WinWind
Increasing the acceptance of Wind Energy

Deliverable 6.3

PRINCIPLES & CRITERIA FOR FAIR & ACCEPTABLE WIND ENERGY

Date: 31/01/2020

Version 2

Summary

WP	6	**Name of the WP: Policy Lessons and Guiding Principles and Criteria for Fair and Acceptable Wind Energy**		
Dissemination level:		Public	Due delivery data:	30 November 2019
Nature:		Report	Actual delivery data	31 January 2020
Lead beneficiary:			IPE	
Contributing beneficiaries			FUB-FFU, all partners	
Authors: Ivars Kudreņickis (IPE), Dörte Themann, Michael Krug (FUB- FFU)				

Document history					
Version	Date	Submitted by	Partner	Reviewed/Approved by/Partner	Date
V0	18.09.2019	Ivars Kudreņickis	IPE	Michael Krug/FUB-FFU	18.10.2019
V1	28.01.2020	Michael Krug	FUB-FFU	Ivars Kudrenickis/IPE	29.01.2020
V2	30.01.2020	Michael Krug	FUB-FFU	Rosaria Di Nucci/FUB-FFU	31.01.2020

WinWind has received funding from European Union's Horizon 2020 Research and Innovation programme under Grant Agreement Nº 764717. The sole responsibility for any errors or omissions made lies with the consortium. The content does not necessarily reflect the opinion of the European Commission. The European Commission is also not responsible for any use that may be made of the information contained therein.

Abstract

The overall objective of the 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, Latium and Abruzzo in Italy, Latvia as a whole, Mid-Norway, the Warmian-Masurian Voivodeship in Poland and the Balearic Islands in Spain.

Work Package (WP) 6 of the WinWind project aids policy learning with the ultimate goal of enhancing social acceptance and support in the target regions and beyond. In particular, Work Package 6 seeks to draw policy lessons from cross-case analyses, stakeholder consultations and transfer activities for community participation and engagement in wind energy developments with validity across Europe. Under WP 6, the consortium also develops guiding principles and criteria for fair wind energy serving as a "compass" for policy development, based on the findings of the other work packages and taking into account existing approaches and concepts.

WinWind has been particularly inspired by the Guidelines for Fair Wind Energy developed by the Wínd Energy Service Unit in Thuringia, one of the target regions of the project. These form the basis of a quality label issued by the Service Unit to project developers operating in Thuringia committing themselves to comply with these guidelines. The WinWind partners asked to what extent and under what conditions such a label and corresponding guidelines and underlying criteria could be accommodated by or transferred to other countries or even find a dissemination at the European level.

The present report (Deliverable 6.3 Principles and criteria for fair and acceptable wind energy) represents a key policy related outcome of the WinWind project. The report takes into account the project findings in other Work Packages (WP 2-6), in particular the findings of the deliverables D 2.3 "Taxonomy of social acceptance drivers and barriers", D 4.3 "Synthesis & Comparative Analysis of Best Practice Case Studies for Promoting the Social Acceptance of Wind Energy". This report builds in particular upon D 6.1 "Screening of Technical and Non-Technical Regulations, Guidelines and Recommendations" which 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 and also investigates 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.

In the report we argue that the principles and criteria for fair wind energy developed by WinWind may serve not only as a guidance for wind energy developers and operators, but also for policy development and community engagement.

Contents

List of Tables

List of Figures

1 Background, purpose and structure of this report

The overall objective of the 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, Latium and Abruzzo in Italy, Latvia as a whole, Mid-Norway, the Warmian-Masurian Voivodeship in Poland and the Balearic Islands in Spain. Work Package 6 of the WinWind project aids policy learning with the ultimate goal of enhancing social acceptance and support in the target regions and beyond. In particular, Work Package 6 seeks to draw policy lessons from cross-case analysis, stakeholder consultations and transfer activities for community participation and engagement in wind energy developments with validity across Europe. Under WP 6, the consortium also develops guiding principles and criteria for fair wind energy serving as a "compass" for policy development, based on the findings of the other work packages and taking into account existing approaches and concepts. WinWind has been particularly inspired by the Guidelines for Fair Wind Energy which have been developed by the Wínd Energy Service Unit in Thuringia and which form the basis of a quality label issued by the Service Unit to project developers active in Thuringia committing themselves to comply with these guidelines. The WinWind partners asked to what extent and under what conditions such a label and corresponding guidelines with the underlying criteria might be accommodated by/ transferred to other countries or even the European level.

The European Commission recently emphasised that "the clean energy transition must be fair and socially acceptable to all". This is, reportedly, at the core of the European Social Model and is a clear priority of the Clean energy for all Europeans package. The EU has launched the Clean energy package to ensure that all citizens, regardless of their location, benefit from the clean energy transition (European Commission, 2019, p.6). However, the Commission has not further specified what it understands with "fair and socially acceptable to all".

The present report (Deliverable 6.3: Principles and criteria for fair and acceptable wind energy) takes into account the project findings of Work Packages (WP 2-6) of the WinWind project. Particularly essential for the objective of this deliverable are the findings of the deliverables D 2.3 "Taxonomy of social acceptance drivers and barriers", D 4.3 "Synthesis & Comparative Analysis of Best Practice Case Studies for Promoting the Social Acceptance of Wind Energy" and D 6.1 "Screening of Technical and Non-Technical Regulations, Guidelines and Recommendations" which provides an analysis of selected regulations, guidelines and recommendations in the WinWind countries and target regions addressing issues which are relevant for community acceptance and which also investigates 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.

Chapter 2 of this report includes a brief summary of the methodology applied. Scientific requirements for the development of principles and criteria are briefly covered by chapter 3. Chapter 4 presents

key lessons from the WinWind project and derives a set of key principles and criteria for fair wind energy which has been commonly agreed upon by the WinWind consortium. It takes a special look into the Thuringian guidelines for fair wind energy which serve as a key source of inspiration. Chapter 5 provides existing examples illustrating how similar principles and criteria for fair wind energy are already applied in different contexts. This is followed by proposals for the practical implementation of the WinWind principles and criteria (chapter 6).

2 Methodology

Methodologically, the report is based on 1) desk research, 2) a brief assessment of the Thuringian guidelines of Fair Wind Energy and their applicability for other European countries and 3) an evaluation of key outcomes of the WinWind project including deliverables D 2.1 “Literature review” (Linnerud et al., 2018), D 2.3 “Taxonomy of social acceptance drivers and barriers” (Aakre et al., 2018), D 4.3 “Synthesis & Comparative Analysis of Best Practice Case Studies for Promoting the Social Acceptance of Wind Energy” (Maleki-Dizaji et al., 2019) and D 6.1 “Screening of Technical and Non-Technical Regulations, Guidelines and Recommendations” (Giuffrida et al., 2019). The principles and criteria, taking the Thuringian Label for Fair Wind Energy as an orientation, have been also discussed with European stakeholders in the framework of the European Policy Roundtable organised by the WinWind consortium in Brussels in June 2019 during the European Sustainable Energy Week (see Rambelli et al., 2019). Furthermore, draft versions of this report have been thoroughly discussed by the project partners during internal project meetings in Warsaw (September 2019) and Rome (December 2019).

3 Requirements for the development of principles, criteria and indicators related to energy technology sustainability assessments

When developing principles and criteria for fair wind energy we considered it useful to take a look into existing concepts and approaches of energy technology sustainability assessments. General scientific requirements for the development of principles, criteria and indicators to be used in energy sector were established in the frame of several research projects. A useful summary of such requirements has been provided by the NEEDS project (Hirschberg et al., 2007). Taking these requirements into account, in the following we extract and generalise the most important requirements, which, in our view, should be considered when developing principles and criteria for fair wind energy. Hence, a set of fair wind energy criteria should:

- adequately reflect the phenomenon intended and catch the essential characteristics of on-shore wind energy technology,

- cover economic, social and environmental aspects as well as the governance system of wind energy (coverage of the different dimensions of sustainability),
- be understandable, meaningful and appropriate to the needs of the stakeholders,
- be functional and representative for policy making,
- distinctly indicate which direction is “good” and which is “bad” (clear in content and value),
- be chosen in a way that it is possible to change/improve (possible to influence),
- be providing information to act on and convincing of necessity to improve the performance of on-shore wind (leading and compelling).

Furthermore, understandable, sound, and reliable methodologies should be available to evaluate fulfilment of the criteria. This means that

- effective monitoring procedures should be provided and the evaluation process should be transparent and verifiable,
- evaluation should be made with reasonable effort and cost (feasibility) and be timely,
- the chosen evaluation methodologies should be repeatable and adaptable within other areas and allow for comparison,
- evaluation should be sensitive to changes in the system under study, and ideally respond relatively quickly and noticeably,
- the system should be manageable which means the number of criteria to be included should be kept at a reasonable level).

4 Towards a set of key principles and criteria for fair wind energy – lessons from the WinWind project

4.1 Preliminary remarks

In the WinWind partner countries, two main models with different levels of community engagement can be discerned: developer-led and community-led.

Developer-led resp. developer initiated models are those under which wind projects are initiated, developed, and partly operated by commercial developers, usually not rooted in the region in which the project is being developed, with the community hosting the project playing more a passive role. To contribute to distributional fairness, the investor either offers opportunities for active financial participation of (e.g. part of the turbines in community ownership) or passive financial participation by providing community benefits (e.g. donations, compensations, special electricity tariffs, in-kind benefits etc.). This model may involve not only the “community of locality”, but more often investors will look to the larger “community of interest” as well, for equity financing. The developer-led model is widespread in almost all WinWind partner countries, with different levels of benefits sharing,

namely in Norway, Latvia, Poland, Italy and Spain. The same applies for the federal states of East Germany including the WinWind target regions of Saxony and Thuringia.

Community-led resp. community initiated models are those under which projects are initiated, developed, and operated primarily by the local community, or "community of locality". This category includes traditional consumer co-operatives, but also limited partnerships or hybrid models, and encompasses the purest forms of community wind ownership, often involving significant grass-roots efforts and equity (Bolinger 2001). Community led or community owned wind farms are very common in several regions of Germany, including the WinWind model region of Schleswig-Holstein (particularly in the district of Northern Friesland, partly Dithmarschen), in the state of North-Rhine Westphalia (e.g. district of Steinfurt) or Lower Saxony. In the other WinWind countries community ownership models are not or only poorly developed. In practice, the models vary from purely community owned wind farms to investor-driven wind farms initiated by a commercial developer and/or investors where citizens have the possibility to buy shares in the wind farm or single turbines. Community ownership of wind farms was also successfully developed in several other European countries, albeit with different design (e.g. Austria, Denmark, France, Ireland, Sweden, UK, and the Netherlands).

