerned parties may become acquainted with the content of the decision, the basis for the decision and information regarding the public discussion</p>
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		process, the activities which shall be performed in order to prevent or reduce the negative effect on the environment.
<b>Consultation</b>	Before the approval <b>EIA</b>	<ul style="list-style-type: none"> <li>• <b>The Initial Public Discussion of the impact assessment of the intended activity</b> upon a written request of the competent state authority (State Environmental Bureau) or the local government, as well as an initiator may organise the initial public discussion upon its own initiative.</li> <li>• The results of public discussion are collected by the initiator and submitted to the State Environmental Bureau.</li> </ul>
	Following the approval <b>EIA</b>	<b>Impact Assessment Statement and Public Discussion Thereof</b> <ul style="list-style-type: none"> <li>• By initiator - ascertaining the opinion of the public, promoting the participation of a representative part of the population who may be influenced by an intended activity in a public discussion or to poll this part of the population.</li> <li>• Public discussion on Environmental Impact Statement,</li> <li>• The initiator sends the meeting minutes to the State Environmental Bureau and the local government, where it is available to the public, and publishes them on the website of the initiator or its authorized person.</li> </ul>
<b>Participation</b>	Before the approval <b>EIA</b>	<ul style="list-style-type: none"> <li>• Within 20 days following the publishing of the announcement of the initial public discussion of the intended activity in a local government's newspaper or other local newspaper, any person may submit written opinions to the State Environmental Bureau on the eventual environmental impact of the intended activity. The Bureau shall forward these opinions to the initiator.</li> <li>• An EIA programme shall be developed taking into account, among other information, the results of an initial public discussion, the proposals of the public, the information provided by local government.</li> </ul>
	<b>Following the approval EAI</b>	<ul style="list-style-type: none"> <li>• Any person has the right to send to the initiator and competent authority (State Environmental Bureau) written proposals or opinions regarding an EIA Statement within 30 days following the publishing of the announcement in the local newspaper.</li> <li>• Within 7 days of the public discussion meeting, each participant of the meeting has the right to submit a separate opinion to the initiator and the State Environmental Bureau on the information included in the minutes of the public discussion meeting to be added to the minutes.</li> </ul>

***Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.)?***

- There are examples of local governments organizing opinion surveys in the municipality, in addition to the polling prescribed by the EIA regulation (e.g., the good practice case from Liepaja municipality, described in the Deliverable 4.2 “Good Practice Portfolio”, pages 61-62).
- On the other hand, local opponent groups are very active in organising informal activities by themselves including collective letters sent to the State Environmental Bureau, search for and submission of additional information sources requesting to consider them within the EIA procedure, organising meetings with additional experts and inviting the experts to submit the opinion to be sent for considering within EIA procedure.
- NGOs are usually active in submitting opinions/proposals within the EIA procedure.

## *B2. Other regulatory measures impacting the community acceptance of wind power plants*

Set of queries B2	
2.1. As needed, is any of the following facilitating measure provided for the siting of wind power plants and/or distribution network infrastructures?	(YES/NO )
a) Simplification of expropriation procedures <i>Please, provide the act references and shortly describe the procedure</i> <i>No information available</i>	
b) Simplification of procedures for modifying designed use, with particular reference to crop land, forest or natural areas etc. <i>Please, provide the act references and shortly describe the procedure</i> <i>No information available</i>	
c) Simplification or elimination of tree felling licence procedures <i>Please, provide the act references and shortly describe the procedure</i>	

### Space for comments B

*Add any further details/information/considerations useful to the purposes of Stage 2*

In the course of the EIA procedure for wind parks, a key concern for the local population is the possibility of financial compensation in case of decreasing immovable property values in the wind park vicinity. However, so far such compensations are not provided.

## Stage 3: Information about the financial support to increase the electricity production from wind energy in terms of transparency of information on costs and results

### *C.3 Support schemes to support electricity production from wind energy and other renewables*

Set of queries C1	
3.1 Please describe the key national support schemes (e.g. Feed in tariff, feed in premium, auction/tender, renewable energy certificate system, investment grants/subsidies from state budget)	There is a feed-in-tariff for existing plants, but currently no support is available for newcomers
3.2 Please provide the total budget allocated to the support of wind energy over the last 5 years (euros)	The total sum (total for all wind power plants receiving the feed-in tariff payments) paid above market price in the period 2014-2018 constitute 31.8 MEUR. There has been no investment support from state budget provided over the last 5 years.
3.3 Please describe the methods to inform citizens on the purposes of financial support to renewable energy and on the results achieved.	<p>1. Detailed information regarding feed-in tariff payments, at the level of individual wind park, starting from 2011, is available on the web page of the Ministry of Economics.</p> <p>2. However, this question can be viewed also in a broader sense, namely, how the reasons for supporting the use of RES and RES-electricity are explained to public. The reasons why RES utilisation is considered important (e.g. GHG emissions reduction, energy supply security, impact on economy/jobs, etc.) have been addressed in several projects in the field of information, education and training of the public and target groups in the period 2015-2016 co-financed by the programme "National Climate Policy" of the EEA Financial Mechanism for the years 2009-2014.</p> <p>After expiration of this EEA programme, information and education about GHG emissions reduction possibilities, are currently provided within the programmes and projects supported by the Latvian Environmental Protection Fund, including, for instance, regular publication of a Climate page in the large daily newspaper.</p> <p>However, there is no possibility to identify financial amount of these programmes devoted particularly to wind energy.</p>

### Comment on feed-in tariff application

In the 1990ies Latvia introduced a feed-in tariff for wind power. **However, in May 2011 a regulation was adopted which envisaged that new licenses for selling renewable electricity within the feed-in tariff system should not be issued. This regulation is still in force.** Thus, the feed-in tariff is currently applied for existing wind power plants only until the corresponding rights expire. This also means, that the perspectives regarding support for renewable energy including for renewable energy communities (Article 22 of the re-cast RES Directive) are unclear.

### Other issues.

- There is possibility to buy “**a 100% green electricity**” in **Latvia retail trade**. However, the mandatory renewable energy certification system is not applied in Latvia. Thus this action is the free choice of the electricity consumer, both business sector and households, and demonstrates its values, attitudes as well as serve also as the communication tool for the business sector end-users.
- **Green electricity within public procurement.** The Cabinet of Ministers Regulation No 353 “Requirements of Green Public Procurement and the Procedure They Shall Be Applied” came into force on 01 July 2017. Corresponding electricity is included in the list of goods and services for which green procurement requirements and criteria might be applied. Procurement of green electricity means the procurement of electricity in which at least 50% of the amount is provided by renewable energy sources (*RES-E*) and/or high efficiency combined heat-power production.

## Stage 4: Mechanism to support the financial participation of citizens/communities or providing other community benefits

### *D1. Active and passive financial participation of citizens and communities in national support*

#### **Not yet developed in Latvia**

Set of queries D1	
4.1 To what extent do support schemes for wind energy consider/promote citizen/community based wind energy? (i.e. ownership of wind energy plants by local communities/citizens)	
4.2 To what extent do support schemes promote passive/indirect financial participation of citizens and communities or provide financial compensations/other community benefits?	
4.3 Are there any other regulations/incentives/guidelines etc. providing for the active or passive financial participation of citizens and communities in wind energy (e.g. seed-money for citizen/community owned wind energy plants) or providing community benefits (e.g. taxation of wind energy etc.)?	Immovable property tax is paid to local government's budget

## *D2. Voluntary self-commitments and agreements for active or passive financial participation of local residents/communities*

4.1 Are there any voluntary agreements concluded between national/regional public authorities/actors and the wind industry providing for active or passive financial participation of local residents/communities or providing other community benefits?	Not yet
4.2 Are there any voluntary self-commitments by the wind industry referring to the procedural or financial participation of citizens and communities or to the provision of other community benefits?	Yes, see below comment

### **Comment**

**Referring to the ongoing Environmental Impact Assessment Procedure for the planned, large scale wind power park in the municipalities of Dobeles and Tukums** it was stated by the initiator of this wind park during the public discussion of the project that he is ready to establish financial contribution for a community fund. This statement has been repeated in interviews with national media. Likewise, the Environmental Impact Statement includes such a commitment in the chapter devoted to the socio-economic impacts of the planned project. So this can be regarded as an example of a voluntary self-commitment for the given case. However, as the EIA procedure is not yet finished, the practical details on implementation of this commitment are not elaborated yet.

## Norway


### Stage1: Information about regional and spatial development plans aimed at the wind power plant siting

Query A	YES/NO
Do regional/spatial plans meant to select/identify suitable areas for wind power plant siting exist? Alternatively: are they meant to take into account the criteria that reflect the specific features of the territories in relation to intended sources to be exploited?	YES

If YES, please fill in the following sets of queries A1, A2 and A3:

#### A1. Plan characteristics

Set of queries A1	
1.1 Plan title and act reference	At national level there is a “national frame”, which suggests suitable areas for wind power in Norway. <b>This is not a plan, which means it is not legally binding.</b> The framework has been developed by the national regulator NVE and is currently on hearing. The final version will be decided on by the political authorities. ( <a href="http://publikasjoner.nve.no/rapport/2019/rapport2019_12.pdf">http://publikasjoner.nve.no/rapport/2019/rapport2019_12.pdf</a> )
1.2 Main features description, with particular regard to: a) energy and environmental targets b) implementation responsible authorities c) priorities activities to implement d) main procedures and technical items e) strategic decisions concerning wind energy production (i.e. definition zoning criteria for suitable/prohibited areas, setback distances from housing and protected areas, possibility to install wind energy in forests) f) monitoring and control systems	The aim with the national framework is to help ensuring that applications for wind power licences are directed towards the best wind power locations. The framework is expected to contribute to increased predictability, more efficient licensing and mitigating conflicts.  The green areas in the map below, are considered as being the best suitable areas for wind power in Norway.

	 <p>The areas are dispersed all over Norway and affect all counties with the exception of Oslo, Akershus, Oppland and Troms. Most areas lie between the coastal strip and the high mountains. Despite the fact that many areas in Northern Norway have the best production conditions for wind power, the regulator considers more areas in South Norway as suitable due to Sami reindeer husbandry and limited grid capacity in Northern Norway.</p>
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## A2. How does the plan balance wind power production interests with other competing public interests?

<b>Set of queries A2</b>		
2.1 Apart from the entities responsible for energy, which authorities responsible for other public policies have been involved in setting up the plan? <i>Please indicate it</i>	See A3. The national regulator has collaborated closely with the Directorate for Environment and the Directorate for Cultural Heritage, which have been responsible for some of the thematic reports that have been published and which the framework is based upon.	
2.2 Degree of involvement ( <i>Mark your answer X</i> )	No authority has a binding opinion as this framework is not legally binding.	
<b>Authority responsible for the environment</b>	Binding opinion	
	Advisory	
<b>Authority responsible for the landscape</b>	Binding opinion	
	Advisory	
<b>Authority responsible for local development</b>	Binding opinion	
	Advisory	
<b>Other authorities</b>	Binding opinion	

	Advisory	
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### A.3 Public consultation on the plan

Set of queries A3		
3.1 Access to public consultation (YES/NO)	Stakeholders	YES
	Associations	YES
	Citizens	YES ongoing
3.2 Possibility to affect the plan, on the basis of the outcomes of public consultation (YES/NO)		YES
3.3 Time to carry out public consultation activities		Duration in days (0, n) <sup>49</sup> 183

Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Prior to plan adoption	21 thematic reports with updated knowledge are published on the regulator's homepage, maps have been published, there are press releases and ongoing meetings with the public.
	Following the plan adoption	The frame has not been adopted
Consultation	Prior to plan adoption	The regulator has consulted relevant actors in all parts of the work with the framework. National authorities and enterprises that manage interests that may be affected by wind power have been involved in several phases of the project. In the work on the updated knowledge base, the involvement of these agencies has been crucial to the assessments of how wind power can affect important interests. NVE has consistently sought to reach agreement with other national authorities in its work on the knowledge base. Many of these authorities have also made important contributions in the work of

<sup>49</sup> The frame was launched 1 April 2019. Deadline for the hearing is 1 October 2019.

