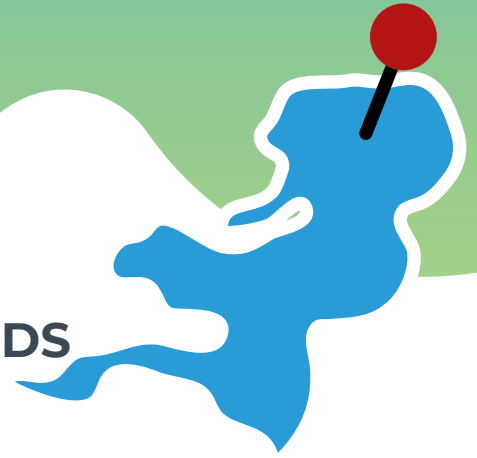


JustWind4All case studies

## NORTH HOLLAND, THE NETHERLANDS



### WIND ENERGY DEVELOPMENT IN NORTH HOLLAND

This case study investigated wind energy governance and its implications for participation and justice in the Dutch context. The Netherlands, renowned for its innovative use of windmills to manage water levels in its low-lying landscape since the 11th century, has a rich history of energy development. Over time, the country has become a leader in wind energy production, with a total installed capacity of 6.8 GW for onshore wind and 4.7 GW for offshore wind at the end of 2023, and ambitious targets set for the coming decades. One region which has historically emerged as a leader in wind energy efforts is North Holland, a province in the north-west of the country, home to both the capital Amsterdam and a large swath of rural area.

Historically, North Holland has seen the emergence of onshore wind energy installations aimed at swiftly and efficiently achieving renewable energy targets. However, strong local opposition quickly highlighted the ineffectiveness of rapid scale-up that fails to consider local voices and interests. These contestations encouraged the restructuring of renewable energy policy with the 2019 Climate Agreement – the Regional Energy Strategies (RES) – with increased avenues for citizen involvement, leading governments (local, regional, and national) to include **citizen participation as a guiding principle** for onshore wind energy development. The RES took a decentralised approach, allowing each region to set targets and design a locally suitable split between solar and wind energy. While a relatively balanced split is optimal from a technical perspective, onshore wind only makes up about 10% of RES plans in North Holland.

**6.8GW**

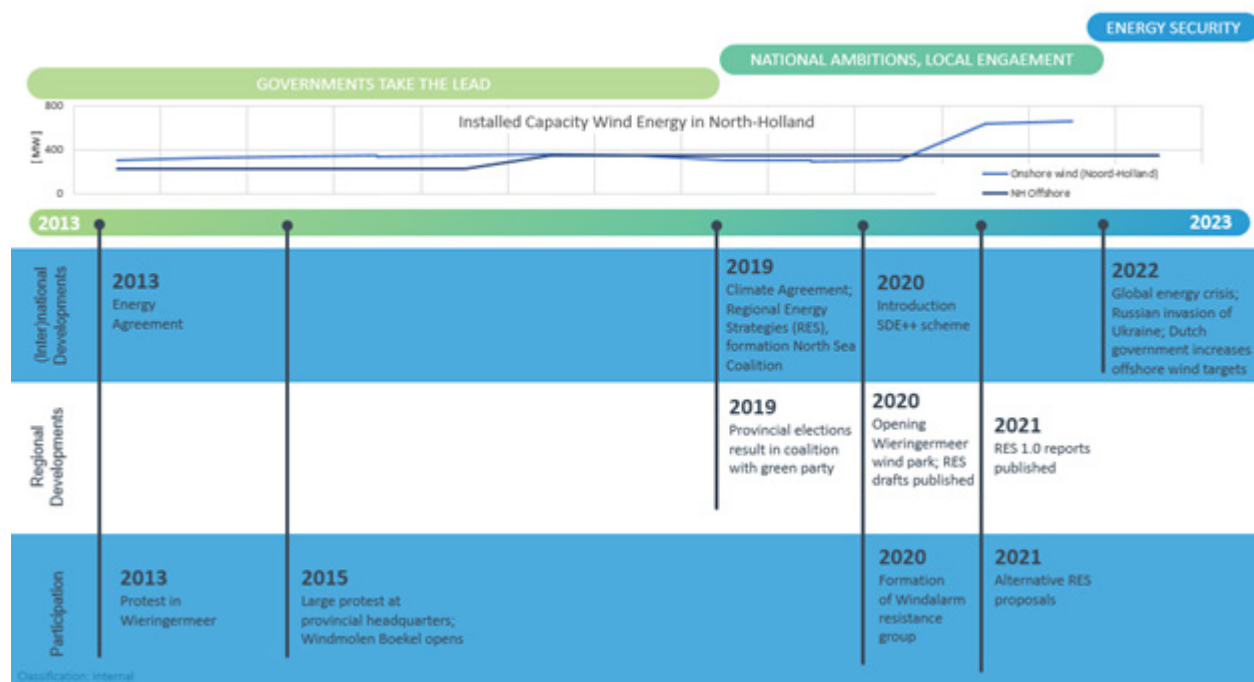
installed onshore capacities

**4.7GW**

installed offshore capacities

To reach its goal of independence from Russian and Groningen gas, as well as meet national and international climate mitigation goals, the Netherlands needs continued and accelerated renewable energy development. Resistance towards further onshore wind development, combined with advances in offshore wind technology, has **turned the Dutch government's attention toward the North Sea**, with offshore wind targets doubling in 2022 to 21 GW of installed capacity by 2030. Such an acceleration does not come without risks, an important one being the risk that installing wind becomes the goal itself instead of a means to an end – a reliable, renewables-based energy system.

