

V1.0 25/11/10 EQ/WT/139

Design and Access Statement

Application for 1 x Evoco 10Kw Small Scale Wind Turbine 15m mast

Newgen:

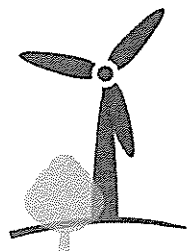
14 Station Rd
Holmfirth
HD9 1AB

Acting for:

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Upper Maythorne Lane
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HD9 7TF

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Introduction

This statement is submitted in support of a full planning application for the installation of one small scale 10kw wind turbine at Maythorn, Upper Maythorn Lane, Holmfirth, HD9 7TF

This statement explains the background to the proposed development, describes the scheme and, in the context of relevant planning policy, sets out the case for the proposal.

Background

The applicant uses around 28,000 Kwhs of electricity per year, equalling to 15 tonnes of carbon emissions. In today's climate the applicant finds this amount of carbon emissions unacceptable and is keen to become carbon neutral.

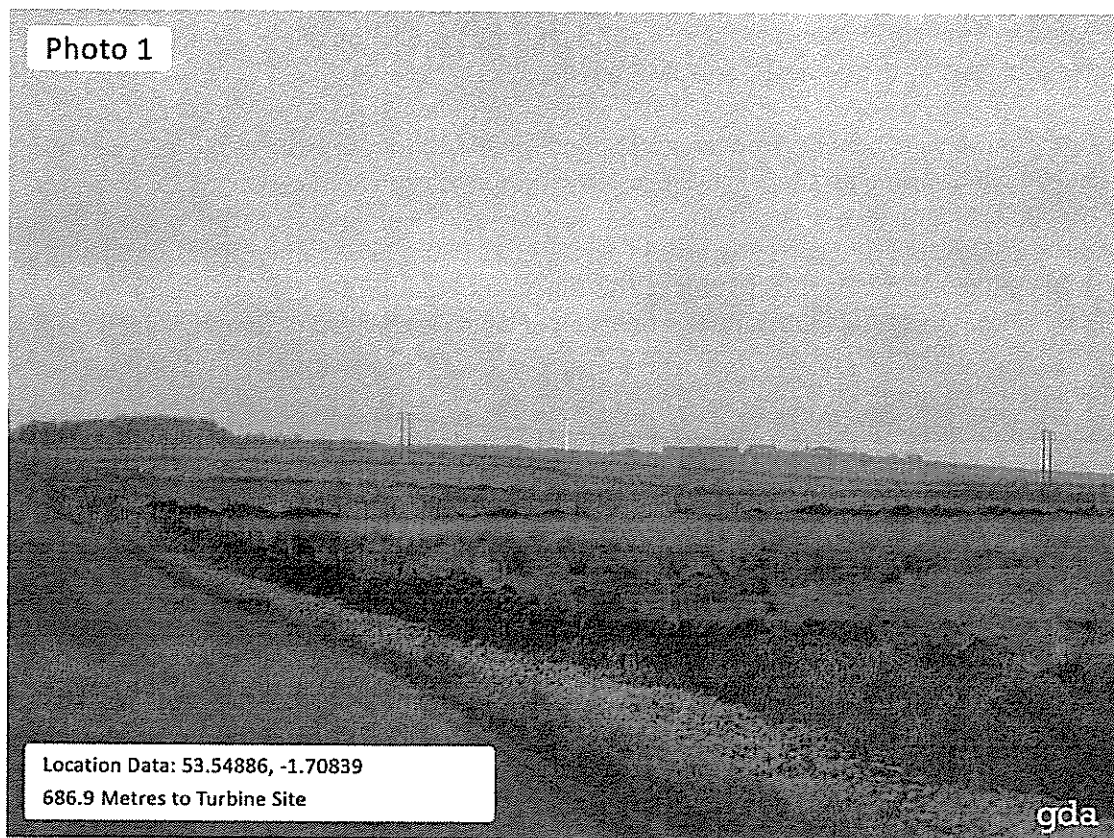
The Energy Savings Trust States increases in energy prices will be as much as 60% in the next 5 years making most properties in the UK simply unsustainable, coupled with their desire to become more self sufficient and carbon neutral has encouraged the applicant to seek alternative methods of energy generation.

