TABLE 3 - Noise level predictions for a northerly wind

wind speed 4.5ms^{-1}	L_{A90} (b/g)	L_{A90} (wind farm)	excess
Park House	36.0	29.6	-6.4
Micklam Villa	36.0	36.2	0.2
Micklam Farm	36.0	39.6	3.6
Foxpit House	36.0	32.0	-4.0

wind speed 5ms^{-1}	L_{A90} (b/g)	L_{A90} (wind farm)	excess
Park House	36.3	29.8	-6.5
Micklam Villa	36.3	36.4	0.1
Micklam Farm	36.3	39.9	3.5
Foxpit House	36.3	32.3	-4.0

wind speed 6ms^{-1}	L_{A90} (b/g)	L_{A90} (wind farm)	excess
Park House	37.0	30.3	-6.7
Micklam Villa	37.0	36.9	-0.1
Micklam Farm	37.0	40.4	3.4
Foxpit House	37.0	32.8	-4.2

wind speed 7ms^{-1}	L_{A90} (b/g)	L_{A90} (wind farm)	excess
Park House	38.0	30.8	-7.2
Micklam Villa	38.0	37.4	-0.6
Micklam Farm	38.0	40.9	2.9
Foxpit House	38.0	33.3	-4.7

wind speed 8ms^{-1}	L_{A90} (b/g)	L_{A90} (wind farm)	excess
Park House	39.0	31.3	-7.7
Micklam Villa	39.0	37.9	-1.1
Micklam Farm	39.0	41.4	2.4
Foxpit House	39.0	33.8	-5.2

wind speed 10ms^{-1}	L_{A90} (b/g)	L_{A90} (wind farm)	excess
Park House	43.0	32.3	-10.7
Micklam Villa	43.0	38.9	-4.1
Micklam Farm	43.0	42.4	-0.6
Foxpit House	43.0	34.8	-8.2

wind speed 15ms^{-1}	L_{A90} (b/g)	L_{A90} (wind farm)	excess
Park House	51.5	34.8	-16.7
Micklam Villa	51.5	41.4	-10.1
Micklam Farm	51.5	44.9	-6.6
Foxpit House	51.5	37.3	-14.2

6 DISCUSSION

6.1 Assessment

It can be seen from Table 2 that at any wind speed, all four residential locations will be subject to noise levels from the wind turbines that are generally less than background levels. Excesses over background will only occur in the event of prevailing winds in the direction of the closest properties.

Noise levels at Foxpit House will exceed background levels by up to 3dB during a south westerly wind because the property is effectively downwind of the nearest turbines. However, this exceedance reduces to zero as windspeed increases to $10ms^{-1}$. Similarly noise levels at Micklam Farm and Micklam Villa will be at their maximum during a north or north-westerly wind. However, levels will not exceed background by more than 4dB at Micklam Farm, or 1dB at Micklam Villa, under any conditions. The noise levels at Park House are highest during a south westerly wind and therefore the worst case is illustrated in Table 2. It can be seen that the noise levels will not exceed background.

6.2 Noise limits

The usual basis for assessing noise of industrial origin is BS.4142:1990, which calls for a comparison of the "new" noise with the pre-existing L_{A90}. This standard has recently revised and updated form. However, BS.4142 is of little assistance in this case, for the following reasons:

- The site cannot be described as a "mixed residential and industrial area" and therefore falls outside the scope of the standard;
- Measurements in wind speeds exceeding $5ms^{-1}$ are not permissible according to the standard, but these are the conditions of interest for a wind power development.

Noise limits are often expressed in terms of a permissible equivalent continuous noise level L_{Aeq} "x"dB in excess of the assumed L_{A90}, but conditions on wind farm sites may mean that the measured difference *even without the turbines* may exceed "x". Under these conditions the wind turbine installation could never be demonstrated to meet its noise limit

The 1996 ETSU working for the DTI Noise Working Group published their final report on "The Assessment and Rating of Noise from Wind Farms". The working group agreed that L_{A90} should be used as a descriptor for both the background noise and that from the wind farm when setting limits and that typically the L_{A90} will be 1.5 to 2.5 dB lower than the L_{Aeq} measured over the same period. This limit referred to is 5dB above the background level for both day and night however in low noise environments (where the background noise level is less than 30dB L_{A90}) an overriding daytime limit in the range 35 – 40 dB L_{A90} should be applied.

