JUST WiND 4 ALL

JUST ENERGY TRANSITION

GUIDE FOR DEVELOPERS

JUST WiND 4 ALL

The main objective of the Horizon Europa 2020 JustWind4All project (2023–2025) is to inspire, inform and activate dialogue between actors in the European wind energy sector on the theme of justice in the energy transition.

In Portugal, there are two project partners: the Faculty of Sciences of the University of
Together, we are working towards a fairer and more sustainable energy transition, namely through greater economic and political participation by citizens and local communities.

Our stakeholders

What is the energy transition?

It is a process of societal transformation that impacts i) our energy sources – replacing fossil fuels with renewable sources - ii) our networks and the way we distribute, store and manage energy, and finally iii) the way we consume and use that energy..

What is energy justice?

Energy justice is the dimension of this transition that ensures that this process takes place in a democratic, participatory, inclusive and transparent manner, with a fair distribution of costs and benefits.

What are the main pillars of energy justice?

1. WHY SHOULD DEVELOPERS COMMIT TO A JUST ENERGY TRANSITION?

The transition to renewable sources is underway, but is it being guided by principles of energy justice?

Promoting a just energy transition means recognising the local, **sometimes asymmetrical**, impacts of renewable infrastructure and actively and timely involving the populations of the affected territories.

For developers, **integrating principles of justice into the design and implementation of projects** is not only a social responsibility imperative, but also a **strategic condition**.

Projects that ensure **transparency**, **equity** in the distribution of costs and benefits, and **citizen participation** - in decision-making processes and investment - tend to be more resilient and socially accepted.

BENEFITS FOR THE DEVELOPER

Greater project stability and predictability reduces litigation and administrative delays and associated costs.

Investment protection and risk mitigation: timely and well-planned community engagement reduces the likelihood of delays, conflicts or cancellations, protecting investment and strengthening project viability.

Social recognition: inclusive projects are better received by communities and policy makers.

Easier access to sustainable financing: credit institutions and European funds value social justice criteria.

Six reasons to invest in making the energy transition just for all

2. ENERGY JUSTICE STRATEGIES AND TOOLS FOR DEVELOPERS

Energy justice is a central concept in ensuring that the transition to renewable sources does not reproduce inequalities, but rather contributes to mitigating them.

The design and implementation of renewable energy projects must therefore integrate principles of **redistribution, equity, participation and redress**.

To facilitate the work of promoters, the diagram below presents the four **pillars of energy justice** and suggests, for each one, **strategies for action** that enable:

- Ensure that the benefits of projects reach local populations - **Distributive Justice**;
- Actively involve local actors in decision-making processes - **Procedural Justice**;
- Recognise local identities, ways of life and knowledge - **Recognition Justice**;
- Mitigate any negative impacts of projects - **Restorative Justice**.

DISTRIBUTIVE JUSTICE
WHO RECEIVES WHAT?

Create direct compensation mechanisms, such as local funds.

- Allow co-investment by the community.
- Set aside part of the profits for community projects or public services.
- Reduce energy costs for local residents.

In **Denmark**, legislation requires minimum participation by local communities in wind power projects, allowing them direct access to economic benefits.

PROCEDURAL JUSTICE
WHO PARTICIPATES AND DECIDES?

Create advisory councils with local representatives. Incorporate contributions from the population.

Make information available in an accessible and transparent manner.

In **Scotland**, the CARES programme requires developers to demonstrate community involvement in order to obtain public support.

ENERGY JUSTICE

Developers play a key role in achieving energy justice in the territories where they operate.

RECOGNITION JUSTICE
WHO IS HEARD AND VALUED?

Recognise the knowledge and experiences of the territory (e.g. agricultural practices, fishing, local culture).

Avoid technical or distant language – communicate clearly and respectfully.

Include traditionally excluded voices (women, young people, racialised people, older people).

Adapt participation formats to local realities (e.g. schedules, accessible locations).

In **Canada**, projects with indigenous communities include measures of **cultural and linguistic recognition** in consultation processes.

