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WINNING WIND FORMULA by Henry Leivers, renewables manager at JHWalter Energy

Finding the solution for a successful wind energy project can be tricky. The JHWalter Energy Team have been working on a variety of wind sites throughout England and it's fair to say that none have been straight forward. Be it radars, radio links, ecology, or one of the other many factors that must be considered when assessing a wind turbine site, something always seems to create challenges. When such issues crop up it doesn't mean that potential is removed, more work may just be required. So what are the biggest issues that could interfere with your turbine maths?

Radars - Due to their rotation, wind turbines create returns on radars. These returns, otherwise known as 'clutter' are of particular concern for air safety. Objections based on possible interference with Ministry of Defence, Civil Aviation and even Met Office radar system are common. Whilst not unchallengeable, such objections are particularly hard to overcome.

Radio Links - Radio links litter our skies, often unbeknown to those who own land beneath them. Radio link operators can object to turbines based on interference with their links. Radio-link objections can normally be overcome through relocating the turbine, but more detailed consultations may be required to gain a link operators approval.

Ecology - Whilst energy security is a national concern, so too is the preservation of the nations flora and fauna. The impact of wind turbines on bats and birds is of particular concern to ecologists. The proximity of a wind turbine to bat or bird flight paths can create objections. Locating a wind turbine appropriately with respect to such flight paths is required to avoid ecology objections.

Grid Connection - The cost of connecting a wind turbine to the grid can vary wildly depending on the capacity of the line into which you wish to connect. The cost of upgrading a low capacity line may run into hundreds of thousands, dramatically altering or even ruling out the business case for a wind project. Identifying likely grid connection costs at an early stage of any project is crucial.

Through experience developed through delivering multiple wind energy projects, the JHWalter Energy Team can quickly assess a landholding to determine the likely potential for a wind turbine. Indicative potential is determined through a desktop survey that considers each of the factors above, amongst others. True site potential can then be validated through a Feasibility study that involves consultation with the relevant statutory bodies and detailed assessment of all local planning considerations.

The JHWalter Team don't claim to be the next Einstein, but with experience we can accelerate your ability to finding a solution for a winning wind formula! Henry Leivers, JHWalter Energy, 1 Mint Lane, Lincoln LN1 1UD. Tel 01522 504359