# Scotland’s renewable energy faces hurdles but innovation and community focus offer hope



# Renewables in Scotland: Hope Amidst Challenges

In recent years, Scotland has emerged as a beacon of hope in the global renewable energy landscape. However, this burgeoning sector is grappling with significant hurdles that threaten its ambitious targets. The Hornsea 4 offshore wind project, for instance, has been temporarily halted, underscoring the complexities involved in advancing renewable energy initiatives. Among the pressing challenges are community opposition to new wind farms, skills shortages in the workforce, and the environmental impacts of infrastructure development.

Millie Zagulak, a strategic advisor at Xodus, highlighted the difficulties facing the renewables sector in a recent address. “2025 has already proven challenging for the renewables sector. In particular, offshore wind is experiencing a noticeable slowdown,” she noted, emphasising issues like financing difficulties and long grid connection wait times. These concerns resonate across the industry, where many developers are either downsizing their teams or halting projects entirely.

### Innovating for a Sustainable Future

As the Scottish renewable sector wrestles with these challenges, innovative solutions are being developed, exemplified by the work of professionals pushing the boundaries of sustainability. A notable effort is being made by Obey Suleman, a PhD student at the University of Strathclyde, who is focusing on the circularity of wind turbine components. Suleman’s research aims to extend the lifespan of cast iron components, which are costly and energy-intensive to recycle. By developing new material-based solutions, he strives to minimise waste and reduce the carbon footprint of the wind energy sector.

Meanwhile, cost management remains crucial in realising projects within budget. Marta Bera, a cost controller for the Muir Mhòr Offshore Wind Farm, emphasised the importance of financial discipline. “Effective cost control is essential to keeping projects on budget, maintaining financial viability, and attracting continued investment," she stated. With supply chain disruptions and rising costs posing serious threats, the role of financial oversight has never been more vital.

### Community Engagement as a Strategy

Community involvement presents both a challenge and an opportunity in the renewable energy sector. Ellen Kane, a stakeholder manager at Scottish Power Renewables, underscored the importance of genuine engagement with communities. “Building relationships with communities takes time and energy,” she remarked, noting that effective consultation is key to mitigating resistance. This sentiment is echoed by ongoing debates in Scotland, where local opposition is coalescing around the installation of overhead pylons crucial for expanding the national electricity grid. Critics argue for alternative solutions such as underground cabling to preserve the landscape and protect local interests.

Resistance isn’t exclusive to Scotland. In Suffolk, residents have voiced their concerns against new wind farm proposals, fearing detrimental impacts on habitats and local tourism. Such protests illustrate a broader societal tension, pitting the urgency of climate action against local ecological and economic realities. Efforts to create community benefits are being advocated as a way to build support for renewable projects, but the challenge remains significant.

### A Call for Policy Reform

Addressing the complexities of energy transition necessitates not just innovative technology but also supportive policy frameworks. The UK government is contemplating measures to streamline planning processes, potentially reducing community rights to challenge large-scale energy projects. Energy Secretary Ed Miliband has called for bold changes to enable rapid progress in clean energy. However, such measures could exacerbate local opposition if residents feel further sidelined in the decision-making process.

The challenges facing Scotland's renewable sector are multifaceted, requiring coordinated action across various fronts. Local engagement, innovative thinking, and robust financial management are all critical components of a sustainable energy future. As the renewables industry continues to evolve, the hope lies in its ability to forge lasting partnerships with communities, innovate for efficiency, and navigate the regulatory landscape effectively.