RESTORATIVE JUSTICE
HOW TO REMEDY IMPACTS?

Assess environmental and social impacts transparently.

Create mitigation and monitoring plans with local involvement.

Establish a permanent channel for complaints or suggestions.

Commit to adjustments to the project in response to unforeseen effects

In **Germany**, there are locally managed **environmental and social compensation funds** and social compensation funds managed locally after renewable infrastructure.

3. LOCAL AND REGIONAL PARTICIPATION AND COLLABORATION - WHO, WHEN AND HOW TO INVOLVE?

The **participation of local and regional actors** should not be seen as an additional step in the final phase of projects, but as a **fundamental principle** in their design and implementation.

The involvement of those who live, work and know the territory must be ensured **from the outset** and adapted to the diversity of local actors, voices and dynamics.

However, **it is not possible to involve all stakeholders, at all stages, in all ways**. Fair participation requires **intentionality, planning and adaptation to the context**.

Involvement is not just about informing or raising awareness. It is about creating space for listening, dialogue, learning and, whenever possible, co-construction of projects, in a spirit of proximity, transparency and reciprocity.

Who to involve?

- **Local authorities**: Parish Councils, Municipal Councils, Intermunicipal Communities.
- **Organised civil society**: associations, cooperatives, local communities.
- **Residents and interested citizens**.
- **Local productive and economic sectors**: farmers, entrepreneurs, fishermen.
- **Energy agencies**.
- **Schools and higher education institutions**.

When and how to get involved?

Citizen democracy tools	Objectives	When to use?
Public meetings and residents' assemblies	Inform about the project; listen to concerns and clarify doubts	Diagnosis and initial assessment
Surveys and interviews	Map expectations and perceptions	Diagnosis and initial assessment
Participatory workshops and round tables	Co-designing solutions and strategies	Planning
Permanent local advisory councils	Updating, consulting and reporting	Implementation and monitoring

Pen y Cymoedd Wind Farm (United Kingdom)

☐ *Participation from the initial stage* | *Multi-channel communication* | *Local representation*
☐ Early involvement | ☐ Accessible communication | ☐ Community committee

The developer Vattenfall initiated dialogue with the community even before the formal submission of the project, through free forms sent by post, local events, advertisements on buses, public exhibitions, visits to the construction site and informative newsletters. It also set up a Construction Committee with local representatives and promoted educational activities for students.

Engaging early, through multiple channels and with a local presence, is essential to build trust, clarify doubts and reinforce social acceptance.

Find out more: Pen y Cymoedd Wind Farm

PARTICIPATING ALSO MEANS BEING ABLE TO INVEST.

The **minimum requirement** is to ensure that projects generate **direct and tangible benefits for the populations affected**, such as lower energy tariffs or local investments.

Only from this level of return – when citizens gain access to investment and ownership – can we fairly speak of **economic participation**.

Westermeerwind & Fryslân (Netherlands)

☐ *Regional bonds* | *Financial inclusion* | *High citizen participation*
☐ Guaranteed return | ☐ Citizen investment

The promoters issued bonds exclusively for residents, with a fixed annual return of 7.5%. The aim was to enable citizens to become co-investors, even without participating in management. Demand far exceeded supply, signalling strong local support and interest.

Simple and accessible financial instruments can make the energy transition more inclusive and economically advantageous for communities.

Find out more: Westermeerwind

San Severo Wind Farm (Italy)