		<p>designating the most suitable areas.</p> <p>Regional and local authorities have been involved both for informational purposes about the ongoing work as well as to obtain key information for use in the designation of the most suitable areas for wind power. The county governors' offices and county municipalities have been directly involved in thematic area analyses related to the natural environment, cultural monuments and reindeer husbandry.</p> <p>There has been a dialogue with Sami Interests throughout the project period, including through consultations with the Sami Parliament and the Norwegian Reindeer Husbandry Association. Interest Organisations such as national nature and outdoor life organizations and the wind power industry's interest organizations have been involved for informational purposes and also for the purpose of discussing methodological choices and obtaining academic information of a general nature for use in the designation of the most suitable areas for wind power.</p> <p>Now that the framework is on hearing, five regional public meetings are taking place in different cities (Lillestrøm 6 May, Kristiansand 21 May, Bergen 23 May, Trondheim 12 Juni, Hammerfest 17 June).</p>
	Following the plan adoption	The frame has not been adopted
Participation	Prior to plan adoption	See the box on consultation.

	Following the plan adoption	The frame has not been adopted.

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.)?)*

## Space for comments A

*Add any further details/information/considerations useful to the purposes of Stage 1*

### A1. Plan characteristics

Set of queries A1	
1.1 Plan title and act reference	<p><b>Regional Plan 2015-2020. Climate and Energy in Sør-Trøndelag</b>  <a href="https://www.trondelagfylke.no/contentassets/718036d7bada4208a9695677f6f8024b/regional-plan-for-klima-og-energi-2015-2020.pdf">https://www.trondelagfylke.no/contentassets/718036d7bada4208a9695677f6f8024b/regional-plan-for-klima-og-energi-2015-2020.pdf</a>  The plan is in accordance with the planning act (Plan- og bygningsloven § 8-3).</p>
<p>1,2 Main features description, with particular regard to:</p> <p>a) energy and environmental targets</p> <p>b) implementation responsible authorities</p> <p>c) priorities activities to implement</p> <p>d) main procedures and technical items</p> <p>e) strategic decisions concerning wind energy production (i.e. definition zoning criteria for suitable/prohibited areas, setback distances from housing and protected areas, possibility to install wind energy in forests)</p> <p>f) monitoring and control systems</p>	<p>Climate targets:  Reduce greenhouse gas emissions in Sør-Trøndelag by 40 per cent by 2030 compared with 2009. Sør-Trøndelag will play a leading role in the development of climate-friendly technology and facilitation for environmentally friendly businesses and ways of life. Climate robust and secure local communities in a changed climate.</p> <p>Energy target:  The target is to develop Sør-Trøndelag's advantages in the energy field in accordance with the principles of sustainable development.</p> <p>Authorities responsible for implementation are the County of Sør-Trøndelag. Municipalities in the County are expected to follow this plan. The purpose is to create actions and mobilize them to work together.</p> <p>There are seven priority areas in the plan:  a) Energy production</p>

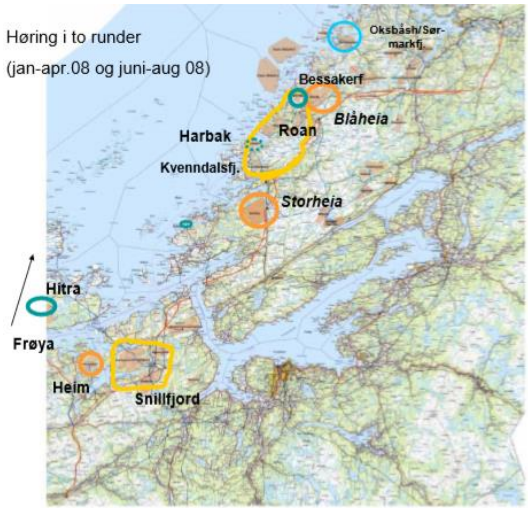
	<ul style="list-style-type: none"> <li>b) Land use and transport</li> <li>c) Energy use in buildings and construction</li> <li>d) Business and technology</li> <li>e) Waste and consumption</li> <li>f) Climate adaptation</li> <li>g) Communication and networking</li> </ul> <p>Strategies related to the priority area energy production include:</p> <p>Strategy A: Energy efficiency is prioritized</p> <ul style="list-style-type: none"> <li>1. Renew and renovate existing hydropower plants / power system</li> <li>2. Stimulate energy efficiency in buildings and construction</li> </ul> <p>Strategy B: Contribute to increased production and use of renewable energy</p> <ul style="list-style-type: none"> <li>1. Hydropower. Increase production, which particularly applies to the development of small power plants</li> <li>2. Wind power. Follow with development opportunities and if necessary renew the Wind Power Plan from 2008.</li> <li>3. Bioenergy. Increase production and use of bioenergy</li> <li>4. Contribute to increased use of energy carriers from renewable sources (electricity, hydrogen and bio)</li> </ul> <p>Strategy C: Develop reliable distribution networks for energy</p> <ul style="list-style-type: none"> <li>1. Contribute to a flexible and reliable distribution network</li> <li>2. Contribute to the development of new business models such as can benefit from small-scale energy production</li> </ul> <p>Strategy D: Increase interaction with producers, public actors and R&amp;D environment</p> <p>Given the target in the Wind Power Plan from 2008 (2-3 TWh by 2020) and the new wind parks that are being developed, there is not much basis for opening up for new areas for wind power.</p> <p>The plan is not binding for the national regulator, which grants the licences for wind power. The national regulator uses this plan only as guidance or as an advisory plan.</p>
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## A2. How does the plan balance wind power production interests with other competing public interests?

Set of queries A2		
2.1 Apart from the entities responsible for energy, which authorities responsible for other public policies have been involved in setting up the plan ? <i>Please indicate it</i>	Working group: The County of Sør-Trøndelag and the County Governor of Sør-Trøndelag Interaction partner: The City of Trondheim Reference group: The County Governor of Sør-Trøndelag, Melhus municipality, Innovation Norway in Sør-Trøndelag, the Industry Association in the Trondheim Region, the trade association LO Sør-Trøndelag, Greener Trondheim (Miljøpakken), Norwegian University of Science and Technology, SINTEF Building and Infrastructure, Climate Alliance (Klimavalgalliansen), Forum for nature and outdoors (FNF) Sør-Trøndelag.	
2.2 Degree of involvement ( <i>Mark your answer X</i> )	The County is the responsible authority and has a number of different responsibilities that it takes into account when creating this general plan.	
Authority responsible for the environment	Binding opinion	
	Advisory	
Authority responsible for the landscape	Binding opinion	
	Advisory	
Authority responsible for local development	Binding opinion	
	Advisory	
Other authorities	Binding opinion	
	Advisory	

## A1. Plan characteristics

Set of queries A1	
1.1 Plan title and act reference	<b>County Plan for Wind Power Sør-Trøndelag 2008-2020</b> ( <a href="https://docplayer.me/5191856-Fylkesdelplan-vindkraft-sor-trondelag-2008-2020-vedtatt-av-sor-trondelag-fylkesting-16-12-2008-del-i-faktadel-midt-norge.html#show_full_text">https://docplayer.me/5191856-Fylkesdelplan-vindkraft-sor-trondelag-2008-2020-vedtatt-av-sor-trondelag-fylkesting-16-12-2008-del-i-faktadel-midt-norge.html#show_full_text</a> )
1.2 Main features description, with particular regard to:  a) energy and environmental targets  b) implementation responsible authorities  c) priorities activities to implement	Targets: 1. Sør-Trøndelag County will as soon as possible contribute to ensuring a significant regional production of climate-friendly energy. This must be done together with energy saving and production of renewable energy to replace fossil fuels.  2. The utilization of wind resources shall form the basis for further development of research,

<p>d) main procedures and technical items</p> <p>e) strategic decisions concerning wind energy production (i.e. definition zoning criteria for suitable/prohibited areas, setback distances from housing and protected areas, possibility to install wind energy in forests)</p> <p>f) monitoring and control systems</p>	<p>expertise, business and employment in the region. Thus, it is a goal that Trøndelag will become a leading region in the development of future climate-friendly energy production, both on land and at sea.</p> <p>3. The wind power development will take place in a way that, as far as possible, takes care of nature, culture and outdoor life values in the region as a whole. The development should take place in the least possible conflict with other business activities and in a way that makes it possible to reverse the landscape to the greatest possible extent when wind power plants are shut down.</p> <p>The plan facilitates for wind power development with a total installed outcome of about 1000 MW by 2025.</p> <p>The County of Sør-Trøndelag has developed the plan, but it is only advisory for the national regulator, which grants the licences.</p> <p>Few large plants are preferred rather than many small ones, as this is expected to give less interventions in nature.</p> <p>Single turbines or small plants (smaller than 10MW) are discouraged as they provide little power compared to the land use and disadvantages such as noise and visibility.</p> <p>The plan recommends to only consider wind power in the areas where the circles are in the map below. The inner coastal areas in Fosen and Snillfjord are identified as suitable for wind energy development.</p>  <p>The plan is not binding for the national regulator, which grants the concession. It is used only as guidance or as an advisory plan for the regulator.</p>
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## A2. How does the plan balance wind power production interests with other competing public interests?

<b>Set of queries A2</b>	
2.1 Apart from the entities responsible for energy, which authorities responsible for other public policies have been involved in setting up the plan ? <i>Please indicate it</i>	The County of Sør-Trøndelag is responsible for the plan. Other representatives who have been involved include from the municipalities (representing Fosen, the Southern Coast (Kyst sør), the County Governor in Nord-Trøndelag, Nord-Trøndelag County, Møre og Romsdal County, the County Governor's husbandry management, the national regulator (NVE), NHO reiseliv Midt-Norge, the County Governor in Sør-Trøndelag.
2.2 Degree of involvement ( <i>Mark your answer X</i> )	<p>In addition to meetings with municipalities and other parties, open meetings have been held several times during the process. An open reference group where anyone interested has had the opportunity to participate, has provided input to the work throughout the process via e-mail. The Regional Development Department in Sør-Trøndelag County has been the secretariat for the work. The consultant ASPLAN VIAK AS has contributed to a large part of the work with the maps.</p> <p>The County is the responsible authority and has a number of different responsibilities that it takes into account when creating this general plan.</p>
<b>Authority responsible for the environment</b>	Binding opinion
	Advisory
<b>Authority responsible for the landscape</b>	Binding opinion
	Advisory
<b>Authority responsible for local development</b>	Binding opinion
	Advisory
<b>Other authorities</b>	Binding opinion
	Advisory

### A.3

### Public consultation on the plan

<b>Set of queries A3</b>		
3.1 Access to public consultation (YES/NO)	Stakeholders	YES
	Associations	YES
	Citizens	YES
3.2 Possibility to affect the plan, on the basis of the outcomes of public consultation (YES/NO)		YES
3.3 Time to carry out public consultation activities		Duration

	in days (0, n)
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Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Prior to plan adoption	See timeline (space for comments A)
	Following the plan adoption	Homepage, use of plan when addressing different topics.
Consultation	Prior to plan adoption	See timeline (space for comments A)
	Following the plan adoption	Municipalities contact the County, when they have questions. The national regulator (NVE) describes the plan and considers this when granting concessions.
Participation	Prior to plan adoption	See timeline (space for comments A)
	Following the plan adoption	

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.)?*

#### **Space for comments A**

*Add any further details/information/considerations useful to the purposes of Stage 1*

TIMELINE from the political decision to make a plan until adoption:

October 10, 2006: The County Council in Sør-Trøndelag agreed to create a regional plan for wind power

December 6, 2007: Meeting with some coastal municipalities to discuss need and main plan for a plan (see further description in the plan program)

February 2007: Proposal for planning program was sent on open hearing

February-May 2006. The hearing was announced in Adresseavisen and more local newspapers. The plan program was sent both on paper and digitally to municipalities and state / regional agencies. It was also posted on the county municipality's website and sent to the Ministry of the Environment. An open meeting was held in the county hall, the county house on

19 March. May 2007: The plan program was revised on the basis of comments received. All the notes were largely complied with and included in the program. Proposed revised plan program was sent on a short extra night to those who had submitted comments to clarify any misunderstandings. An open reference group was set up to give backplay in the further work. Those who had provided notices were automatically included in this.

June 12, 2007: The plan program was established in the county committee and sent digitally to the reference group. Established planning program was published on the county municipality's website.

October 2007: Draft for PART I FAKTADEL sent for inquiry to the reference group, municipalities, organizations and others by e-mail. There were 23 comments.