In this pivotal moment in history, the actions taken today will resonate through generations, setting the stage for a cleaner, greener future.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.heraldscotland.com/news/25147688.hornsea-4-halted-people-offer-renewables-hope/?ref=rss> - Please view link - unable to able to access data
2. <https://www.ft.com/content/c4cedc55-f654-4abf-8f1f-5231b3abef20> - In Suffolk, UK, wildlife advocates and local residents are resisting plans to build new electricity infrastructure that includes wind farms proposed by Scottish Power and power links by National Grid. Environmentalists fear that such projects, particularly the Sea Link, could disrupt sensitive habitats. Protests have arisen, driven by concerns over ecological impact, local tourism, and the proposed large substations and converter stations. Labour’s firm push for renewable energy under Prime Minister Sir Keir Starmer, aimed at achieving climate targets and cheaper, secure energy, faces opposition from communities who feel sidelined. The debate reflects broader societal tensions between advancing green energy goals and protecting local interests and biodiversity. National Grid and developers emphasize mitigating measures and economic necessities, but resistance persists, highlighting the complexity and urgency of balancing ecological and developmental objectives in the green transition.
3. <https://www.ft.com/content/52f4bc1c-6f0a-42d3-92cc-0e2dbd5660b2> - In the Scottish Highlands, local opposition is growing against the installation of overhead pylons crucial for the UK's goal to produce 55GW of offshore wind power by 2030. Alastair Macphie’s manufacturing plant in Aberdeenshire fears the pylons will impact their operations and natural habitats. SSEN, the transmission arm of SSE, is planning significant network upgrades seen as essential for decarbonizing the UK's electricity grid. However, residents argue for underground or subsea cables to avoid negative impacts on landscapes and property values. The UK government, however, deems overhead pylons necessary for cost reasons. Campaigners, backed by community councils, seek more inclusive public consultations and planning reforms to streamline projects while considering local concerns. Despite government efforts to expedite planning processes, many locals feel under-consulted, leading to tensions and protests at consultation events.
4. <https://apnews.com/article/d4d8fda7be7d89b16092dfe9b448ee2c> - The village of Sprakebuell, Germany, has prospered through renewable energy, particularly with citizen-owned wind parks. Investments in these projects bring both financial stability and community benefits such as new playgrounds, bike paths, and public services. However, economic challenges, including high interest rates, inflation, and supply chain issues, are hindering the growth of renewable energy projects worldwide. These problems are exacerbated in lower-income countries, where financing costs are already high. Nonetheless, local involvement and government supports, such as guaranteed electricity prices and low-interest loans, are crucial for advancing these projects. Involving locals in ownership often reduces resistance to renewable energy installations, making them more acceptable and beneficial to the community.
5. <https://www.ft.com/content/f4ac2304-5390-4613-a7f3-6b6e57fb6e78> - The UK offshore wind industry faces significant challenges due to a global shortage of turbine parts, cabling, and specialized vessels like the Wind Orca. These issues threaten the Labour government's target to decarbonize electricity by 2030, and impede progress towards the UK's goal of reaching 50GW of offshore wind capacity by the end of the decade. Additionally, connecting new wind farms to the under-developed national electricity grid is problematic, with some projects facing up to 15 years of delays. Despite opposition to infrastructure upgrades from some environmental activists, developers emphasize the economic benefits of projects like Moray West, which will contribute significantly to the Scottish economy and create long-term jobs. Meanwhile, international competition for resources is intense, with new markets in the US and Asia exacerbating supply chain issues. The UK government aims to mitigate these challenges through initiatives like GB Energy, a state-owned company designed to boost private investment in clean power and support long-term energy strategy.
6. <https://www.ft.com/content/8ef35139-e991-4b47-9f14-06181e24b5c6> - The UK government is considering reducing the rights of communities to challenge large clean-power projects such as pylons or wind farms in a bid to decarbonise the electricity system by 2030. Plans include overhauling planning rules to limit judicial review applications to once per case, aiming to address the delays caused by local objections. Energy Secretary Ed Miliband emphasizes the need for "big, bold change" to achieve clean power goals, which necessitate extensive development of wind and solar farms and new electricity networks. The plan includes a substantial increase in offshore wind, onshore wind, and solar power capacities and suggests streamlining legal processes to expedite infrastructure projects. Additionally, the government seeks to bolster local support through community benefits such as funding, job creation, and lower bills. These proposals come amid concerns about potential impacts on house prices and the environment. The clean power action plan also coincides with calls for a more equitable distribution of public electric vehicle charge-points between rural and urban areas.
7. <https://en.wikipedia.org/wiki/Community_wind_energy> - Community wind energy involves the development and operation of wind power projects by local communities. The planning process for onshore community wind farms has low success rates, with difficulties arising from local government authorities' decisions on what counts as a representative community group, limiting community projects to more minor scales. Developing community wind energy faces barriers such as uncoordinated organizational structures, local authority decisions, and intricate planning requirements. Community-led projects demand substantial efforts and expertise, often comparable to commercial developments. Intermediaries like NGOs or private professionals help bridge relationships between local communities and big companies. Collaboration challenges arise because large companies require majority stakes in projects. Perceived inequity in the distribution of costs and benefits of wind energy projects often show up in survey responses to new projects. Studies report that rural communities often have concerns they will disproportionately share the burden of energy produced for urban areas. Community-owned wind projects often receive substantially more support from local communities than corporate wind projects due to the perceived even distribution of impacts and economic benefits.