

# Planning Support Statement

Proposed erection of 2no small-scale wind turbines

Backies Farm, Deskford, Keith, Morayshire, AB56 5UR.

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## Introduction

This statement has been submitted in support of an application to erect and operate 2no. Endurance E-3120 wind turbines on 24m monopole tubular towers at Backies Farm, Deskford, Keith, Morayshire, AB56 5UR. This document sets out the relevant planning policies in support of the proposal as well as addressing all of the potential design and access, technical and environmental implications relevant to a development of this size and scale.

# **Site Description**

#### **Site Location**

The planning site (of 0.091ha) currently is set within an approximate landowner boundary of 121.65 hectares of agricultural land (used for crops, etc.), located approximately 10km northeast of the town of Keith and 10km south-east of the town of Buckie. The immediate surrounding area is predominantly agricultural in nature with the nearest settlement being the conglomeration of homes – approximately 2.25km directly to the north at Berryhillock. There are other, more dispersed farm buildings and single cottages, etc. in the locality – but no other groupings within the immediate vicinity. The proposed wind turbines will be sited in an open field at grid coordinates 349800E, 858601N (centre of site) as shown by the block plan (Drwg. No. 01) in Appendix 1. This location has been chosen to provide the greatest separation distance between surrounding third party dwellings while attempting to obtain a clean air flow from the prevailing south-westerly winds.

The predicted wind speed for the site taken from the Met Office National Climate Information Centre (NCIC) data is 5.8m/s at 25m above ground level (AGL).

The site does not fall within or upon any designated sites of ecological, scientific, historic or archaeological interest.

## **Technology**

This proposal is for the erection and operation of "small" wind turbines, as classified by RenewableUK, the UK's largest renewable energy association. The wind turbines will have a maximum hub height of up to 25m, maximum rotor diameter of up to 19.2m, with a maximum blade tip height, when the rotor blades are in a vertical position that will not exceed 35m above finished ground level.

The wind turbine model proposed is the Endurance E-3120 three bladed horizontal axis turbine. It is envisaged that the turbine's installed capacity will be in the range of 50kW. Its maximum dimensions will not be greater than those stated above.



The information below shows the proposed turbine for the development.

## Endurance E-3120 55kW Specification:

Turbine		
Configuration	3 blades, horizontal axis,	
	downwind	
Rated power @ 11 m/s	55 kW	
Applications	Direct Grid-Tie	
Rotor speed	42 rpm	
Cut-in wind speed	3.5 m/s (7.8 mph)	
Cut-out wind speed	25 m/s (56 mph)	
Survival wind speed	52 m/s (116 mph)	
Design lifetime	30 years	
Overall weight	3,990 kg (8,800 lbs)	

Rotor		
Rotor diameter	19.2m (63 ft)	
Swept area	290m² (3120 ft²)	
Blade length	9m (29.53 ft)	
Blade material	Fiberglass / Epoxy	
Power regulation	Stall control (constant	
	speed)	



Brake & Safety Systems		
Main brake system	Rapid fail-safe dual mechanical brakes	
Secondary safety	Pitch control system (for over speed regulation) using passive spring loaded mechanism (patent pending)	
Automatic shut down triggered by	High wind speed Grid failure Over-speed All other fault conditions	

Towers	
Types and heights	Free-standing monopole: 25m (82ft), 30.5 m (100 ft), 36.5 m (120 ft), 42.7 m (140 ft) Free-standing lattice: 30.5 m (100 ft), 36.5 m (120 ft), 42.7 m (140 ft)
Maintenance Access	Safe climbing system Working space inside the nacelle Tower-top work platform



## **Access & Construction**

The proposed location of the wind turbine will require a temporary access utilising existing farm access roads and tracks and then over a portion of new temporary farm track upon privately owned agricultural land. The turbine would be delivered on a single standard HGV vehicle with an insignificant temporary increase in traffic movements on the local road network. It is worth mentioning that the local farm currently can accept deliveries from similarly sized vehicles, in its role as a working farm and we would not expect any new road widening measures, turning circles, parking or new accesses to be required for this development.

The concrete turbine foundations would measure approximately 6.0 m x 6.0 m x 1.0 m and would be installed within a 2/3 day period using a small tracked excavator. The foundation will be backfilled so that only approximately 3 m x 3 m x 0.30 m height would be visible above ground. The wind turbine would be erected on site approximately three weeks after the pouring of the foundations, taking a further 1 to 2 days, dependant on weather conditions. A 50 tonne crane would be used to lift the tower sections, nacelle and blades into place.

Once *in situ* the turbine will require servicing on a quarterly basis by an engineer who would access the site in a 4x4 car or small van and as such there will be no significant impact on the current road use, access or volume of traffic.

All refuse and materials will be cleared on an on-going basis during construction and all relevant SHE requirements will be adhered to. We further confirm that any pollutants will be used and stored, adhering to modern best – practice guidelines and no foreign elements or pollutants shall be introduced into any watercourses nearby the site.

The proposed turbine site is not located within a flood risk area as designated by the Environment Agency and it is not anticipated that the development will have any impact on the existing onsite drainage. We are not intending to build upon or immediately adjacent to any watercourses (the nearest being the small field boundary drains 175m to the west running down to Backies Farm itself). Please also note that there is no evidence of subterranean water courses in the vicinity of the turbines - the nearest well and spring is situated by the Hollowdyke Farm approx. 550m and 900m to the south-east.

The standard life span of a wind turbine of this size is in the region of 20 years if regularly serviced and maintained. At the end of any consented operational period the turbine will be decommissioned, removed from the site and the ground reinstated in accordance with details to be agreed with the Local Planning Authority.



## **Need and Benefits**

It is widely accepted that manmade emissions are contributing to climate change. On a global scale the United Nations Framework Convention on Climate Change (UNFCCC or FCCC), is an international environmental treaty aimed at fighting global warming. In February 2005, as part of the UNFCCC, the Kyoto protocol came into force committing 191 states to significant reductions in greenhouse gas emissions. The European Union (EU) recognises the protocol and has set emission reduction targets for its member states.

The UK's contribution to the EU target is to increase the share of renewables in the UK energy mix to 15% by 2020. To attain this target over 30% (about 117 TWh/yr) of electricity will need to be generated from renewables, since the production of electricity from renewable sources.. This is a significant increase from 2008 levels, where approximately 5.5% of electricity was generated from renewable sources, equating to the need for a six-fold increase in UK renewable electricity production from 2008 to 2020. This represents an ambitious target for the UK and as such planning policy at both national and local level supports this commitment.

The need for renewable energy is made even stronger by the fact that North Sea oil and gas production has peaked and the UK has become a net importer of energy. The UK government has recognised the potential that small-scale renewable energy generation has in contributing to indigenous energy supplies as well as combating climate change. To support the uptake of small-scale distributed generation, in April 2010, the UK government launched the Feed in Tariff support mechanism which guarantees a price for electricity generated from renewable sources.

It is estimated that the Endurance E-3120 wind turbines near Backies Farm will generate over 375,000 kWh/pa which is equivalent to powering 85 homes per year (using average domestic consumption of 4423kWh/pa). Using RenewableUK's carbon dioxide emissions savings calculator it is estimated the wind turbine would save approx. 3,255 tonnes of carbon dioxide over the life of the project (against a mix of carbon based and nuclear power generation).



# **Planning**

The planning system has an important role to play in helping to deliver the UK Government's targets and goals for renewable energy generation, and in assisting the UK's commitment to address the causes of climate change. This Chapter identifies the planning policies and guidance at national and local levels which are relevant to the proposed wind turbine.

A screening opinion was requested from Aberdeenshire Council planning department on the 26<sup>th</sup> November 2012 to determine whether the local planning authority believed the application should be accompanied by an Environmental Impact Assessment, (EIA). To date we have not received a screening opinion from the council.

