



Whitelee Radar Solution

Press Release

An announcement last week confirmed that Scottish Power has been given the go ahead for the construction of Whitelee wind farm outside Glasgow. Planned to be the largest wind farm in Europe, Whitelee faced major objections from the British Airport Authority (BAA) due to its expected impact on the radar at Glasgow Airport. Pager Power Limited provided the technical analysis that helped find an alternative solution, and assist the site in gaining planning permission.

Scottish Power determined that an additional data feed from an existing radar might offer an effective mitigation solution. The radar at Edinburgh Airport was considered, but line of sight analysis demonstrated that the radar would not provide the required height coverage in the Whitelee area, due to terrain shielding. This made the Edinburgh radar unsuitable for this purpose.

Pager Power offered to find a suitable site for a new radar, a site from where none of the turbines would be seen, but aircraft flying into Glasgow would be seen. This was challenging because of the large site area and the wide variations in terrain elevation. Our custom software was modified and an area of over 25,000 square kilometres was analysed using a complex iterative process which ran for a number of weeks on a multi-processor server.

The computer model was refined as suitable zones were identified, and more complex analysis was carried out. A number of potential sites were surveyed with access, local blocking (such as forestry) and power supply considerations being assessed. This resulted in three technically suitable sites being identified. One was in Kincardine, one in Kintyre and one in the southern uplands.

Discussions commenced with NATS (BAA's technical advisor), who determined that the Kincardine site was best because of access and radar coverage. Scottish Power had a suitable site in Kincardine, and analysis was carried out to prove that this specific site would be suitable. NATS carried out their own analysis which also proved that the site would be suitable. The new Kincardine Bridge also had to be taken into account.

As a result of this the new radar and the wind farm now have planning consent and are due to be built over the next two years. This is good news for developers as it means that the new radar may benefit them in the same way. It also means that this technical mitigation solution has proved acceptable and may be applied elsewhere in the UK.

Pager Power also helped obtain planning consent for the Black Law Windfarm, through analysis of its potential effects on the radar at Edinburgh Airport.

Mike Watson, Managing Director, Pager Power Aviation Studies comments - "We have worked closely with Scottish Power and NATS and BAA to find a technical solution that works for everyone. We wish Scottish Power well, and look forward to seeing Whitelee turbines from the plane window when we fly into Glasgow Airport."

Ends For more information, and press images, contact Mike Watson or Jean Evans on 01787 319001