It is suggested that a night-time limit of 43dBA is imposed between the hours of 11pm to 7am. This limit is derived from the 35dBA sleep disturbance criteria referred to in PPG 24. An allowance of 10dB is made for attenuation through an open window, and 2dB subtracted to account for the use of L_{A90}'s rather than L_{Aeq}'s. This limit will be met at all sensitive locations at all but the highest windspeeds. Under such circumstances, ambient noise would be far in excess of that generated by the turbines.

Copeland Borough Council have put forward their own conditions relating to the noise levels arising from wind farm developments. These conditions are in agreement with the ETSU guidelines. The level of noise emissions from the combined effect of the wind turbine generators shall not exceed the greater of:

- 38dB, $L_{A90\ 10min}$, or,
- 5dB above the L_{A90} background level at wind speeds up to 10 ms^{-1}.

These conditions will be satisfied at all of the nearest residential properties.

At wind speeds in excess of $10ms^{-1}$ background noise levels are to be agreed with the authority. However, at this site the possibility of the noise from the turbines ever exceeding the ambient background noise levels at windspeeds in excess of $10ms^{-1}$ is remote.

It is concluded that no noise nuisance is likely to result from the development, and there will be no grounds for justifiable complaint.

6.3 Characteristics of wind turbine noise

Noise from the wind turbines is made up of three distinct elements: a reasonably steady, broad-band noise of aerodynamic origin, which depends on blade tip speed; a tonal noise element from mechanical components within the nacelle; and a regular, pulsed element resulting from the interaction of blade and tower (blade thump). The measurements carried out on the production type V47 turbine by independent consultants concluded that there were no tonal noise emissions. This in turn led Vestas, the manufacturers, to guarantee that no tonal penalty will apply.

In general, the broad-band aerodynamic noise is not attention-drawing. Its characteristics are similar to those of the wind blowing through vegetation.

Tonal noise originates mainly from the gearbox within the nacelle. It arises at gear meshing frequency and its harmonics, and on this type of turbine has been carefully controlled by the manufacturer. It is guaranteed to be insufficient to incur a penalty when assessed in accordance with the objective method described in the note to IEC TC88/WG5 (Joint Nordic Method). This is the method upon which the IEA based their recommended procedure for judging the audibility or prominence of tonal noise.

The upwind type of turbine, such as those proposed, has the rotor upwind of the tower. It is less prone to blade thump than the downwind type. The phenomenon is most pronounced at a distance of a few hundred metres from the turbine, but can generally only be heard when the background noise levels are relatively low, as they would be in a rural environment with few trees, bushes or hedges. Blade thump from the proposed model of upwind turbine is confirmed by Vestas to be insufficient to incur a penalty when assessed in accordance with the Joint Nordic Method.

REFERENCES

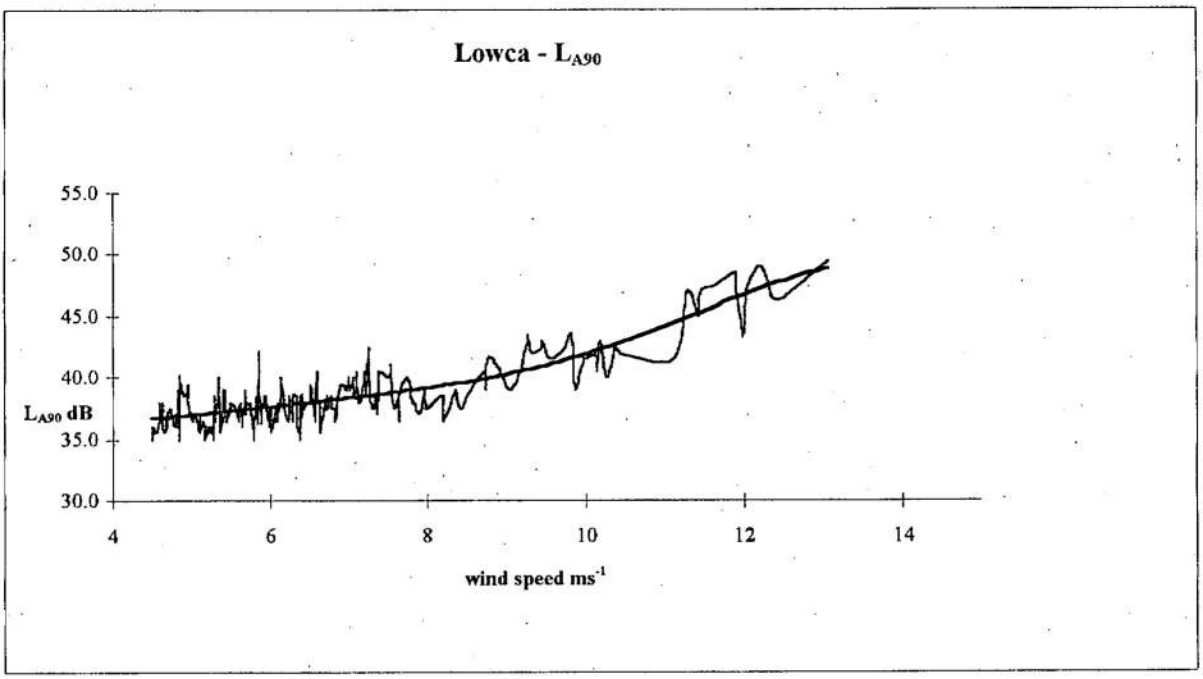
"Vestas V47 - 660kW Wind Turbine with Optislip® and Optitip®: General Specification"