# **UK National Energy Policy**

The White Paper on Energy **Meeting the Energy Challenge** published in May 2007 sets out the UK central government thinking on energy policy, including renewable energy generation. It explains that the motivation behind the measures to encourage developments harnessing renewable energy sources are two-fold: firstly as a means to combat climate change; and secondly to provide secure future sources of electricity generation in the context of predicted increasing energy demand, domestic power stations closing and diminishing world-wide fossil fuel supplies.

The **Energy Act 2008** strengthens the drive to greater and more rapid deployment of renewables in the UK with the aim of increasing the diversity of the UK's electricity mix, improving the reliability of energy supplies and helping to lower the carbon emissions from the electricity sector.

In July 2009 the **Renewable Energy Strategy** (RES) was published. The Strategy sets out the means by which the UK will meet its legally-binding targets under the EU Renewable Energy Directive. The UK's contribution to the EU target is to increase the share of renewables in the energy mix to 15% by 2020, which represents a seven-fold increase in UK renewable energy production from 2008 levels. A key element of the new strategy relates to the EU requirement that there will be reporting steps every two years in which the achievement of the delivery against the trajectory set for the 2020 targets has to be tested and reported to the EU.

The RES sets out the Government's comprehensive action plan for delivering the 'renewables revolution'. The document sets out the balance of fuels and technologies that are most likely to achieve this challenging goal, the strategic role that the UK Government will adopt and the specific actions intended to lead delivery. The Strategy is also intended to tackle climate change, reducing the UK's emissions of carbon dioxide by over 750 million tonnes between now and 2030. It will also promote the security of the UK's energy supply, reducing overall fossil fuel demand by around 10% and gas imports by 20–30% against what they would have been in 2020 if no energy were produced by renewable means.

To attain the 15% target, more than 30% (about 117 TWh) of electricity will need to be generated from renewables, an increase on the current level of about 5.5% today. The RES expects that the majority (two-thirds) of this electricity will be from wind power, both on and



offshore, with biomass and hydro also playing important roles. These quantities equate to 26.3GW of wind, broken down into about 14GW onshore and 12GW offshore.

The UK current (minimum) target is to achieve 14GW of onshore wind. As of April 2012 there is currently 10.5GW worth of onshore capacity that is either built, under construction or consented, leaving a deficit of 3.4GW.

The **National Planning Policy Framework** was published on 27th March 2012. This new national guidance strongly supports of all forms of renewable distributed energy generation and establishes a presumption in favour of sustainable development. This policy states:

"Para. 96. In determining planning applications, local planning authorities should expect development to:

- comply with adopted Local Plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and
- take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption."

"Paragraph 97. To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. They should:

- have a positive strategy to promote energy from renewable and low carbon sources;
- design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;
- consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources;
- identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers."

  "Paragraph 98. When determining planning applications, local planning authorities should:
- not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and
- approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should also expect subsequent applications for commercial scale projects outside these areasto demonstrate that the proposed location meets the criteria used in identifying suitable areas."

Although now superseded by the NPPF, Planning Policy Statement 22: Renewable Energy (PPS 22) and Planning for Renewable Energy: A Companion Guide to PPS22 and the National Policy Statement for Renewable Energy Infrastructure go on from the NPPF to set to objective criteria that should be applied by Local Planning Authorities in deciding individual planning applications that generate energy from wind.

Alongside the renewable energy guidance, the **NPPF** sets out strong support for rural businesses stating in paragraph 28 that local plans should:

"• promote the development and diversification of agricultural and other land-based rural businesses."

Whereas this development is not suggested or proposed by the local community at large, there are opportunities in this type of development to use, at source, the electricity generated to further generate or safeguard revenues (on top of utilising the Feed-In-Tariff generation). This has an effect of stabilising and ensuring the long term sustainability of the local farm and in some instances allowing expansion and re-investment in the business. This knock-on effect safeguards and creates jobs for the local community, which can only benefit the area at large, and all in an environmentally friendly way.



# **Scottish National Policies**

### **1.**Excerpted from the:-

## **Scottish Planning Policy (SPP)**

By the The Scottish Government, February 2010

#### Renewable Energy

"182. - The commitment to increase the amount of electricity generated from renewable sources is a vital part of the response to climate change. Renewable energy generation will contribute to more secure and diverse energy supplies and support sustainable economic growth. The current target is for 50% of Scotland's electricity to be generated from renewable sources by 2020 and 11% of heat demand to be met from renewable sources. These targets are not a cap. Hydroelectric and onshore wind power are currently the main sources of renewable energy supplies. This is expected to continue but will increasingly be part of a wider renewables mix as other technologies become commercially viable. Other technologies` contribution both at a domestic scale and through decentralised energy and heat supply systems including district heating and biomass heating plants for businesses, public buildings and community/housing schemes."

We would state that the small scale of wind turbine electrical development, as proposed in this development, has a worthwhile and significant role to play in reaching the above targets.

**"183.** - There is potential for communities and small businesses in urban and rural areas to invest in ownership of renewable energy projects or to develop their own projects for local benefit. Planning authorities should support communities and small businesses in developing such initiatives in an environmentally acceptable way."

Whereas this development is not suggested or proposed by the local community at large, there are opportunities in this type of development to use, at source, the electricity generated to further generate or safeguard revenues (on top of utilising the Feed-In-Tariff generation). This has an effect of stabilising and ensuring the long term sustainability of the local business and in some instances allowing expansion and re-investment in the business. This knock-on effect safeguards and creates jobs for the local community, which can only benefit the area at large, and in an environmentally acceptable way.

We, as a company, are supportive of the 'Planning Gain' / developer contribution schemes which are in existence in Aberdeenshire and we would welcome the chance to contribute to the funds for the local environmental improvement.



#### Wind Farms

**"187.**- Planning authorities should support the development of wind farms in locations where the

technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed. Development plans should provide a clear indication of the potential for development of `farm developments including extensions. The criteria will vary depending on the scale of development and its relationship to the characteristics of the surrounding area, but are likely to include:

- landscape and visual impact,
- effects on the natural heritage and historic environment,
- contribution of the development to renewable energy generation targets,
- effect on the local and national economy and tourism and recreation interests,
- benefits and disbenefits for communities,
- aviation and telecommunications,
- noise and shadow flicker, and
- cumulative impact.

The design and location of any wind farm development should reflect the scale and character of the landscape. The location of turbines should be considered carefully to ensure that the landscape and visual impact is minimised.

We contend that the proposed small scale and height of the turbines would greatly diminish the potential for visual or other impact upon natural, landscape, cultural and historic locations within the local environment. We intend to show through the attached ZTVs that the positioning of the turbines has been carried out sensitively –thereby reducing the potential visual impact to it's minimum on the nearby environmental assets identified by the following council (and other designatory) bodies.

We would state that the small scale of wind turbine electrical development, as proposed in this development, has a small but worthwhile and significant role to play in reaching the targets quoted in the Scottish Government documents.

There are opportunities in this type of development to use, at source, the electricity generated to further generate or safeguard revenues (on top of utilising the Feed-In-Tariff generation). This has an effect of stabilising and ensuring the long term sustainability if the local business and in some instances allowing expansion and re-investment in the business. This knock-on effect safeguards and creates jobs for the local community, which can only benefit the area at large.

We have sited the proposed turbines in such a way that no major tourist /recreation routes or sites are affected materially – as will be shown in the following statements and supporting information. However, where other assets are within view we would argue that the potential visual impact is within an acceptable range and is outweighed by the general benefits to the local business and the wider environmental concerns. The siting of the turbines also takes into account the potential for interference with telecommunications and radar assets in the area (please see the appropriate section below for further details). Moreover, the turbine has been sited more than the minimum required to allay any potential noise and shadow flicker interference with neighbouring residences (please see the appropriate section below for further details).