After assessing various options the decision has been made to install one small scale wind turbine. The primary reasons for this over other renewable technologies are the abundant, good quality wind resource in and around the Cumberworth & Hepworth area (HD9 7TH) and more than sufficient spare land. The site in question has uninterrupted open land in most directions but primarily towards West and South West, the direction of the prevailing wind, which is ideal for maximising energy generation.

Site and Surroundings

Upper Maythorne is located approximately 7 miles South of Huddersfield centre and 2.8 miles East of Holmfirth. Set within green belt land the site enjoys an exposed position making it very suitable for a wind turbine installation.

Photograph showing the proposed location of the turbine



Justification for the development

The United Kingdom has a target to reduce its greenhouse gas emissions by 15% below base year levels by 2008-12 and a further domestic goal to reduce carbon dioxide emissions by 20% below 1990 levels by 2020.

The Renewables Obligation came into force in April 2002, requiring all electricity suppliers to source 10% of their supply from renewable technologies by 2010.

The upcoming introduction of a feed-in tariff in April 2010 is a government initiative similar to those found in Europe designed to encourage the installation of microgeneration technologies by the domestic and SME sectors.

Maythorne Lane benefits from an exceptionally good wind resource. In the 5.0+ m/s at hub height wind regime on site, each Evoco 10kw turbine is expected to generate in excess of 30,000 of electricity each year, equivalent to a saving of approximately 15 tonnes of carbon dioxide. The applicant currently uses in excess of 28,000kWh per annum; the turbine is expected to contribute 60% to 90% of this requirement, reducing the reliance on energy drawn from the grid, a substantial proportion of which is generated from fossil fuels.

Policy background

Wind energy is a non-polluting, clean and sustainable abundant natural resource. The United Kingdom has one of Europe's windiest climates, sometimes described as the Saudi Arabia of clean energy; therefore wind energy is expected to be an important and significant element in achieving the government's commitment to reduce CO² emissions to 12.5% below 1990 levels by 2010.

Government policy on renewable energy is contained within the Energy White Paper 'Our energy future - creating a low carbon economy' (2003).

The Regional Spatial Strategy for Yorkshire and the Humber to 2016 (2004) sets out the regional targets for renewable energy, acknowledging that policies and proposals should be included within development plans to help achieve the regional targets. Policy R 12 of the spatial strategy sets out the renewable energy targets for Yorkshire and Humberside.

Planning Policy Statement 22 (PPS22)

PPS22 'Renewable Energy (2004) provides the national planning framework for promoting renewable energy uses.

It states 'local planning authorities and developers should consider the opportunity for incorporating renewable energy projects in all new developments. Small scale renewable energy schemes utilising technologies such as solar panels, biomass heating, small scale wind turbines, photovoltaic cells, combined heat and power schemes can be incorporated both into new developments and some existing buildings. Local Planning Authorities should specifically encourage such schemes through positively expressed policies in local development documents'.

Para 20 states 'of all renewable technologies wind turbines are likely to have the greatest visual and landscape effects. However, in assessing planning applications, local authorities should recognise the impact of turbines on the landscape will vary according to the size and number of turbines and the type of landscape involved and that these impacts may be temporary if conditions are attached to planning permissions, which require the future decommissioning of turbines.'

UDP Policies

Policy ES12

PROPOSALS FOR WIND ENERGY GENERATION WILL BE ASSESSED WITH REGARD TO THE FOLLOWING FACTORS:

- A) THE EFFECT BOTH INDIVIDUALLY AND CUMULATIVELY ON LANDSCAPE AND VISUAL AMENITY OF THE AREA
- B) THE IMPACT ON RESIDENTIAL AMENITY WITH PARTICULAR REFERENCE TO NOISE, VISUAL OUTLOOK, AND SHADOW FLICKER AND FLASHING FROM TURBINE BLADES
- C) THE PROVISION OF A SATISFACTORY ACCESS TO THE HIGHWAY NETWORK HAVING REGARD TO VISUAL AMENITY AND THE SAFETY OF ROAD USERS AND THE EFFECT OF THE PROPOSALS ON ROAD USERS INCLUDING LIKELY DISTRACTION TO MOTORISTS
- D) THE EFFECT ON WILDLIFE, ECOLOGY AND ARCHAEOLOGY OF THE IMMEDIATE AREA
- E) THE EFFECT ON AGRICULTURAL LAND USES
- F) ELECTRO-MAGNETIC EFFECTS
- G) THE PROVISIONS FOR CONNECTION TO THE ELECTRICITY TRANSMISSION AND SUPPLY SYSTEM
- H) THE EFFECT OF SHADOW FLICKER OR FLASHING FROM THE TURBINE BLADES

Design Principles

The proposal is to install 1 x 10kw small wind turbine at Maythorn, Upper Maythorn Lane, Holmfirth, HD9 7TH

The turbine will generate electricity for use within the residential property. Saving approximately 300tonnes in CO2 through the life of the turbine

The Council UDP Suggests, *"Small wind turbines will be permitted provided there will be no serious adverse effect on the occupiers of adjoining land or any conservation area or listed building"*.

Siting

The turbine is to be sited to the East of the property approximately 100m from the main building. The location was chosen to take best advantage of the topography of the site and to best utilise the prevailing winds typically from the South West; at the same time minimising visual impact for neighbouring properties.

It was decided to install one Evoco 10kw as it is matt white to help reduce the impact on the local environment. The turbine will be significantly lower than the local turbine in the adjacent field and be at a similar elevation to the surrounding electricity pylons.

Design

The Evoco 10kw turbines have a rotor radius of 4.75 metres (max) and are mounted on a free standing 15 metres (max) tower, comparable to the street lighting in the surrounding area. The turbine nacelle and blades are manufactured from high tech composite materials, coated and painted white with the tower being fully galvanised steel.

Noise/Amenity

The turbine is designed for low noise operation and minimal visual impact. The nearest property is approximately 260m from the proposed location. Due to the separation distance and low noise generation the turbine will not be heard by surrounding residents.

Access

There is no public access required to the turbines. Access for maintenance is annual and can be gained along existing tracks as no vehicular access is needed. There will be no disruption to the pedestrian access or vehicular access to the site during installation and maintenance.

Conclusion

This statement has been produced to support the planning application for the installation of 1 small scale wind turbine at Maythorn Farm, Upper Maythorn Lane, Cumberworth, HD9 7TF.

The Council UDP Suggests, *"Small wind turbines will be permitted provided there will be no serious adverse effect on the occupiers of adjoining land or any conservation area or listed building"*.

The impact of the proposed turbines will be minimal to visual amenity and noise generation.

The proposed development is in line with central and regional government guidance and adheres to the policies of Barnsley Council UDP.

The proposal satisfies all relevant national and local planning policies. The information provided has sought to address Design and Access matters, should additional information be required on this aspect, please do not hesitate to contact me on 0789 400 9188.

Regards

Dean Staveley,
Electrical and Energy Engineer.



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Planning Supporting Maps and Photographs