"Noise Emission for Vestas V47-660kW Wind Turbine", Acoustica AS, Report reference 35.4150.01

"The Assessment and Rating of Noise from Wind farms" ETSU for the DTI, September 1996

"CONCAWE 4/81: The Propagation of Noise from Petroleum and Petrochemical Complexes to Neighbouring Communities"

APPENDIX 1 - Automatic readings



4/98/0486/0F1

Spot readings

19 July 1994

Location	time	L_{Aeq}	L_{A90}	L_{A50}	L_{A10}	L_{A01}
Foxpit House	14:50 - 15:00	37.0	36.0	36.0	37.0	44.0
Foxpit House	15:00 - 15:10	41.5	36.0	36.5	38.0	49.0

4/98/0486/0F1

The Lowca Windcluster

ENVIRONMENTAL STATEMENT

JUNE 1998

VOLUME 2: ENVIRONMENTAL STATEMENT TEXT

POWERGEN

RENEWABLES

Westwood Way Westwood Business Park Coventry CV4 8LG

TABLE OF CONTENTS

1. INTRODUCTION

1.1 FOREWORD

1.1.1 Powergen Renewables propose to erect 7 wind turbines and ancillary structures on land on Park House Farm, Lowca, Cumbria, for the purpose of generating electricity from wind energy. The Company has considerable experience of wind energy projects and is

- the sole owner and operator of 6 wind farms, Bessy Bell in Northern Ireland, St Breock in Cornwall, Gt Eppleton in Northumberland, Rheidol in Wales, Siddick and Oldside in West Cumbria
- a joint venture partner in wind farms at Haverigg in West Cumbria and Rhyd-y-Groes on Anglesey
- owns a total of 33 MW of wind energy capacity

1.1.2 The proposed windcluster was awarded a contract in the third 'tranche' or round, of projects allocated under the Non–Fossil Fuel Obligation (NFFO).

1.1.3 This Environmental Statement has been prepared to accompany the submission of a planning application to Copeland Borough Council for the Lowca windcluster. It describes the need for the development, the process by which the site was selected, the nature of the site and its surroundings, the likely impact of the windcluster and the measures proposed to mitigate any adverse impact.

1.2 APPROACH TO ENVIRONMENTAL ASSESSMENT

1.2.1 Powergen Renewables and their consultants have worked together in the development of this proposal, reviewing alternative design solutions in the light of the various environmental issues identified as a result of their own work, and in response to discussions with local planning authorities and other interested parties. These environmental considerations have been built into the design process throughout. In particular the design has passed through three distinct design phases, reflecting consultations before and during the planning process; these are documented in the Environmental Statement.

1.2.2 The scope of the Environmental Statement was discussed and agreed in advance with the local planning authority.

1.3 CONSULTATIONS

1.3.1 The following statutory and other consultees have been approached for information and guidance in the course of the development of this project and the preparation of this Environmental Statement :

- Copeland Borough Council
- Cumbria County Council
- Lowca Parish Council
- Countryside Commission
- English Nature
- English Heritage
- NORWEB

- Friends of the Lake District
- Friends of the Earth
- Cumbria Wildlife Trust
- Telecommunications operators as listed in **Section 12.**

1.3.2 All households in the Lowca, area were advised of the proposals via individual letters and advertisements which invited them to an exhibition at the village hall, Lowca on Thursday March 26th 1998, at which details of the proposed Lowca windcluster, including its likely appearance, were illustrated by means of plans and photomontages.