November 2007-January 2008: Processing of fact sheet and drafting of guidelines on 15 January 2008: Plan proposal discussed in the County Committee and adopted for consultation.

January 2008 March 31, 2008: The material sent for consultation / public inspection. Open meetings in connection with the hearing.

June 3, 2008: The county committee dealt with the matter with comments received and decided to submit proposals for guidelines to a new consultation together with questions about the consultation opinions being correctly perceived.

June August 2008: Proposal for guidelines (part II) sent again, shorter consultation round. September-November 2008: The material was adjusted on the basis of the consultation round.

December 16, 2008: The plan was approved by Sør-Trøndelag county. Subsequently, it was sent to the Ministry of the Environment for approval in accordance with the Planning and Building Act 19-4.

## Stage 2: Analysis of wind energy plant approval procedures

### B1. Approval procedures

#### Set of queries B1

*Please, provide the act references and shortly describe the approval processes (authorisation/permit/licence) for wind energy plants including linkages with the planning and environmental impact assessment procedures.*

The 1990 Energy Act sets out the primary rules for allowing investors to establish and operate wind energy projects (i.e. concessions) and prescribes centralised proceedings when it comes to making decisions about wind energy development. The legislation and management practices on wind energy developments involve a significant degree of centralisation of decision-making powers to the Ministry of Petroleum and Energy (OED) and the Water Resources and Energy Directorate (NVE). Over time, the legislation on wind energy developments has become more detailed, but much discretion is still left to management practices, especially under the Energy Act.<sup>50</sup>

As per Norway's Energy Act of 1990, all wind power projects larger than 1MW require a licence from the Norwegian Water Resources and Energy Directorate (NVE), a directorate under the Ministry of Petroleum and Energy (OED). The Act distinguishes between projects of 1 MW to 10 MW and projects larger than 10 MW, where the former undergo a simplified licensing process. Most applications to the NVE concern projects larger than 10 MW. From 2005, Environmental Impact Assessments (EIAs) have been mandatory for all projects above 10 MW. As a member of the European Economic Area, Norway is subject to the EU Environmental Impact Assessment Directive. The EIA procedure for wind power projects follows the EIA guidelines in Norway's Planning and Building Act (PBA)<sup>51</sup>. Environmental Impact Assessments are accompanied by thematic conflict assessments. The 2009 Planning and Building Act states that energy measures are not subject to legal proceedings by the traditional planning authorities. However, municipalities, counties, the Sami Parliament of Norway (the representative body of people of Sami heritage in Norway) and state agencies have the right to object to the submitted applications. Unless an objection is either withdrawn by the party or taken into account by NVE, the final decision on the application must ultimately be made by OED. Private individuals and organisations do not have the same right to object; but they should be included in traditional hearings and may claim compensation. Chapter 14 of the 2009 Act points out that plans and development measures that have significant consequences for the environment and local society must be carefully assessed. The assessment should be presented in the form of an impact assessment related to an application, and it is necessary to carry out consultations with private individuals and organisations.<sup>52</sup> The relationship between concession decisions under the Energy Act and planning decisions under the Planning and Building Act remains somewhat unclear.<sup>53</sup>

Although the permitting procedure is organised and carried out by national actors, the direction and content of the projects are heavily influenced by the local authorities. As the planning authority, the municipality's decision to support a project influences whether a developer gets the necessary permit. Informants argue that only in very few cases has the regulator decided to give a permit against the will of the municipal council.

The ordinary concession process consists of the following steps (see Figure 2 below):

1. The developer gives a notification of a planned project. The notification is supposed to provide information to all affected parties. It should include a programme for investigating topics that, in the opinion of the developer, should be assessed further through an impact assessment. The aim of the notification is to provide a provisional assessment of the possible impacts on the surroundings. NVE recommends that the developer distributes a brochure with a short version of the notification to all households and landowners in the area. Secondly,
2. NVE initiates a hearing among the relevant municipalities, counties, county governors and relevant state agencies based on the notification. Usually NVE organises a local public meeting during the

<sup>50</sup> Fauchald, 2018

<sup>51</sup> *ibid.*

<sup>52</sup> Ruud et al. 2016

<sup>53</sup> Fauchald 2018

- period of the hearing.
3. Based on the statements, investigation proposals and its own assessments, NVE determines a programme for an impact assessment.
  4. The developer submits an application for concession together with an impact assessment. NVE initiates a hearing of the application and the impact assessment and announces the hearing in local newspapers.
  5. NVE organises meetings with local authorities and also open public meetings about the application. NVE may request additional assessments. Finally, if NVE is of the opinion that the all relevant aspects are satisfactorily addressed, it makes a decision or a recommendation to OED.

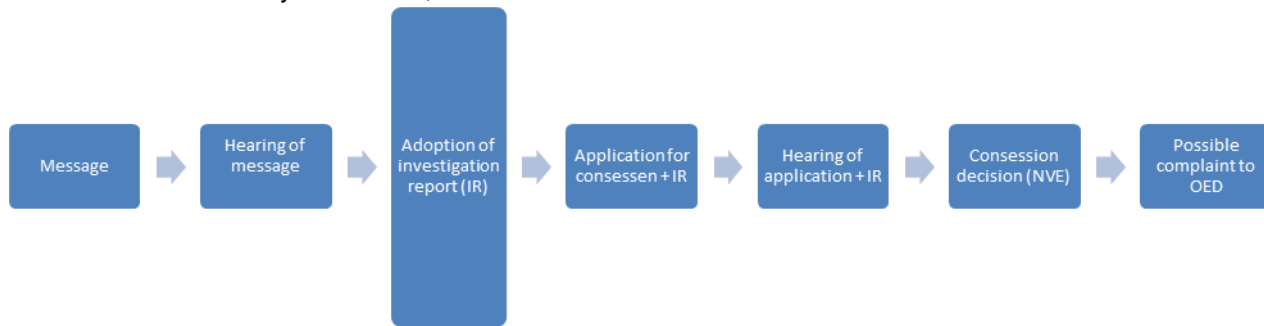


Figure 2: Ordinary Concession Process in Norway

The dialogue process surrounding wind energy project concessions is regulated by the national Energy Act and the Planning and Building Act. As such, the dialogue process is a policy measure, as it has been adopted by the public administration, the national regulator. It is an informative and advisory measure. It is informative in the sense that the dialogue is supposed to increase the understanding of the wind energy project among the population, while the population's feedback is supposed to advise the regulator and developer about what aspects need to be considered in impact assessments.

*Please, provide the act references and schematically describe Environmental Impact Assessment requirements*

1. Is a public consultation phase envisaged before the approval act adoption for wind power plants? YES

*If YES, please*

1.1 Specify for which power plant size	Consultations are envisaged no matter what the size is (even if only one turbine), but there are different processes for projects that are larger and smaller than 10MW.
1.2 Describe the arrangements for informing the public (i.e. publication in local newspapers, social media...)	
There is information on the website, public publishing in the host municipality, information is given at public meetings and there is announcement in local newspapers. When an initiative is taken forward so that an investigation will take place, the national regulator assumes that the wind power developer establishes a consultation group with different actors and interest groups in the community.	
1.3 Describe the arrangements for consulting the public concerned (i.e. written submissions, public inquiry...)	
There are public meetings. A consultation group is consulted three times during the investigation work (once before the investigation, once when the investigation has started and once before the impact assessment is finalized). Before the national regulator makes a decision, the national regulator has a final inspection with important local interest groups and public authorities at different levels.	

2. Who may take part in the consultation stage?  <i>Mark your answer X</i>	Anyone who desires to participate can do it directly	X
	Only those parties that can prove having a legitimate interest	
	Participation is open only to recognised associations	
3. Is any tool for public participation provided?  <i>Mark your answer X</i>	Public debate	X
	Individual/committee initiatives	
	Not provided	
Possibility to affect the approval, on the basis of the outcomes of public consultation (YES/NO)		YES
		Duration in days (60 days)
Time to carry out public consultation activities		The deadline is normally two months after the public announcement. A public meeting and a meeting with municipalities and politicians usually take place 2-3 weeks after the announcement.

Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Before the approval	There is information on the website, public publishing in the host municipality, information is given at public meetings and there is announcement in local newspapers. When an initiative is taken forward so that an investigation will take place, the national regulator assumes that the wind power developer establishes a consultation group with different actors and interest groups in the community.
	Following the approval	Press release, everyone who has commented on the case receives a copy of the approval or a letter with a link.

Consultation	Before the approval	There are public meetings. A consultation group is consulted three times during the investigation work (once before the investigation, once when the investigation has started and once before the impact assessment is finalized). Before the national regulator makes a decision, the national regulator has a final inspection with important local interest groups and public authorities at different levels.
	Following the approval	Complaints can be submitted to the Ministry of Petroleum and Energy. They are sent via the national regulator, who makes preparatory assessments.
Participation	Before the approval	The national regulator meets with stakeholders representing single interests, who wants a meeting with the regulator. Such informal meetings are common.
	Following the approval	Once the Ministry of Petroleum and Energy has received the case, there is no participation.

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.)?*

## B2. Other regulatory measures impacting the community acceptance of wind power plants

Set of queries B2	
2.1. As needed, is any of the following facilitating measure provided for the siting of wind power plants and/or distribution network infrastructures ?	(YES/NO )
<p>a) Simplification of expropriation procedures</p> <p><i>Please, provide the act references and shortly describe the procedure</i></p> <p>The Law of expropriation 1959 (<a href="https://lovdata.no/dokument/NL/lov/1959-10-23-3">https://lovdata.no/dokument/NL/lov/1959-10-23-3</a>).</p> <p>The developer applies for expropriation at the same time as applying for a licence to develop wind energy. The national regulator makes the decision. There is no simplification of procedures for wind power.</p>	

- b) Simplification of procedures for modifying designed use, with particular reference to crop land, forest or natural areas etc.

*Please, provide the act references and shortly describe the procedure*

How a plant affects crop land, forest or natural areas are continuously being evaluated. When a final approval has been given (i.e. the national regulator has provided the licence), there is no need for any further considerations related to for example the Land Bill, as these aspects are key when assessing the project in the licencing procedures.

- c) Simplification or elimination of tree felling licence procedures

*Please, provide the act references and shortly describe the procedure*

If the national regulator has given a wind power licence, the developer has the right to cut trees. However, there are exceptions for prioritised species; for example, hollow oak trees cannot be felled.

### Space for comments B

*Add any further details/information/considerations useful to the purposes of Stage 2*

## Stage 3: Information about the financial support to increase the electricity production from wind energy in terms of transparency of information on costs and results

### C.3 Support schemes to support electricity production from wind energy and other renewables

Set of queries C1	
3.1 Please describe the key national support schemes (e.g. Feed in tariff, feed in premium, auction/tender, renewable energy certificate system, investment grants/subsidies from state budget)	Renewable energy certificate system (will be phased out in 2021).
3.2 Please provide the total budget allocated to the support of wind energy over the last 5 years (euros)	It is a marked based system, where the price goes up and down.
3.3 Please describe the methods to inform citizens on the purposes of financial support to renewable energy and on the results achieved.	Information on the homepage

## Stage 4: Mechanism to support the financial participation of citizens/communities or providing other community benefits

### *D1. Active and passive financial participation of citizens and communities in national support*

Set of queries D1	
4.1 To what extent do support schemes for wind energy consider/promote citizen/community based wind energy? (i.e. ownership of wind energy plants by local communities/citizens)	It does not promote community based wind energy.
4.2 To what extent do support schemes promote passive/indirect financial participation of citizens and communities or provide financial compensations/other community benefits?	It does not promote participation of citizens and communities.
4.3 Are there any other regulations/incentives/guidelines etc. providing for the active or passive financial participation of citizens and communities in wind energy (e.g. seed-money for citizen/community owned wind energy plants) or providing community benefits (e.g. taxation of wind energy etc.) ?	In Norway municipalities may choose to introduce property tax. Municipalities that introduce this tax will benefit from wind power plants (e.g. in Fosen the municipalities will receive a 0,7% property tax from wind power installations, which is equal to 0.7% of estimated value of a new installation minus depreciations)..