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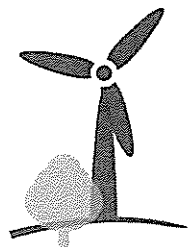
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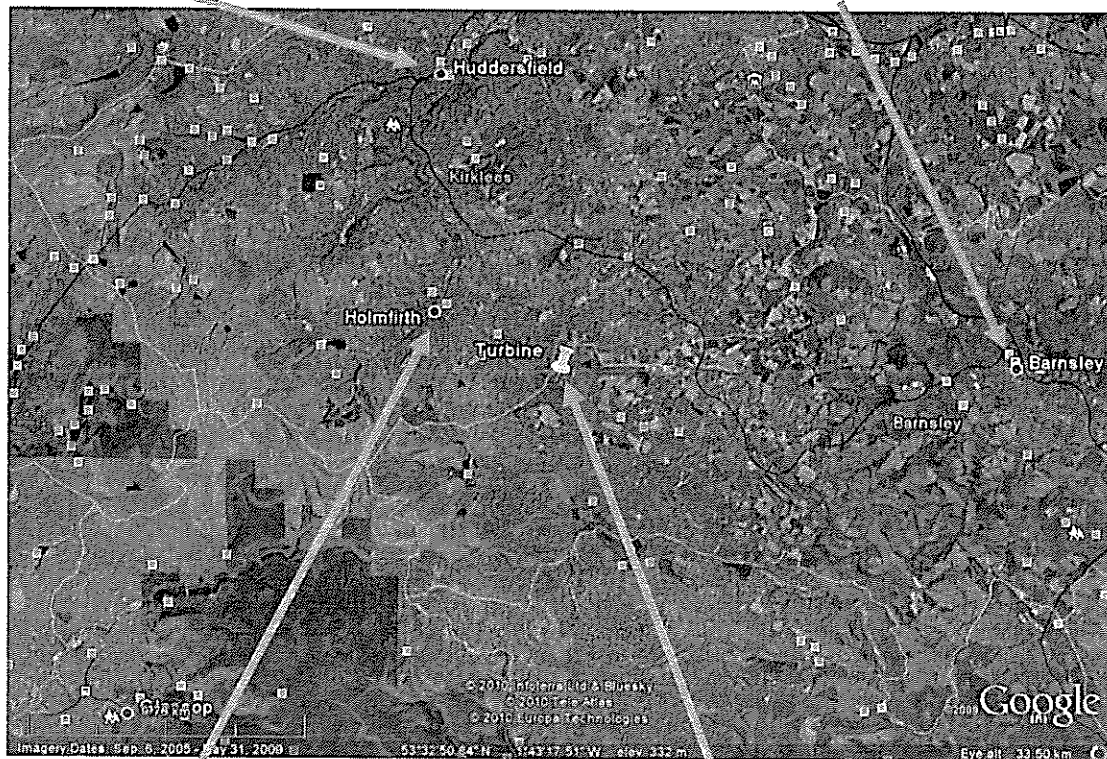
Introduction

The following information, maps and photographs are intended to give a better understanding of the selected location and the surrounding environment around the proposed site.

Surrounding Area Map

Huddersfield Town Centre approximately 7 miles north

Barnsley approximately 10 miles east



Turbine at Maythorn

Holmfirth approximately 2.8 miles to the west

Arial Site Photograph

The approximate proposed turbine location is indicated by the yellow pin. Please see site plan for exact details.



Maythorn

Site location factors

Whilst siting small wind turbines there are plenty of factors that need to be considered. The image below gives some indication to siting constraints.



Photographs of the surrounding areas looking from the turbine site

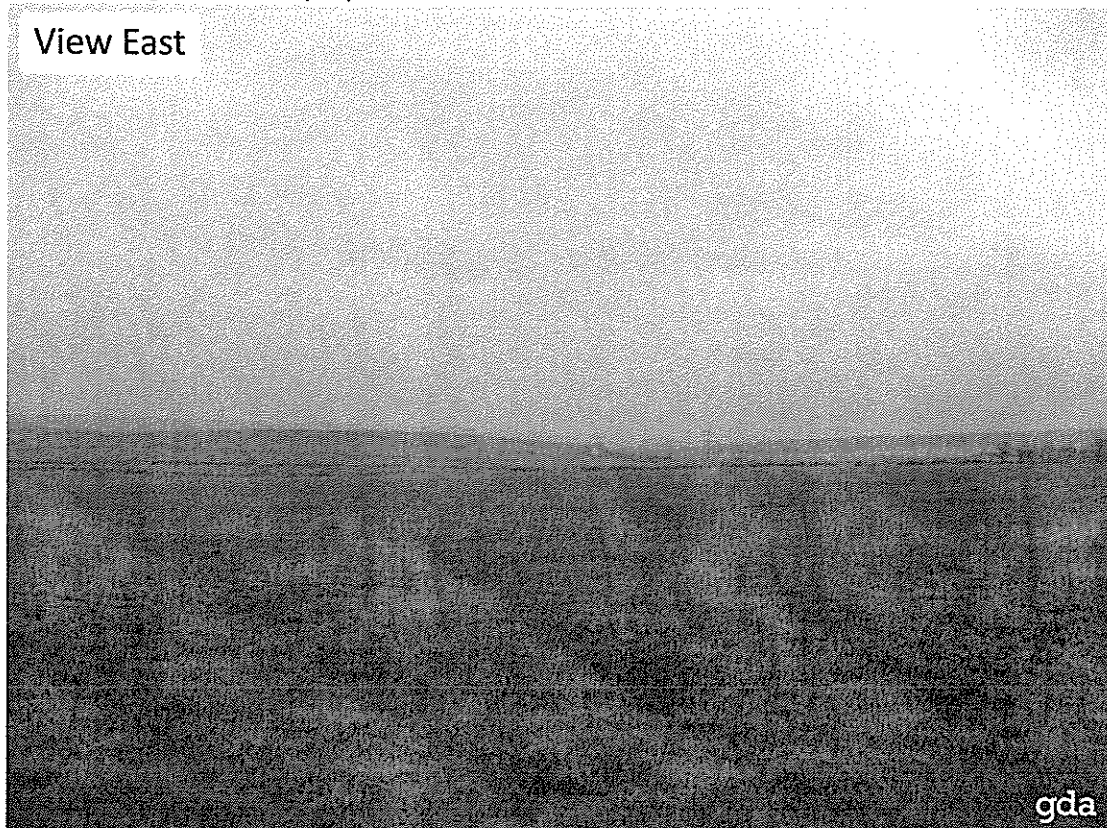
View looking North from the Turbine site.