In the context of the JW4A project, this case study traces the development of wind energy governance in North Holland across a “focus period” from 2013 to 2023, in addition to a historical analysis of the “pre-period” from 1970 to 2012. Critical instances that constituted turning points in wind energy governance in North Holland were identified, including 1) the 2013 Dutch Energy Agreement, 2) the 2019 Dutch Climate Agreement, and 3) the onset of the global energy crisis in 2022. Our research shows that the discourse in the Netherlands around wind energy development has become focused on justice and participation onshore, yet increasingly techno-optimist regarding offshore wind. The development of onshore wind energy has seen efforts towards increasing the participation of citizens, a more just distribution of benefits, and inclusive decision-making models through the RES. On the other hand, offshore wind has yet to incorporate the lessons of onshore wind development, which highlight the importance of citizen participation and the consideration of ‘local’ impacts. These lessons underscore the importance of engaging a diverse array of stakeholders, as taking all perspectives into account improves understanding of both present and future risks.



Based on this work, the following recommendations were formulated: factoring ecosystem health into wind development decisions, engaging the public in offshore wind development, experimenting with transition pathways, and creating reflexive governance structures to monitor RES projects. These recommendations are described in more detail below.

## Recommendations

The following paragraphs describe two prominent challenges and associated risks that arise from the current approach to wind energy development in North Holland and the Netherlands. Based on input from our interviewees and our analysis, we provide recommendations to tackle these challenges.

### **Challenge: Making ecosystem health a key factor in wind development decisions**

Currently, there is limited knowledge of the cumulative biological effects of offshore wind development on the North Sea. Scientists have warned that a massive scale-up of turbines may trigger important ecological tipping points (Interviewees 6 and 8). Yet, the national government opts to push forward ambitious wind energy plans in the North Sea, bypassing warnings to meet ambitious climate goals (Interviewees 6, 7, and 8). This highlights a delicate balance that needs to be tackled: reducing carbon emissions through the energy transition while keeping ecosystems intact.

#### **Our recommendations are:**

- 1. Create an open access knowledge base:** Commit to long-term monitoring of ecological impacts of offshore wind energy, exchange data and insights among stakeholders, and collectively learn about the impacts and risks involved and strategies to address them
- 2. Consider the sea as a populated landscape with more-than-human residents (such as marine life and ecosystems) and invest in ways to make their interests part of the decision-making process.**

### **Challenge: Engaging the public in offshore wind development**

Contestations and protests around onshore wind energy development have sparked new approaches to participation in decision-making, new perspectives on wind development, and innovative ownership models. Still, these approaches are limited in their effectiveness due to a lack of clarity and enforcement in participation schemes. In contrast, offshore wind development seems an increasingly depoliticised endeavour managed by the national government, based on data-driven models prioritising maximum return on investment and technological efficiency (instead of balancing this with local benefit or ecosystem development). Now that offshore wind development is on the rise both in the Netherlands and the EU, the challenge is to engage the public in the transition, rather than leaving decision-making in wind energy development solely to technocrats. This necessitates posing critical questions as we shape policies – who should have a say in development, and how should the benefits and burdens be distributed? The Dutch energy transition provides the opportunity to tackle unfair distributions of impacts: a chance to come up with innovative ownership models and scale up citizen-led decision-making, as well as factor more-than-human agents into the equation.

### Our recommendations are:

1. Build capacity (i.e. skills, resources) in community energy organisations, as well as local and regional governments, to create a level playing field with international developers in the complex endeavour of onshore and offshore wind farm development.
2. Enforce community decision-making and financial benefits in onshore wind park permits through legal measures in order to mandate and clarify roles and regulations. In doing so, provide clear definitions of participation and local ownership. Similarly, offshore tendering procedures should adapt to stimulate community participation and ownership, connecting to community-based actors.

### In addition to these challenge-specific recommendations, we provide two overarching recommendations for wind energy development in the Netherlands:

1. Keep sight of the overall goal of a habitable planet for all species, balancing both keeping ecosystems intact and renewable energy development. By doing so, we avoid narrowing our attention to a single technology, such as (offshore) wind energy development. Instead, provide space and resources for innovators to experiment with a diversity of transition pathways. This includes seeking potential synergies, such as combining the development of renewables with energy sufficiency (i.e. shared mobility, post-capitalism and degrowth pathways), and investigating alternative business and organisational models.
2. Create reflexive governance structures that allow for reflection, learning, and action on the points mentioned above. Specifically, reflexively monitor RES projects throughout their process, evaluating whether justice (procedural, distributive, recognition) and participation have been included in the process and implemented.

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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