### *D2. Voluntary self-commitments and agreements for active or passive financial participation of local residents/communities?*

4.1 Are there any voluntary agreements concluded between national/regional public authorities/actors and the wind industry providing for active or passive financial participation of local residents/communities or providing other community benefits?	Not at national or regional level. There are voluntary agreements between the municipalities, which host wind parks and the developers. The intention of such contracts is to regulate the relationship between these two partners. The contracts includes information about mitigating and compensatory measures. Such agreements are voluntary as the developer is not required by law to sign such a contract with the municipalities, but it is
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	<p>considered wise to have a good relationship with the local authorities, as they are important consultative bodies during the process of permit. In addition, there are general economic effects from construction work, as the plans are typically large.</p> <p>The Norwegian municipality of Birkenes, the national regulator has given E.ON Vind Norway a permit to develop 21 wind turbines. Before the permit was given, as part of a broader voluntary agreement, the developer offered to build a local maintenance and educational house, labelled the 'innovation house' in Birkenes. This is supposed to be built from local timber and serve as a local educational centre, promoting understanding and social acceptance of wind energy. Another part of the agreement was to reduce possible negative effects of the construction and operation of the wind power plants for local interests</p>
4.2 Are there any voluntary self-commitments by the wind industry referring to the procedural or financial participation of citizens and communities or to the provision of other community benefits?	

## References

Fauchald 2018, Concession Processes for Wind Power Developments in Norway – an Analysis of the Legal Framework. FNI Report 1/2018. Lysaker : Fridtjof Nansen Institute

Ruud, A., L.C. Wold, Ø. Aas (2016). Økt samfunnsaksept for fornybar energi. Hvordan redusere konflikter under planlegging, utbygging og drift? NINA Temahefte 68. Trondheim: CEDREN.

## Poland

### Stage1: Information about regional and spatial development plans aimed at the wind power plant siting

Query A	YES/NO
Do regional/spatial plans meant to select/identify suitable areas for wind power plant siting exist? Alternatively: are they meant to take into account the criteria that reflect the specific features of the territories in relation to intended sources to be exploited?	YES

If YES, please fill in the following sets of queries A1, A2 and A3:

#### *A1. Plan characteristics*

Set of queries A1	
1.1 Plan title and act reference	<b>Local Plan of Spatial Development</b>  <b>Decision of Building Conditions and Spatial Development</b>
1,2 Main features description, with particular regard to:  a) energetic and environmental targets  b) implementation responsible authorities  c) priorities activities to implement  d) main procedures and technical items  e) strategic decisions concerning wind energy production ( i.e. definition zoning criteria for suitable/prohibited areas, setback distances from housing and protected areas, possibility to install wind energy in forests)  f) monitoring and control systems	<b>Local Plan of Spatial Development (LPSD)</b> The procedure of enacting LPSD is long-lasting and it can even take two years. Because of its expenses for municipalities (connected with change of value of the areas), it is a rather difficult procedure to perform for the bodies of public administration. However it is not the only reason why so many areas do not have enacted local plans. Issuing decision on the conditions of building in a situation where there is no plan, gives the executive organ of the municipality a high level of discretion, practically without any control from the council. This is also because the respective appeal authority, i.e. the Local Government Appeal Council usually does not adjudicate on the essence of the issue. It can happen that an authority of the first instance continuously refuses to set building conditions even if it is not justified. A potential investor has to take into account similar long procedures in case of a change of a local plan of spatial development. In case of an already enacted local plan, there can also emerge complications connected with procedures, because it can turn out that, for example, it was available for public consultation for a too short period of time what causes repealing or annulment of the municipal council act. Acts are also controlled by judicial and

	<p>administrative authorities. In case of investments by the wind power industry it is essential to launch procedures of passing LPSP for the location of each new investment, including:- Route of noise counter line, especially important in case of neighbourhood of residential buildings, where the level of noise during day and night must not exceed legally binding limits of 40-50 dB. This level of noise means different distances depending on the type of turbine (different technologies of wind turbines cause different levels of noise), but the average distance is around 500 m. But local regulations can vary which means that regulations in some areas define more restrictive minimum setback distances from residential buildings than others sometimes reaching distances of few kilometres).- Location of particular turbines and other elements of infrastructure, such as roads, power lines as well as location of the main power point. If the power of wind turbine or the group of turbines exceeds 100 kW it is necessary to designate in the municipality's planning documents (study or LPSP), the areas and borders of their location.- Exclusion of investments in areas of high quality soil (of I – III group), as well as areas that need to be excluded from the agricultural production and the agreement of the Ministry of Agriculture and Food Economy.</p> <p>It is important to mention that the Wind Farm Act (the act of 20 May 2016 on investments in wind farms (Journal of Law, 2016, item 961) introduced siting restrictions for wind energy developments in Poland by imposing a requirement for minimum setback distance from settlements and other facilities, significantly changing the previous legal framework and conditions for implementation of investment projects. The act introduced a legally binding provision setting the minimum distance for wind turbines from specific types of facilities, equal to ten times the total turbine height (including the rotor blade in top position), so-called 10H rule (see below).</p> <p>Accordingly the Wind Energy Law, wind investments should be located only on the basis of Local Land Development Plan.</p>
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*A2. How does the plan balance wind power production interests with other competing public interests*

Set of queries A2	
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2.1 Apart from the entities responsible for energy, which authorities responsible for other public policies have been involved in setting up the plan ? Please indicate it		
2.2 Degree of involvement ( <i>Mark your answer X</i> )		
<b>Authority responsible for the environment</b> <b>(Regional Management of the Environmental Protection)</b>	Binding opinion	X
	Advisory	
<b>Authority responsible for the landscape</b> <b>(Local authority)</b>	Binding opinion	X
	Advisory	
<b>Authority responsible for local development</b> <b>(Local authority)</b>	Binding opinion	X
	Advisory	
<b>Other authorities</b> <b>(Regional authorities)</b>	Binding opinion	X
	Advisory	

### A.3 Public consultation on the plan

Set of queries A3		
3.1 Access to public consultation (YES/NO)	Stakeholders	YES
	Associations	YES
	Citizens	YES
3.2 Possibility to affect the plan, on the basis of the outcomes of public consultation (YES/NO)		YES
3.3 Time to carry out public consultation activities (total)		63 days

Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Prior to plan adoption	The beginning of the work for the plan should be publicly announced by the responsible local authority (e.g. in local

		press).
	Following the plan adoption	Adopted plan is available.
Consultation	Prior to plan adoption	After publicly announcing the start of the planning works , citizens and organisations have the right to submit their opinions/proposals (duration no shorter than 21 days). The draft plan has to be publicly displayed during 21 days. For at least further 21 days citizens and organisations have the right to submit opinions to the plan
	Following the plan adoption	The citizens have the right to reject the resolution of the municipal council, which approves the plan.
Participation	Prior to plan adoption	After publicly announcing the start of the planning works , citizens and organisations have the right to submit their opinions/proposals (duration no shorter than 21 days). The draft plan has to be publicly displayed during 21 days. For at least further 21 days citizens and organisations have the right to submit opinions to the plan
	Following the plan adoption	The citizens have the right to reject the resolution of the municipal council, which approves the plan.

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.) ?*

**Space for comments A**

*Add any further details/information/considerations useful to the purposes of Stage 1*

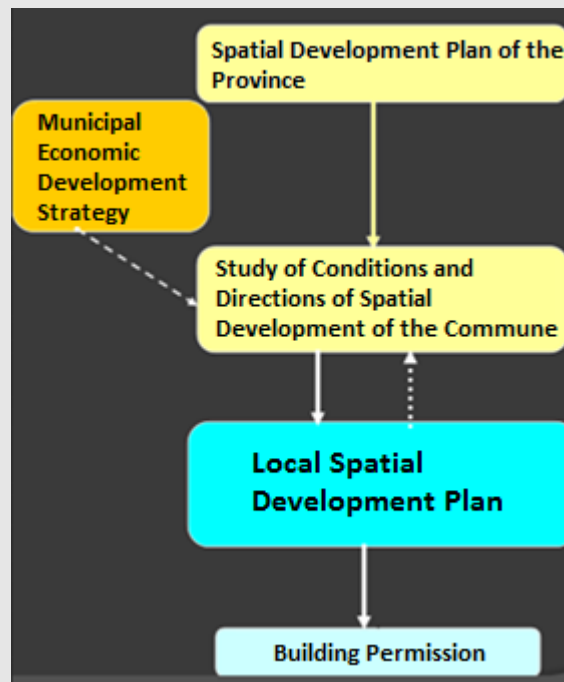
## Stage 2: Analysis of wind energy plant approval procedures

### B1. Approval procedures

#### Set of queries B1

Please, provide the act references and shortly describe the approval processes (authorisation/permit/licence) for wind energy plants including linkages with the planning and environmental impact assessment procedures.

*Land use planning.* Studies of conditions and directions of spatial development of municipalities must be consistent with the strategic tasks adopted in the province's spatial development plan. Spatial areas for renewable energy have to be defined in the local land use plans. The planning process implies that wind farms must be accepted by the local authorities in its land use planning, where the municipality studies the conditions and directions of spatial development and decides upon a development plan (as in figure below).



#### Spatial planning in the context of wind energy deployment

It is important to add that the Wind Farm Act (the act of 20 May 2016 on investments in wind farms (Journal of Law, 2016, item 961) introduced siting restrictions for wind energy developments in Poland by imposing a requirement for minimum distance from settlements and other facilities, significantly changing the previous legal framework and conditions for implementation of investment projects. The act introduced a legally binding provision setting the **minimum distance for wind turbines from specific types of facilities, equal to ten times the total turbine height (including the rotor blade in top position), so-called 10H rule**. That distance must be kept from buildings – where this requirement applies not only to wind turbines, but also new buildings that cannot be erected at a distance shorter than 10 times total height of existing wind turbines.

**Approval/permitting procedure**

The project's Environmental Impact Assessment (EIA) is performed as part of the proceedings pertaining to the decision regarding environmental considerations of the permit to execute a project. The purpose of the EIA is to examine negative impact of the planned project on environment. A wind farm may be qualified as a project:

- With considerable material impact on the environment; wind farm with total nominal capacity of at least 100 MW
- With potential considerable impact on the environment, wind farm with total nominal capacity of less than 100 MW
- With potential considerable impact on Natura 2000 areas not included in the two groups listed above.

**Strategic Environmental Impact Assessment**

The Environmental Impact Assessment (EIA) is a multi-step procedure which aims to protect the environment from the negative effects of the planned development project. EIA procedure is carried out not only with regard to specific investments, but also at the stage of the planning procedure, as a strategic EIA for spatial planning projects and regional development strategies. The main documents prepared in the EIA process include the eco physiographic study and environmental impact forecast.

For the RES installations above 100 kW drafting the environmental impact assessment is compulsory.

**Environmental Approval**

A decision on the environmental aspects of project approval (Environmental Approval) is always required for a wind farm development project. A project data sheet, i.e. a document containing basic information about the proposed project, must be attached to the Environmental Approval application. In particular, the project data sheet must identify the nature, scale and location of the project and solutions put in place to protect the environment. On the other hand, there is no requirement to provide detailed information on the numbers of parcels hosting the project.

The basic legal act regulating EIA in Polish law is the Act on Making Available Information about the Environment and its Protection, the Public's Participation in Environmental Protection, as well as on Environmental Impact Assessments of 3 October 2008 (Journal of Laws of 2013, item 1235) ("AEIA").

The project's Environmental Impact Assessment (EIA) is performed as part of the proceedings pertaining to the decision regarding environmental considerations of the permit to execute a project. The purpose of the EIA is to examine negative impact of the planned project on environment. A wind farm may be qualified as a project:

- With considerable material impact on the environment;
- With potential considerable impact on the environment, and
- With potential considerable impact on Natura 2000 areas not included in the two groups listed above.

One of the most important issues resulting from the EIA is the obligation to ensure the public's participation in the proceedings before a decision is issued, and – generally – in proceedings within the framework of environmental protection law. In first instance proceedings, the authorities are obliged to apply procedures, among other things to:

- Inform the parties to the proceedings and the public about carrying out an EIA, initiating proceedings, the subject of the decision and the relevant authority to issue it,
- Provide information about possibility of familiarising oneself with the case documents, the place where the documents will be available for access, and the manner of submitting comments and request and where to do so,
- Stipulate a 30-day deadline for submitting each comments and requests

The EIA process involves six key stages: (I) classifying a project for EIA proceedings (screening), (II) specifying the scope of expert analyses performed as part of the EIA (scoping), (III) presenting information on the environment, in the form of a report, to the appropriate authorities, (IV) verification of the report, (V) consultations with the appropriate environmental protection authorities and with the public, (VI) issuance of the decision and its publication.