1.4 THE CONSULTANCY TEAM

1.4.1 This Environmental Statement has been prepared by the following consultancy team:

Wind Prospect Ltd	*Wind Farm Developers and Managing Engineering Consultants*
Woolerton Dodwell Associates	*Landscape Architects and Environmental Planning Consultants*
Peacock and Smith	*Planning consultants*
Hammond Suddards	*Legal Advisers*
Rigby Jerram	*Ecological consultant*
Northern Archaeological Associates	*Archaeological consultants*
ACIA	*Acoustic engineering consultants*

1.5 FORM AND CONTENT OF THE ENVIRONMENTAL STATEMENT

1.5.1 The Environmental Statement has been prepared in three volumes, and comprises :

Volume 1
- a Non-technical Summary

Volume 2 (this volume)
- the text
- appendices

Volume 3
- plans and photomontages

2. THE PROPOSED LOWCA WINDCLUSTER

2.1 INTRODUCTION

2.1.1 The proposed development consists of a windcluster or small wind farm of 7 wind turbines, together with an underground cable network, access tracks, a wind monitoring mast, a small switchgear building providing a connection to a power export cable and appropriate site signs. The windcluster, which is designed to be monitored remotely, would have an installed capacity of approximately 4.6 MW.

2.2 LOCATION

2.2.1 It would be located within fields of coastal grassland, as shown on **Figure 2**, which lie between the low cliffs at Lowca and the former opencast mining site at Park House Farm, which is currently undergoing restoration works. A more detailed site plan at a scale of 1:5000, is included in **Figure 6**.

2.3 TURBINES

2.3.1 The turbines proposed for the development are the Vestas V 47 or similar, a sample specification of which is included in **Appendix 1**. They are three bladed pitch controlled machines, with the rotor and nacelle mounted on a cylindrical steel tower. Each turbine is 40 metres to hub height, with blades 23-24 metres long.

2.3.2 These are typical machines of their type; alternative turbines from other manufacturers would be very similar in appearance, size and in all major characteristics.

2.4 SITE ACCESS

2.4.1 Access to the site would be gained from the existing Park House Farm access road which joins the C4001 road approximately 1.5km to the north of Lowca village. The C4001 provides links directly into the A595(T) main coastal road to the south of Lowca, and into the A597 road to the north. Only the northern route would be used for construction traffic to avoid disturbance to the village. Entry to the relevant fields would be via new gateways to be constructed in existing boundary fencing.

Internal Access Tracks

2.4.2 Informal tracks are proposed as part of the development, which would provide access to each turbine from the site access point. The proposed access tracks are indicated on **Figure 6**. Each track would be approximately 4 metres wide, with areas of hardstanding adjacent to each turbine for use by cranes during construction. The new tracks would be surfaced with approximately 250 mm depth of stone, to be derived from local sources.

2.4.3 The tracks would be retained throughout the operational life of the windcluster for the periodic maintenance of the turbines.

2.5 SITE SIGNS

2.5.1 A site sign would be located at the access point with the C4001. This would provide both information about the turbines and the companies involved in the project and essential safety information and telephone numbers.

2.6 SITE ELECTRICAL SYSTEM

2.6.1 The electricity produced would be transformed up to 11,000 volts by a small transformer to be located within the base of each turbine.

2.6.2 Underground cables would be installed at a depth of approximately 1 m below the ground surface to conduct the electricity from the turbines to a small switchgear house, where it would be connected into the NORWEB distribution system.

2.6.3 The proposed location of the switchgear house are indicated on **Figure 6**. The switchgear house would be a single storey building measuring approximately 6 x 8 metres.

2.7 EXPORT POWER LINE

2.7.1 The export of electricity from the site is subject to the requirements of NORWEB, the statutory undertaker, and to a separate notification by NORWEB under the Electricity Supply Regulations (1988) if any visible works are proposed. However, it is anticipated that the electricity would be conducted from the switchgear house to the nearest connection point in the vicinity of Lillyhall by means of an 11 kV line, part overhead on wooden poles and part underground. The route is a matter for NORWEB to determine in consultation with the local planning authorities, but it is likely to follow the existing pattern of overhead lines and minor and major roads in the area as appropriate.