## 2. Excerpted from the:-

## 2020 Routemap for Renewable Energy in Scotland

By the The Scottish Government, Edinburgh - 2011

- Targets (revised from the aforementioned SPP document 2010) "Targets and implications are set out as follows:

**100% electricity demand equivalent from renewables by 2020** – a formidable but achievable goal exploiting Scotland's rich renewable resources and our determination to exploit them for economic and carbon benefits. Detailed plans are in place to make progress, particularly to realise our offshore renewables ambitions, but this potential will need to be recognised in the regulatory framework being developed at a UK level;

**New target of at least 30% overall energy demand from renewables by 2020** - our recently increased target for renewable electricity will allow us to raise the bar for our energy ambitions overall, with an expectation that at least 30% of all energy demand (heat, and transport as well as electricity) will be met by renewables by 2020. This will take Scotland to twice the UK's share ofthe European target, highlighting our leadership in Europe on renewable energy;"

We would state that the small scale of wind turbine electrical development, as proposed in this development, has a small but worthwhile and significant role to play in reaching the above targets.



# Regional / Local Policies

**1.**Excerpted from the:-

## **Moray Structure Plan**

April 2007

#### Section 4 - Environment and resources

"**POLICY 2:** The Moray Structure Plan Strategy will be supported by: a) protecting international, national and local nature conservation and scenic designations from inappropriate development;

We note that there are no international, national and local nature conservation designations within the 5km radius study area, however the Bin of Cullen SINS (site of interest to natural science) just clips the 5km radius – as shown in our attached landscape asset plan (see appendices). This site is a dome shaped hill to the north of the planning site boundary, and we have endeavoured to ascertain from council records the exact reasons for recording the site as such – without much success. However, due to the extreme distances from the proposed development (the actual summit of the hill is approximately 6km distant) and the modest scale of the wind development proposed we contend that it would be extremely unlikely that the impact would be sufficient upon natural assets or important landscape views to warrant prejudice against the application.

b) protecting the wider natural environment and local biodiversity from inappropriate development and promote opportunities for environmental enhancement and restoration where possible;

We note that there are no international, national and local nature conservation designations within the 5km radius study area. We would also note that the nearest designations, to which a development of this kind would have a material impact upon biodiversity (such as breeding bird designations, etc.) are the Moray and Nairn Coastlines Special Protection Areas, which are 15km away. We contend that there is sufficient distance from the development to any natural designation as to not impact materially in any way.

c) Working in partnership with the Cairngorms National Park Authority and other interested parties to implement the objectives of the National Park.

We note that we are 40km distant from the Cairngorms national park and confident that there shall be no impact upon it from this development.

d) restricting development within coastal areas outwith settlements to only that in which social and economic benefits outweigh environmental impact;

We contend that we are sufficiently in-land from the northern coast of Moray as to be not-applicable to the above statements. The ZTV drawings included in the appendices also show that the proposed turbines will not be able to be seen from these areas, in the main (albeit at a distance of over 5km they would not form much more than a speck on the landscape – even in favourable viewing conditions).



e) providing protection from development to the countryside around the towns of Elgin, Buckie, Keith, Forres and Lossiemouth;

We contend that we are sufficiently distant from the above towns (being, at nearest, 10km from the towns of Buckie and Keith). Furthermore, we note that the ZTV drawings have also confirmed that the turbines will not be in view from in OR around any of the above towns.

f) conserving and enhancing the areas built heritage resources and their settings.

We note the proximity of a number of listed buildings to the north at the settlements of Berryhillock and Kirktown of Deskford, however, through the photomontages and wireframes taken from these locations we have ascertained that, due to high levels of tree screening, views to the turbines will be very limited indeed. It is worth mentioning that the distances themselves will alone have a substantial mitigating effect upon the visual impact upon the listed buildings and their settings (2.4km to Berryhillock and 3.3km to Kirktown). The listed building to the south-east of the proposed site (Mains of Edingight) will have no view of the turbines at all due to land-form screening (please see ZTV for confirmation of this). We have further noted the locations of a number of scheduled monuments in the 5km radius detailed study area. The nearest of these designations is the church remains at Kirktown of Deskford which has the same setting as the above listed buildings within Deskford and again will not be in view due to the high levels of tree-screening and the siting of nearby buildings in the direction of the development site. The other 2 scheduled monument sites at Ha' Hillock Motte and Inaltry Castle remains shall not be in view of the turbines (see ZTV for confirmation and are sufficiently distant as to be largely immaterial to the setting of the monuments. There are a number of lower importance historical records within 1km of the development site, most of a nature which will not be affected materially by the development. Records which refer to farmhouses will not be unreasonably affected visually or otherwise and have been mitigated substantially by the scale of project chosen and the micro-siting of the turbines with neighbouring dwellings and farmsteads in mind.

We would however note the small distance between the development and the closest of these records, namely Chapel Hill, which has been recorded due to the documentary evidence (only) of a chapel being sited upon the hill. It is worth noting that no archaeological evidence has ever been found to support this, including a watching brief upon nearby pipe works in 2001 – and it must be noted that the land has been farmed and ploughed for many years without any further support of the accuracy of this record. We would, however, offer to provide a new archaeological watching brief for the foundation works, should the council's archaeologist find it necessary.

g) supporting proposals aimed at regenerating the area's natural and built environment including good design;

We note that this stipulation is largely irrelevant to the proposed development, however, we have proposed a turbine which, we believe, has been designed with care (with regards to the turbine's slender tower design, aerodynamic and organically conceived nacelle – which doesn't incorporate any rigid or harsh lines as to not appear too box-like or industrial, and proportioned blades which do not appear to spin out of control but rotate at a more sedate manner. These design incorporations lessen the visual impact upon the surrounding environment to a decent degree.



h) providing waste management facilities to deliver Area Waste Plan and National Waste Plan objectives and ensuring that new development is designed to facilitate sustainable waste management practices and promotes the minimisation of waste;

#### We note that this stipulation is irrelevant to the proposed development.

i) promoting sustainable urban drainage systems(SUDS) in all new developments;

#### We note that this stipulation is irrelevant to the proposed development.

j) promoting schemes to alleviate flooding in a sustainable and sensitive way using natural ecosystems and features where possible and also restricting development within flood risk areas following the guidance set out in the Risk Framework in SPP7: 'Planning and Flooding' and promoting flood risk management schemes to tackle flooding that threatens existing development and considering development proposals against the Flood Risk Framework set out in Table 5.

#### We note that this stipulation is irrelevant to the proposed development.

k) safeguarding the area from pollution and contamination,

We note that this stipulation is largely irrelevant to the proposed development, however, we have stipulated elsewhere in this document that we intend to adhere to all construction protocols with regards to storage and treatment of any potential pollutants and contaminants used in the construction of the turbines and their removal.

I) promoting opportunities for the sensitive development of renewable energy and promoting renewable energy in new development.

We believe we have proposed a sensitive and proportionate development for renewable energy in this case. The opportunity to view turbines of this modest scale are much reduced from the larger turbines which are prevalent in Moray and we have chosen a site which reduces this effect further by good land-form screening and natural tree screening. We do not feel that we have suggested a project which is disproportionate to the land available nor the sensitive assets in the area.

m) safeguarding resources for the production of minerals, preferred forestry areas, and prime quality agricultural land."

We note that this stipulation is largely irrelevant to the proposed development, however, we would note that the agricultural land to be employed in this new use over the proposed next 20 years or so is of a very small order and very unlikely to impact upon production or other agricultural uses over the lifetime of the project.