4. Is a public consultation phase envisaged before the approval act adoption for wind power plants?  
(YES/NO)

*If YES, please*

Accordingly the regulations governing the adoption/modification of the Local Plan of Spatial Development.

1.1 Specify for which power plant size

The wind farm act concerns wind turbines over 50 kW

1.2 Describe the arrangements for informing the public (i.e. publication in local newspapers, social media...)

Depends on local circumstances and customs.

1.3 Describe the arrangements for consulting the public concerned (i.e. written submissions, public inquiry...)

Written submission.

5. Who may take part in the consultation stage?

Anyone who desires to participate can do it directly

X

Mark your answer X

Only those parties that can prove having a legitimate interest

Participation is open only to recognised associations

6. Is any tool for public participation provided?

Public debate

X

<i>Mark your answer X</i>	Individual/committee initiatives	X
	Not provided	
Possibility to affect the approval, on the basis of the outcomes of public consultation (YES/NO)		YES
Time to carry out public consultation activities		63 days

Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Before the approval	as in A3
	Following the approval	as in A3
Consultation	Before the approval	as in A3
	Following the approval	as in A3
Participation	Before the approval	as in A3

	Following the approval	as in A3

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.)?)*

## *B2. Other regulatory measures impacting the community acceptance of wind power plants*

Set of queries B2	
2.1. As needed, is any of the following facilitating measure provided for the siting of wind power plants and/or distribution network infrastructures ?	NO
d) Simplification of expropriation procedures <i>Please, provide the act references and shortly describe the procedure</i>	
e) Simplification of procedures for modifying designed use, with particular reference to crop land, forest or natural areas etc. <i>Please, provide the act references and shortly describe the procedure</i>	
f) Simplification or elimination of tree felling licence procedures <i>Please, provide the act references and shortly describe the procedure</i>	

### **Space for comments B**

*Add any further details/information/considerations useful to the purposes of Stage 2*

## Spain

### Stage1: Information about regional and spatial development plans aimed at wind power plant siting

Query A	YES/NO
Do regional/spatial plans meant to select/identify suitable areas for wind power plant siting exist? Alternatively: are they meant to take into account the criteria that reflect the specific features of the territories in relation to intended sources to be exploited?	NO regional/spatial plan exists in the Balearic Islands No specific regional (Balearic nor on the different Spanish islands)/ spatial plans exist for wind siting. The same applies for the Spanish mainland too. However, the Balearic Law 12/2016 (see below) stipulates that each (wind) development on the Balearic Islands must have a Study or Environmental Impact Assessment (or EIA, Estudio o Evaluación de Impacto Ambiental). Besides this plan, no others exist.

If YES, please fill in the following sets of queries A1, A2 and A3:

#### A1. Plan characteristics

Set of queries A1	
1.1 Plan title and act reference	NO spatial plan exists specific to the Balearic Islands nor to Spain
1,2 Main features description, with particular regard to: a) energetic and environmental targets b) implementation responsible authorities c) priorities activities to implement d) main procedures and technical items e) strategic decisions concerning wind energy production ( i.e. definition zoning criteria for suitable/prohibited areas, setback distances from housing and protected areas, possibility to install wind energy in forests) f) monitoring and control systems	Nothing relating to regional/spatial plans exists (with the exception of above mentioned).  But the wind assets are included in the strategy paper of Menorca 30. This document encompasses the potential re-powering (in 4-5 years' time) of the existing wind park thanks to the financing of the idea. The Consorci de residus i energia de Menorca <sup>54</sup> (a mix of the Consell Insular de Menorca <sup>55</sup> and all the island's 8 municipalities) is in charge of the operations and maintenance and has provided the land (public land) to be used for the turbines, thus has the park's ownership. The re-powering should allow an upgrade from 3.2 MW to 15.8 MW.

<sup>54</sup> See [www.cremenorca.org](http://www.cremenorca.org)

<sup>55</sup> See [www.cime.es](http://www.cime.es)

	<p>Furthermore, the plan foresees the implementation of 200 MW in 10 MW parks of solar photovoltaic power on the island.</p> <p>The entity authorised to implement the above mentioned projects is the Direction of Insular Environmental Protection.</p> <p>Menorca 30 is a strategic paper which does not specifically elaborate or prescribe zoning or spatial planning, but it contains a plan to achieve a share of 85% RES or Renewable Energy Sources by use of electric cars, batteries, photovoltaic lighting, etc. The plan begins in 2019 and will run until 2030 (see below).</p> <p>Menorca 30<sup>56</sup> sets out that by 2030:</p> <ul style="list-style-type: none"> <li>- 85% of electricity production should be coming from renewable sources, including the repowering of the above-mentioned wind park</li> <li>- Maximum self-consumption of energy in the island</li> <li>- Storage of 650 MWh on the island of Menorca</li> <li>- Deployment of solar panel rooftops in the public sector</li> <li>- 50% reduction of fossil fuels in the transport industry</li> <li>- 30% reduction in other thermal uses: households, (through the change of appliances, photovoltaic self-consumption, installation of heat exchanger, biomass, etc.) industrial (through photovoltaic self-consumption in parking and on roofs, and service industry (through photovoltaic self-consumption in hotels, LED-lamps or other low-consumption lights in public illumination, installation of heat exchangers, smart control and monitoring systems, smart management of the cycle of water, etc.)<sup>57</sup></li> </ul>
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<sup>56</sup> See [www.cime.es/documents/documents/3341docpub.pdf](http://www.cime.es/documents/documents/3341docpub.pdf)

<sup>57</sup> See [www.cime.es/documents/documents/3341docpub.pdf](http://www.cime.es/documents/documents/3341docpub.pdf)

## A2. How does the plan balance wind power production interests with other competing public interests?

Set of queries A2		
2.1 Apart from the entities responsible for energy, which authorities responsible for other public policies have been involved in setting up the plan? <i>Please indicate it</i>	The Balearic Law 12/2016 establishes that each development in the Balearic Islands must follow a procedure in terms of environmental assessment. Additionally, the Commission for the Environment, CBMA (or the Comisión de Medio Ambiente de les Illes Balears) is the body to oversee and implement this norm and decide on the adequacy of the EIA (see below) in accordance with the Law 12/2016 (which substitutes Law 21/2013)	
2.2 Degree of involvement ( <i>Mark your answer X</i> )		
<b>Authority responsible for the environment</b> Included in the structure of the CBMA	Binding opinion	x
	Advisory	
<b>Authority responsible for the landscape</b> Included in the structure of the CBMA	Binding opinion	x
	Advisory	
<b>Authority responsible for local development</b> Included in the structure of the CBMA, this legislation period	Binding opinion	
	Advisory	x
<b>Other authorities</b>	Binding opinion	
	Advisory	

\*Note: The CBMA is structured as follows: a President, the 5 directors of the Environmental Authority (or *Consejería de Media Ambiente, Pesca y Agricultura des Illes Balears*), a representative of the general directorates, three of the Mallorca Insular Government, two of Menorca and Ibiza and one from Formentera, one representative of the local association with the most representation on the Balearic Islands and a maximum of three more members designated by the Balearic Island Authoritative Body for the Environment, Fishery and Agriculture<sup>58</sup>.

## A.3 Public consultation on the plan

Set of queries A3		
3.1 Access to public consultation (YES/NO)	Stakeholders	
	Associations	
	Citizens	
3.2 Possibility to affect the plan, on the basis of the outcomes of public consultation (YES/NO)		
3.3 Time to carry out public consultation activities	Duration in days	

<sup>58</sup> See [http://www.caib.es/sites/estructuradelgovern/es/estructura\\_del\\_govern\\_de\\_les\\_illes\\_balears-81800/?campa=yes](http://www.caib.es/sites/estructuradelgovern/es/estructura_del_govern_de_les_illes_balears-81800/?campa=yes)

	(0, n)
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Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Prior to plan adoption	
	Following the plan adoption	
Consultation	Prior to plan adoption	
	Following the plan adoption	
Participation	Prior to plan adoption	
	Following the plan adoption	

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.)?)*

### Space for comments A

*Add any further details/information/considerations useful to the purposes of Stage 1*

The Balearic Islands are one of the 17 Autonomous Regions in Spain, since 1978 (formally approved by the Estatuto de Autonomía de las Islas Baleares of 1983) and as such have a regional government. Furthermore, each island has an individual government (Cabildo Insular on Mallorca, Menorca, Formentera and Ibiza), overseeing the aspects which affect the “insular” character, ranging from urbanism, social assistance, sports and the regulation of renewable energy sources (in conjunction with the Autonomous Regions)

1. In 2018, the Balearic Islands generated less than 2% of electricity from renewable sources. As the sole Spanish island, Menorca is included in the Clean Energy for EU Islands Initiative, a project by the EU Commission to support 26 islands, through human and economic resources, to achieve a cleaner energy mix<sup>59</sup>.

2. In the Balearic Islands, there was a strategic exercise with public consultation once the Menorca Biosphere Reserve was implemented (back in 1993), and updated recently (in 2015/2016 the definition of Menorca Biosphere Reserve, in 2017 and early 2018 its strategic development) with participation workshops, interviews of citizens, etc. This included the participation of PIME-Menorca or Petita i Mitjana Empresa de Menorca (a representative body of small and medium sized companies of the island of Menorca), CAEB or Confederación de Asociaciones Empresariales de Baleares (a representative body of all companies on the Balearic Islands), OBSAM or L'Observatori Socioambiental de Menorca (the socio-environmental observatory of Menorca), but not AEE or Asociación Eólica de España (representative body Spanish Association of Wind Energy) or any representative of the Spanish wind industry (because it was a Biosphere reserve exercise and not an exercise open to any Spanish, e.g. mainland, bodies)<sup>60</sup>

3. 68% of the Balearic Island of Menorca and more than 60% of the Balearic Islands is protected territory in terms of LECO or Lugar de Conservación de los Espacios de Relevancia Ambiental (Special zone of environmental protection), ZEPA or Zona Especial de Protección de Aves (Special zone of bird protection), natural parks, Biosphere reserve, etc.

4. There is a strategy paper called Menorca 30, which is the only one prepared in the Balearic Islands and stipulates that 85% of electricity production (in Menorca) must be covered by renewable sources in 2030.

A fundamental element is the integration of a smart grid in Menorca.

Furthermore, Menorca 30 comprises 10 key actions:

1. Renewable projects in Milà, which include the repowering project mentioned above and the photovoltaic plants
2. Installation of photovoltaic parks (20x10 MW, of which 2x10 MW should be built on public premises in Es Milà)
3. Battery of storage (650 MWh)
4. Photovoltaic self-consumption in public buildings
5. Photovoltaic (on roofs of) parking lots
6. Program Europace in energy efficiency, a H2020 project which includes an Integrated Home Renovation Platform<sup>61</sup>
7. Electric vehicles<sup>62</sup> (2% of all vehicles rented must be electric vehicles in 2020, 54 reloading stations installed by public authorities in Menorca by the end of 2020)
8. Installation of Smart Grids

<sup>59</sup> See [www.euislands.eu](http://www.euislands.eu)

<sup>60</sup> Interview with Rafael Muñoz, Technical Engineer at the Consorci de Residus Sòlids Urbans on 07.05.2019

<sup>61</sup> See [www.europace2020.eu](http://www.europace2020.eu)

<sup>62</sup> See also <https://movilidadelectrica.com/movilidad-sostenible-la-isla-menorca/> and <https://www.menorca.info/menorca/local/2019/05/16/656875/govern-financiara-puntos-recarga-para-coches-electricos.html>

9. Local energy markets (the IDAE<sup>63</sup> is promoting the project IREMEL)

10. Local office of Menorca 2030 (or Oficina d'impuls Menorca 2030)

The operating plan foresees a roadmap. In 2020, this will include the repair of the first electric link (it was built in 1975, and broken in 2017, but REE, in charge of the link has no plan to repair it) of 35 MW, 20% is supposed to be renewable. In 2025 a second electric link with 100 MW should be installed, 35% of renewable sources and in 2030 the 2nd electric link is planned to be operational, 85% should be from renewable sources, the battery of 650 MWh should also be operational, as should be the photovoltaic facilities on public soils.

