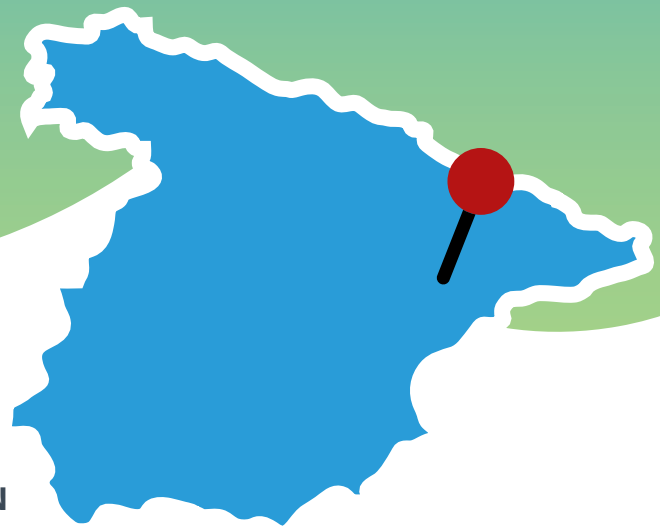
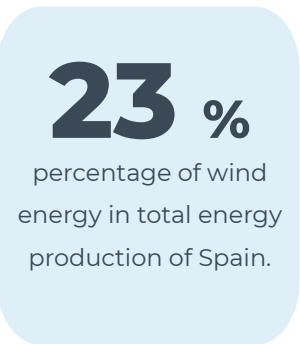


JustWind4All case studies **CATALONIA, SPAIN**



WIND ENERGY DEVELOPMENT IN CATALONIA, SPAIN

Currently, renewable energy constitutes over half of Spain's installed capacity (54%). In 2021, wind energy reached a record 23% of total energy production, surpassing even nuclear energy: wind power also accounted for around half of total renewable energy production (46%). Wind power plants (WPPs) are now the technology with the greatest participation in the national power grid (25.2%), with a current installed capacity of 30 GW. Wind energy has developed rapidly in Spain due to a number of factors, like a high density of areas with high wind potential, national legislation that supported wind energy, and regional policies from autonomous governments. However, a great disparity exists between the different regions, with, for example, Catalonia now far behind in installed wind energy capacity. Furthermore, Spain was still waiting on the approval of offshore wind projects in 2023: the legal framework here is not clearly established yet and policymakers still lack experience dealing with offshore wind.



Catalonia does not stand out as the frontrunner in renewable energy within the nation. While renewable electricity constitutes over half of Spain's installed capacity (54%), Catalonia lags significantly behind with a mere 30%. The reasons for this are the following: a lack of initiative and encouragement to develop renewable energy by Spain; lack of interest by the Catalan government, which has authority over the electricity distribution infrastructure; and finally, companies being reluctant to develop and advance their own projects. Despite this, Catalonia aims to have 1 GW of offshore wind installed by 2030. According to the Catalan Climate Action minister, offshore wind power plants (WPPs) can play an important role in Catalonia's energy transition due to their high energy production capacity.



One specific example of a proposed project is the Tramuntana WPP, planned to have a capacity of exactly 1 GW. However, various environmental protection organisations have expressed concern regarding the project's potential impact on marine wildlife and seabirds in the area; there are also economic concerns regarding the effect on tourism, alongside concerns from local communities related to scepticism of large corporate projects like these.

In the context of the JW4A project, an analysis of the governance of wind energy in Catalonia was conducted, through a focus on the specific timeline of the proposed Tramuntana WPP as a case study. This analysis zoomed in on various critical participatory practices in relation to empirical data on the Tramuntana WPP, identifying the actions and discussions around wind energy justice related to that project.

Based on this work, the following recommendations were formulated: engaging local communities early on in the process, encouraging project developers to facilitate transparent communication, and developing specific compensatory measures regarding project impacts; alongside acknowledging the shared responsibility that project developers and government actors hold. These recommendations are described in more detail below.



Recommendations

It is clear the wishes of the project developers do not coincide with the wishes of local communities. The main motivation to build the offshore WPP is driven by economic profit and meeting national and international targets of renewable energy production and decarbonisation. Conversely, local communities are fighting to maintain their traditional way of life and the cultural and natural values of the Costa Brava. This led to several protests that gathered multidisciplinary actors from even nearby municipalities. The conflict between both groups has now escalated to a point where not even an offshore WPP prototype, with just three wind turbines, proposed by the Generalitat de Catalunya was acceptable. When the Plan de Ordenación del Espacio Marítimo (POEM; Maritime Spatial Plan) approved the Gulf of Roses as an area of interest to build an offshore WPP, the protests culminated in judicial action against the project.

Our **first and main recommendation** is that local communities need to be engaged very early in the project proposal. Project developers should initiate early collaboration with local authorities, presenting the project's benefits, addressing community concerns, and making necessary adjustments, such as modifying the power plant's design, to prevent unnecessary conflict escalation. In the Tramuntana WPP, project developers never engaged with local communities at the beginning, although it is also unclear how the project was first known.

Our **second recommendation** is to advocate for transparency in project communication, encouraging project developers to openly share information and address local communities' concerns to build trust and facilitate consensus, as observed in the case study where misinformation eroded community confidence. Local communities complained the media were being controlled by project developers to omit important impacts caused by the power plant. Project developers even provided misleading information about the distance the power plant would be to the shore, and were at times confusing about the number of turbines the power plant would have. This undermined the confidence of local communities in the words of project developers and made dialogue and reaching a consensus more difficult.

Our **third recommendation** is to urge project developers to clearly outline and specify compensatory measures for the project's impacts. Compensations that respond at least partially to the concerns of local communities are one of the best tools to increase project acceptance. In the Tramuntana WPP, project developers did state they would offer financial compensations after the first protests surged, but these lacked details to ensure a fair and proportionate resolution.

Finally, we encourage local communities to be open towards renewable energy projects, emphasising their importance to decarbonise the economy and reduce CO2 emissions, while acknowledging that alternative proposals should be critically evaluated for efficiency and feasibility. While the platform Stop Macro Parc Eòlic Marí presented an alternative solution to the project – investing in decentralised photovoltaic solar panels – this proposal has issues of its own. First, it is far less efficient in producing electricity than an offshore WPP; second, it would take considerably more time to implement in Catalonia. To reach a climate-neutral economy by 2050, as mandated by EU policies and advised by many scientific institutions, renewable energy installations need to be built quickly, with wind energy being one of the most promising sources of renewable energy.

In the end, we highlight the **shared responsibility** that project developers and government authorities have in building projects that **value the region economically, socially, and environmentally**, stressing the importance of **collaborative efforts, early engagement, and joint problem resolution to achieve community acceptance**.

JustWind4All took a detailed dive into **just and effective wind energy governance** in diverse regions in the EU, summarised in seven case studies. Keep exploring the nuances of energy justice and participatory practices, summarised in regional recommendations and inspiring solutions.

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