## 2. Excerpted from the:-

## **Moray Local Plan**

2008

#### Environment and resources

"ER1: RENEWABLE ENERGY PROPOSALS - Renewable energy proposals will be considered favourably where they meet the following criteria:

a. they are compatible with policies to safeguard and enhance the built and natural environment

We note that there are no international, national and local nature conservation designations within the 5km radius study area, however the "Craibstone Quarry" and "the Bin of Cullen" SINS (locally designated sites of interest to natural science) is 0.25km from the site, and just clips the 5km radius, respectively – as shown in our attached landscape asset plan (see appendices). The craibstone quarry site – albeit situated in the general surroundings is largely irrelevant to these proposals. No material impact upon the actual record boundary shall be incurred by these works and there are no designations of wildlife which would extend the record's sphere of influence further afield than the designated boundary. The Bin of Cullen site is a dome shaped hill, with surrounding woodland, to the north of the planning site boundary, and we have endeavoured to ascertain from council records the exact reasons for recording the site as such - and can only ascertain that there the site includes coniferous woodland birds). However, due to the extreme distances from the proposed development (the actual summit of the hill is approximately 6km distant) and the modest scale of the wind development proposed we contend that it would be extremely unlikely that the impact would be sufficient upon natural assets or important landscape views to warrant prejudice against the application.

We have noted that there are no National Scenic Areas, designed landscapes, sensitive landcape designations or important scenic viewpoints which require protection within the 5km study area.

We note the proximity of a number of listed buildings to the north at the settlements of Berryhillock and Kirktown of Deskford, however, through the photomontages and wireframes taken from these locations we have ascertained that, due to high levels of tree screening, views to the turbines will be very limited indeed. It is worth mentioning that the distances themselves will alone have a substantial mitigating effect upon the visual impact upon the listed buildings and their settings (2.4km to Berryhillock and 3.3km to Kirktown). The listed building to the south-east of the proposed site (Mains of Edingight) will have no view of the turbines at all due to land-form screening (please see ZTV for confirmation of this). We have further noted the locations of a number of scheduled monuments in the 5km radius detailed study area. The nearest of these designations is the church remains at Kirktown of Deskford which has the same setting as the above listed buildings within Deskford and again will not be in view due to the high levels of tree-screening and the siting of nearby buildings in the direction of the development site. The other 2 scheduled monument sites at Ha' Hillock Motte and Inaltry Castle remains shall not be in view of the turbines (see ZTV for confirmation and are sufficiently distant as to be largely immaterial to the setting of the monuments.



There are a number of lower importance historical records within 1km of the development site, most of a nature which will not be affected materially by the development. Records which refer to farmhouses will not be unreasonably affected visually or otherwise and have been mitigated substantially by the scale of project chosen and the micro-siting of the turbines with neighbouring dwellings and farmsteads in mind.

b. they do not lead to the permanent loss or permanent damage to, prime agricultural land,

We note that this stipulation is largely irrelevant to the proposed development, however, we would note that the agricultural land to be employed in this new use over the proposed next 20 years or so is of a very small order and very unlikely to impact upon production or other agricultural uses over the non-permanent lifetime of the project. The largest areas, utilised for delivery and construction of the turbines will be returned to agricultural use as soon as the turbines are commissioned.

c. they are compatible with tourism/recreational interest and facilities, they do not interfere with aircraft activity,

We have noted (upon our landscape asset plan) the various core, existing and promoted path networks that are extant within the 5km radius detailed study area. We contend that these tourist / recreation assets will be largely unaffected by the development proposed – as the vast majority of the paths shall be out-with the zone of theoretical view (ZTV) and what little portions that remain within the ZTV views are obscured by fact that they are within wooded areas. We note no other major tourism or recreational asset within this study area (notwithstanding the scheduled monuments included and justified with-in the other areas of text) and would state that the potential for impact upon the tourism and recreation assets in the area to be to an acceptable level.

We have consulted a radar specialist in consideration of this project (his report sheets are included in the appendices) and we would note that there is very likely to be no issues with regards interference with aircraft activity and radar.

d. they do not result in an unacceptable impact in terms of visual appearance, landscape character, noise, electro-magnetic disturbance, watercourse engineering, peat land hydrological impacts, pollution, traffic generation or damage to the local ecology, and

We would contend again that we have proposed a modest scale of wind turbine development which, as supported by our ZTV drawings and photomontages, has a very limited sphere of visual impact upon the limited landscape character, and natural and cultural built heritage in the detailed study area. This is due to the potential for screening by neighbouring landform massing and natural wooded screening. We also argue that there is a very limited number of farmsteads and dwellings in the immediate vicinity of the site and that the turbines are still sufficiently removed from them as to not have an unacceptable visual impact (even this has been mitigated somewhat by choice of a location over the remoter side of Chapel Hill and the "back-clothing" offered to almost all views from neighbouring properties by the hills and hill ridge between Lurg Hill and Hill of Summertown to the east of the site – which along with the Black Hill and Old Fir Hill to the west screen most of the views to the turbine from 1km out).



Please see the appendices for our detailed noise study for confirmation that the turbines have been sited sufficiently distant as to mitigate the effects of noise impact on neighbouring dwellings (to the accordance of accepted noise calculation methods and levels). We note that there are no radio transmitters / receivers in the vicinity of the project and would state that there is very little likely-hood that the proposed development would have a detrimental effect upon any electro-magnetic communications of any kind. However, we would accept any and all conditions applied to the project to ascertain and fully mitigate the potential for interference on local TV or radio signals on neighbouring properties - should the council feel this necessary. Please note that we have consulted the Joint Radio Commission in all regards above but have, at present, yet to receive their response. Please see the following section (geology and hydrology) where we note the conditions prevalent in the immediate vicinity and we would contend that there is little likely-hood that there will be any impact upon any ground conditions containing peet, or any watercourses above ground or subterranean (no below ground watercourse evidence such as wells or springs are in the immediate vicinity). The nearest watercourse is the Backies Burn, which runs, at its nearest, 240m to the south-east to turbine 2 (although there are closer field drains which flow into the Burn during wet periods). We confirm that the footprint of the installed turbines the and limited construction works will not have sufficient effect upon these watercourses as to warrant prejudice to be paid against the application. We confirm that the turbine will be able to be delivered upon one standard 40ft articulated lorry with no overweight or over-size vehicle requirements. We further note that vehicles of this size regularly visit the farm and that even, taking into account the extra vehicles required for the erection of the turbines and it's maintenance the extra traffic effect upon the local road network shall be insignificant. We confirm that no portion of the application site or temporary access track contains any

We confirm that no portion of the application site or temporary access track contains any indigenous flora or fauna. We have confirmed through site walk-over surveys and the landowner's experience of the site that there no evidence of wildlife habitats on or near the development.

e. they do not result in an unacceptable cumulative impact.

Please see the cumulative and landscape impact assessment (along with the cumulative turbines map and cumulative ZTV drawings which support it) in appendix 1 for full details and assessment. We have highlighted all proposed/pending, consented and constructed turbines within 15km of the site and these appear then within our photomontage wireframe package, regardless of their status above. From these images we note that the potential for cumulative impact, in a simultaneous manner, comes from the development at Nethertown (constructed), Myreton (consented only) and the proposed wind farm upon Aultmore Hill / Forest (this wind-farm has been pending for quite a period now and we would argue that potential cumulative effects due to this development be weighted accordingly when determining this portion of the application). These wind turbines can be seen, in theory, simultaneous to our development turbines from the north of our site – which is where the ZTV confirms the vast majority of the views of our turbines will be available (although one would have to be a fair distance from our site in order to see all three developments within one's field of view).