The plan Menorca 30 envisages 600 M€ of private and public investments. However, Menorca 30 is and was NOT intended for designating suitable sites for wind energy plants. In February 2019, the Law on Climate Change and Energy Transition (Llei del Canvi Climàtic i Transició Energètica) was approved by the Government of the Balearic Islands. Its approval was based on a large and ample participation process with over 2,000 companies, NGOs and citizens and parliamentary groups, however, no wind energy companies participated. As for Menorca 30, this law was not intended for zoning of wind energy.

On the national (Spanish) level, there is no spatial development plan aimed at spatial planning or a siting exercise, because this competence is transferred to the autonomous communities (or Comunidad Autónoma). Until early 2014, for those exceeding 50 MW of power or where more than one community (one of the 17 autonomous regions Spain is divided into) was involved in a plant, but in the RD 413-2014 (in 2014) the Spanish Government has withdrawn this regulation (in article 35) by putting it into the hands of the General Administration of the State (or Administración General del Estado), in line with the General Directorate of Energetic Politics and Mines (or the Dirección General de Política Energética and Minas), belonging to the the Spanish Ministry of Industry, Energy and Tourism<sup>64</sup> (or Ministerio de Industria, Energía y Turismo), since 2018 it is the Ministry for the Transition of Ecology (or the the Ministerio para la Transición Ecológica) because probably nobody was using this regulation (wind is determined by the Local/Regional regulations).

With respect to Menorca 30, the role of the Spanish Ministry is to set a legal framework for photovoltaic self-consumption and the promotion of a battery entailing 650 MWh, the execution (through REE or Red Eléctrica de España, a semi-public Spanish electric transmission operator) of the double electric link (between Mallorca and the Spanish mainland), the payment of subsidies in renewable energy sources (for wind, photovoltaic, biomass, etc.) and the “adaption” of the Maó fossil fuel unit<sup>65</sup>.

Specifically on A3:

The Balearic Law 2006, Law 2016 and the recently approved Law of Climate Change and all the other Balearic Laws and regulations are approved by a National/Balearic/Insular body (see above), taking into account the “political atmosphere”. In this sense, the general public has no right to amend/change any law approved in Spain. The general public was already represented by the Energy Advisory Council (or Consejo Asesor de la Energía)<sup>66</sup>.

<sup>63</sup> See [www.idae.es/mercados-locales-de-electricidad-consulta](http://www.idae.es/mercados-locales-de-electricidad-consulta)

<sup>64</sup> See [www.mincotur.gob.es/es-es/Paginas/index.aspx](http://www.mincotur.gob.es/es-es/Paginas/index.aspx), which was replaced by [www.miteco.gob.es/es/](http://www.miteco.gob.es/es/)

<sup>65</sup> See [www.cime.es/documents/documents/3341docpub.pdf](http://www.cime.es/documents/documents/3341docpub.pdf)

<sup>66</sup> See [http://dgindust.caib.es/www/Decreto\\_PDSEIB.pdf](http://dgindust.caib.es/www/Decreto_PDSEIB.pdf)

## Stage 2: Analysis of wind energy plant approval procedures

### B1. Approval procedures

<p><b>Set of queries B1</b></p> <p>Please, provide the act references and shortly describe the approval processes (authorisation/permit/licence) for wind energy plants including linkages with the planning and environmental impact assessment procedures.</p> <p>In the Balearic Islands there are no wind energy plants today, except the wind park in Menorca (Es Milà), where a re-powering from 3,2 MW to 15,8 MW is foreseen (operational earliest in 4-5 years). The only legal acts affecting the wind parks on the Balearic Islands include the Law 12/2016 and the PDSEIB (see both below).</p> <p>In Spain, the general procedure to install a wind park is that, besides the need of a lot/land with enough wind, the promoter/developer must go through the environmental assessment, (or ambientales) and the authorisation procedure (or procedimiento administrativo). The first is an administrative procedure by which the project and its potentially detrimental impacts on the environment are assessed; the second is an administrative procedure by which the technical part of the project is analysed by the administration<sup>67</sup>.</p> <p>In the Balearic Islands, the environmental impact assessment is a procedure that depends on the insular government of each island (Consell Insular), whereas responsibility for the authorisation procedure is with the government of the Balearic Islands (Govern des les Illes Balears). The Balearic Law is the one 12/2016 (see below)<sup>68</sup>.</p>
<p>Please, provide the act references and schematically describe the Environmental Impact Assessment requirements</p> <p>According to Balearic Law 12/2016 (which amends Law 21/2013) each developer has to include an EIA, Environmental Impact Assessment (or Estudio de Impacto Ambiental) in his/her application, if the project is:</p> <ul style="list-style-type: none"> <li>• Included in the Appendix I, which for wind energy means all installations with more than 4 wind mills or exceeding 1MW of power and that are located in the “aptitud alta” or high impact on the Environment</li> <li>• The projects included in Appendix II (which for wind energy means all installations exceeding 100 kW and its electrical infrastructure, which should be determined by the CBMA)</li> <li>• Each modification of a project in the Appendix I or II</li> <li>• Any project which would normally be included in the simplified Environmental Impact Assessment (generally, all projects which are included in Appendix II) and if the promoter/developer asks to conduct regular EIA<sup>69</sup>.</li> </ul> <p>According to the Article 35 of the Balearic Law 12/2016 the promoter/developer has to present a study with all the necessary information regarding the area/zone and possible outcomes on the environment and allow implementing decisions aiming at mitigating or eliminating said outcome(s)<sup>70</sup>. This Balearic Law was published in the Spanish Bulletin and the Balearic one (BOE, or Boletín Oficial del Estado and the BOIB, Butlletí Oficial de las Illes Balears) and in Spanish/Balearic. The following chart describes the admission process of the EIA<sup>71</sup></p>

<sup>67</sup> See Pardillos, C.S. (2017): Manual de Energía Eólica

<sup>68</sup> See Pardillos, C.S. (2017): Manual de Energía Eólica

<sup>69</sup> See [www.caib.es/seucaib/es/tramites/tramite/2893276](http://www.caib.es/seucaib/es/tramites/tramite/2893276) and [www.boe.es/boe/dias/2016/09/17/pdfs/BOE-A-2016-8518.pdf](http://www.boe.es/boe/dias/2016/09/17/pdfs/BOE-A-2016-8518.pdf)

<sup>70</sup> See [www.caib.es/seucaib/es/tramites/tramite/2893276](http://www.caib.es/seucaib/es/tramites/tramite/2893276)

<sup>71</sup> Pardillos, C.S. (2017): Manual de Energía Eólica and own elaboration

<div><div>Request for an EIA (Solicitud de Impacto Ambiental)</div><div>↓</div><div>Technical análisis (done by the CBMA)</div><div>↓ ↓</div><div>Rejection of the EIAApproved EIA</div></div>		
4. Is a public consultation phase envisaged before the approval act adoption for wind power plants? (YES/ <b>NO</b> )		
If YES, please		
1.1 Specify for which power plant size	The only wind park is the Es Milà and the Balearic Law 12/2016 says in Appendix I that for 4 wind mills or plants exceeding 1MW of power, the EIA must be submitted by the promoter/developer (in this case, the Consell de la Isla de Menorca) and the authorisation is under way <sup>72</sup> .	
1.2 Describe the arrangements for informing the public (i.e. publication in local newspapers, social media...) No formal information process was implemented in the Balearic Law 12/2016.		
1.3 Describe the arrangements for consulting the public concerned (i.e. written submissions, public inquiry...) The formal process of consulting the public (by the government of the Balearic Islands), which is based on three pillars (and currently and only done for climatic change with the recently approved Balearic Law in 2019, a new public housing in Son Dureta and a new Law regarding contaminated soils and waste on the Balearic Islands): <sup>73</sup> <ul style="list-style-type: none"><li>- Face-to-face meeting(s) with the coordinating team</li><li>- Participation in citizens' workshops</li><li>- Answering of the coordinating team based on an online form</li><li>- In order to organize a meeting the interested person must send an email</li></ul>		
5. Who may take part in the consultation stage?  Nobody, regarding the Balearic Law 12/2016.  However, this is done by a rather cumbersome process (the CAIB or government of the Balearic Islands has not updated its webpage since 2016) for citizens, companies, social representative bodies and political parties <sup>74</sup> .	Anyone who desires to participate can do it directly	
	Only those parties that can prove having a legitimate interest	
	Participation is open only to recognised associations	

<sup>72</sup> Interview with Gemma Peribáñez, Ezquiaga Arquitectura, Sociedad y Territorio SL on 20.05.2019

<sup>73</sup> See [participacio.meteoclim.com](http://participacio.meteoclim.com) of

[www.caib.es/sites/participacio/es/procesos\\_participativos\\_del\\_gobierno\\_de\\_las\\_Illes\\_Baleares-69438/](http://www.caib.es/sites/participacio/es/procesos_participativos_del_gobierno_de_las_Illes_Baleares-69438/)

<sup>74</sup> See [participacio.meteoclim.com](http://participacio.meteoclim.com) of

[www.caib.es/sites/participacio/es/procesos\\_participativos\\_del\\_gobierno\\_de\\_las\\_Illes\\_Baleares-69438/](http://www.caib.es/sites/participacio/es/procesos_participativos_del_gobierno_de_las_Illes_Baleares-69438/)

Mark your answer X		
6. Is any tool for public participation provided?  No tools are provided in Balearic Law 12/2016. However, there is a public participation tool provided (see point 1.3. and 2. of this chapter) <sup>75</sup> .  Mark your answer X	Public debate	x
	Individual/committee initiatives	x
	Not provided	X (for Law 12/2016)
Possibility to affect the approval, on the basis of the outcomes of public consultation (YES/ <b>NO</b> )		
		Duration in days (0, n
Time to carry out public consultation activities		N/A

Stages of public involvement		Please describe the arrangement (press release, meetings...)
Information	Before the approval	
	Following the approval	
Consultation	Before the approval	
	Following the approval	
Participation	Before the approval	
	Following the approval	

*Any informal public participation possibilities and formats (going beyond the formal, statutory participation procedures (e.g. informal information events, informal working groups etc.)?*

<sup>75</sup> See [partipacio.meteoclim.com](http://partipacio.meteoclim.com)

NO, besides the above mentioned.

## *B2. Other regulatory measures impacting the community acceptance of wind power plants*

Set of queries B2	
2.1. As needed, is any of the following facilitating measure provided for the siting of wind power plants and/or distribution network infrastructures ?	(YES/ <b>NO</b> )
<p>d) Simplification of expropriation procedures</p> <p>There are no special expropriation procedures on the Balearic Islands, the Spanish Law applies<sup>76</sup></p> <p><i>Please, provide the act references and shortly describe the procedure</i></p>	
<p>e) Simplification of procedures for modifying designed use, with particular reference to crop land, forest or natural areas etc.</p> <p>There is no simplification of procedures for modifying designed use is part of the Balearic Island legal system.</p> <p><i>Please, provide the act references and shortly describe the procedure</i></p>	
<p>f) Simplification or elimination of tree felling licence procedures</p> <p>No. Most of the Balearic Islands are covered by bushes. The following norm is valid for all forest trees. It is a Law from 2003, for the conservation and sustainability of the Spanish mountains and forests<sup>77</sup>.</p> <p><i>Please, provide the act references and shortly describe the procedure</i></p>	

<sup>76</sup> See [www.fomento.gob.es/aviacion-civil/politicas-aeroportuarias/expropiaciones/derechos-y-obligaciones-del-expropiado-en-su-relacion-con-la-administracion-expropiante](http://www.fomento.gob.es/aviacion-civil/politicas-aeroportuarias/expropiaciones/derechos-y-obligaciones-del-expropiado-en-su-relacion-con-la-administracion-expropiante)

<sup>77</sup> See [www.caib.es/seucaib/es/tramites/tramite/534154](http://www.caib.es/seucaib/es/tramites/tramite/534154)

**Space for comments B***Add any further details/information/considerations useful to the purposes of Stage 2*

The Es Milà park's characteristics are:

- 4 wind turbines with a nominal capacity of 800 kW each, total installed capacity: 3.2 MW
- Height: almost 80 m including the blades (79.50 m)
- Type: MADE Endesa AE-59
- Maximum electricity production 7GWh; in 2016 the plants produced slightly more than 5 GWh (without restrictions due to Operations and Maintenance)<sup>78</sup>.