2.8 MONITORING MAST

2.8.1 The wind monitoring mast would be a 40 metre freestanding lattice design of the type currently erected at the Siddick windcluster. It would be located as shown on **Figure 6** and would provide necessary information for the control and monitoring of the site.

2.9 MAINTENANCE REQUIREMENTS

2.9.1 Once the site is in operation, it would normally be monitored remotely, and would therefore be unmanned. Maintenance staff would make routine visits by car approximately once a month, with intermediate visits as and when problems arise.

2.9.2 Major planned maintenance would be carried out approximately twice a year. This would involve one maintenance van on site for approximately a week.

3. THE PLANNING POLICY CONTEXT

3.1 INTRODUCTION

3.1.1 This Chapter considers the planning policy context within which the Lowca windcluster proposal will be developed. At a national level Government planning policy specific to renewable energy generation describes the various renewable forms of energy; and indicates that planning decisions have to reconcile the interests of development with the importance of conserving the environment.

3.1.2 Related areas of planning policy guidance refer to countryside matters, conservation and cultural heritage issues (nature conservation, conservation of the built environment, archaeology), and noise. These statements of Government planning policy must all be read in the context of the general policy and principles underlying the operation of the planning system, and the Government's Sustainable Development Strategy/Environmental and Energy Policy.

3.1.3 Strategic (county-wide) and local (district-level) policies prepared by local planning authorities seek to reconcile the potential benefits of wind energy development with the need to protect the environment and the amenities of local residents. They must reflect and implement Government planning, energy and environment policy.

3.1.4 Full details of the specific guidance relevant to the Lowca windcluster are set out at **Appendix 2** to this Environmental Statement. This chapter outlines the main thrust of Government strategy and policy, the objectives of local planning policy (country-wide and district level) and provides an overview in relation to each.

3.2 GOVERNMENT STRATEGY AND POLICY

Sustainable Development Strategy, Environmental and Energy Policy

"Sustainable Development - The UK Strategy" (CM2426) January 1994

3.2.1 The Government's sustainable development strategy notes that most societies want to achieve economic development to secure higher standards of living, now and for future generations; and that they also seek to protect and enhance their environment, now and for their children. The strategy notes that emissions of carbon dioxide and other greenhouse gases may result in warming of the earth's surface and consequent changes in climate and rises in sea levels. The strategy refers to the application of special restraints in statutorily designated areas and notes that sustainable development objectives demand an approach which integrates rural development and conservation. The concept of sustainable development tries to reconcile (inter alia) these two objectives. The widely quoted definition of this concept is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

"This Common Inheritance: Britain's Environmental Strategy" (CM1200) September 1990

3.2.2 The Government's environmental strategy notes that an important contribution towards the reduction of carbon dioxide emissions can come from renewable energy. The Government's policy *"..is to introduce the development and application of all renewable*

energy sources, such as biofuels, wind and tide where they show promise of commercial viability in Britain".

Energy Policy

3.2.3 The Department of Energy has, since the mid 1970s pursued a programme of research, development and demonstration of renewable energy, which resulted in a strategy, published in June 1988, as Energy Paper No. 55 "Renewable Energy in the United Kingdom: The Way Forward". Confirmation of the Government's commitment to renewable energy is set out in the DTI's Energy Paper No. 62 "New and Renewable Energy: Future Prospects for the UK" which was published by the Energy Minister on 31 March 1994.

3.2.4 The essence of the Government's policy for new and renewable energy is as follows:

"..to stimulate the development of new and renewable energy sources wherever they have prospects of being economically attractive and environmentally acceptable....".

Planning Policy

3.2.5 PPG1 (1997) sets out the "General Policy and Principles" under which the planning system operates. PPG7 (1997) "The Countryside - Environmental Quality and Economic and Social Development", PPG22 (1993) "Renewable Energy" and PPG20 (1992) "Coastal Planning" are particularly relevant to the current application. Although PPGs 1 and 22 summarise Government planning policy in relation to conservation (both rural and of the built environment), archaeology and noise; specific guidance on these matters is also contained within:

PPG9: "Nature Conservation" (1994);
PPG15: "Planning and the Historic Environment" (1994);
PPG16: "Archaeology and Planning" (1990);
PPG24: "Planning and Noise" (1994).