We do note that in reality the turbines at Nethertown and Myreton are screened from view to such a large extent from views from the north (due to Lurg Hill and dense foresation upon this hill), where our turbines will have the greatest opportunity to contribute to any cumulative visual effect that they seldom present an unacceptable cumulative effect to these



views. We have noted previously that most views from these locations have opportunities for screening due to nearby trees and land-forms in any case — especially from the built heritage assets described above in Berryhillock and Kirktown of Deskford. We also state that there is a sufficiently small number of dwellings and farmsteads in this 'northern' area that are still within the 1-2km range that would still be able to 'read' our turbines as being impactive to eye along with the larger developments noted here (we contend that over 2km the modest scale of turbine we propose will be largely blended in to the environment — especially as our turbine from almost all angles will have a back-cloth of Lurg Hill, etc. to break up the shape and visual effect of the turbines — something the other cumulative sites noted will not have — as their large turbines will 'break ' the skyline and be in view well above the horizon from some views).

We do, however, note the opportunities to view the turbines I unison by the ever-changing views offered by travelling south upon the B9018 from Cullen, and the opportunity to experience the cumulative effect of the turbine developments in a sequential manner also. However, we would argue that there is sufficient distance between the perception of our turbines and the next development to mitigate the increase from our modest scale of development to the 90m or so height of the neighbouring development (this jump is also softened by the visual clues of the tips and blades of the turbines appearing gradually over the landform of Lurg Hill and Plantation). We note also that the 'B' road is not a major road or tourist route and is without parking public areas and as such the effect upon the users of the road is somewhat reduced (more so when we take into account the users of the road – and as it is a local road the users will predominantly be locals themselves).

However, the most important factor in our defence of the increase of the cumulative effect of the turbine will be the justification that our proposed turbine scale shall not effect a sufficiently large visual effect in the first place and it is our contention that we will add an acceptable increase to the overall cumulative impact (especially in an area of Moray, to the north-east of the council area, which has not received some of the vast amount of applications that other areas have had in this council area). Indeed, upon the area to the north-east of the development site is where the vast majority of the very limited ZTV area falls – meaning there is a much reduced opportunity to view out turbines with the cumulative turbines to the south and west of the development.

Proposals are required to provide "decommissioning arrangements" to illustrate how the site will be reinstated if and when the plant ceases to operate. This may be enforced through a section 75 agreement.

We will be willing to accept any conditions to the planning approval, if gained, which allow for the provision of a decommissioning arrangement before construction starts of site.

Commercial wind energy developments should be located within a Preferred Search area identified in the Wind Energy Policy Guidance and meet the above criteria."

We would bring your attention to a the section entitled 'Policy interpretation note to the "Wind energy proposals in Moray" Supplementary Planning Guidance 2010', which we have quoted and confirmed our statement that our proposed type and scale of wind energy proposal should be categorised in a range which would allow a relaxation or deviation from the above statement.



#### - Implementation

"POLICY IMP1: DEVELOPMENT REQUIREMENTS - New development will require to be sensitively sited, designed and serviced appropriate to the amenity of the surrounding area. It must meet the following criteria:

a. the scale, density and character must be appropriate to the surrounding area,

We again would comments that we have proposed a modest and proportionate scale of wind energy project which is befitting of the local environment, please see above justifications, LVIA, photomontages and support drawings which, we argue, support this assertion.

b. the development must be integrated into the surrounding landscape,

We would contend again that we have proposed a modest scale of wind turbine development which, as supported by our ZTV drawings and photomontages, has a very limited sphere of visual impact upon the limited landscape character, and natural and cultural built heritage in the detailed study area. This is due to the potential for screening by neighbouring landform massing and natural wooded screening. We also argue that there is a very limited number of farmsteads and dwellings in the immediate vicinity of the site and that the turbines are still sufficiently removed from them as to not have an unacceptable visual impact (even this has been mitigated somewhat by choice of a location over the remoter side of Chapel Hill and the "back-clothing" offered to almost all views from neighbouring properties by the hills and hill ridge between Lurg Hill and Hill of Summertown to the east of the site – which along with the Black Hill and Old Fir Hill to the west screen most of the views to the turbine from 1km out).

c. adequate roads, public transport, and cycling and footpath provision must be available, at a level appropriate to the development,

We would argue that this stipulation of the local plan is largely irrelevant to our proposals.

d. adequate water, drainage and power provision must be made,

We would argue that this stipulation of the local plan is largely irrelevant to our proposals (with that the footprint of the foundations required for the turbines being so small as be insignificant in its effect upon drainage provision).

e. sustainable urban drainage systems should be used where appropriate, in all new developments

We would argue that this stipulation of the local plan is largely irrelevant to our proposals.

f. there must be adequate availability of social, educational, healthcare and community facilities,

We would argue that this stipulation of the local plan is largely irrelevant to our proposals.

g. the development should, where appropriate, demonstrate how it will incorporate renewable energy systems and sustainable design and construction. Supplementary Guidance will be produced to expand upon some of these criteria,



We would argue that this stipulation of the local plan is largely irrelevant to our proposals (due to the fact that the whole project is wholly a renewable energy system itself).

h. provision for the long term maintenance of public landscape and amenity areas must be made,

We would argue that this stipulation of the local plan is largely irrelevant to our proposals.

i, conservation of natural and built environment resources must be demonstrated,

We would argue that this stipulation of the local plan is largely irrelevant to our proposals (due to the fact that this development is physically removed from neighbouring buildings by many hundreds of metres and from designated natural resources by thousands). We would however direct your attention to the passages of this document which deal with the potential impacts upon the nearby buildings (noise, shadow flicker, etc) and the more distant effects of a visual nature upon built cultural assets in the wider area (we do come to the conclusion that there is little potential for significant impact upon any built or natural resources in the detailed study zone).

j. appropriate provision to deal with flood related issues must be made, including the possibility of coastal flooding from rising sea levels and coastal erosion,

We would argue that this stipulation of the local plan is largely irrelevant to our proposals (with that the footprint of the foundations required for the turbines being so small as be insignificant in its effect upon drainage provision).

k. pollution, including ground water must be avoided,

We would argue that this stipulation of the local plan is largely irrelevant to our proposals (with that the footprint of the foundations required for the turbines being so small as be insignificant in its effect upon drainage provision). We also have already commented that we intend to adhere to all good practice guidelines with regards the construction and delivery of the turbines – which will almost fully mitigate the potential for pollutants draining into watercourses, etc.

I. appropriate provision to deal with contamination issues must be made, and m. the development must not sterilise significant workable reserves of minerals, prime quality agricultural land, or preferred areas for forestry planting.

We would argue that this stipulation of the local plan is largely irrelevant to our proposals (with that the footprint of the foundations required for the turbines being so small as be insignificant in its effect upon drainage provision). We also have already commented that we intend to adhere to all good practice guidelines with regards the construction and delivery of the turbines – which will almost fully mitigate the potential for pollutants draining into watercourses, etc.

n. where appropriate, arrangements for waste management should be provided."

We would argue that this stipulation of the local plan is largely irrelevant to our proposals.

#### Built Environment



#### POLICY BE1: SCHEDULED ANCIENT MONUMENTS AND NATIONAL DESIGNATIONS

"National Designations - Development proposals will be refused where they will adversely affect Scheduled Ancient Monuments and nationally important archaeological sites or their settings unless the developer proves that any significant adverse effect on the qualities for which the site has been designated are clearly outweighed by social or economic benefits of national importance.

Local Designations- Development proposals which will adversely affect sites of local archaeological importance, or their settings, will be refused unless it can be demonstrated that;

- a) local public benefits clearly outweigh the archaeological value of the site, and
- b) there is no suitable alternative site for the development, and

c) any adverse effects can be satisfactorily mitigated at the developers expense. Where, in exceptional circumstances, the primary aim of preservation of archaeological features in situ does not prove feasible, the Council shall require the excavation and researching of a site at the developers expense.