View North



View looking East across proposed site.

View East



View looking south across propped site

View South



View looking west across proposed site

View West



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Photos looking at the turbine from surrounding areas

Photo 1

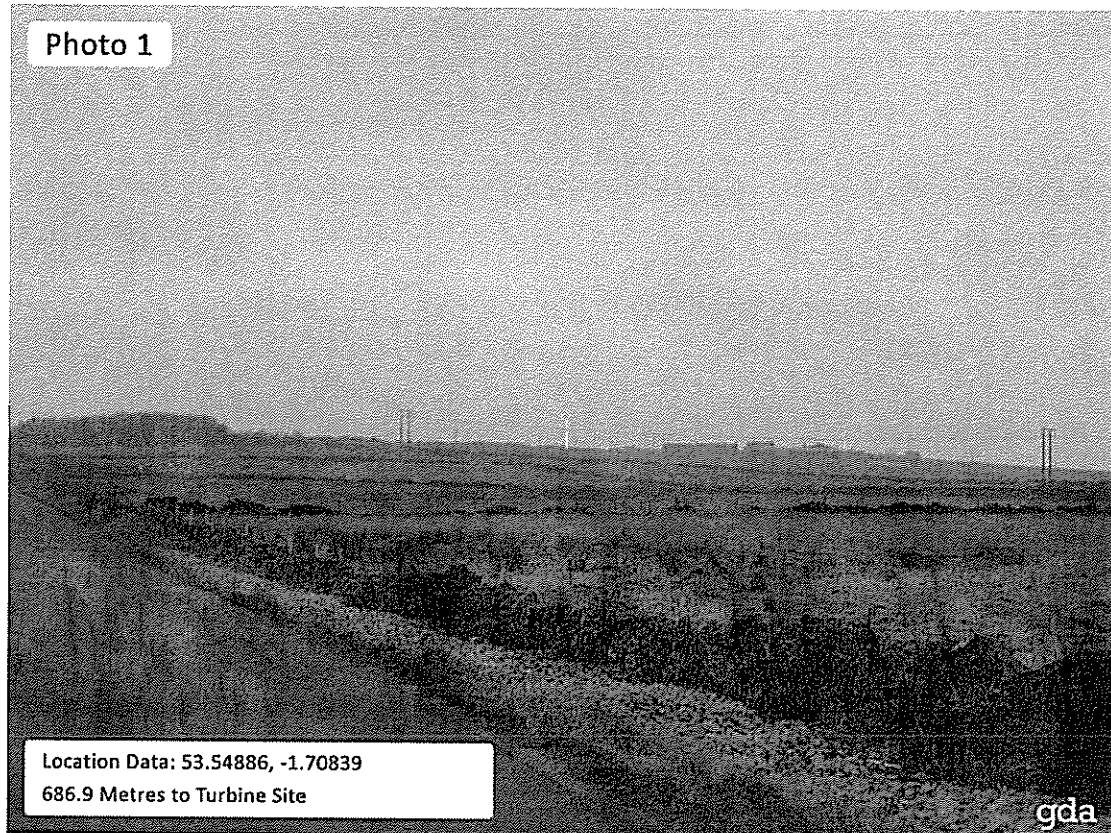
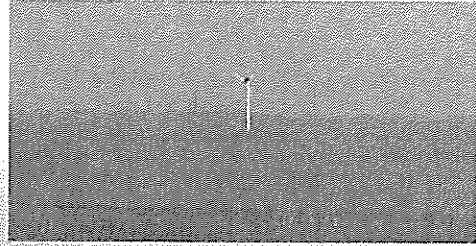