3.2.6 In addition RPG13: "Regional Planning Guidance for the North West" applies national planning policy guidance to the North West Planning Region, having regard to 'local' issues and its individual characteristics.

3.2.7 **PPG1** confirms that the Government is committed to the principles of sustainable development set out in the Sustainable Development Strategy. It is noted that the Strategy recognises the important role of the planning system in regulating the development and use of land in the public interest.

3.2.8 **PPG7** was revised in February 1997. It is now cross-referenced to the Government's sustainable development strategy which is noted as being the cornerstone of both the Government's rural policies and its planning policies.

3.2.9 **PPG7** advances guidance on how the Government's objectives for rural areas should be reflected in land use planning. It is for Local Authorities through their development plans to determine more specific policies that integrate these objectives in ways which reflect the different types of countryside and the economic and social circumstances found in their areas. Whilst much activity in the countryside is outside its scope, the planning system helps to integrate the development necessary to sustain economic and social activity in rural communities with protection of the countryside for the sake of its beauty, the diversity of its landscape and historic character, the wealth of its natural resources and its ecological, agricultural, recreational and archaeological value. It is the Government's policy that

building in the open countryside away from existing settlements or from areas allocated for development in development plans should be strictly controlled. However, in areas statutorily designated for their landscape, wildlife or historic qualities the policies give greater priority to restraint.

3.2.10 **PPG22** describes the various forms of renewable energy and outlines the approach which should be adopted in the consideration of proposals for renewable energy development. In particular, the PPG has an Annex on Wind Energy. The PPG recognises that renewable energy sources offer the hope of increasing diversity and security of supply, and of reducing harmful emissions to the environment. The advice refers to Energy Paper 55, and notes specifically in the context of the operation of the planning system that it is the Government's policy to stimulate the exploitation and development of renewable energy sources wherever they have prospects of being economically attractive and environmentally acceptable.

3.2.11 **PPG20**. The advice regarding energy generation notes that the coast is a major attraction for this. In the past, this was predominantly for power stations, but more recently, the guidance notes that proposals are for development of renewable energy sources such as wind, wave and tide. It is indicated that such newer forms of energy generation can have a significant impact on the coastal environment, but the development and conservation objectives are capable of reconciliation in most cases.

3.2.12 **PPG9** notes that the wildlife of Britain is an integral part of its countryside, towns and coast. One of the essential tasks for Government, local authorities, and all public agencies concerned with the use of land and natural resources is to make adequate provision for development and economic growth whilst ensuring effective conservation of wildlife and natural features as an important element of a clean and healthy natural environment.

3.2.13 **PPG15** notes that it is fundamental to the Government's policies for environmental stewardship that there should be effective protection for all aspects of the historic environment.

3.2.14 **PPG16** notes that the desirability of preserving an ancient monument and its setting is a material consideration in determining planning applications whether that monument is scheduled or unscheduled. It is indicated that developers and Local Authorities should take into account archaeological considerations and deal with them from the beginning of the development control process. A staged approach is advanced comprising earlier consultations between developers and planning authorities, field evaluations, consultations by planning authorities and arrangements for preservation by record.

3.2.15 **PPG24** notes that the impact of noise can be a material consideration in the determination of planning applications, and gives guidance to local authorities on the use of their planning powers to minimise the adverse impact of noise.