The Council will consult Historic Scotland and the Regional Archaeologist on development proposals which may affect Scheduled Ancient Monuments and archaeological sites."

#### **POLICY BE2: LISTED BUILDINGS**

"The Council will encourage the protection, maintenance, enhancement and active use of listed buildings.

Development proposals will be refused where they would have a detrimental effect on the character, integrity or setting of the listed building(s). Alterations and extensions to listed buildings or new developments within their curtilage must be of the highest quality, and respect the original structure in terms of setting, scale, materials and design.

The demolition of listed building(s) will not be permitted unless it is demonstrated beyond reasonable doubt that every effort has been exerted by all concerned to find practical ways of retaining the building and that the community would benefit from the redevelopment. All applications for the demolition of listed buildings should be supported by a report on the condition of the building, a study on the viability of retaining the building in active use a report on the steps taken to advertise and market the building and, the proposals to recycle existing building materials into the future use of the site. Any proposed replacement of a demolished listed building should be of comparable quality in terms of construction and design. Buildings which are allowed to fall into a state of disrepair may be placed on the Buildings at Risk Register and remedial works to buildings in disrepair may be enforced in the public interest.

Proposals should be in accordance with guidelines laid out in Historic Scotland's Memorandum on Guidance of Listed Buildings with regard to listed building consent applications."

We note the proximity of a number of listed buildings to the north at the settlements of Berryhillock and Kirktown of Deskford, however, through the photomontages and wireframes taken from these locations we have ascertained that, due to high levels of tree screening, views to the turbines will be very limited indeed. It is worth mentioning that the distances themselves will alone have a substantial mitigating effect upon the visual impact upon the listed buildings and their settings (2.4km to Berryhillock and 3.3km to Kirktown). The listed building to the south-east of the proposed site (Mains of Edingight) will have no view of the turbines at all due to land-form screening (please see ZTV for confirmation of this).

We have further noted the locations of a number of scheduled monuments in the 5km radius detailed study area. The nearest of these designations is the church remains at Kirktown of Deskford which has the same setting as the above listed buildings within Deskford and again will not be in view due to the high levels of tree-screening and the siting of nearby buildings in the direction of the development site. The other 2 scheduled monument sites at Ha' Hillock Motte and Inaltry Castle remains shall not be in view of the turbines (see ZTV for confirmation and are sufficiently distant as to be largely immaterial to the setting of the monuments. There are a number of lower importance historical records within 1km of the development site, most of a nature which will not be affected materially by the development. Records which refer to farmhouses will not be unreasonably affected visually or otherwise and have been mitigated substantially by the scale of project chosen and the micro-siting of the turbines with neighbouring dwellings and farmsteads in mind.

#### **POLICY BE3: CONSERVATION AREAS**

"Development proposals within Conservation Areas will require to be submitted as full detailed planning applications and will be refused if they adversely affect the character or appearance of the Conservation area in terms of scale, height, materials, colour, detailed design and use. All development within a Conservation Area should preserve or enhance the established traditional character and appearance of the area."

We have noted elsewhere in this document the conservation area of Berryhillock, which is situated approximately 2.2 to 2.5km to the north of the proposed development site. We have asserted that, not only are our proposals irrelevant to much of the above local plan stipulations, but that due to the distances involved and the provision of screening of the turbine views by the landform and the mature trees surrounding the village itself, there is little likely hood that there shall be a significant visual impact upon the setting of the conservation area.

#### **POLICY BE4: GARDENS AND DESIGNED LANDSCAPES**

"Development proposals which will adversely affect Gardens and Designed Landscapes or their settings will be refused unless:

a. the overall character and reasons for designation will not be compromised, or b. any significant adverse affects can be satisfactorily mitigated and are clearly outweighed by social, economic and strategic benefits.

The Council will consult with Historic Scotland and Scottish Natural Heritage on any proposal which may affect the sites in the Inventory of Gardens and Designed Landscapes."

We note that the nearest designated historic gardens and designed landscapes are Cullen House (approx. 7.5km to the north of the development site) and The Old Manse of Marnoch (approx. 10km distant). We contend that due to the extreme distances from the development site and the modest scale of height of wind turbine development proposed that there will be an insignificant visual impact upon these assets and their setting.



## **2.**Excerpted from the:-

# Policy interpretation note to the "Wind energy proposals in Moray" Supplementary Planning Guidance

2010 (supplementary planning guidance originally issued 2005)

- "1.1 This report asks the Committee to consider various aspects regarding its wind energy guidance as it applies to developments of up to 3 individual wind turbines."
- **"2.1, ii** Applications for single, or small groups of up to 3 'commercial' turbines under policy should be located within PSA. Proposals outwith will still be treated as Departures, but considered "on their merits", depending upon impact on the landscape, other environmental criteria, the Development Plan, and any other material considerations, in a similar way to any other development application in the countryside."
- **"3.2** In the past 12 months the Council has received a number of applications for wind turbines, either as individuals, or in groups of 2 or 3. Whilst under the terms of policy and SPG these would be classed as small windfarms, there is a clear difference in scale when compared with conventional "farms" such as Pauls Hill or Cairn Uish.
- "3.5 The Guidance contained in SPP and PAN 45 is (was) predominantly aimed at providing advice to Planning Authorities for windfarms of over 20 mega watt generating capacity, and how to develop a spatial framework (this is essentially the Preferred Search Areas identified in the Council's SPG). Authorities can take windfarms of less into their spatial framework if considered appropriate."
- "4.3 Single or small groupings of up to 3 turbines for "commercial" purposes under policy should be located within PSA. Developments outwith PSA will be treated as Departures, but in light of the more recent Government advice being taken into account as a material consideration, will not be "presumed against" but considered "on their merits" depending upon impact on the landscape and other environmental criteria. Cumulative impact will be of particular significance, and will take account of existing windfarms and those which have permissions. New proposals will be considered on a "first come" basis."

#### "7. CONCLUSION

- 7.1 National and local policy and guidance is made with regard to larger scale wind energy proposals.
- 7.2 Such policies do not seem to cater well for the current demand for smaller scale single turbines or groups of up to 3.
- 7.3 Current policy should be interpreted to allow such proposals to be considered "on merit".
- 7.4 The overall intent remains to avoid a proliferation of turbines across the Moray landscape. Cumulative impact of consents granted will be an important factor in this respect."

We contend that the scale of wind turbine application proposed in this application would constitute a departure from the local plan terminology (due to the location being out with the SPG area of search), however it is our assertion that this application be judged "on its merits" in relation to the local plan and other criteria quoted above in this section and not be "presumed against".



# **Landscape and Natural Asset Designations**

Please refer to the landscape / natural asset plan drawing in the appendices (the number of the record here relates to the numbered locations of the records on the drawing).

**1.** EXTRACTED FROM THE MORAY COUNCIL ONLINE INTERACTIVE G.I.S. COUNCIL AREA MAP AND DATABASE WEBSITE:-

The proposed site is located from approx. 0.25km to 0.75km from a local council designated SINS (Site of Interest to natural science) area, named "Craibstone Quarry". The site (type: Biological) is approx. 7.06ha in area. The reasons for notification are as follows:-

"Biological – Limestone flora, very scarce in the Region, with a mixture of plants of wooded areas and wet base-rich habitats."

This site – albeit situated in the general surroundings is largely irrelevant to these proposals. No material impact upon the actual record boundary shall be incurred by these works and there are no designations of wildlife which would extend the record's sphere of influence further afield than the designated boundary.

**2.** EXTRACTED FROM THE MORAY COUNCIL ONLINE INTERACTIVE G.I.S. COUNCIL AREA MAP AND DATABASE WEBSITE:-

The proposed site is located from approx. 4.8km to 6.3km from a local council designated SINS (Site of Interest to natural science) area, named "Bin of Cullen". The site (code type: B) is approx. 400ha in area. The reasons for notification are as follows:-

"Biological – coniferous woodland birds."

