
Chapter 2: Alternatives

Introduction

- 2.1 Whilst there is no requirement within the UK planning system for developers to demonstrate that they have selected and acquired the most appropriate site for a particular development, the EIA Regulations state that an outline of the main alternatives studied by the applicant or appellant, and an indication of the main reasons for his choice, taking into account the environmental effects, should be included in the environmental statement.
- 2.2 This chapter therefore provides an overview of the alternatives that YEL has considered: full details can be found in the Alternatives Technical Appendix.

The initial identification of areas of search

- 2.3 The strategic selection of the site for the proposed West Wight wind farm commenced in August 1999, when Aerolaminates Ltd commissioned Terence O'Rourke to undertake a strategic appraisal of land on the Isle of Wight in order to identify suitable areas in which to develop a wind farm. (Aerolaminates Ltd was later taken over by NEG Micon, which was in turn taken over by Vestas. For accuracy and clarity, the company name used in this document is the one that was applicable at the time of the activity being described.)
- 2.4 Using available planning, environmental and technical data obtained from the IoWC and other organisations, Terence O'Rourke produced a series of negative constraints maps that highlighted areas on the Isle of Wight in which wind turbines were unlikely to be considered acceptable in broad planning and environmental terms. The remaining areas of land were then assessed against predicted wind speed data, their proximity to the highway network and the electricity grid on the Island to see if such land would be able to accommodate a wind farm in technical terms.
- 2.5 This desktop analysis led to the identification of six broad areas of search in which it was considered possible to develop a viable wind farm. These are identified on figure 2.1. Representatives of NEG Micon subsequently visited each of these areas of search to verify the findings of the desktop study. However, these visits revealed that all were constrained in technical and operational feasibility terms on the basis of the original site-selection criteria.

Refining the area of search selection criteria

- 2.6 It was apparent to NEG Micon from the site visits that the available wind resource in some other areas of the Isle of Wight was greater and more widespread than had been predicted in the 1994 ETSU report (*An Assessment of Renewable Energy in the*

Southern Region, ETSU for Southern Electric and the DTI, 1994). In addition, NEG Micon had finished its feasibility study on the viability of the wind farm, and concluded that a minimum of five turbines was required to ensure a commercially viable scheme. It was also considered unrealistic to treat every negative constraint as an absolute constraint, as had been the case for the first sieve of potential sites.

- 2.7 A reassessment of land on the Isle of Wight was therefore undertaken and this confirmed that none of the previously identified areas of search would be able to accommodate a viable wind farm for a variety of reasons. This exercise did, however, identify the five additional search areas shown on figure 2.2.
- 2.8 Of these five areas of search, only three were considered suitable for a wind farm development. These three sites were subjected to further detailed investigation against a range of planning, environmental and technical criteria. The results of the detailed assessment are summarised in the matrix in figure 2.3.
- 2.9 Although each of the three areas of search was considered to be technically suitable for the location of the required number of turbines, the west to central part of the Isle of Wight performed best in the assessment, fully meeting all but two of the identified criteria. It was also the only area of search not located in the AONB, which made it preferable in terms of planning policies alone. NEG Micon therefore concentrated its efforts on identifying available land in this area of the Isle of Wight, and approaches were made to several landowners. Subsequently, planning permission was secured to erect an anemometer on the site at Wellow and upon receipt of confirmation that the site possessed suitable wind speeds, a development option was signed to promote a wind farm at the current planning application site.

Alternative layouts for the wind farm

- 2.10 NEG Micon subsequently passed on the development rights for the project to YEL. In March 2004, an environmental impact assessment Scoping Report was submitted to the IoWC setting out YEL's plans to develop seven wind turbines at the site. This layout was considered to be preferable on landscape grounds to two other layouts that had been considered hitherto.
- 2.11 Following public consultation on the scoping report, and as a result of additional environmental studies commissioned at the site since, YEL made several important iterative changes to the site design and layout of the wind farm prior to the submission of this planning application. The most notable changes were:
- the relocation of turbine numbers one and two and the modifications to the access tracks so that the impact on archaeological interests at the site is minimised
 - removing turbine number seven on noise and landscape and visual impact grounds.

Reviewing the original site selection process

- 2.12 In view of the time that has elapsed since the original site selection process was undertaken, Terence O'Rourke has re-run the assessment methodology using a series of up-to-date Geographical Information System datasets. Each of the original negative filters was re-assessed, supplemented by a consideration of additional environmental constraints. As set out in the Alternatives Technical Appendix, the reassessment demonstrates that the application site and areas of search numbers seven, eight and ten would still have emerged from the original site-selection process had current available data been used.

Conclusions

- 2.13 YEL's decision to pursue the development of the West Wight wind farm on land south of Wellow stems from a comprehensive and methodical review of the planning, environmental and technical constraints facing the development of wind turbines on the Isle of Wight, over several years. The methodology adopted in the site-selection process was logical and methodical and is applicable to the development of a wind farm, as currently proposed by YEL. This is reinforced by the recent view of the original appraisal.
- 2.14 Both the original site-selection process and the more recent review have resulted in the identification of an application site that is largely unconstrained in planning and environmental terms, but which possesses favourable characteristics in terms of the size of site, wind speed, vehicular access and the availability of a connection to the electricity grid, all of which are required to enable development of a viable wind farm.
- 2.15 The micro-siting of turbines within the application site has resulted from an iterative design process, based upon a series of technical and environmental studies undertaken at the site and following public consultation exercises. The current design and layout of the West Wight Project has therefore sought to respond positively to the issues previously raised and to minimise the likely environmental impacts associated with its development.