In the following sections, an "ideal" set of principles and criteria will be developed, preferably for the developer-led model. To that purpose, we shortly explain the Thuringian Guidelines for Fair Wind Energy which serve as a starting point for our research. Next, we will summarise relevant results and lessons from WinWind and finally we will assess to what extent the Thuringian model needs to be complemented or accommodated to be applicable for other countries, taking into account the WinWind results and lessons.

4.2 The Thuringian Guidelines for Fair Wind Energy as point of departure

Thuringia is one of the WinWind target regions. In Thuringia, the Service Unit Wind Energy under the state-owned Thuringian Energy and GreenTech Agency (ThEGA) has set up a catalogue of five guidelines that need to be followed by wind farm developers who want to use the label for fair wind energy in Thuringia. This label is the first of its kind in Germany. The Service Unit Wind Energy has been set up in 2015 and provides comprehensive, neutral and free advisory and technical assistance services for citizens, municipalities and developers in the field of wind energy.

The creation of service unit as well as guidelines and the label in Thuringia have been clearly inspired by the example of a similar service unit established in the administrative district of Steinfurt (federal state of North-Rhine Westphalia) already in 2011. There, a task force was established consisting of the local mayors, representatives from local utilities, the agricultural sector and the district administration to develop "Guidelines for Community Wind Farms" (*Bürgerwindpark-Leitlinien*) to guide and increase the participation of local stakeholders in the financing and planning of wind farms, hence contributing to regional value creation. These guidelines contain certain

minimum criteria developers have to comply with, ensuring procedural and financial participation of citizens (see Info Box 1).

Info Box 1: Guidelines for community wind farms in the district of Steinfurt (Germany)

- All groups in the area are involved in the project
  → *Landowners, residents, farmers, citizens, municipal institutions*
- Fair participation of land owners, local residents and other affected parties who do not benefit directly
  → *Compensation not focusing on the direct wind turbine sites*
- Ensuring direct conceptual and financial citizen participation
  → *Minimum 25 % of equity capital owned by individual citizens (not belonging to the group of land owners in the respective wind priority zone)*
- Avoidance of majority shareholdings
- Low minimum participation thresholds from 1,000 EUR
- Inclusion of local / regional municipal utilities as marketing partners
- Inclusion of regional savings banks (*Sparkassen*) and Peoples' banks (*Volksbanken*) to finance debt capital or individual deposits

In the frame of the WinWind project's best practice case-studies[1], the Thuringian Service Unit Wind Energy and the quality label "Fair Wind Energy" for project developers were analyzed in more detail. Interviews with developers and mayors in Thuringia revealed the benefits, but also shortcomings with regard to the label for fair wind energy.

Social acceptance barriers for wind energy in Thuringia include the fact that only 10 % of the companies operating wind energy plants are local companies based in Thuringia. In many municipalities, generation of local added value from wind energy has therefore been limited so far. External developers face often mistrust among local communities and citizens. This is aggravated if developers use non-transparent land securing practices, often generating perceptions of unfair financial distribution of costs and benefits and conflicts in the local community. In its turn, the designation of priority areas by the planning regions in Thuringia is often perceived as a technocratic top-down process where the opportunities for municipalities to effectively influence siting of wind farms are very limited. Often, they feel badly informed with their concerns and objections being not sufficiently considered in decision-making processes. This lack of "genuine" participation causes much discontent (see also Maleki-Dizaji et al., 2019, p. 106,107).

In order to address those problems, in 2016, the Service Unit started to award a quality label, a certificate for wind energy project developers that commit themselves to adhere to certain transparency, procedural and financial participation standards. The label "Partner for Fair Wind Energy" was introduced in parallel to the comprehensive support and advisory services provided by

[1] see Maleki-Dizaji et al. 2019

the Service Unit to address and overcome existing barriers concerning non-transparent planning procedures and uneven distribution of costs and benefits of wind energy. The award of the label is based on voluntary agreements between the Service Unit and project developers. The corresponding guidelines for fair wind energy include the following principles:

1. Involvement of all interest groups in the vicinity of a planned wind park during the entire planning phase,
2. Transparent handling of project-related information on-site, provision of assistance and informational services,
3. Fair participation of all residents and persons affected, including those not directly benefiting as land owners
4. Involvement of regional energy supply companies and financing institutions,
5. Development of direct financial participation opportunities for citizens, enterprises and municipalities in Thuringia.

These guidelines have been further specified by the Service Unit into more operational requirements. In the terminology of the present report, the guidelines can be translated as general “principles”, which are further broken down into more specific “criteria” (see Table 1).

Table 1. The Thuringian Guidelines for Fair Wind Energy (translated into "principles" and "criteria" for fair wind energy)

Principles	Criteria
Involvement of all interest groups in the vicinity of a planned wind farm during the entire planning phase	• Before land securing starts, the mayor or the local council have to be informed and involved. • Land owners, residents, farmers, foresters and agriculture enterprises, citizens, municipal institutions, etc. shall be involved.
Ensuring the transparent handling of project-relevant information on-site, provision of support and education	• Offer of land/property use contracts with an extraordinary termination option after 5 years as well as a fair handling of easements (*Dienstbarkeiten*) (i.e. registration only at advanced project status) • The period of notice may be extended by a maximum of another 5 years if, in the final project phase, approval has been granted in accordance with the Federal Pollution Control Act, but the project concerned is not awarded a contract in the auctioning procedure. • A standard usage contract is enclosed as proof. • Implementation of information and transparency measures on site. These include, e.g., a. Information events in the local vicinity of the planned project, also events addressing municipal council or landowners b. Media education on site c. Opinion surveys/votings d. Possibly new information events in case of planning changes e. Possible insights into simulations. • In case of first or renewed information event on site (including events addressing local council or land owners) the service unit has to be informed. • The service unit accompanies certified partners with an input presentation, provided the municipality is informed and the capacity in the unit is available.
Fair participation of all affected parties and local residents, including landowners who are not directly benefiting	**At least two of the following three** indirect participation options have to be offered a. Land lease pool models (optional: site pool models (*Standortpoolmodelle*) for a fair distribution of the land lease payments among the affected land owners **or** "sub-lease models" (*Unterpachtmodelle*) by the affected municipality (municipality as contractual partner of the site protection agreements - it benefits from higher sublease rates) b. Proof of the municipality (where the operation company has its registered office) of approval or rejection of a trade tax breakdown (at least 90% of the trade tax accruing to the municipality affected by the project or, alternatively, trade tax payment at the earliest possible time (e.g. from the 2nd year of operation)

Involvement of regional energy supply companies and financing institutions	The project developer/planning company offers one or more regional energy suppliers and regional credit institutions (consortium financing possible) to participate in the project as a marketing and/or financing partner:[2] • The regional credit institutions should be given the opportunity, e.g., to design a saving bond model or another indirect participation model for interested parties and/or to participate directly financially in the wind farm • The regional energy supplier should be given the opportunity to design a local electricity tariff or an electricity price reduction and/or participate directly financially in the wind farm
Creation of a direct financial participation possibility for citizens, enterprises and municipalities in Thuringia	The beneficiaries undertake to carry out an "expression of interest procedure" through which the citizens, companies and municipalities within a radius of 5 km of the wind farm can announce their interest in a potential participation in the project company and the types of participation preferred for this purpose (fund, limited partnership models, energy cooperative, saving board, crowd investment, profit sharing rights, etc.). The exact procedure is determined by the service unit in consultation with its contractual partners.
Optional	Other models/ instruments/measures that serve to increase transparency or that offer a clear added value (within the meaning of the above-mentioned guidelines) for those affected and the residents are desired. To be specified, if applicable

Source: Notroff, 2017

[2] Regional energy supply companies are the local energy supply companies in the proximity of the wind energy area. Alternatively, *Thüringen Energie AG* (TEAG) or *Windkraft Thüringen GmbH* (WKT) can also be contracted. Regional credit institutions are all local credit institutions in the vicinity of the wind area. Alternatively, the branches of the *Deutsche Kreditbank* (DKB) in Thuringia can also be contracted.

Based on these criteria and requirements, the Service Unit settles individual label contracts with the developers. Developers are granted the “Fair partner” label for a period of twelve months. The quality label can be regarded as an integral part of a comprehensive bundle of measures promoting local acceptance of wind energy in Thuringia. The label is a key instrument to intensify the dialogue with developers and to interlink developers and municipalities. It represents an integrated approach seeking to promote procedural and distributional fairness and trust-building. It contributes to increase transparency of planning processes, credibility of developers, procedural and financial participation of citizens and local communities, to achieve a more balanced distribution of costs and benefits of wind power, and to support local value creation (Di Nucci and Krug, 2018).

Figure 1. The Thuringian Fair Wind Energy Label

Since 2015, 50 project developers have been awarded the label. It has become difficult for project developers to do business in Thuringia without having the label. Reportedly, the transparency of wind energy planning procedures has increased, measures to raise local added value generation have been initiated and several pilot projects have been successfully launched. It is difficult to assess already the effectiveness of the label in terms of raising trust because the label is still young. But especially the interviewed mayors conceded that a developer with the label has a better image in local communities than a developer without label. Also, the developers perceive an advantage compared to non-labelled companies. Most interviewees see evidence that the label increases transparency and trust (Maleki-Dizaji et al., 2019, p. 108-109). The label provides orientation for other initiatives and has a standard-setting function. Its wide appreciation is also the result of the strong commitment of the service unit’s leadership and management (Di Nucci and Krug, 2018, p.32).