This site is a dome shaped hill, with surrounding woodland, to the north of the planning site boundary, and we have endeavoured to ascertain from council records the exact reasons for recording the site as such – and can only ascertain that there the site includes coniferous woodland birds). However, due to the extreme distances from the proposed development (the actual summit of the hill is approximately 6km distant), the lower level of designation and the modest scale of the wind development proposed - we contend that it would be extremely unlikely that the impact would be sufficient upon natural assets or important landscape views to warrant prejudice against the application.

We note that there are no international, national and local nature conservation designations within the 5km radius study area, however the Bin of Cullen SINS (locally designated site of interest to natural science) just clips the 5km radius – as shown in our attached landscape asset plan (see appendices). We have also noted that there are no National Scenic Areas, designed landscapes, sensitive landcape designations or important scenic viewpoints which require protection within the 5km study area also.



# Cumulative Impact and neighbouring planning applications

We have identified all turbines within the 15km outer study area within Morayshire Council (constructed, planning consented and pending consideration) – please see the 15km radius cumulative turbine plan drawing, within the appendices, which details these locations (green indicates pending and blue indicates approved or constructed). The table which follows the plan corresponds numerically to the I.D. labels found under each turbine applied for – and contains the details of the sites which are located.

We have also included the potential cumulative effect turbines on the 5km landscape natural asset plan – in order that the cumulative effect can be seen in relation to the most vulnerable landscape assets and where the application turbines provide their own greatest visual impact (i.e. 5km and less).

All of these cumulative turbines have also been modelled in 3D and located within the Digital Terrain Mapping (DTM) landscape – so that they appear upon the photomontages and wireframes (alongside our proposed turbines) when they should appear from a specific view. In this way no direct cumulative effects could be left out of this study.

Lastly, we have included a range of cumulative impact ZTV drawings, in which the zone of theoretical view for the application turbines has been compared directly with most of nearby turbine sites – or particularly large turbine developments further afield (i.e. the ones which have the potential for the greatest impact) – which will allow for comment to be made on this type of cumulative effect.

We note that we have not included any turbines in this process from the Aberdeenshire side of the council boundary (found from approximately 2km east of the proposed development site). This decision has been taken due to facts that we have found no evidence of applications, in our initial investigations of turbines in this small section of Aberdeenshire Council, which is within the 5km detailed study area (which is the maximum distance where our turbines could conceivably be a predominant presence on the landscape – in actual fact this distance is much lower in most cases). Secondly, our ZTV area does not 'spill' into Aberdeenshire council (thereby reducing the potential for cumulative impact). Thirdly, This particular area of Aberdeenshire does not support many turbine applications due to its remoteness, juxtaposition between the landscape and the prevailing wind AND the fact that there is prevalent forestation in the area.

We would also note that there is little likelihood of sequential cumulative impact as there are no roads from this portion of Aberdeenshire which directly run past our location and there is assumed to be sufficient distances between any Aberdeenshire developments and Neighbouring Moray applications to deem this insignificant to our application. With all of this taken into account we would contend that there is little chance of our proposed turbines contributing to a cumulative effect with any developments in Aberdeenshire council and as such have been omitted from the application at this time.

Please see the cumulative and landscape impact assessment (along with the cumulative turbines map and cumulative ZTV drawings which support it) in appendix 1 for full details and



assessment. We have highlighted all proposed/pending, consented and constructed turbines within 15km of the site and these appear then within our photomontage wireframe package, regardless of their status above. From these images we note that the potential for cumulative impact, in a simultaneous manner, comes from the development at Nethertown (constructed), Myreton (consented only) and the proposed wind farm upon Aultmore Hill / Forest (this windfarm has been pending for quite a period now and we would argue that potential cumulative effects due to this development be weighted accordingly when determining this portion of the application). These wind turbines can be seen, in theory, simultaneous to our development turbines from the north of our site – which is where the ZTV confirms the vast majority of the views of our turbines will be available (although one would have to be a fair distance from our site in order to see all three developments within one's field of view).

We do note that in reality the turbines at Nethertown and Myreton are screened from view to such a large extent from views from the north (due to Lurg Hill and dense foresation upon this hill), where our turbines will have the greatest opportunity to contribute to any cumulative visual effect that they seldom present an unacceptable cumulative effect to these views. We have noted previously that most views from these locations have opportunities for screening due to nearby trees and land-forms in any case – especially from the built heritage assets described above in Berryhillock and Kirktown of Deskford. We also state that there is a sufficiently small number of dwellings and farmsteads in this 'northern' area that are still within the 1-2km range that would still be able to 'read' our turbines as being impactive to eye along with the larger developments noted here (we contend that over 2km the modest scale of turbine we propose will be largely blended in to the environment - especially as our turbine from almost all angles will have a back-cloth of Lurg Hill, etc. to break up the shape and visual effect of the turbines – something the other cumulative sites noted will not have – as their large turbines will 'break ' the skyline and be in view well above the horizon from some views). We do, however, note the opportunities to view the turbines I unison by the ever-changing views offered by travelling south upon the B9018 from Cullen, and the opportunity to experience the cumulative effect of the turbine developments in a sequential manner also. However, we would argue that there is sufficient distance between the perception of our turbines and the next development to mitigate the increase from our modest scale of development to the 90m or so height of the neighbouring development (this jump is also softened by the visual clues of the tips and blades of the turbines appearing gradually over the landform of Lurg Hill and Plantation). We note also that the 'B' road is not a major road or tourist route and is without parking public areas and as such the effect upon the users of the road is somewhat reduced (more so when we take into account the users of the road - and as it is a local road the users will predominantly be locals themselves).

However, the most important factor in our defence of the increase of the cumulative effect of the turbine will be the justification that our proposed turbine scale shall not effect a sufficiently large visual effect in the first place and it is our contention that we will add an acceptable increase to the overall cumulative impact (especially in an area of Moray, to the north-east of the council area, which has not received some of the vast amount of applications that other areas have had in this council area). Indeed, upon the area to the north-east of the development site is where the vast majority of the very limited ZTV area falls – meaning there is a much reduced opportunity to view out turbines with the cumulative turbines to the south and west of the development.



## **Local Historical Sites**

Please note that we have endeavoured to identify all historical records within 1km from the centre of our proposed site. This is primarily to identify all records in which we may have a material effect on the record or its setting. We have also identified all higher importance historical records (such as listed buildings and scheduled monuments) in the detailed 5km boundary – to fully ascertain any potential for visual impact on these records' wider setting.

Please refer to the historical asset plan drawing in the appendices (the number of the record here relates to the numbered locations of the records on the drawing found within a kilometre of the site – the other records of a higher importance out-with this boundary have also been shown on the drawing and have been dealt with in statements at the end of this section).

Note that we have included the records below from the highest level of body containing the record, when the records are duplicated on a lesser importance database (i.e. we have only included the Scheduled Monument database entry NOT the Listed Building Entry, and then NOT then RCAHMS national database entry and then NOT the SSMR local database entry – in this order of importance).

## 1. EXTRACT FROM THE NATIONAL MONUMENTS RECORD OF SCOTLAND:-

The proposed development site is located approx. 100m to the east and north-east from an RCAHMS record (site no.: NJ45NE 2, named "CHAPEL HILL – chapel"). The reasons for notification are as follows:-

"It is well known that a Chapel stood here. Mr McWillie destroyed the foundation, or, remembers the foundation. It is many years since the foundation was broken up, but distinct traces of a building having been here are to be seen. The site, although now cultivated, is very strong and the ground is of a lighter colour. Name Book 1866; Information from Mr McWillie and Mr McWillie, Junior, Backies.

No remains. No further information.

Visited by OS (RDL) 5 February 1964.

No change. Visited by OS (NKB) 4 July 1967.

Between 28 February and 20 July 2001, a watching brief was maintained at certain points along the route of the installation of a water pipeline, between Burnend and Crannoch, Moray. The site of this chapel is known through documentary record only. A stretch of c.200m of the pipeline was observed as it passed c.60m E of the supposed location of the chapel. The topsoil in this stretch was extremely thin, averaging c.150mm, overlying a layer of hard dry sandy clay, with thick wet clay at the bottom.

Indications of burning and detritus from 19th century farming activity was evident at a section some 80m SE of the suggested location of the chapel, but apart from that no features or artefacts of archaeological significance were observed. J C Murray 2001."



We note the removal of this proposed record happened in the very distant past and would reiterate the findings that there is very little, if anything, left on site of the record (potential for new evidence or finds would be further reduced by the fact that the field in question has been farmed and ploughed for many of the 200 years since the record was in existence). However, we accept that our proposed turbine locations are within 100m or so from this record and we would accept a condition whereby we would have to employ a trained archaeologist watching brief for the more obtrusive construction works (such as foundation preparation, etc) should the council's archaeologist find this appropriate.

# 2. EXTRACT FROM THE NATIONAL MONUMENTS RECORD OF SCOTLAND:-

The proposed development site is located approx. 250m to the north-west from an RCAHMS record (site no.: NJ55NW 15, named "LURGHILL PLANTATION – enclosure"). The reasons for notification are as follows:-

"One incomplete enclosure is depicted on the 1st edition of the OS 6-inch map (Banffshire 1871, sheet viii), but it is not shown on the current edition of the OS 1:10560 map (1968). Information from RCAHMS (SAH), 18 March 1999."

We note the relative low importance of this historical site and the uncertainty in the position of the record itself. We would also state that a record of this kind, of which there is only now documentary evidence should not be significant enough to justify prejudice against this application.

## **3.** EXTRACT FROM THE NATIONAL MONUMENTS RECORD OF SCOTLAND:-

The proposed development site is located approx. 525m to the south from an RCAHMS record (site no. NJ45NE 5, named "CRAIBSTONE QUARRY AND KILNS – lade / lime kilns / limestone quarry"). The reasons for notification are as follows:-

"(Location cited as NJ 496 591 and classified as lime works). The 19th century quarry is now water-filled."

We note the relative low importance of this historical site and we would also state that a record of this kind, which has lapsed and been supplanted in form from its original recorded purpose should not be significant enough to justify prejudice against this application.



## **4.** EXTRACT FROM THE SCOTTISH SITES AND MONUMENTS RECORD:-

The proposed development site is located approx. 625m to the north from an SSMR record (site no.: NJ45NE0035, named "CLOCHMACRIECH – standing structure – complete 2"). The reasons for notification are as follows:-

"Clochmacriech is depicted on the OS map of 1846 as an L-shaped farmstead with a smaller L-shaped building to the north. A small single building with an enclosure lies slightly further north. To the east is a mill dam with lade and sluice leading to the SE corner of the farm. On the north side of the track to the farm is a limekiln. On the 1888 edition the farm has become a U-shape with open court to the west. The kiln is no longer depicted. The pond is still visible to the east. Now the farm has been altered, but the pond is still evident."

We note the reasons for inclusion of this record and would contend that a record of this type would have little relevance for a planning application of this type and, considering the separation distances between the sites, should give no prejudice to these proposals.

## **5.** EXTRACT FROM THE SCOTTISH SITES AND MONUMENTS RECORD:-

The proposed development site is located approx. 680m to the east from an SSMR record (site no.: NJ45NE0034, named "LONGLANDBURN – standing structure – complete 2"). The reasons for notification are as follows:-

"The farmstead of Longlandburn is depicted on the OS map of 1847 as having two long ranges roughly E/W orientated. There is a single building at the western side of the north one, possibly a mill, and an L-shaped building to the SE of the southern one. There is also another possible building to the west. A lade leads to the mill from a pond in the west. By 1888 the farmstead has become U-shaped with an open court to the east. The configuration is now similar but the court has been built over and there is another building to the northwest. The mill pond is no longer depicted."

We note the reasons for inclusion of this record and would contend that a record of this type would have little relevance for a planning application of this type and, considering the separation distances between the sites, should give no prejudice to these proposals.

## **6.** EXTRACT FROM THE SCOTTISH SITES AND MONUMENTS RECORD:-

The proposed development site is located approx. 800m to the south from an SSMR record (site no.: NJ55NW0019, named "MID SKEITH – documentary record only"). The reasons for notification are as follows:-

"Site of a now destroyed lime kiln that is depicted on the 1846 1st edition OS map but not on the 1888 2nd edition one."



We note the reasons for inclusion of this record and further note the record has long been destroyed and would contend that a record of this type would have little relevance for a planning application of this type and should give no prejudice to these proposals.

## **7.** EXTRACT FROM THE SCOTTISH SITES AND MONUMENTS RECORD:-

The proposed development site is located approx. 830m to the south-west from an SSMR record (site no.: NJ55NW0020, named "MID SKEITH – documentary record only"). The reasons for notification are as follows:-

"Site of a now destroyed mill pond and dam that are depicted on the 1846 1st edition OS map but only as an outline on the 1888 2nd edition one."

We note the reasons for inclusion of this record and further note the record has long been destroyed and would contend that a record of this type would have little relevance for a planning application of this type and should give no prejudice to these proposals.

We contend the records within this immediate 1km boundary are sufficiently low enough in importance as to be outweighed by the environmental and economic need - and significantly removed in distance from the turbine development as not to be interfered with materially during the construction and erection - i.e. very little chance of disturbing remains or finding historical objects). We note the proximity of a number of listed buildings to the north at the settlements of Berryhillock and Kirktown of Deskford, however, through the photomontages and wireframes taken from these locations we have ascertained that, due to high levels of tree screening, views to the turbines will be very limited indeed. It is worth mentioning that the distances themselves will alone have a substantial mitigating effect upon the visual impact upon the listed buildings and their settings (2.4km to Berryhillock and 3.3km to Kirktown). The listed building to the south-east of the proposed site (Mains of Edingight) will have no view of the turbines at all due to land-form screening (please see ZTV for confirmation of this). We have further noted the locations of a number of scheduled monuments in the 5km radius detailed study area. The nearest of these designations is the church remains at Kirktown of Deskford which has the same setting as the above listed buildings within Deskford and again will not be in view due to the high levels of tree-screening and the siting of nearby buildings in the direction of the development site. The other 2 scheduled monument sites at Ha' Hillock Motte and Inaltry Castle remains shall not be in view of the turbines (see ZTV for confirmation and are sufficiently distant as to be largely immaterial to the setting of the monuments. There are a number of lower importance historical records within 1km of the development site, most of a nature which will not be affected materially by the development. Records which refer to farmhouses will not be unreasonably affected visually or otherwise and have been mitigated substantially by the scale of project chosen and the micro-siting of the turbines with neighbouring dwellings and farmsteads in mind. In conclusion, we would argue that the impact of the turbines upon the local historical assets are minimal and not significant enough to impede a proposed development of this kind.



# **Planning Summary**

The purpose of this Chapter has been to set out the national and local planning policy framework relative to the proposed development.

To help meet the commitment to reduce carbon emissions, there is strong support at all levels of UK energy and planning policy to increase the proportion of energy produced from development of renewable energy resources. Wind power is expected to make the largest contribution to this increase.

The proposed development of small wind turbines at land south-east from Backies Farm has planning policy support at national and local levels, and complies with the requirements for a development of this type within the relevant planning policies and planning permission should be granted.



# **Supporting Environmental Information**

### Ecology / