

Developments in Wind Energy

Stephen Cirell
Associate APSE Energy



Introduction

- Any discussion of the green agenda has to include wind energy
- But onshore wind has been absent from this debate for some years
- Time for another look!



Wind Energy

- One of the main commercially proven forms
- Even better than solar farms
- Will help with Climate Emergency Action Plans and the UK targets



Some Simple Facts

- Wind availability is the best in Europe
- Wind speeds, load factor and installed capacity
- Intermittency not an issue



The Science and Turbines

- Movement of atmospheric air masses and heating of the earth's surface
- A basic turbine
- Requirements for a project
- If you have a site you are fortunate!



Projects and the Business Case

- Financial returns will be based on average wind speeds, the size of the turbine and its power category
- Small, medium or large projects
- The business case for onshore wind is the best available from any renewable energy



Objections

- Is there public support?
- Differences from solar farms
- Noise, flicker, shadows, landscape degradation, wildlife, tourism, property values etc
- What causes objections?



Planning Consent

- One of the key elements, with grid connectivity
- Capacity of the scheme NB in Scotland
- Changed rules in England
- Different concerns North and South of the border



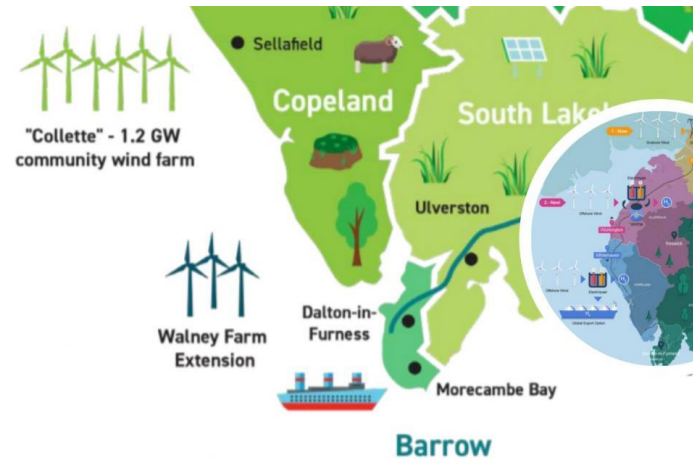
Promoting a Wind Energy Project

- Usual stages for a development on land
- How to check if you have land suitable
- Community engagement and community benefit
- Developing a robust strategy



INTRODUCING PROJECT COLLETTE

– A Transformational Shared Prosperity Project



- Project Collette aims to be a **1.2 GW (with 80-100 turbines) community owned wind farm** off the coast of West Cumbria. Not only would it be **England's first community owned offshore wind farm**, but it would be **Cumbria's first offshore wind farm with its supply also 'landing' in Cumbria.**

- Collette's renewable energy would be used to decarbonise the local area, support **green hydrogen** projects at **Carlisle, Workington, and Whitehaven** and **green steel** opportunities in Workington (or its surrounds). This powerful multi-pronged approach (community owned offshore wind, green hydrogen and green steel) would help establish West Cumbria as a hub for renewable and green energy industrial production.



Conclusions

- Many authorities are considering solar farms
- Has wind been overlooked?
- Key financial and non financial benefits
- Achieving Climate Emergency pledges