The main criticism, taking into account the expert interviews, refers to the inflationary use of the label and limited sanction mechanisms. Several interviewees found the label not demanding enough, as it is implemented on a voluntary basis and there are no resources to sufficiently monitor if the guidelines are met by each developer. Secondly, the label is perceived as too general with a too low ambition level, taking into account that nearly every project developer in Thuringia is being certified,

as it is the situation right now. There is a risk of inflationary awarding of partners in combination with lacking consequences when label standards are violated (no financial sanctions, etc.) (FA Wind, 2017, own interviews by the authors). Lastly, two developers interviewed were in favour of reformulating the guidelines and making them more ambitious or to implement a certain ranking, for example, differentiating between a gold, silver and bronze standard. Moreover, in order to maintain trust, a systematic evaluation of the label needs to be provided (Maleki-Dizaji et al., 2019, p. 109).
The best practice case study performed within the WinWind project allows to derive lessons and key issues, essential for further recommendations on the practical use of fair wind energy labels (ibid, p.110-111):

- State financed label *versus* privately organised label. Privately organised labels might face certain skepticism compared to state financed labels. Finally, the credibility of certification goes hand in hand with the credibility of the awarding authority. As various studies on labels in the area of product certification show, environmental and consumer associations or non-governmental organisations in particular are perceived as relatively credible. Private companies and testing institutes with profit motives are met with more skepticism. Furthermore, the fundamental question arises on the amount of the certification costs and the extent to which small project developers can also bear the costs (see also sub-chapter 5.6 below). In turn, the effectiveness of state financed labels depends on the allocation of public financial resources. As underlined by the German Onshore Wind Energy Agency (FA Wind, 2017), too heavy dependencies on public budgets and the political constellations should be avoided.
- Label at national/federal *versus* state (*Länder)* level. The following factors have to be considered:
  (1) A nationwide label might be considered preferable in order to avoid a plethora of different regional/federal state level labels, as most of the federal state labels are/will be in favour of general frameworks and rules on the national level regarding the financial and procedural participation of citizens and municipalities. In case of a nationwide label, there is a level playing field for all project developers (including cost burden related to labelling) which is particularly important under the conditions of auctioning systems and competitive bidding[3];
  (2) However, such general guidelines need to be flexible enough to address the challenges and problems of each region/federal state.

[3] Auctions refer to competitive bidding procurement processes for electricity from renewable energy or where renewable energy technologies are eligible. The auctioned product can be either capacity (MW) or energy (MWh) (IRENA, 2015). Renewable energy project developers submit bids for gaining financial support from the government for the projects that they plan to construct. Bids are usually ranked according to the bid values and the lowest bids are awarded first (see also section 5.4).

- Guidelines and labels should be complemented by advisory services provided by neutral intermediaries, like those offered by the Service Unit in Thuringia. In turn, the establishment of such bodies needs strong and continuous policy commitment, support and organisational efforts, qualified staff, funding, etc. Nevertheless, such a body could be “cost efficient” as it contributes to enhance acceptance, to increase local value generation and to avoid time- and resource consuming lawsuits.
- Specific determining political, planning, social, economic and environmental factors need to be taken into account when setting up a label that fits the specific requirements and needs of the considered region and a service unit.
- “Inflationary” awarding has to be avoided, differentiation of “ambition levels” is worth being considered.

In Table 2 we have assessed the applicability of the principles and criteria of the Thuringian label in other countries by differentiating between “general” (meaning that the criterion might be applied across Europe without significant changes) or “specific” (meaning the criterion highly depends on national, federal state or region specific conditions). One can see that most criteria are highly dependent on national, federal state or regional peculiarities thus limiting the direct application of the Thuringian principles and criteria for a European label for fair wind energy.

Table 2. Assessing the applicability of the principles and criteria of the Thuringian label "Partner for Fair Wind Energy"

Principles	Criteria	Applicability	
		General	Country/region specific
Involvement of all interest groups in the vicinity of a planned wind farm during the entire planning phase	Before land securing starts, the mayor or the local council have to be informed and involved.	X	
	Landowners, residents, farmers, foresters and agriculture enterprises, citizens, municipal institutions, etc., shall be involved	X	
Transparent handling of project-related information on-site, provision of assistance and informational services	Offer of land/property use contracts with an extraordinary termination option after 5 years	X (in principle)	X (particular conditions might be dependent on specific legal framework)
	A standard usage contract is enclosed as proof.		
	The period of notice may be extended by a maximum of another 5 years if, in the final project phase, approval has been granted in accordance with the Federal Pollution Control Act, but the project concerned is not awarded a contract in the auctioning procedure.		
	Fair handling of easements and reservations	X	
	Implementation of information and transparency measures on site including, e.g., a. Information events in the local vicinity of the planned project, also events addressing municipal council or landowners b. Media education on site c. Opinion surveys/votings d. Possibly new information events in case of planning changes e. Possible insights into simulations.	X	The exact requirements are determined by the service unit in each individual case in consultation with the contractual partners
	In case of first or renewed information event on site (including events addressing local council or land owners) the service unit has to be informed. The service unit accompanies certified partners with an input presentation, provided the municipality is informed and the capacity in the unit is available.		X (depends on the existence of service unit or similar organisation)

Fair participation of all affected parties and local residents, including landowners who are not directly benefiting	Land lease pool models (optional: site pool models (*Standortpoolmodelle*) for a fair distribution of the land lease payments to the affected land owners **or** "sublease models" (*Unterpachtmodelle*) by the affected municipality (municipality as contractual partner of the site protection agreements - it benefits from higher sublease rates)	X (in principle)	X
	Proof of the municipality where the operation company has its registered office of approval or rejection of a trade tax breakdown (at least 90% of the trade tax accruing to the municipality affected by the project **or, alternatively**, trade tax payment at the earliest possible time (e.g. from the 2nd year of operation)		X (highly dependent on national tax legislation)
Involvement of regional energy supply companies and financing institutions	The project developer/planning company offers one or more regional energy suppliers and regional credit institutions (consortium financing possible) to participate in the project as a marketing and/or financing partner		X
	The regional credit institutions should be given the opportunity, e.g., to design a saving bond model or another indirect participation model for interested parties and/or to participate directly financially		X
	The regional energy supplier should be given the opportunity to design a local electricity tariff or an electricity price reduction and/or participate directly financially in the wind farm		X
Creation of a direct financial participation possibility for citizens, enterprises and municipalities in Thuringia	The beneficiaries undertake to carry out an “expression of interest procedure” through which the citizens, companies and municipalities within a radius of 5 km of the wind farm can announce their interest in a participating in the project and the types of participation preferred for this purpose (fund, limited partnership models, energy cooperative, saving board, crowd investment, profit sharing rights, etc.). The exact procedure is determined by the service unit in consultation with its contractual partners.	X (in principle)	X The exact implementation of the procedure is determined by the service unit in each individual case in consultation with its contractual partners.

4.3 WinWind Principles and Criteria for Fair Wind Energy

The findings of WinWind suggest that there is no single criteria catalogue that can perfectly fit all national and regional contexts. Another outcome of the discussions in the WinWind consortium is that instead of striving for a European label for fair wind energy, it would be more feasible to aim for a voluntary self-commitment of the wind industry and to set up an **"Alliance of fair wind energy developers"**, e.g. under the leadership of WindEurope and supported by European institutions. Based on the findings of the various WinWind activities we developed a set of core principles and criteria for fair and socially inclusive wind energy. These should be primarily seen as a guidance tool and apply mainly but not exclusively to commercial developers/operators of wind energy plants. These principles and criteria may also serve as guidance to policy-making (cf. chapters 5 and 6).

The WinWind principles and criteria are embedded in a larger policy context. Municipal, regional and national governments shape the policy frameworks in which the principles and criteria might be applied. The practical relevance of the principles and criteria depends on context factors and respective enabling frameworks. This is illustrated in Figure 2 which provides a three-circle model. Municipal, regional and national governments shape the policy frameworks in which the principles and criteria might be applied.

The WinWind principles and criteria are to be used on a "pick & choose" basis. Depending on the applicable context, there are various options on how the principles and criteria be applied, or integrated into existing frameworks. The wind industry is encouraged to take these principles and criteria up and to consider them as voluntary self-commitments and codes of conduct. But also policy makers may integrate these principles and criteria into renewable energy support schemes, other funding schemes for renewable energy, labelling schemes for fair wind energy. Examples and guidance are provided in chapters 5 and 6.

If, for instance, a project developer fulfills already any of the criteria or a regional or national government already prescribes any corresponding measures/practices, then it does not need to be featured in a criteria catalogue.

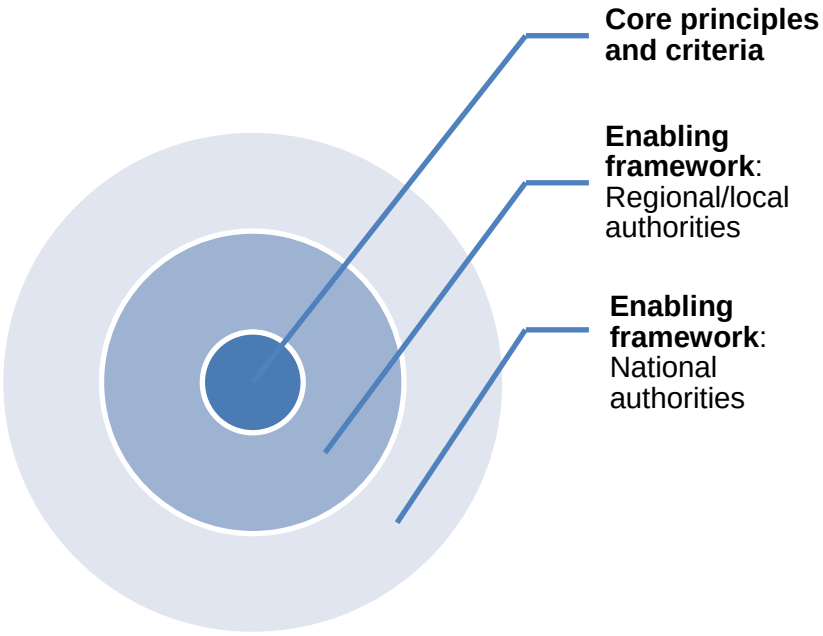

Figure 2. The general structure (basic scheme) of the WinWind principles and criteria for fair wind energy

Core Principles

1. Positive impact on the local economy
    a. Local contracting
    b. Local financing
    c. Co-operation with regional/municipal energy utility companies
2. Financial participation of citizens
    a. Active financial participation
    b. Passive financial participation
3. Procedural participation of citizens
    a. Early and transparent communication
    b. Effective informal participation
4. Minimize the impact on landscape, wildlife and biodiversity
    a. Minimise impacts on the local landscape
    b. Minimise impacts on wildlife and biodiversity
5. Credibility and trustworthiness of developers
    a. Orientation towards the Common Good
    b. Voluntary measures

Table 3. WinWind Principles and criteria for fair wind energy

Principles	Sub-Principles	Criteria
Positive impact on local economy	**Local contracting**	• Include local businesses, workforce and material in wind farm planning, construction, operation/maintenance and decommissioning
	Local financing	• Involve local/regional banks and financing institutions (where existing)
	Co-operation with regional/municipal energy utility companies	• Cooperate with local/regional energy utility companies e.g. by involving them as shareholders, in order to offer host municipalities and citizens electricity price discounts and/or energy efficiency services
Financial participation of citizens	**Active financial participation**	• Offer citizens, host municipalities and local stakeholders the opportunity of co-ownership (equity) • Ensure that shares are affordable for a broad spectrum of the population in the host municipality/municipalities (low entry barriers) • Ensure that liability of citizens as shareholders is limited to their financial contribution, e.g. by choice of an adequate legal form
	Passive financial participation	• Create pool models for a fair distribution of land lease payments among all landowners who are affected by the planned wind farm • Where possible, ensure that host municipalities benefit from tax payments • Where possible, ensure that host municipalities benefit from voluntary payments of special wind energy fees/levies (e.g. as percentage of the revenues/profit paid to a non-profit community foundation/association) • Offer special electricity price/discounts to the host municipalities/citizens affected (see above) • Develop other benefit sharing mechanisms including compensations, in-kind benefits, infrastructure improvements, other measures oriented towards the Common Good, etc.