Since 2010, all of the Balearic Islands were classified into three levels of suitability or "aptitudes" plus a forbidden zone (Natura 2000 Network), which did not necessarily cover the Renewable Energy sources, i.e. there was no wind in the majority of feasible areas or "aptitudes".

The EIA (Evaluación de Impacto Ambiental -Environmental Impact Assessment) is a document in which a project is evaluated and classified into the above mentioned levels of feasibility ("aptitudes"). The competent body to provide it is the Balearic Commission of the Environment or Comisión Balear de Medio Ambiente or CBMA of the Govern de les Illes Balears). Theoretically, this project, which has been classified as highly "apt", does not require an EIA, as an environmental study or "estudio ambiental" would normally suffice, but sometimes the authorities within the Balearic Commission of the Environment require an EIA. The EIA, which by Balearic Law 12/2016 is supposed to take three months and in reality takes longer. For a private park it can take 20+ years to come to fruition, but this is because sometimes the promoter/developer does not include all the required papers in the application and there is the bottleneck of the CBMA<sup>79</sup>.

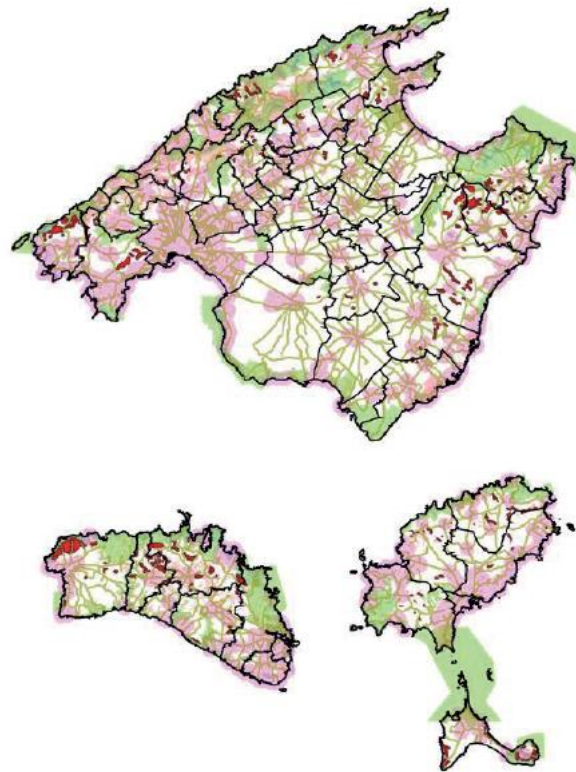
The following graph shows the zones in Balearic Islands; in red the zone which could be "allowable" (has one of the three levels of "aptitudes")<sup>80</sup>. The park Es Milà, or the land foreseen for it, can be seen on the left side of the island (below the big island of Mallorca, on the left side, is the island of Menorca)<sup>81</sup>:

<sup>78</sup> See [www.cremenorca.org/Contingut.aspx?IdPub=9094&menu=Energia](http://www.cremenorca.org/Contingut.aspx?IdPub=9094&menu=Energia)

<sup>79</sup> Interview with Rafael Muñoz, Technical Engineer at the Consorci de Residus Sòlids Urbans on 14.05.2019

<sup>80</sup> See <http://cartografia.cime.es/documents/documents/265docpub.pdf> and [www.caib.es/sacmicrofront/archivopub.do?ctrl=MCRST5325ZI190898&id=190898](http://www.caib.es/sacmicrofront/archivopub.do?ctrl=MCRST5325ZI190898&id=190898)

<sup>81</sup> See [www.caib.es/sacmicrofront/archivopub.do?ctrl=MCRST5325ZI190898&id=190898](http://www.caib.es/sacmicrofront/archivopub.do?ctrl=MCRST5325ZI190898&id=190898)



Under the recently approved Law of Climate Change and Energy Transition of 12<sup>th</sup> of February 2019 (Llei del Canvi Climàtic i Transició Energètica), the regional government intends to meet the energy demands on Mallorca, Menorca, Ibiza and Formentera with 10% renewables (from photovoltaics and some other sources, such as the repowered wind park Es Milà) by 2020, 35% of renewables by 2030, together with a 23% reduction of energy consumption and 40% reduction of contaminating emissions and 100% of “clean” energy use by 2050. This Balearic Law will also require the creation of regular five-year plans (starting in 2020) describing how these goals will be met; introduce binding emissions targets for businesses; and work towards attaining a 2% share of electric vehicles in the car rental fleet by 2020 and 100% by 2035 on all Balearic Islands. Furthermore, from now on all new parking lots with over 1,000 m<sup>2</sup> and the existing ones of over 1,500 m<sup>2</sup> must have photovoltaic panels or modules and all public illumination must be with LEDs or other low consumption by 2025. Furthermore, it is envisaged to partly close the fossil power plant Es Murterar in Alcúdia (Mallorca) with 1 and 2 units (of 125 MW each) stopping production on the 1<sup>st</sup> of January 2020, whereas unit 3 and 4 shall work with a maximum output of 1,500 h per year until August 2021. From that point till 2025 (the 2<sup>nd</sup> cable from the Spanish mainland is supposed to arrive in Alcúdia) the annual hours will be 500. On May 14<sup>th</sup>, 2019, the government of the Balearic Islands joined to Powering Past Coal Alliance, a body under the law of the United Nations. This is a clear step towards closing the Es Murterar between 2020-2025<sup>82</sup>. The unit in Maó (Ciutadella, capital of Menorca) should substitute oil by gas in 2020, but for the other units in Formentera and Ibiza the closing date is less clear<sup>83</sup>.

<sup>82</sup> See [www.energies-renovables.com/panorama/el-govern-de-baleares-comienza-la-cuenta-20180914](http://www.energies-renovables.com/panorama/el-govern-de-baleares-comienza-la-cuenta-20180914)

<sup>83</sup> See [www.eleconomista.es/empresas-finanzas/noticias/8467247/06/17/El-Gobierno-balear-quiere-cerrar-centrales-de-carbon-de-Endesa-en-solo-dos-anos.html](http://www.eleconomista.es/empresas-finanzas/noticias/8467247/06/17/El-Gobierno-balear-quiere-cerrar-centrales-de-carbon-de-Endesa-en-solo-dos-anos.html)

## Stage 3: Information about the financial support to increase the electricity production from wind energy in terms of transparency of information on costs and results

### *C.3 Support schemes to support electricity production from wind energy and other renewables*

Set of queries C1	
<p>3.1 Please describe the key national support schemes (e.g. Feed in tariff, feed in premium, auction/tender, renewable energy certificate system, investment grants/subsidies from state budget)</p>	<p>The main national support schemes used to be feed-in-tariffs and feed-in-premiums, from 2004-2013 (Royal Decrees 436/2004, 661/2007, 1578/2008, etc.). The support schemes were similar to the schemes in Germany based on the German Renewable Energy Sources Act (<i>Erneuerbare-Energien-Gesetz</i>), meaning that the surcharge is included in the electricity tariff to be paid by all electricity customers.</p> <p>However, several austerity measures since late 2010 (financial crisis) included a cap on the electricity generation being eligible for support (Royal Decree Law 14/2010), a grid access charge (Royal Decree Law 14/2010 and RD1544/2011), a generation charge (Law 15/2012), a shortening of the support period (Royal Decree 1565/2010 and RDL 14/2010) and the updating of tariffs below the consumer price index (Royal Decree Law 2/2013). But, several regulations were approved in 2013 and 2014, including RD413/2014, which have put an end to this FIT. The new regulatory package for the promotion of renewable electricity is based on four pieces of legislation: a Royal Decree Law (RDL 9/2013), a Law (Law 24/2013), a Royal Decree (RD413/2014) and a Ministerial Order (Order IET/1045/2014). The new RES support scheme involves a substantial departure from the pre-existing system (prior to 2013/2014). Spain implemented a moratorium on clean energy to remove the discrepancy between the cost of producing energy and what consumers pay for it, which piled up a debt of 26 billion EUR in many years<sup>84</sup> (mostly due to photovoltaic energy).</p> <p>Spain renewed its interest in renewable energy after the Paris Agreement to tackle global warming (adopted in late 2015)<sup>85</sup>. The newly established energy ministry, the Ministry for Ecological Transition (or Ministerio para la Transición Ecológica), expects the share of renewables in Spain's energy consumption to range from 18.5% to 19% by 2020<sup>86</sup>. From 2015, auctions have started to</p>

<sup>84</sup> See Del Río, P (2016): ): Implementation of Auctions for Renewable Energy Support in Spain: A case study

<sup>85</sup> See also Del Río, P. (2016): Implementation of Auctions for Renewable Energy Support in Spain: A case study

<sup>86</sup> See <https://energia.gob.es/es-es/Paginas/index.aspx>

	<p>replace the FIT-regulations (mainly focused on wind energy and photovoltaics).</p> <p>In May 2015, an auction was held on mainland Spain (for both technologies, but geared towards wind energy, which ultimately drew 99% of the investment towards wind technology).</p> <p>A second auction, in late 2015, was held in the Canary Islands (focused only on wind energy) which determined that the parks had to be installed at the latest by 31.12.2018.</p> <p>There was another auction on the Spanish mainland held in May 2017. Once again, the same system and results: 2,979 MW destined for wind power and just 1MW towards photovoltaic energy with the remainder of 20 MW distributed among different other technologies.<sup>87</sup></p> <p>But several auctions are expected once the new Government has been formed after the 26th of May 2019.</p> <p>Hence, auctions are the new way to promote the use of energy from RES in Spain.</p>
3.2 Please provide the total budget allocated to the support of wind energy over the last 5 years (euros)	<p>2018: 1, 481 M€* out of a total of 7, 220 M€  2017: 1,472 M€* out of a total of 7,155 M€  2016: 1,252 M€* out of a total of 6,497 M€  2015: 1,253 M€* out of a total of 6,638 M€  2014: 1, 252 M€* out of a total of 6,647 M€  Total (2014-2018): 6,710 M€* out of a total of 34,157 M€  *=including the 7% of IVPEE of the Law 15/2012 (taxes)<sup>88</sup></p> <p>There are 2,3484 MW of wind power plants installed, according to the AEE, covering 19% of Spain's consumed electricity. Spain is the fifth country in the world in terms of installed wind power capacity, behind China, USA, Germany and India. The annual build-out and existing wind power in Spain is as follows<sup>89</sup>:</p>

<sup>87</sup> See also <https://energia.gob.es/es-es>

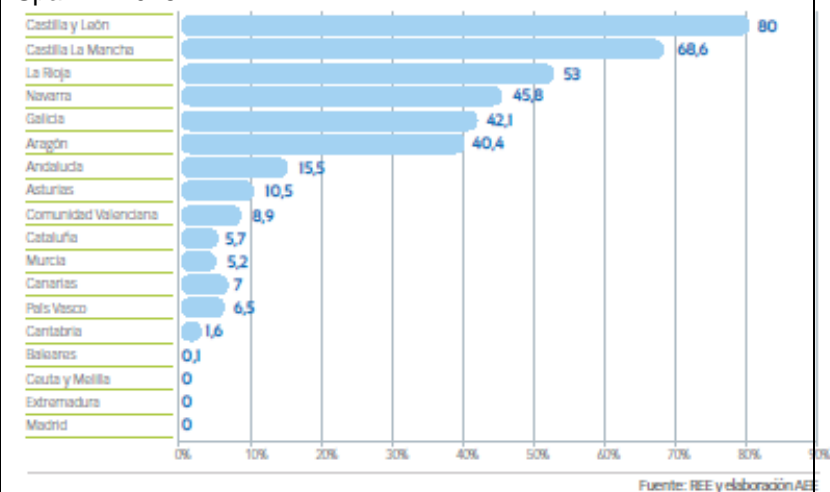
<sup>88</sup> AEE, Annual Review 2018

<sup>89</sup> AEE, Annual Review 2018

## EVOLUCIÓN ANUAL Y ACUMULADA DE LA POTENCIA INSTALADA EN ESPAÑA (EN MW)



The % of production per one of the 17 Autonomous Regions in Spain in 2018:<sup>90</sup>



In Castilla y León, the Autonomous Region (see below) with the highest installed wind power capacity, there was an approved Wind Plan in 2000 that was successful (from the point of view of the promoter/developer).

3.3 Please describe the methods to inform citizens on the purposes of financial support to renewable energy and on the results achieved.