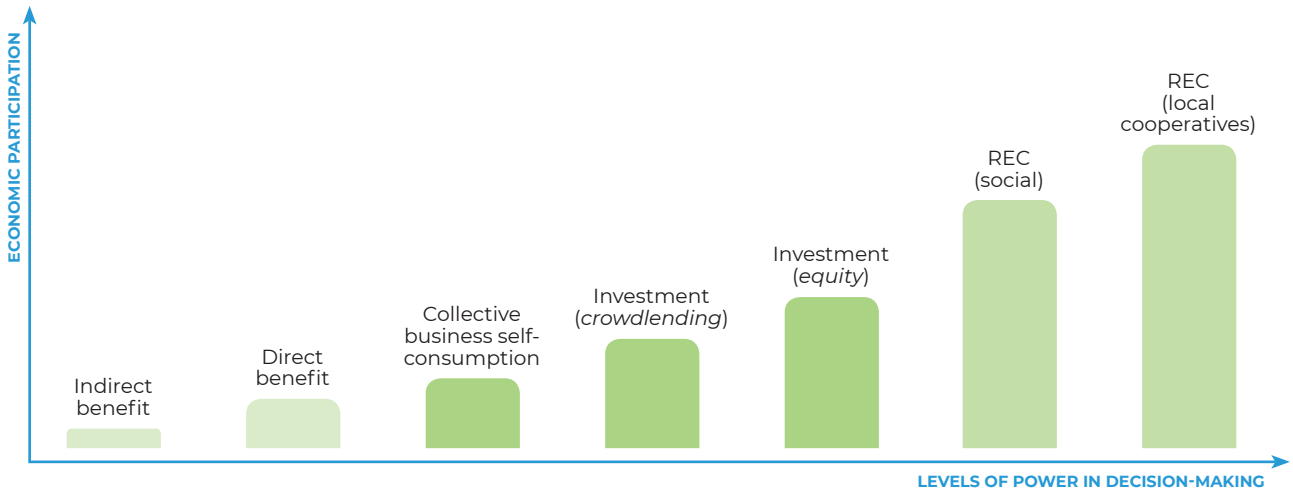
☐ *Shareholder participation* | *Attractive return* | *Financial inclusion*
☐ Local investment | ☐ Guaranteed income

RWE's 54 MW wind project in San Severo (Foggia) directly involved citizens in the financing phase. Through an open investment programme open investment programme, residents were able to invest between €250 and €5,000, with an annual return of up to 9% gross over 24 months. The total investment by citizens reached €200,000.

Enabling financial participation with competitive returns generates local involvement, increases support for the project and strengthens the sense of belonging.

Find out more: San Severo Wind Farm

SCALE OF ECONOMIC PARTICIPATION AND CITIZEN POWER



The graph crosses economic participation (vertical axis) and decision-making power (horizontal axis) by citizens. As one moves up the scale, the possibilities for economic participation increase – from indirect benefits to co-investment and co-ownership – as does control over governance processes, particularly strategic decision-making. From this perspective, only the two legal formats on the right of the graph – ~REC – represent structures that enable a high degree of economic and political participation by citizens, in line with the ambitions of a just energy transition.

4. INTERNATIONAL EXAMPLES OF PARTICIPATION AND COLLABORATION WITH STAKEHOLDERS AT LOCAL AND REGIONAL LEVEL

Monte Mesa - Wind Farm (Italy)

☐ *Social acceptance*| *Co-investment*| *Local enhancement*
☐ Participation | ☐ Investment | ☐ Sustainable tourism

AGSM AIM Energia promoted an 8 MW project with a consistent focus on community involvement. From early on, consultation activities were carried out with citizens and the environmental association Legambiente. An educational park and trails were created to promote sustainable tourism, as well as an innovative co-investment mechanism: Rivoli Bonds, which allowed 700 local families to invest in the project with an annual return of 6.5% over seven years. The community also benefited from lower electricity tariffs.

The project has become an example of local integration, combining social acceptance, direct economic returns for residents and enhancement of the area as a sustainable tourism destination.

Potęgowo Wind Farm (Poland)

☐ *Structured consultation* | *Tax compensation* | *Improvement of public services*
☐ Stakeholder plan | ☐ Infrastructure |
☐ Education

This 257 MW project, Poland's largest wind farm, stands out for its formal stakeholder engagement plan, with public consultations in the various parishes covered, meetings with local authorities, a permanent contact channel and active dissemination through the press and a dedicated website. In terms of redistribution, the developer contributes approximately £2 million in municipal taxes, which are used for investments in schools, roads, public safety and educational programmes for children.