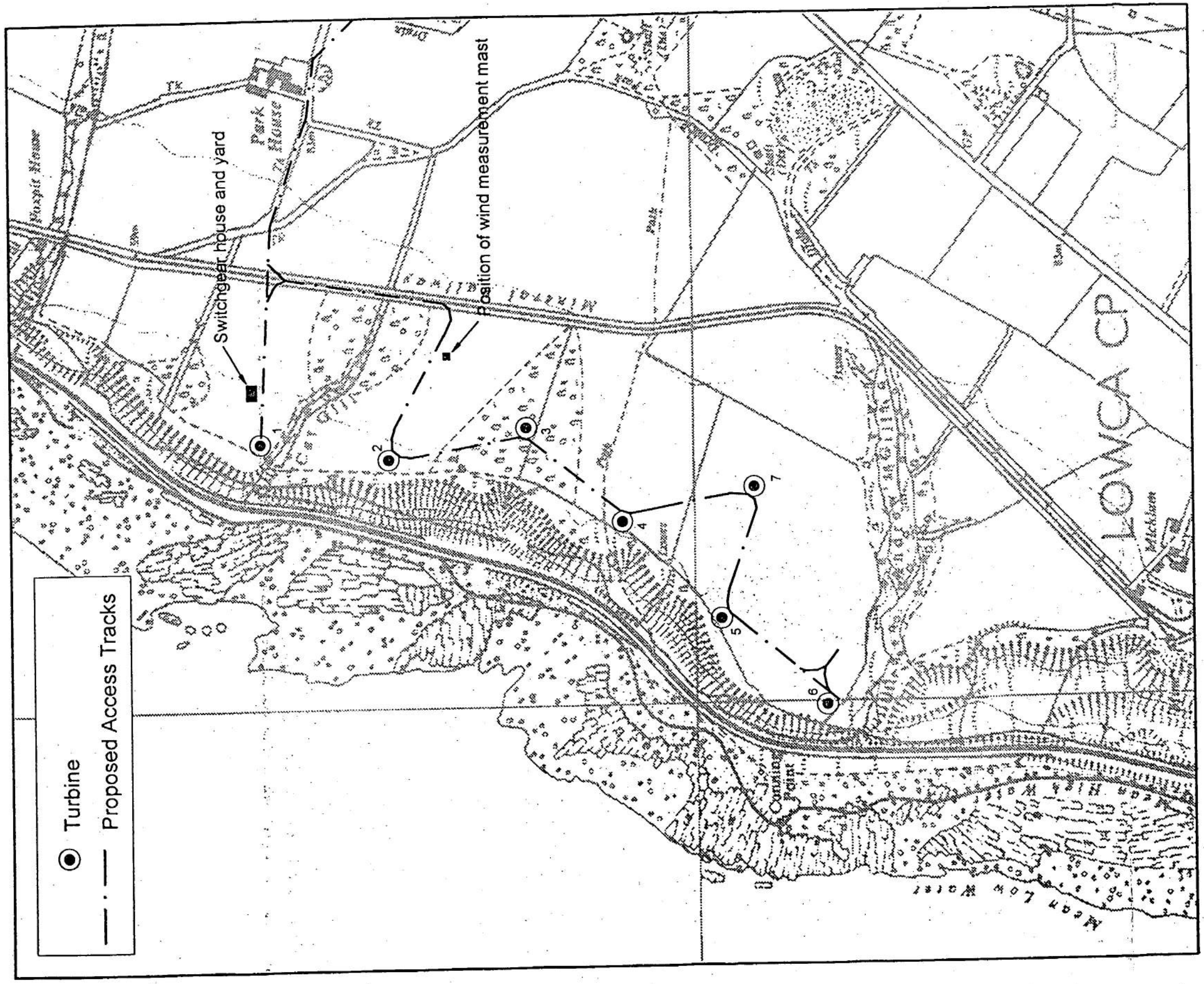
3.2.16 **RPG13** sets out regional planning guidance for the North West, which it is noted contains some of Britain's finest landscapes and outstanding areas for wildlife, particularly within the Region's upland areas and its coastal estuaries. The guidance confirms that special policy considerations apply in the National Parks, AONBs, heritage coasts, and SSSIs.

4/98/0486/0F1

Figure 6

LOWCA WINDCLUSTER
for Powergen Renewables

Site Development Proposals



3.3 OVERVIEW OF GOVERNMENT STRATEGY AND POLICY

3.3.1 The Government's energy policy is to stimulate the development of renewable energy technologies where they have the prospect of being economically attractive and environmentally acceptable. Wind energy is such a renewable technology, and it follows that it is Government policy to stimulate wind energy development.

3.3.2 The various elements of Government planning policy emphasise the contribution of the planning system to achieving Sustainable Development, and those specific to renewable energy generation reflect the emphasis of Government's energy policy.

3.3.3 Government planning policy provides guidance on reconciling the needs of a growing and competitive economy in providing for new development, whilst protecting the natural and the built environment. In areas statutorily designated for their landscape, wildlife or historic qualities, policy gives greater priority to restraint.