**NO**

There are no methods to inform citizens on the purposes of the financial support (please see 3.2.). There are several Spanish research institutes and associations (see above for AEE) that are mentioned below and that are very active in the wind energy arena and who are relevant:

The IDAE, or Instituto de diversificación y ahorro de la energía (the Spanish Institute for energy savings), which is a branch of the Spanish Ministry of Energy or Ministerio para la Transición

<sup>90</sup> AEE, Annual Review 2018

	<p>Ecológica, is the Spanish Institute in charge of performing the auctions (please see above). Furthermore, it is in charge of monitoring the targets the Spanish government has to fulfil according to international agreements (Kyoto, Paris, etc.) through energy efficiency, renewables and other technologies low in carbon dioxide emissions<sup>91</sup>.</p> <p>The IDAE published a 180 pages wind energy booklet which may be downloaded and it contains general information on wind energy (technology, most representative projects, current and future situation, etc.) but it seems outdated (it stops in 2004/2010).</p> <p>The IDAE is also in charge of performing the auctions; as soon as they are approved by the government (expecting it to increase this activity after the New Government is formed<sup>92</sup>, following a National elections on 28<sup>th</sup> of April and European and Municipal elections on 26<sup>th</sup> of May 2019).</p> <p>The IDAE informs the general public via email, Web and telephone on the results of efficiency programs (such as PAREER programs). The only one regarding Balearic Islands includes photovoltaic energy. There is a FEDER fund (or fondo FEDER) on Wind Energy in the Canary Islands, but this cannot be regarded a measure to inform citizens on the purposes of financial support to renewable energy<sup>93</sup>.</p> <p>The National Commission for Market Competitiveness (CNMC, comisión nacional de mercado y competencia) is an entity that promotes and defends proper functioning of all markets in the interest of consumers and businesses. It is responsible for providing the financial support mentioned in section 3.2<sup>94</sup>. But it does neither advertise this nor does it inform the citizens on its payments...</p> <p>The functioning of the CNMC is adjusted to the regulations of the European Union, especially in the telecommunications and energy sectors, where greater integration of the EU's Single Market is being pursued. For this purpose, the Commission regularly and periodically collaborates with other supervisory authorities from the European Union, as well as with cooperating agencies from the European regulators on the subject of energy and electronic communications<sup>95</sup>.</p>
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<sup>91</sup> See <https://www.idae.es/tecnologias>

<sup>92</sup> See <https://www.idae.es/tecnologias/energias-renovables>

<sup>93</sup> Web page search and interview of IDAE.

<sup>94</sup> See also [www.cnmc.es/sobre-la-cnmc](http://www.cnmc.es/sobre-la-cnmc)

<sup>95</sup> See also [www.cnmc.es/sobre-la-cnmc/que-es-la-cnmc](http://www.cnmc.es/sobre-la-cnmc/que-es-la-cnmc)

## Stage 4: Mechanism to support the financial participation of citizens/communities or providing other community benefits

### *D1. Active and passive financial participation of citizens and communities in national support*

Set of queries D1	
4.1 To what extent do support schemes for wind energy consider/promote citizen/community based wind energy? (i.e. ownership of wind energy plants by local communities/citizens)	On the Balearic Islands, there is no scheme for wind energy to consider/promote citizen/community based wind energy. The only wind project (Es Milà) is on public land, belonging to the Consorci de residus i energia de Menorca <sup>96</sup> (a cooperation of the Consell Insular de Menorca <sup>97</sup> and all the island's 8 municipalities). In that sense, it is an ownership of the Wind Energy plant by citizens.
4.2 To what extent do support schemes promote passive/indirect financial participation of citizens and communities or provide financial compensations/other community benefits?	There is no financial compensation or other community benefits for using Wind Energy. There is no such incentive in Spain. Even for the new IDAE tenders (auctions), it does not seem that specific provisions on indirect participation are going to be included <sup>98</sup> .
4.3 Are there any other regulations/incentives/guidelines etc. providing for the active or passive financial participation of citizens and communities in wind energy (e.g. seed-money for citizen/community owned wind energy plants) or providing community benefits (e.g. taxation of wind energy etc.) ?	There are no other regulations/incentives/guidelines etc. providing for the active or passive financial participation of citizens and communities in wind energy.  There are no incentives providing participation of citizens in wind energy. In general, for wind energy; not specifically for community projects. Moreover, regions and municipalities have established special taxes for wind (so called "canon eólico") <sup>99</sup> . In 2009, the Galician regional government introduced the canon eólico for the purpose of taxing negative externalities associated with the installation of wind farms. More specifically, this levy taxes the number of wind turbines and establishes a tax-exempt tax bracket and three other tax brackets with rates that increase with the number of wind turbines. The Canon Eólico Feeding the ECF, which distributes a significant part of its income to the municipalities affected by wind farms. These income flows are channelled as non-competitive subsidies, and therefore are not freely disposable. They are intended to implement actions related to production, employment generation, biodiversity conservation, the recreational use of natural resources, and the sustainable use of renewable energies (Copena et al. 2019).

<sup>96</sup> See [www.cremenorca.org](http://www.cremenorca.org)

<sup>97</sup> See [www.cime.es](http://www.cime.es)

<sup>98</sup> Interview with Daniel Pérez Rodríguez, responsible for PPA and Legal at HolaLuz Cooperative on 28.05.2019

<sup>99</sup> Interview with Daniel Pérez Rodríguez, responsible for PPA and Legal at HolaLuz Cooperative on 28.05.2019

## ***D2. Voluntary self-commitments and agreements for active or passive financial participation of local residents/communities***

<p>4.1 Are there any voluntary agreements concluded between national/regional public authorities/actors and the wind industry providing for active or passive financial participation of local residents/communities or providing other community benefits?</p>	<p>There are no voluntary self-commitments or voluntary agreements for active or passive financial participation of local residents/communities. In the Balearic Islands, the only wind park is Es Milà, the repowering is foreseen in 4-5 years' time (although it has been officially approved). There is a strong opposition when it comes to wind energy on the Balearic Islands (not so for the Es Milà park of photovoltaic energy, which is already built or where the impact on the environment is less)<sup>100</sup>.</p> <p>In other regions, e.g. the Canary Islands, there has been a more dynamic development mainly due to the 2015 auction (currently, there are almost 420 MW of wind energy plants installed in the Canary Islands). But in Lanzarote (which has a similar degree of protection as Menorca)<sup>101</sup> the current amount of wind power is 23.43 MW. It includes assets of over 10 MW in 2 wind parks that have been added since 2017 (one of them being Tegui I, on public land)<sup>102</sup></p>
<p>4.2 Are there any voluntary self-commitments by the wind industry referring to the procedural or financial participation of citizens and communities or to the provision of other community benefits?</p>	<p>There are no voluntary self-commitments and agreements for active or passive financial participation of local residents/communities.</p> <p>The wind industry is just increasing its asset size. The new Plan (or Plan Nacional Integrado de Energía y Clima, PNIIEC) of the Ministry of Ecological Transition foresees 3,000 MW of wind power installed each year until 2030<sup>103</sup>.</p>

### **Space for comments D**

*Add any further details/information/considerations useful to the purposes of Stage 4*

The only existing wind park located in the Balearic Islands is of public ownership (and on public land, either owned or rented), which is the wind park of Es Milà (3,2 MW, see above). It benefits from the FIT-tariff (feed-in-tariff) of previous and current Spanish, i.e. national, payments, but it is a 100% public park (controlled by the Government of Menorca) and financed by the IDAE<sup>104</sup>.

The Spanish Government, through the Ministry of Ecological Transition, has launched a public consultation regarding several themes. These include the public consultation (by email) of the Royal Decree regarding the methodology of the charges of the electrical system (Consulta pública previa a la

<sup>100</sup> Interview with Gemma Peribáñez, Ezquiaga Arquitectura, Sociedad y Territorio SL on 20.05.2019

<sup>101</sup> Interview with Gemma Peribáñez, Ezquiaga Arquitectura, Sociedad y Territorio SL on 20.05.2019

<sup>102</sup> See [www.laprovincia.es/lanzarote/2019/03/26/gobierno-autoriza-consejo-insular-aguas/1159914.html](http://www.laprovincia.es/lanzarote/2019/03/26/gobierno-autoriza-consejo-insular-aguas/1159914.html) and [https://cadenaser.com/emisora/2019/02/11/ser\\_lanzarote/1549879842\\_635750.html](https://cadenaser.com/emisora/2019/02/11/ser_lanzarote/1549879842_635750.html)

<sup>103</sup> See [www.publico.es/economia/espana-lograra-2019-record-instalacion-plantas-renovables.html](http://www.publico.es/economia/espana-lograra-2019-record-instalacion-plantas-renovables.html) and also [www.miteco.gob.es/es/cambio-climatico/participacion-publica/marco-estrategico-energia-y-clima.aspx](http://www.miteco.gob.es/es/cambio-climatico/participacion-publica/marco-estrategico-energia-y-clima.aspx)

<sup>104</sup> See also <http://www.cremenorca.org/Contingut.aspx?IdPub=8567&menu=Energia>

elaboración del real decreto por el que se establece las metodologías de cálculo de los cargos del sistema eléctrico)<sup>105</sup>.

In Castilla y León, there is the **Wind Plan** of Castilla y León (or El Plan Eólico de Castilla y León), subdivided in its 9 provinces. It was approved in the year 2000. It was the Authority of Environment (or Consejería de Medio Ambiente) by the articles 43 and 44 of the Decree 209/1995 of 5th of October that launched the Dictámenes Medioambientales (or environmental guidelines, EO). The EO and the Wind Plan of Castilla y León are used in order to determine whether the request of a private owner of a potential wind park should be authorized. Depending on whether the environmental protection or social-economic/technical aspects are primed, these guidelines assist in finding the intersection point of the areas with most wind: Conservationist (or Conservacionista), Sustainable (or Sostenible) and Developmentalist (or Desarrollista), mapping in detail for its 9 provinces. Assessment of the wind potential was performed with WASP 5.0 and in situ measurements.

The regional body of energy, EREN (or Ente Regional de la Energía), was the only one, as competent agency or body, to be asked for opinion. In the capitals of the 9 provinces there is, at the disposal of the general public and, moreover, the teams that basically have to do EOs, a copy of the Wind Plan of Castilla y León. The Plan includes the modifications done by EREN<sup>106</sup>.

The environmental inventory includes the description and mapping of the following<sup>56</sup>:

- Physical medium (or Medio físico): morfostructural units, hydrography, risks of geological nature, etc.
- Biological medium (or Medio biológico): the most important plant formations, endemic plants, etc.
- Perceptual medium (or Medio perceptivo): Analysis of the environment, including visual impact of the future wind park, etc.
- Natural areas. The natural areas to be considered include:
  - a) Natural areas or that will become so
  - b) Special Bird Protection Zones (ZEPAs).
  - c) Special Wetland Zones of national importance (or Zonas húmedas de importancia nacional)
  - d) Areas of EU importance (LIC, or Lugar de Interés Comunitario)
  - e) Important areas of birds following the criteria of the SEO
  - f) Special regional hunting grounds
  - g) Special areas because of an ecological, environmental or landscaping value
  - h) Outstanding landscaping areas from the old Nature Conservation Institute (Instituto para la COnservación y NATuraleza, ICONA).
- Socioeconomical and archaeological medium (Medio Socioeconómico y Patrimonio Histórico - Artístico y Arqueológico): an analysis is done using the sectors population, infrastructure, distribution of wealth, etc.

The Wind Plan to be proposed to the promoter/developer has alternative scenarios, considering energetic, environmental and social aspects:<sup>107</sup>

<sup>105</sup> See <https://energia.gob.es/es-es/Participacion/Paginas/rd-calculo-cargos-sistema-electrico.aspx>

<sup>106</sup> [https://energia.jcyl.es/web/jcyl/Energia/es/Plantilla100Detalle/1267710822752/\\_/1284866197451/Comunicacion](https://energia.jcyl.es/web/jcyl/Energia/es/Plantilla100Detalle/1267710822752/_/1284866197451/Comunicacion)

<sup>107</sup> [https://energia.jcyl.es/web/jcyl/Energia/es/Plantilla100/1264671764426/\\_/\\_/\\_](https://energia.jcyl.es/web/jcyl/Energia/es/Plantilla100/1264671764426/_/_/_)

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