Positive integration into a vast territory, strong local acceptance and visible improvement in the quality of municipal public services.

Find out more: Potęgowo Wind Farm

Bürgerwindpark Simmerath (Germany)

☐ *Public planning* | *Universal benefit* | *Administrative simplicity*
☐ Public territory | ☐ Stability | ☐ Tax reduction

The municipality of Simmerath identified municipal land suitable for the installation of wind turbines in advance and drew up clear criteria for tenders. Interested developers compete for the right to operate, and in return, part of the revenue generated is channelled into reducing municipal taxes, benefiting all residents. This practice has become a national benchmark for its effectiveness.

A swift and transparent process, fair economic returns for the population and high public support for the expansion of wind energy in the municipality.

Find out more: Bürgerwindpark Simmerath

5. ECONOMIC PARTICIPATION OF CITIZENS: THE CASE OF CROWDLENDING

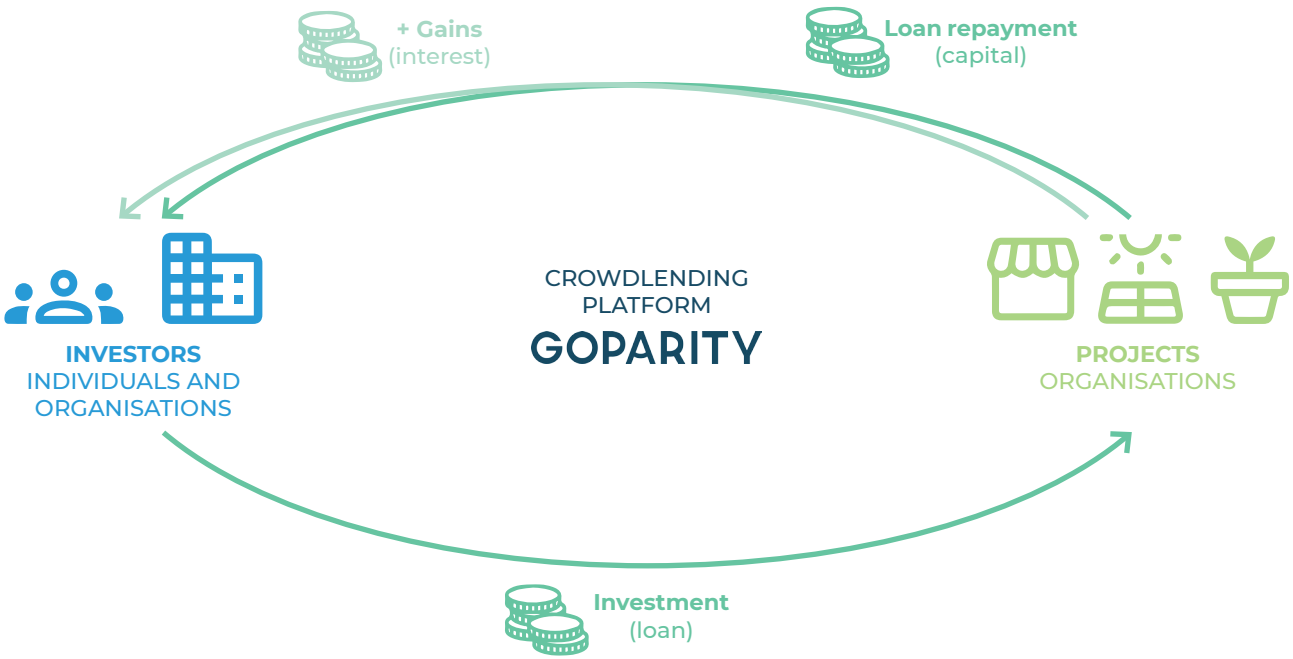
Crowdlending (or collaborative lending) is a form of participatory financing in which several people lend money directly to companies through an online platform. In return, these people receive the borrowed amount back with interest within a specified period.

According to the European crowdlending regulation (ECSP), transactions are limited to €5 million per year per promoter, and some of these platforms may issue bonds.