Procedural participation of citizens	**Early and transparent communication**	Where not required by national legislation, • Inform mayor/municipal council as soon as possible, preferably before land securing starts • Develop a Public Engagement Strategy and Action Plan to involve local communities • Provide regular information about the project to the host municipalities and citizens affected (including events addressing municipal council, landowners) • Make use of realistic simulations, visualizations and site visits to existing plants • Provide adequate resources for communication with the host municipalities/citizens (e.g. by establishing a Community Liaison Officer) • Carry out opinion surveys and Socio-Economic Impact Assessment in host community
	Effective informal participation	• Ensure early participation of citizens in planning/permitting processes • Organise community participation throughout all project stages (planning, pre-application, application/permitting, construction, operation and decommissioning) • Ensure that local citizens can participate (e.g. via Joint Working Groups of developer, municipality and local stakeholders, Consultative Boards etc.) • Ensure procedures for continuous developer/community dialogue and avoid one-directional distribution of information • Ensure meaningful participation and engagement going beyond formal stakeholder consultation, enabling local communities to affect project outcomes
Minimize the impact on landscape, wildlife and biodiversity	**Minimize impacts on the local landscape**	• Where not required by national legislation, take measures to mitigate/compensate interference into landscape preferably onsite (including financial compensations) • Ensure restoration of the used land • Reduce acoustic emissions of wind turbines and avoid additional traffic as far as possible • Minimise impact on the landscape by repowering of wind farms • Use sites already exploited for wind energy (concentration principle) and degraded areas

	Minimise impacts on wildlife and biodiversity	• Involve environmental NGOs as early as possible in the planning process • Minimize impacts on fauna and flora by sensitive wind turbine siting and design • Avoid siting of wind turbines in protected areas with a less restrictive protection status (e.g. buffer and transition zones of biosphere reserves, NATURA 2000 areas) • Respect buffer zones around protected areas • Reduce the density of wind farms to minimise collisions with birds and bats • Use technical and operational measures to reduce impact on wildlife (e.g. anti-reflexive coatings, temporary shutdowns to protect birds and bats) • Where not required by national legislation, take measures to mitigate/compensate interference on wildlife preferably onsite (including financial compensations)
Credibility and trustworthiness of developers	**Orientation towards the Common Good**	In addition to the measures proposed above • Take concerns and complaints from local citizens and stakeholders seriously • Report publicly on community benefits, shared ownership, queries and complaints received/addressed etc., for instance, in the frame of sustainability reporting
	Voluntary measures	• Take voluntary measures going beyond legally prescribed minimum requirements (e.g. voluntary setbacks exceeding the legally prescribed minimum setbacks, voluntary Environmental Impact Assessment, voluntary Socio-Economic Impact Assessments etc.) • Where available, join voluntary labeling initiatives for developers/operators of wind farms

Enabling framework: local/regional authorities and governance

The principles and criteria (P&C) primarily address commercial developers. However, these P&C should be ideally embedded in an enabling/supportive policy framework which, however, cannot be influenced directly by developers/operators of wind farms. The Thuringian experience illustrates that the guidelines for fair wind energy and the corresponding label have been effective because of the supporting advisory services of the wind energy service unit which is funded by the state government of Thuringia. The findings of the WinWind research activities also revealed that ***credibility and trustworthiness of key actors including of policy actors and committed political leadership can enhance local acceptance of wind energy projects.*** Municipalities might proactively engage with, and invest some of their own resources into wind energy developments as a way of leading by example and demonstrating confidence in a particular project and their proponents. Another related aspect is the extent to which public authorities ensure effective formal, statutory public participation procedures or if they support informal, i.e. voluntary participation procedures. “Good participation does go a long way towards establishing credibility of the planning process and promotes trust between all involved parties” (Maleki-Dizaji et al., 2019, p. 66). “Processes of increasing acceptance need continuous commitment as “(…) strong leadership and continuous commitment are going to be a central condition. This will have to come from the political decision-makers, relevant local authority and/or the developer” (ibid, p.71). Wind energy zoning and designation of suitable areas for wind farms should be done in combination of top-down and bottom-up processes.

Enabling framework: national authorities and governance

National governments set important framework conditions and they may develop enabling frameworks which can facilitate and effectuate the voluntary use of these principles and criteria by the wind industry. Procedural participation of the public in renewable energy developments is mostly regulated by national law (sometimes regional law). The same applies to the field of tax legislation. The Guidelines for Fair Wind Energy in Thuringia illustrate the importance of trade tax revenues for host municipalities. But national and regional governments may go further and impose mandatory requirements on project developers regarding financial participation of host communities or benefit sharing mechanisms. Alternatively, they can encourage procedural and financial participation of host communities by providing special economic incentives for developers/operators which comply with to certain fairness criteria. Here, the WinWind principles and criteria may also provide inspiration and guidance (see in more detail chapters 5 and 6).

5 Principles and criteria for fair wind energy in policy-making: existing approaches and examples

5.1 Introduction

In the following, we argue that beyond voluntary self-commitments or codes of conduct of the wind industry, principles and criteria for fair wind energy can be applied also in policy development. We provide examples of how certain principles and criteria for fair wind energy have been integrated explicitly or implicitly in the frame of policy-making. This chapter does not claim to be exhaustive and we do not cover the full spectrum of principles, but rather focus here on the financial participation of citizens and host communities as an example. The sequence of measures assessed in the following sub-chapters reflects decreasing levels of public interference which means that we will start with regulatory measures with a high level of coercion towards more "soft" policy measures and measures without any public interference (voluntary measures by the wind industry).

5.2 Mandatory obligations for project developers promoting active/passive financial participation of host communities

In **Mecklenburg-Western Pomerania**, one of the 16 federal states in Germany, the Citizens' and Municipalities' Participation Act (*Bürger- und Gemeindenbeteiligungsgesetz*) entered into force in May 2016. This law obliges project developers for new wind energy projects to set up a limited liability company and to offer shares of at least 20 percent of this company to citizens and municipalities within a radius of five kilometers. One share may cost a maximum of 500 EUR. The municipalities decide whether to accept 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 potential losses of a project within the scope of their respective financial 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-kilometer radius of the wind farm 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 prices for the region concerned. The Act is currently under review by the Federal Constitutional Court (*Bundesverfassungsgericht, BverfG*).

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[4] which obliges operators of wind farms to pay a special levy of 10,000 EUR annually to municipalities in a three-kilometer 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 revenues for measures in their administrative areas to increase the acceptance of wind turbines. In order to achieve this objective, the following measures might be considered:

- Upgrading the view of the site and the local infrastructure,
- Information on electricity generation from RES and on possibilities for using RES,
- Promoting municipal events, social activities or facilities for culture, education or leisure, or entrepreneurial activities in the municipality, with residents recognising a link to the funds generated from wind energy production.

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.

In 2018, the federal government coalition parties in their coalition agreement committed pledged to develop a uniform nationwide regulation to enable municipalities hosting renewable energy (RE) plants to participate more strongly in the added value of RE plants and to improve the opportunities for citizens to participate in RE projects. During 2018 and 2019, various policy proposals were launched by policy-makers, policy advisors and the research community, however, none of these proposals has so far been implemented. In early 2020, the deputy chairman of the Social-Democratic Party's parliamentary group suggested to introduce a special fee resp. "wind citizen money" ("Windbürgergeld") to overcome the current deadlock in wind energy development and resistance in many communities. A working group involving policy makers from the federal and state (*Länder*) levels is currently examining this and other concepts to increase the acceptance of wind turbines" (ZEIT ONLINE 2020).

Galicia and several other Spanish regions resp. autonomous communities introduced mandatory special wind power levies (*canon eólico*) to be paid by operators of wind farms that partially benefit the host municipalities. These levies depend on the number of wind turbines and feeds environmental compensation funds. The levies compensate for the negative visual, environmental, and other impacts of wind farm installations on the territory (Copena et al., 2019).

[4] Act on the payment of a special levy to municipalities in the vicinity of wind turbines (*Gesetz zur Zahlung einer Sonderabgabe an Gemeinden im Umfeld von Windenergieanlagen, Windenergieanlagenabgabengesetz)*.

5.3 Integration into land lease contracts referring to municipal/publicly owned land

To date, most of the wind energy development have been on private land. However, where state/public actors own land, these may organise tenders for long-term lease of public land for the construction of wind farms. Under certain conditions, public actors may be subject to European and national public procurement law if the land transfer is associated with a procurement process. A procurement process relevant to public procurement law exists if the provision of the municipal land is connected with the award of a public (construction) contract or a (construction) concession. Criteria for the evaluation of bids may go beyond criteria like price of lease or local contracting/participation of local companies. In defining the tenders, municipalities can formulate special award criteria including certain requirements concerning procedural or financial participation of citizens.

Public actors have certain discretion in determining the criteria. However, the criteria must be related to the subject of the contract. Moreover, the criteria must be non-discriminatory. In addition to price or cost considerations, qualitative, environmental or social aspects may be taken into account. Potential award criteria may include social aspects, including concepts for citizen participation and communication, concepts for the promotion of women in connection with the operation and maintenance of the wind farm. Environmental aspects may include concept for preventive nature and species protection, concept for minimizing emissions, concept for the integration of the project into the biodiversity strategy of the respective federal state or local or regional environmental policy planning (FA Wind, 2016). When awarding the wind energy project as a building concession, the municipalities have greater scope when awarding a building contract. The award criteria must be objective when awarding the concession and must ensure that an "overall economic advantage for the grantor" is identified. They must be related to the subject matter of the concession and must not give the grantor unrestricted freedom of choice. From a municipal point of view, it might be considered to include criteria with which the value added for the municipality can be increased. Possible criteria could be, for example, the assessment of the amount of the minimum lease offered, the amount of participation in the net energy yield, the amount of compensation or a concept for the financial participation by citizens. (FA Wind, 2016).