3.3.4 In the context of renewable energy development, a balance must be struck between the benefits of generating energy from clean resources (as set out in the Government's energy policy) and the more immediate and direct impacts on the environment which such development may have. In the context of wind energy development, these impacts can raise issues in terms of visual and landscape matters, archaeology, conservation (of both the built and rural environment) and noise generation. Specific Government planning policy advice on these matters is summarised at **Appendix 2** to this Environmental Statement.

3.3.5 **Appendix 2** also summarises the role of Government Agencies and other Agencies.

3.4 LOCAL PLANNING POLICIES

A - The Statutory Development Plan

Strategic Planning Policy: Cumbria County Council - Cumbria and Lake District Joint Structure Plan 1991 - 2006 (November 1995)

3.4.1 The Cumbria and Lake District Joint Structure Plan 1991 - 2006 was approved by the Secretary of State for the Environment in September 1995. The purpose of the Structure Plan is to set out the broad planning strategy and policies to guide the development and other use of land in Cumbria to the year 2006. The principal policies of relevance are:

Policy 13 - The Rest of the Countryside;
Policy 54 - Major Projects
Policy 56 - Renewable Energy Proposals

3.4.2 Other strategic policies of relevance are set out at **Appendix 2** to this Environmental Statement.

Policy 13 - Landscape Policy for the Rest of the Countryside

3.4.3 Structure Plan Policies 11, 12 and 13 establish a hierarchy of landscape 'designations'. Policy 11 refers to Landscapes of National Importance (National Parks, AONBs and the Heritage Coast). Policy 12 refers to Landscapes of County Importance (replacing areas formerly identified as Areas of Great Landscape Value). Policy 13 refers to The Rest of the Countryside. Policy 11 operates a presumption against development and other land use changes detrimental to the present characteristics and qualities of the

landscape. Policy 12 (which occupies a 'middle' position in the hierarchy of landscape designations) also operates a presumption against development and other land use changes detrimental to the distinctive character of designated County Landscapes. Whilst the Structure Plan notes that in the Landscapes of County Importance a wider variety of development is likely to be permitted than in those which are nationally designated, it is only within the landscapes designated The Rest of the Countryside that the 'presumption against' is in certain circumstances removed. In terms, therefore, of landscape designation and priority, the Policy 13 landscapes are at the bottom of the hierarchy.

3.4.4 The site of the proposed wind cluster lies within The Rest of the Countryside such that Policy 13 applies.

3.4.5 The operation of a policy hierarchy in relation to landscape designations accords with the advice set out at PPG7. Policy 13 distinguishes between developed areas of the countryside where development will normally be permitted subject to criteria, and undeveloped open countryside where there is a presumption against development except to meet local infrastructure needs, or additionally where they may be exception invoked via the use of the term "normally" in the policy. The proposed wind cluster does not comprise development of a type to meet local infrastructure needs.

3.4.6 Policy 13 is subject to interpretation via the application of Policy 56 which specifically addresses renewable energy proposals.

Renewable Energy Policy

3.4.7 Policy 56 does not refer specifically to wind energy development, but it is clear from the associated text that it applies to the proposed wind cluster. It also applies a hierarchical approach to the determination of proposals for renewable energy development dependant on either significance of impact, or the type of area within which they are located or affect.

3.4.8 Large scale proposals for renewable energy developments within or affecting national parks and other areas and features of international or national conservation importance are required to be considered under Policy 54 which refers to 'major projects'. The proposed Lowca windcluster does not appear to fall within the definition of a major project set out in the Structure Plan.

3.4.9 In the case of renewable energy developments which will have significant adverse impact, both policies require those impacts to be balanced against the benefits of electricity generation from a renewable source (which includes reducing pollution) as set out in Government's policies as summarised above.

B - Local Planning Policy: Copeland Borough Council - Copeland Local Plan (July 1997)

3.4.10 The Copeland Local Plan was adopted by Copeland Borough Council in July 1997. It has been prepared in conformity with the Structure Plan but covers the period 1991 - 2001. It covers all of the Borough outside the Lake District National Park. The purpose of the Local Plan is to set out detailed policies and proposals for development including the allocation for land for specific purposes. Although it must broadly conform to the provisions of the Structure Plan, it is the principal guide to most day-to-day planning decisions in the Borough. Policy EGY1 addresses wind energy. This, together with other relevant Local Plan policy is set out at **Appendix 2** to this Environmental Statement.