Advantages

- Complementary financing with traditional solutions (blended finance).
- Involvement of the local community in project financing.
- Visibility and differentiation.
- A loan can have thousands of small investors, all managed by the platform without bureaucratic burden.
- Loans tailored to the promoter's needs, which can cover initial costs not normally covered by traditional financing solutions.
- Crowdlending is often used as initial financing in the field, and is then refinanced after risk mitigation.

Crowdlending is a common solution that allows citizens to participate economically in large renewable projects (wind and solar), particularly in countries where this is a legal requirement (Spain, France, Italy, etc.). In Portugal, there are several examples of citizen investments in CERs managed by Energy Service Companies and in a CER owned and managed by citizens (CER-PIAS).



6. OTHER CO-INVESTMENT TOOLS

Citizen co-investment can take various forms, from direct investments to cooperative models, including financial instruments that fall within the scope of public policies.

These forms of engagement not only reinforce energy justice and social acceptance but can also financially leverage projects and generate sustainable returns for communities.

The table below summarises the main tools adopted in practice – many of them with strong regulatory support – and highlights inspiring real-life examples that illustrate these approaches.

DID YOU KNOW...

The European ACCE (*Access to Capital for Community Energy*) project identified, mapped and analysed various examples of collaborative financing schemes for renewable energy projects across Europe. More information at: https://acce.rescoop.eu/

CO-INVESTMENT AND CITIZEN PARTICIPATION MODALITIES

Modality	Description	Examples/Context
Individual shareholder participation	Direct investment by citizens as shareholders in a specific project	San Severo (IT); Trino (IT); Wester-meerwind (NL); PPC Social Bond (GR)
Cooperative equity fund	Funds managed by cooperatives that invest in the early stages of community projects	Énergie Partagée (FR); REScoop MECISE (EU)
Issuance of bonds	Fixed-return debt securities, accessible to local residents	Rivoli Veronese (IT); Westermeerwind & Fryslân (NL); PPC (GR)
Cooperatives and models cooperatives	Democratic structures with participation citizen participation in capital and project management	Andilly-les-Marais (FR); Ecopower (BE); Brighton Energy (UK)
Mandatory criteria or incentives by public policies	Laws or public tenders promoting citizen participation local participation in investment or ownership	Denmark (20% mandatory); Princess Elisabeth Zone (BE)
Financial incentives for "prosumers"	Models such as net metering and feed-in tariffs that remunerate local energy production	Several EU countries (PT, IT, NL, DE)
Energy communities (CER/CCE)	Legal structures for local cooperation between citizens, local authorities and businesses	Established by RED II and IEMD
Local energy markets (*peer-to-peer*)	Platforms enabling direct exchange of energy between citizens	Quartierstrom (CH) – peer-to-peer market blockchain
Publicly supported venture capital	Investment in innovative companies facilitated by energy transition companies, with public support	Belgian Junction Growth Fund (€30 million EIF)

7. REPOWERING: AN OPPORTUNITY FOR CITIZEN PARTICIPATION

Repowering is not just a technical intervention aimed at replacing or modernising wind turbines – it is a strategic opportunity to rethink the relationship with local territories and communities, contributing to **strengthening energy justice**:

- It opens up space for **new participatory processes**, including consultations and active involvement of local communities.
- It allows for **the renegotiation of local compensation and benefits**, such as local investment and support for community projects.
- It facilitates **citizen co-investment** and the creation of **shared ownership models**.

DID YOU KNOW...

Legal separation: framework for mixed ownership models

Ordinance No. 102/2015 of 7 April, in its Article 5, establishes the procedure for the legal separation of surplus equipment. This means that it is possible **to create a new legal entity for the surplus equipment of existing wind farms, opening the door to the possibility of establishing local partnerships with new legal and economic configurations. This opens the door to co-financing and co-ownership towards greater energy justice**.

What can be promoted in the repowering process?

- Entry of **new local investors**, including citizens and local authorities.
- Diversification of investment modalities.
- Creation of **energy cooperatives** or other forms of community participation.
- **Fairer distribution of the benefits** of park renovation.