In **Belgium**, local authorities can tender out the development of renewable energy projects on publicly-owned land. Municipalities often integrate policy or development objectives, including citizen involvement and other criteria related to public acceptance. The tendering criteria may be based on points, or specific criteria that the authority will take into account when assessing the bids. The **Eeklo tender** for local wind development (20 MW) aims for at least 50% direct participation for municipality and local citizens, contribution of 5,000€/year for each wind turbine

(paid to a community benefit fund), contribution of 5,000€/year for each wind turbine (paid to the municipality), social-societal criteria in the public tender (not only financial criteria) (Energy Cities et al., 2018).

5.4 Integration into key support schemes for RES-based electricity

Specific criteria requiring or encouraging the active or passive financial participation of host communities resp. citizens might be integrated into renewable energy support schemes. The revised Renewable Energy Directive (2018/2001/EU, RED II) requires EU Member States to take the specificities of renewable energy communities into account when they are developing support schemes[5].

Since 2016, under the Commission's state aid guidelines[6], all new renewable electricity generation aid schemes have been required to operate through Feed in premiums (FIPs) and, since 2017, to be allocated mainly through auctions open to all electricity producers on a non-discriminatory basis. Nonetheless, feed in tariffs can still be used for new small-scale installations up to 500 kW and wind installations up to 3 MW (or three turbines) and for contracts signed before 2016. Member States may limit tendering procedures to specific technologies where opening support schemes to all producers of electricity from renewable sources would lead to a suboptimal result. In line with the Commission's Guidelines and the RED II, Member States increasingly shift their support schemes to auctioning systems based on competitive bidding. However, as a rule, auctions tend to favour larger investors which can cope with the financial risks imposed by auctions with larger project portfolios, strong balance sheets or better access to low cost financing. Larger companies and utilities normally have more diversified project portfolios, making it more acceptable for them if they do not succeed with one or more projects without immediately becoming bankrupt. In addition, they have more expertise in dealing with the rising complexity of planning and auction processes. In the RED II the EU acknowledges that the specific characteristics of local renewable energy communities in terms of size, ownership structure and the number of projects can hamper their competition on an equal footing with large-scale players, namely competitors with larger projects or portfolios.

[5] In the revised Renewable Energy Directive, support schemes are defined as any instrument, scheme or mechanism applied by a Member State, or a group of Member States, that promotes the use of energy from renewable sources by reducing the cost of that energy, increasing the price at which it can be sold, or increasing, by means of a renewable energy obligation or otherwise, the volume of such energy purchased, including but not restricted to, investment aid, tax exemptions or reductions, tax refunds, renewable energy obligation support schemes including those using green certificates, and direct price support schemes including feed-in tariffs and sliding or fixed premium payments

[6] Guidelines on state aid for environmental protection and energy 2014-2020', 2014/C 200/01.

Auctions that use the “pay as bid” rule penalise developers with high social and environmental standards going beyond legally defined minimum standards. There are different design options available to policy makers to mitigate the deterring effect of auctions on self-developed community wind projects (REN 21, 2017). Governments may employ community-based pre-qualification criteria bidders have to fulfil in order to participate in the auctions (e.g. requesting that all bidders present a community engagement and benefit sharing plan). Alternatively, evaluation and selection of bids might be based on a multi-criteria assessment, which in contrast to “price only systems” takes into consideration not only the lowest price. Such an assessment may favour community projects or may reward social and environmental benefits of community wind power. Assessment criteria may include the extent of community control or (co-)ownership, the number of partnerships with local organisations and businesses, payments to a community benefit fund or contributions for public education and awareness-raising campaigns (ibid).

Several Member States already started to integrate provisions and privileges **for renewable energy communities and community led approaches** in their auction systems (e.g. Belgium, France, Germany and Ireland). **Germany** was among the first countries to explicitly address community ownership of wind farms in its key support scheme for RES-E. The amendments of the Renewable Energy Source Act (EEG) which took effect in 2017 included special provisions and privileges for citizen based wind energy projects. Their rationale was 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. Those rules apply to so-called “citizen energy companies” (*Bürgerenergiegesellschaften*), i.e. companies consisting of at least ten natural persons being members or shareholders eligible to vote. Furthermore, the majority of voting rights has to be held by individuals living since at least one year in the same district in which the wind installations are planned. Finally, no member or shareholder must hold more than 10% of the voting rights. Those who fulfil these criteria benefit from less stringent pre-qualification requirements, a longer realisation period and a preferential price rule. Several privileges have been abolished in the meantime, but community wind farms complying with the definition of the law still benefit from preferential pricing rules and bid bonds. During 2018 and 2019, various policy proposals were launched by policy-makers, policy advisors and the research community, to promote active and/or passive financial participation of communities and citizens including special levies to be paid by operators of wind farms and benefiting the host municipalities, however, none of these proposals has so far been implemented.

In **Belgium**, when issuing tenders for new renewable energy capacity, the **city of Ghent** applies a system of award criteria where price competitiveness is not the only decision criterion. While the price parameter weighted 60 points in the balance, the qualitative criterion of “participatory

financing according to the International Cooperative Alliance principle" has a 40 point weighting. In addition, to be qualified under this criterion, projects with a participative dimension must aim for a minimum 30% citizen participation (Bolle, 2019, p.20).

In **France**, the calls for tenders of the French Energy Regulatory Commission foresee a "participatory bonus" that varies from 1 to 5 EUR per megawatt-hour, depending on the energy technology and the level of local involvement. Following pressure from national advocacy groups, the French regulator even made a distinction between participatory financing projects co-funded through crowd-funding platforms (1€/MWh) and the ones owned by local and public players through actual capital investment (3€/MWh). This distinction was meant to reward projects that benefit from genuine territorial anchorage and involvement, inviting citizens to form part of the governance of the projects (ibid, p.20).

In December 2019, the Irish government announced details of the first Renewable Electricity Support Scheme (RESS) auction which has received Government approval. The Government has approved the inclusion of a **community category** within the auction, subject to state aid approval of up to 30 GWh. Each project developer will be obliged to contribute to a **Community Benefit Fund** at a rate of €2/MWh every year. The RESS mandates that Irish **citizens or communities will have access to investment opportunities** in RES projects, prioritising citizens that live in close proximity to the projects (Dept of Communications, Climate Actions and Environment, 2019).

5.5 Integration into other financial support programmes for RES (e.g. structural funds/cohesion funds, LEADER)

The EU supports the transition to sustainable energy also through the European Structural and Investment Funds (ESIFs). EU funds can provide additional financing to strengthen Member State actions, complementing national or regional support schemes through investment aid. For the 2007-2013 and 2014-2020 programme periods, approximately €8.8 billion was allocated to renewable energy projects through cohesion policy funding from the European Regional Development Fund (ERDF) and the Cohesion Fund (CF). As shown in Table 6, since 2007 approximately €972 million has been allocated to wind energy investments.

Table 4. Allocations from ERDF and CF to investments in renewables in the EU, in million €

Renewable energy technology	Programme period		Total	%
	2007-2013	2014-2020		
Wind	541	431	972	11 %
Solar	1,064	1,804	2,868	33 %
Biomass	1,267	1, 576	2,843	33 %
Other RES	851	1,195	2,046	23%
Total	3,723	5,006	8,729	100%

Source: European Court of Auditors 2019, based on Commission data, extracted on 9.4.2019

The EU's Cohesion Fund aims to reduce economic and social disparity between EU countries and promote sustainable development. The fund supports energy-related projects that benefit the environment for example by reducing greenhouse gas emissions, increasing the use of renewable energy or improving energy efficiency. The European Regional Development Fund (ERDF) aims to reduce economic and social disparity between the regions in the EU. One of the ERDF's four priority areas for 2014-2020 is the 'supporting the shift towards a low-carbon economy in all sectors' (Investment Priority 4).

All ESIF spending is managed via national and regional operational programmes (OP), Member States draft the operational programmes, set up and operate their management and control systems and issue annual implementation reports to the Commission. Moreover, national or regional bodies select the projects and are responsible for their implementation and evaluation. The Commission issues guidelines for drawing up OPs, approves the OPs and supervises the setting up and the operation of systems in the Member States. In principle, the OPs offer good opportunities to integrate principles and criteria for fair wind energy, e.g. by providing special support to community led renewable energy projects or by encouraging (co-) ownership initiatives. Another option might be to formulate certain minimum criteria in terms of procedural and/or financial participation of host communities to be fulfilled in order to be eligible for support. A brief assessment of selected operational programmes in the WinWind partner countries found that so far no specific eligibility criteria targeting financial or procedural participation of host communities or citizens are used.

The EU's cohesion policy framework is currently under revision for the new financing period 2021-2027. One of the five specific objectives of the future ERDF and the Cohesion Fund is 'a greener, low-carbon Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate adaptation and risk prevention and management ('PO 2'). This shall be achieved by, a bundle of measures, including the promotion of renewable energy (European Commission, 2018. The European Commission has specified a number of output and result indicators including the Regional Policy Common Output Indicator (RCO) 97 which represents "the **number of energy communities and renewable energy communities supported**" (ibid). Hence, there is certain evidence that the EU considers fair and socially inclusive renewable energy in the new funding period.

5.6 Integration into lending policies of public banks

Public banks increasingly provide special support to community owned renewable energy projects or define specific eligibility criteria related to procedural or financial participation of communities. Below we present some examples. The European Investment Bank (EIB) helps finance energy

projects by providing companies with loans and other financial instruments. EIB financed energy projects include renewable energy generation, infrastructure, and new technologies. In its Draft Energy Lending Policy post 2020 the EIB stipulates that “new participants are entering the market, consumers are becoming more active and communities are set to play an increasing role. The Bank will seek to support these new types of energy infrastructure to stimulate their market uptake. The Bank will support the development of energy communities and microgrids, enabling investment in new types of energy infrastructure, including in small isolated systems” (European Investment Bank, 2019). However, the draft does not contain any specific criteria for wind energy projects related to procedural/financial participation of host communities.

The European Bank for Reconstruction and Development (EBRD) formulates special eligibility criteria for onshore wind power projects. These include mainly regulatory compliance, landscape visual impact, protected areas, impacts on fauna and flora, Community health and safety, public consultation and stakeholder engagement (e.g. stakeholder engagement plan), procedural participation rules. There are no provisions/criteria which would encourage financial participation of citizens.

The “New Energy Sources – Community Wind Farms“ programme of *L-Bank Staatsbank Baden-Württemberg* provided special support for community wind farms. Members of the public who jointly operate a wind power plant (community wind farm) could finance their investment with a long-term loan at a reduced rate of interest. The shareholder base has to consist of, predominantly, members of the public, property owners and local companies. There were no requirements concerning the legal form of the jointly created wind energy company. The financial support is intended to strengthen local initiatives for the use of wind energy, so as to further increase the share of power generated from renewable energy sources. L-Bank provided these loans in cooperation with *Landwirtschaftliche Rentenbank* (the promotional and development bank for agribusiness). In 2015, seven wind farms were financed in this way and the overall financing volume was €91.6 million. Altogether, support was provided for 25 wind turbines with 75 MW of power capacity.