Photo 2



Location Data: 53.55565, -1.71481
940.8 Metres to Turbine Site

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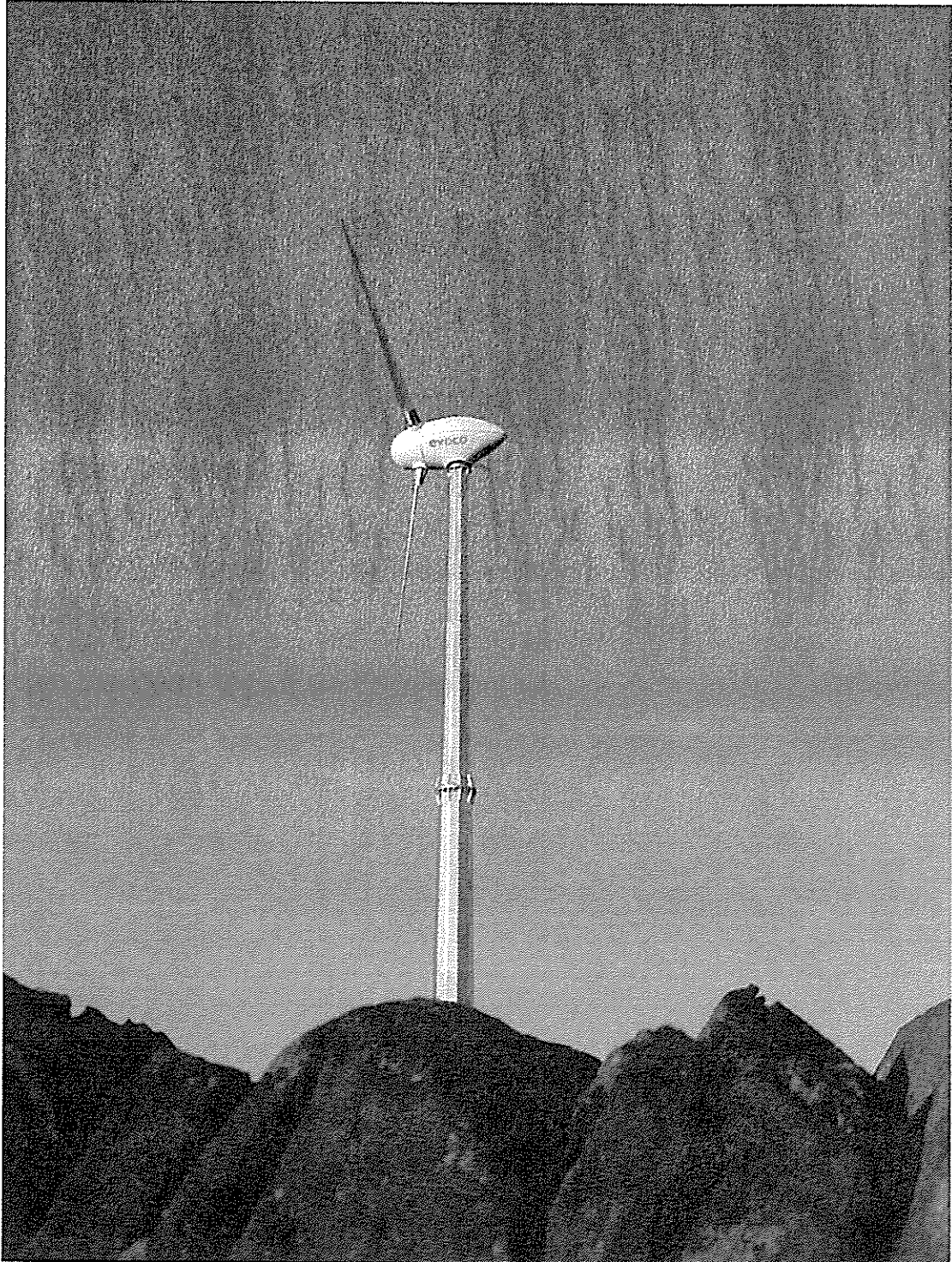
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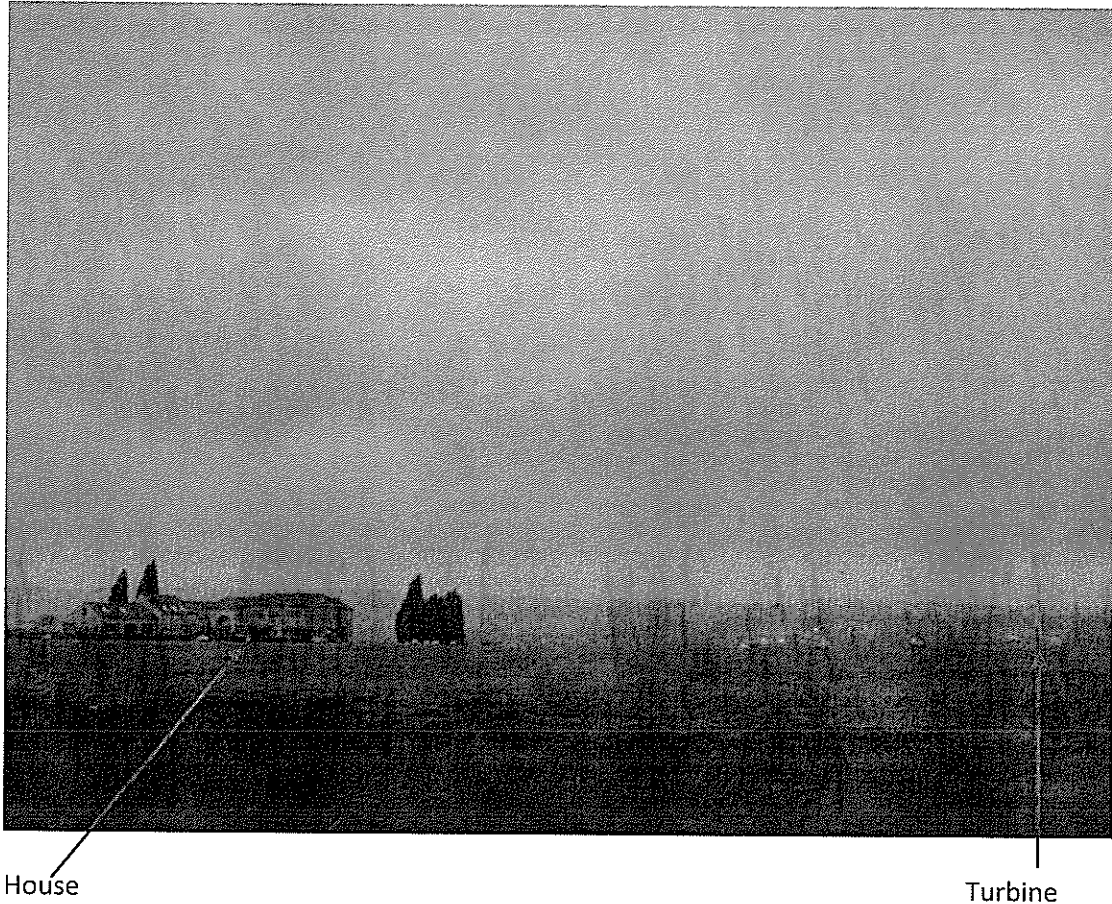


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Example photograph of a current Evoco installation



The photograph below shows an example Evoco installation and its impact on the surrounding environment.



House

Turbine