Schönberg Community Wind Farm (Germany)

☐ *Repowering + transfer of ownership | Cooperative model*

☐ New turbines | ☐ Co-ownership | ☐ Active community

The developer BayWa r.e. **repowered** the Schönberg wind farm in Germany, replacing old turbines with more efficient equipment more efficient equipment. In compliance with **the Citizen and Municipal Participation Act** (2016), **20% of the shares** were offered to local residents and the municipality. After modernisation, the farm became the property of the Bürgerwindpark Schönberg cooperative, with the population directly becoming shareholders.

Find out more: Schönberg Community Wind Farm

8. A JUST WIND 4 ALL BUSINESS MODEL CANVAS

ENERGY JUSTICE

- **Recognition**: Who are the affected groups, and how are they involved?
- **Procedural Justice**: Are communities meaningfully participating in planning and governance?
- **Distributional Justice**: Are benefits (jobs, energy access, revenue) fairly distributed?
- **Restorative Justice**: Are environmental and social harms addressed?
- **Energy Poverty Alleviation**: Does the project directly reduce local energy poverty or improve affordability?
- **Energy Democracy**: Is there a pathway for local ownership, cooperative participation, or community shares?

KEY PARTNERS

What are your key partners?

Who are the partners needed to ensure environmental and social benefits are shared equitably?

Consider: local communities, cooperatives, NGOs, local government, environmental regulators

KEY ACTIVITIES

What are the key steps to move ahead? (e.g. Development, financing, operation, maintenance)

What activities are needed to support energy democracy and local participation?

Consider: community engagement, environmental monitoring, co-design processes

KEY RESOURCES

What resources do you need to make your idea work? (e.g. Land, turbines, capital, grid connections)

What resources enable sustainability and local empowerment?

Consider: local knowledge, trust networks, community investment

VALUE PROPOSITION

How does the project address the **right to affordable, clean, and democratic energy**? E.g. Clean energy generation, revenue from energy sales

Consider:

- Contributions to **reducing local energy poverty** (e.g., community energy share)
- **Affordable clean energy** access
- Opportunities for **local ownership or co-benefits**
- Environmental restoration (biodiversity corridors around wind farms)

RELATIONSHIPS

How often will you interact with your customers? (e.g. Contracts with offtakers/utilities)

How do we build trust and accountability with impacted communities?

Consider: transparency, participatory governance structures, regular dialogue forums with communities

CHANNELS

How are you going to reach your customers?

How do we reach and engage communities in decision-making?

Consider: local community information meetings, digital platforms for participation

CUSTOMER SEGMENTS

Who are your customers? Describe your target audience in a couple of words.

- Utilities, corporations under PPAs
- Add: local communities, low-income households if the project supports **energy poverty alleviation**, community energy schemes
- **Ask**: Who benefits from this project, and who should benefit to align with energy justice?

SOCIO-ECOLOGICAL ASSESSMENT

What's the ecological impacts of your project? E.g. CO2 emissions, other pollutants and CC gases.

Consider: Soil, water and biodiversity indicators

What are the social impacts of your project?

Consider: impact in well-being and life quality;

COST STRUCTURE

How much are you planning to spend on the product development and marketing for a certain period? What's your CAPEX, OPEX, land leasing, maintenance, etc?

How do we internalize social and environmental costs to create a fairer system?

Consider: costs for community participation processes, biodiversity monitoring, energy justice programs (e.g., subsidized local energy)

REVENUE STREAMS

How much are you planning to earn in a certain period? E.g. Energy sales, green certificates

Can revenue streams support community wealth building and reinvestment locally?

Consider:

- Community shares/dividends if applicable
- Potential funding for environmental services (e.g., biodiversity credits)
- Additional revenue from educational tourism (if included in the project)

LCA ANALYSIS

What's the overall Life-Cycle Analysis for your project? Have you considered all costs and impacts, including decomissining the wind farm?

JUST WiND 4 ALL

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