5.7 Integration into labelling schemes for fair wind energy

In Germany, there currently exist two labelling schemes for fair wind energy. One is the Thuringian label for fair wind energy which has been elaborated as one of the WinWind best practice cases (see above). The Thuringian label is based on five guidelines for fair wind energy. These guidelines might be easily translated into principles and criteria in the understanding of this report (see above). The Thuringian model which is based on the Service Unit Wind Energy providing comprehensive and neutral advisory services and the label for wind energy developers has been

inspired by the “Guidelines for Community Wind Energy” in the district of Steinfurt” (federal state of North-Rhine Westphalia). These guidelines have been consequently applied in the district. However, they are not combined with any label.

A similar labeling scheme like in Thuringia has been developed in the federal state of **Schleswig-Holstein** and is clearly inspired by the Thuringian model. The labeling scheme in Schleswig-Holstein is also based on specific guidelines („*Leitlinie zur Bewertung fairer Windparkplaner in Schleswig-Holstein*“).

Figure 3. Fair Wind Energy label in the federal state of Schleswig-Holstein

The corresponding guidelines for fair wind park developers have been developed by WETI (Wind Energy Technology Institute, Flensburg University of Applied Sciences) in co-operation with an expert advisory board. This board includes, multiple stakeholders, i.e. planners, operators, associations, institutions, funding institutions and public authorities. 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. Certification costs are reported to be in the range of the upper four digit euro segment.

The guidelines are based on four key criteria:

- Provision of comprehensive information regarding 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 clearly inspired by the corresponding label/guidelines in Thuringia. They aim to ensure a transparent planning process, fair contracts with land owners, financial participation for the citizens and communities, and regional support and value creation. In certain respects, the requirements go beyond the Thuringian guidelines. For example, project developers need to document concerns and objections of citizens, which should be taken into account in the

subsequent planning process. Upon request of the testing/certifying body, the reasons for objections have to be explained. Also, developers are to establish a website providing an overview of the project and including current information. Greater emphasis is put on regional value creation, for example through the involvement of regional companies (e.g. for construction works), the employment of a turbine supervisor/caretaker and/or the implementation of compensation measures. In other areas, the Thuringian guidelines are more demanding. While the guidelines in Thuringia favour a municipal trade tax allocation of at least 90% for the municipality where the plant is located, in Schleswig-Holstein, only "improvements" compared to the statutory share of 70% are required. The guidelines suggest a number of options for direct and indirect financial participation of citizens, but they do not include any further provisions, nor do they specify any minimum thresholds for community ownership.

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 so far not establish any advisory body like the service unit for wind energy in Thuringia which 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[7]. 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 so far the only companies that were awarded the label (by January 31, 2020).

There are several concerns: in a purely market based certification system, the question arises about the level of the certification costs and the affordability for small developers. Another issue is how to ensure independence of the certifying body if the company to be certified has to bear the cost. Furthermore, consumer surveys in the field of product certification show that consumers perceive non-governmental, environmental and consumer organisations as comparatively independent and trustworthy. On the other hand, commercial, profit-oriented testing certification bodies/ institutes face certain skepticism.

[7] However, pursuant to the coalition agreement of 2018, the state government of Schleswig-Holstein plans to set up an independent clearinghouse for issues relating to the expansion of wind power, which will moderate and mediate in conflicts and advise citizens and local authorities (cf. https://www.schleswig-holstein.de/DE/Landesregierung/_documents/koalitionsvertrag2017_2022.pdf?__blob=publicationFile&v=2)

5.8 Integration into covenants and voluntary agreements between public actors and the wind industry

There are numerous examples for voluntary agreements concluded between individual developers/operators of wind farms and municipalities hosting the farms, e.g. regarding active and passive financial participation of citizens and/or the municipality or on the provision of specific community benefits. Also on a sectoral scale, there have been several voluntary agreements between public actors and the wind industry. In some countries and regions the wind industry has concluded voluntary agreements with public authorities or agencies. These include certain principles and criteria and could provide guidance for other Member States and even the European level.

In **Italy**, the Charter for Sustainable Wind Power Renewal (*Carta del rinnovamento eolico sostenibile*) was signed in 2015 by the main wind energy operators (including E2i, Enel Green Power, Falck Renewables, IVPC), the representatives of the environmental association *Legambiente* and the Italian National Association of Municipalities (ANCI). This charter lays down rules and application criteria, standards, procedures and best practices to make repowering of existing wind farms in Italy more sustainable[8]. 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.

This Charter is based on the following key principles:

- Maximising the natural wind source in sites already exploited,
- Maximising land use and pre-existent infrastructures,
- Maintaining the dialogue with the institutions and local communities,
- Containment and mitigation of environmental impact in all process phases.

Throughout 2018, the **Dutch government** held 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

[8] See Enel Green Power (2015), https://www.erg.eu/en/sustainability/our-stakeholders/wind-power-renewal-charter

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[9].

In May 2016 the regional branch of the German wind energy association in the federal state of **Brandenburg** and the Ministry of Economy and Energy 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 committed itself 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 construction 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 implementation of this agreement.

The **district of Steinfurt** in the federal state of North Rhine Westphalia, Germany pursues an energy self-sufficiency goal for 2050. In 2011, a task force was set up consisting of the local mayors, representatives from public utilities, the agricultural sector and the district administration to establish "Guidelines for Citizens' Wind Farms" as a way to guide and increase the participation of local stakeholders in the financing and planning of these infrastructures, hence contributing to regional value creation. These guidelines contain certain minimum requirements project developers have to comply with ensuring procedural and financial participation of citizens. For instance, at least 25 % of equity capital should be in the hands of local citizens. The district administration also provided complementary support including the foundation of a local service unit for wind energy providing advisory services to municipalities, citizens, land owners and other stakeholders, serving as a contact point (cf. the good practice portrait developed in the frame of the WinWind project; Nowakowski et al., 2018, p. 24-28). Furthermore, a "Wind Energy Roundtable" was founded. In parallel, the consulting company NLF Bürgerwind was founded to advise and accompany community wind initiatives in the district in the planning and implementation of their projects.

[9] https://www.rescoop.eu/blog/dutch-climate-agreement

5.9 Integration into voluntary self-commitments and codes of conduct of the wind industry

There are numerous examples from the countries represented in the WinWind project and from other countries where individual developers/operators of wind farms 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 procedural participation. Likewise, 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 comply to certain self-defined standards enhancing engagement and transparency via codes of conduct (e.g. Finland[10], Sweden[11], The Netherlands[12]) or codes of practice (e.g. Ireland[13]). The different codes vary in scope and detail. The Dutch Code of Conduct regarding onshore wind energy on creating acceptance and participation commits the members of the wind energy association to a number of basic principles with regard to creating acceptance and participation including procedural participation (e.g. a participation plan defining non-statutory process participation, financial participation with shares/bonds, local fund, arrangements for local residents such as green energy at a discount, a discount on the energy bill or other (financial) compensation, creating local jobs). Preferably, stakeholders are involved in the process of looking for participation options with the greatest possible social return. As an indication of the financial scope for (non-statutory reinforcement of) acceptance and participation, the wind energy sector applies a target amount of 0.40 to 0.50 Euro/MWh (Ogg, 2018).

5.10 Integration into labelling schemes for green electricity

The aim of this section is to briefly summarize to what extent wind power related issues are considered in existing green electricity labelling schemes[14]. As a rule, these schemes are based on renewable energy documentation with Guarantees of Origin and this origin shall be tracked in a reliable way. At the same time, the labelling schemes usually do not only ask for guarantees of origin, but require that renewable energy should be produced in a sustainable manner and

[10] Suomen Tuulivoimayhdistys (n.d.)
[11] Henningsson et al., 2013
[12] 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. A translation of the code can be found in Ogg, 2018, p. 38-46.
[13] Code of Practice for Wind Energy Development in Ireland, Guidelines for Community Engagement (cf. https://www.dccae.gov.ie/documents/Code%20of%20Practice%20community%20engagment.pdf)
[14] Detailed information regarding the labelling schemes can be found on the website of the European Consumers Organisation (BEUC), see https://www.beuc.eu/publication/

economic added value should be generated. However, in most cases, sustainability requirements refer only to the use of biomass and hydropower. The sustainable and socially acceptable production of wind power is still addressed rather rarely. Environmental and social criteria typically include provisions like the following:

- Wind power turbines shall be located outside protected nature areas and important bird areas;
- Wind turbines are verified using standardised parameter models for their environmental impact;
- The operator has to have an environmental policy and/or environmental management system;
- The operator has to perform continuous and systematic examination of the health and environmental risks of wind turbine operation;
- Additional value is reached by the money transferred from each unit of sold, labelled electricity to the development of new projects. However, the use of this money depends on the policy of the organisation issuing the label and is not necessarily bound to the vicinity of the respective plant;
- Financial participation offered to private individuals (citizen energy) is a new principle, envisaged by few German electricity labels.

From our analysis we can conclude that currently

(1) not all green electricity labels have detailed requirements to ensure wind power production in an environmentally and socially sound manner,
(2) existing criteria in the field of wind energy are mostly focusing on the environmental dimension, particularly, to avoid negative impacts on valuable areas,
(3) the social dimension (particularly regarding the social acceptance of wind energy developments) is only poorly addressed by most of the “classical” green electricity labels.

Below we shortly describe six labels which include certain requirements for wind power. **EKOenergy**[15] - international non-profit ecolabel for energy (renewable electricity and renewable gas). The label resulted from a pan-European consultation process and is recognized in many European countries[16]. For wind energy, the label recommends to distinguish between offshore, near shore and onshore. Wind power installations shall be located outside valuable areas – nature reserves designed by the authorities, Natura 2000 areas, important bird areas, UNESCO World

[15] www.ekoenergy.org, https://www.ekoenergy.org/ecolabel/official-text/
[16] Licensed electricity suppliers are stated in 20 European countries. In addition, there are worldwide and Europe (Europe regions) wide sellers of tracking certificates ((https://www.ekoenergy.org/buying-ekoenergy/licensees/)

Heritage sites (exemptions must be based on the reasoned approval by the board and only after consultations of relevant stakeholders). Additional value: per MWh of EKOenergy sold, a contribution of minimum 10 Eurocents has to be made to the EKOenergy Climate Fund. The Fund money currently is used for projects in developing countries to alleviate energy poverty and contribute to the realisation of UN Sustainable Development Goals.

Figure 4. EKOenergy quality label

The label Naturmade[17], is the Swiss quality label for energy from 100% renewable sources. The label is controlled by an independent non-profit association *Verein für umweltgerechte Energie* (VUE) and has two certification levels: Basic and Star, the latest awarded for energy generated through particularly environmental friendly processes. As one of the key principles, the Naturmade certification requires the licensee to implement an environmental management system, on default (more than 30 employees) or on call by VUE. Wind power is labelled in so called "Star quality" level. The environmental impact caused by plants (life cycle perspective) must not exceed half of the impact of a modern combined-cycle gas-turbine power plant (general principle for Naturmade certification). This is verified using a standardised parameter model for wind turbines. It must be ensured that the surrounding area remains protected. Furthermore, exclusion criteria are adopted set out in the "Planning recommendation for wind turbines" of the Swiss Federal Office for Energy. As a matter of principle, wind turbines in areas listed by the Swiss Federal Inventory of Landscapes, Natural Sites and Monuments of National Importance (BLN) are excluded from certification. The principle of additionality (through new energy projects) currently applies only to Star-certified hydropower plants (1 centime per kWh sold). Money shall be used in the vicinity of the respective power plants in order to upgrade the environment.

Figure 5. Swiss quality label Naturmade

[17] https://www.naturemade.ch/en/naturemade-zertifizieren.html ; https://www.naturemade.ch/en/guetesiegel.html

Good Environmental Choice ("Bra Miljöval")[18]. Ecolabelling by the Swedish Society for Nature Conservation. The company should have an environmental policy. Similar to the EKOenergy label, wind turbines should not be located in areas worth of protection (detailed supplement on these areas provided). Wind power production should follow a written plan for control (self-monitoring) which includes 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. Additional value: in case of wind power 500 SEK per GWh of sold electricity must be allocated for energy efficiency and used for measures where the result can be measured in saved electricity (the measure should not be required by legislation or current permits).

Ok power[19] is a German ecolabel, managed by the non-profit association EnergieVision. Founded in 2000, the association is jointly supported by *Öko-Institut e.V*. and *HIR Hamburg Institut Research gGmbH*. Certification with the Ok-power label is based on two pillars comprising mandatory criteria and a set of optional criteria. While the mandatory criteria must be fully met by the green electricity provider, the optional criteria can be put together in a modular way. Mandatory criteria for all green electricity products include general criteria for the supply of renewable energy, ecological requirements for the corporate business policies of the supplier, consumer protection and the ecological requirements for green electricity generation plants. Optional criteria shall ensure additional contributions for the energy transition.

Compulsory selection criteria include the following

- Promotion of innovative energy system transformation projects
- Procurement from additional new plants
- Initiation and operation of new renewable energy plants
- Recognition of new building projects that have not been subsidised
- Promotion of the continued operation of formerly subsidised facilities.

The eco electricity provider has to obey restrictions regarding ownership structure, particularly with regards to ownership of nuclear or coal fired plants or regarding the involvement in the development of such plants. Regarding wind power, electricity from offshore and onshore wind farms in national parks and other designated protected areas is not permitted. Here, the label recognises, inter alia, financial participation offers to private individuals (citizen energy). However, the provider must demonstrate the participation of private individuals or the non-existent participation of other third parties.

[18] https://www.naturskyddsforeningen.se/sites/default/files/dokument-media/Electricity_Criteria_2009-4_1.pdf
[19] https://www.ecohz.com/renewable-energy-solutions/eco-labels/ok-power/

The label **Grüner Strom** (Green Electricity) is granted for electricity which is by 100 % sourced from renewable energy[20]. The label is granted by the association Grüner Strom Label e.V. ("GSL"). GSL's supporters are seven non-profit organisations, 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.

[20] More information can be found at https://www.gruenerstromlabel.de/

Keurmerk MienskipsEnergie' (Netherlands)

The label 'Keurmerk MienskipsEnergie'[21] has been developed in 2018 and serves as a quality label for locally produced and fair energy, i.e. supported by and benefitting local communities. It has been initiated by more than 40 energy cooperatives, who want to make the value of locally and sustainably generated energy visible. Collective, local producers of energy (electricity) commit themselves to comply with specific criteria including:

- Sustainable generation – that is, electricity from sun or wind
- Local production - from the neighborhood or region
- Decide for yourself - local residents decide on the type of generation and location
- Deliver yourself - local residents will be given the opportunity to purchase this electricity
- Profit together - local residents share in the revenues.

6 Proposals for the practical implementation of the WinWind principles and criteria for fair wind energy in policy-making

6.1 General proposals

The WinWind partners discussed the advantages and disadvantages of a European label for fair wind energy. Although there are some good reasons to pursue European minimum standards ensuring a level playing field for project developers, particularly under the auction schemes including cross-border auctions, most partners are skeptical about the introduction of a European label due to practical barriers. The concepts of distributional and procedural fairness are still diverse and need to be accommodated to the specific national/regional contexts. Conditions in the Member States are too heterogeneous including socio-economic conditions (e.g. income levels of citizens, ownership of land, settlement densities), legal conditions (e.g. tax systems, planning and permitting frameworks and procedures, setback distances), etc. Labeling/certification is complex and involves administrative and control costs. Furthermore, it is unclear which organisation might bear responsibility of issuing, managing and controlling the label at the European level. Several partners questioned if it is useful to have a European label only for wind energy because other renewable energy systems, particularly ground-mounted PV, pumped storage hydro or biogas plants, or grid infrastructure projects (transmission lines, pylons) at least partly, face similar acceptance problems (e.g. visual impact, landscape intrusion, fairness issues etc.) (Upham et al. 2015; Schumacher and Schultmann, 2016).

[21] Information in Dutch is available at https://mienskipsenergie.frl/

The WinWind consortium considers the macro-regional or the national level as more appropriate for establishing a label for fair wind energy. Depending on the administrative structure, also the regional level can be appropriate for a fair wind energy label, as the cases of Thuringia or Schleswig-Holstein in Germany illustrate. However, taking into account the transition to auctioning systems, proliferation of labelling schemes should be avoided. Furthermore, governments should aim to ensure a level playing field for project developers and operators, particularly regarding requirements concerning procedural and financial participation of host communities.

One option proposed by the WinWind partners was to use fair wind energy labels in the context of regional, integrated electricity markets (e.g. Nord Pool). The WinWind principles and criteria may guide the development of such labels.

WinWind partners could not agree about the introduction of any binding social (acceptance related) criteria for wind energy at EU level, e.g. prescribing minimum equity shares to be offered to local communities. Taking into account the subsidiarity principle, it seems to be more appropriate at least for the time being to have minimum standards on the national (Member State) level, ensuring a level playing field for project developers, particularly under the auction schemes.

In place of a European label, WinWind recommends to strive for **a voluntary self-commitment of the wind industry** and to develop an "**Alliance of fair wind energy developers**", possibly under the **leadership of WindEurope** and supported by European institutions. The WinWind principles and criteria might serve as guidance for such an initiative. A qualification approach might be chosen with different levels of ambition (e.g. gold, silver or bronze membership). Furthermore, they can serve as a general self-assessment tool ("scorecard") for developers in general.

6.2 Proposals for the European Union

The new programme period 2021-2027 has the potential to unlock investments in all climate-relevant sectors and to encourage the transition towards socially inclusive renewable energy development. For the new programme period, the EU should consider

- To increase policy attention to community-owned renewable energy and to effectively link the revised Renewable Energy Directive and its provisions for renewable energy communities with the European funding programmes including the Cohesion and Structural Funds,
- To allocate more funding to projects that benefit the people and local communities, such as prosumer and community-based energy projects,
- To encourage the development of renewable energy communities via the Cohesion and Structural Funds and other EU funding/financing instruments and disseminate European Best Practice policies and measures in this field,

- To link financial support for renewable energy projects including wind energy provided via the EU Structural and Cohesion Funds to the compliance with specific social fairness principles and criteria. Here, the WinWind principles and criteria might serve as a guidance. Criteria might include, for instance, obligations for early information of the public, for stakeholder engagement plans, financial participation of local citizens or the provision of other community benefits.
- To strengthen the Community-led Local Development (CLLD)/LEADER initiatives[22] and promote the development of renewable energy communities, informal participation and dialogue formats in the context of renewable energy developments and the establishment of regional advisory organisations providing neutral information to local communities, municipalities and citizens.
- To promote awareness raising, capacity building, and networking for renewable energy communities.

6.3 Proposals for the Member States

The WinWind partners agreed that the macro-regional, national or regional level are better suited to establish labelling schemes for fair wind energy than the European level (see above). The WinWind principles and criteria might serve as an orientation for respective labelling schemes. However, an effective monitoring strategy and sanction mechanisms need to be in place. Different grades of the labels might be considered[23]. The experience of Thuringia shows that the establishment of regional advisory organisations providing unbiased information to local communities, municipalities and citizens are important accompanying measures to effectuate the use of such labels.

The WinWind partners consider it important to integrate principles and criteria for fair wind energy into support schemes for RES-E and other support programmes for renewable energy. In particular, they propose to provide incentives for active financial participation of local communities and citizens, community (co-)ownership of renewable energy facilities and the development of

[22] LEADER is a European programme, with the aim to involve local actors in rural areas in the development of their own regions by forming Local Actions Groups (LAGs) and designing and implementing strategies. Until now more than 2,500 LAGs were established, covering over 50% of the rural population in the EU. As part of the European Investment and Structural Funds, the instrument called “Community-led Local Development” (CLLD) supports bottom-up, territorial development strategies and community-led local development.

[23] For instance, the introduction of a ranking system differentiating between label partners, that reach very high standards (means all criteria of the label) to a medium standard (75% of the criteria) to low-level standard (50% of criteria).

renewable energy communities (pursuant to the revised Renewable Energy Directive). Furthermore they suggest the following:

- Wind farm developers should be obliged to undertake community information and engagement throughout all stages (e.g. from planning, over pre-application, application, permitting, construction, operation and decommissioning). These obligations shall be continued in case of change of the project developer or wind farm ownership. National and regional regulatory frameworks should define the procedures and operational principles regarding investors' co-operation with local communities.
- National governments should develop enabling frameworks for renewable energy communities in line with the revised Renewable Energy Directive.
- National governments should require or encourage active financial participation of host communities and citizens in wind energy projects. Furthermore, governments should develop complementary mechanisms which allow for passive financial participation (e.g. via community funds/foundations, electricity price discounts).
- National and regional governments should consider to integrate principles and criteria for fair wind energy into their support schemes (e.g. auctions) and other funding schemes for renewable energy (e.g. Operational Programmes under the Structural Funds, emission allowances auctioning schemes). The WinWind principles and criteria serve as good guidance in this regard and depending on the framework conditions can be applied on a "pick & chose" basis.
- The provision of financial support might be made conditional on the compliance with fair wind energy criteria ("social conditionality"). Alternatively, fair wind energy complying with fairness principles and criteria might be stimulated by providing higher support. Financial participation and the provision of local/regional socio-economic benefits deserve particular attention.
- Tenders should be modified to favour a diversity of actors and community-driven renewable energy projects through the use of corresponding tendering design options. Community engagement and orientation towards the common good might be established as part of prequalification criteria. Alternatively, the evaluation and selection of bids might be based on a multi-criteria assessment, which in contrast to price only systems takes into consideration not only the lowest price. Using a multi-criteria assessment allows to include broader considerations, such as the social and environmental benefits of community wind power. Respective assessment criteria could encompass the extent of community control or co-ownership or the number of partnerships with local organisations and businesses. Furthermore, the assessment might consider benefit sharing provisions, including

payments to a community benefit fund, contributions for public education and awareness-raising campaigns or additional environmental benefits the developer intends to offer as part of the project (e.g. energy efficiency services).

- Environmental impact assessments should be effectively combined with social impact assessments.
- National or regional governments should consider to support renewable energy communities by providing risk capital, loan guarantees, low interest loans, investment grants, tax incentives for community wind farms, e.g. through public financial institutions.
- Public banks should consider to include principles and criteria for fair wind energy.

7 References

Aakre, S. et al., 2018, Taxonomy of social acceptance drivers and barriers. WinWind Deliverable 2.3, retrieved from https://winwind-project.eu/fileadmin/user_upload/Resources/Deliverables/Del_2.3_final.pdf

Bolinger, M., 2001, Community Wind Power Ownership Schemes in Europe and their Relevance to the United States. Lawrence Berkeley National Laboratory. Environmental Energy Technologies Division May 2001, retrieved from http://eetd.lbl.gov/EA/EMP/ https://www.osti.gov/servlets/purl/827946

Bolle, A., 2019, How cities can back renewable energy communities. Guidelines for local and regional policy makers; retrieved from https://energy-cities.eu/wp-content/uploads/2019/06/EnergyCities_RNP_Guidebook_Web.pdf

Copena, D., 2019, Local Economic Impact of Wind Energy Development: Analysis of the Regulatory Framework, Taxation, and Income for Galician Municipalities, Sustainability, 11, 2403; doi:10.3390/su11082403.

Department of Communications, Climate Actions and Environment, 2019, Minister Bruton announces scheme to reach 70% renewables. Government approves key design features of first Renewable Electricity Support Scheme (RESS) auction. 30% increase in renewables expected in round one; retrieved from https://www.dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/Minister-Bruton-Announces-Scheme-to-Reach-70-Renewables.aspx

Di Nucci, R., Krug, M., 2018, Conditions enhancing the socially Inclusive and environmentally sound uptake of wind energy: the case of Germany, Journal of Environmental Policy and Administration, Vol. 26, 2018, 12, 1-41; http://dx.doi.org/10.15301/jepa.2018.26.S.1.

Di Nucci, R. et al., 2019, Consultation series of the 6 regional desks in each target region. Summary report. WinWind Deliverable 3.5, retrieved from https://winwind-project.eu/fileadmin/user_upload/Resources/Deliverables/D3.5_CONSULTATION_SERIES_OF_THE_6_REGIONAL_DESKS.pdf

Enel Green Power, 2015, Industry operators, ANCI and Legambiente sign charter for sustainable wind power renewal. Press release https://www.enelgreenpower.com/content/dam/enel-com/pressrelease/porting_pressrelease/1664692-1_PDF-1.pdf

EnergieAgentur.NRW, 2014, Finanzierungs- und Geschäftsmodelle. Stand 11/2014.

Energy Cities et al., 2018, Unleashing the power of community renewable energy, retrieved from https://energy-cities.eu/wp-content/uploads/2019/02/community_energy_booklet_2018_en.pdf

European Commission, 2018, Proposal for a Regulation of the European Parliament and of the Council on the European Regional Development Fund and on the Cohesion Fund. COM(2018) 372 final, retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A372%3AFIN

European Commission, 2019, Clean Energy for all Europeans. Luxembourg: Publications Office of the European Union; retrieved from https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans

European Court of Auditors, 2019, Special Report Wind and solar power for electricity generation: significant action needed if EU targets to be met. Report No. 8 (pursuant to Article 287(4), second subparagraph, TFEU); retrieved from https://www.eca.europa.eu/Lists/ECADocuments/SR19_08/SR_PHOTOVOLTAIC_EN.pdf

European Investment Bank, 2019, EIB energy lending policy. Supporting the energy transformation. Draft 24 July 2019, retrieved from https://www.eib.org/attachments/draft-energy-lending-policy-26-07-19-en.pdf

FA Wind (ed.), 2016, Die Bereitstellung kommunaler Flächen für die Windenergienutzung. Dr. Wolfram Krohn, Dr. Tobias Schneider (Dentons Europe LLP) und Boris Strauch (Berwin Leighton Paisner (Germany) LLP), retrieved from https://www.fachagentur-windenergie.de/fileadmin/files/Veroeffentlichungen/FA_Wind_Hintergrundpapier_Bereitstellung_kommunaler_Flaechen_fuer_die_Windenergienutzung_2016-05-26.pdf

FA Wind, 2017, Fachgespräch „Segel setzen. Ein Erfahrungsaustausch zu wind-energiebezogenen Beteiligungsansätzen in den Ländern.“https://www.fachagentur-windenergie.de/fileadmin/files/Beteiligung/FAWind_IASS_Ergebnispapier_Fachgespraech_Beteiligung_Segelsetzen_10-2017

Giuffrida, L.G. et al., 2019, Screening of technical and non-technical regulations, guidelines and recommendations. WinWind Deliverable 6.1, retrieved from https://winwind-project.eu/fileadmin/user_upload/Resources/WinWind_-_Deliverable_6.1_Technical_screening_report.pdf

Government of Ireland, 2018, Renewable Electricity Support Scheme (RESS) High Level Design; retrieved from https://www.dccae.gov.ie/documents/RESS%20Design%20Paper.pdf

Henningsson, M. et al., 2013, The Effects of Wind Power on Human Interests. A Synthesis, retrieved from http://www.naturvardsverket.se/Documents/publikationer6400/978-91-620-6545-4.pdf

Hirschberg S. et al., 2007, Environmental, economic and social criteria and indicators for sustainability assessment of energy technologies (Authors: S. Hirschberg, Ch. Bauer, P. Burgherr, R. Dones, W. Schenler, T. Bachmann, D. Gallego Carrera, with contribution by V. Maupu, Cl. Lecointe, C. Berthier, H. Connor, J. Hampel, O. Renn). The 7th Framework project “NEEDS: New Energy

Externalities Development for Sustainability", Deliverable 3.1-RS2b, p.6-7, retrieved from http://www.needs-project.org/RS2b/RS2b_D3.1.pdf

IRENA, 2015, Renewable Energy Auctions. A Guide to design. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2015/Jun/IRENA_Renewable_Energy_Auctions_A_Guide_to_Design_2015.pdf

Linnerud, K. et al., 2018, Technical and socio-economic conditions. A literature review of social acceptance of wind energy development, and an overview of the technical, socioeconomic and regulatory starting conditions in the wind energy scarce target regions. WinWind Deliverable 2.1, retrieved from https://winwind-project.eu/fileadmin/user_upload/Resources/Deliverables/Del2.1_final.pdf

Maleki-Dizaji, P. et al., 2019, Synthesis & Comparative analysis of Best Practice Case Studies for promoting the Social Acceptance of Wind Energy, WinWind Deliverable 4.3, retrieved from https://winwind-project.eu/fileadmin/user_upload/Resources/Deliverables/Del_4.3.pdf

Nowakowski, P. et al., 2018, Good/Best Practice Portfolio, WinWind Deliverable 4.2, retrieved from https://winwind-project.eu/fileadmin/user_upload/Resources/Deliverables/D4.2_Good_Practice_Portfolio.pdf

Notroff, R., 2017, Faire Windenergie in Thüringen: Leitlinien und Siegel, retrieved from https://stiftung-umweltenergierecht.de/wp-content/uploads/2017/11/Stiftung_Umweltenergierecht_2017_11_15_Faire_Windenergie_Thüringen_Notroff.pdf

Ogg, F., 2018, The Netherlands. WWEA Policy Paper Series (PP-02-18-C) April 2018; retrieved from https://wwindea.org/wp-content/uploads/2018/06/the_netherlands_full.pdf

Rambelli, G., Hinsch, Kittel, J., 2019, Summary: EU Policy Roundtable. Knowledge Transfer of Innovative Mechanisms for Socially-Inclusive Wind Energy across Europe, retrieved from https://winwind-project.eu/fileadmin/user_upload/Events/EU_Policy_Roundtable_Summary_final.pdf

REN21, 2017; Renewable Energy Tenders and Community [Em]power[ment]: Latin America and the Caribbean (Paris: REN21 Secretariat), retrieved from https://www.ren21.net/wp-content/uploads/2019/06/LAC-Report.pdf

Roberts, J., Bodman, F. and Rybski, R, 2014, Community Power: Model Legal Frameworks for Citizen-owned Renewable Energy. ClientEarth: London).

Schumacher, K., Schultmann, F., 2017, Local Acceptance of Biogas Plants: A Comparative Study in the Trinational Upper Rhine Region, Waste Biomass Valor (2017) 8:2393–2412.

Suomen Tuulivoimayhdistys (n.d.), Project developers Code of Conduct, retrieved from ttps://www.tuulivoimayhdistys.fi/en/wind-power-in-finland/information-for-the-developers/project-developers-code-of-conduct

Upham, P, Oltra, C and Boso, À, 2015, Towards a cross-paradigmatic framework of the social acceptance of energy systems. Energy Research & Social Science, 8. 100 – 112, https://doi.org/10.1016/j.erss.2015.05.003

ZEIT ONLINE, 2020, SPD will durch "Windbürgergeld" Akzeptanz erhöhen. 2. Januar 2020, retrieved from https://www.zeit.de/wirtschaft/2020-01/windenergie-windbuerger-geld-windrad-matthias-miersch-spd

www.winwind-project.eu

info-winwind@PolSoz.FU-Berlin.de

@winwind_eu WinWind project

Project Partners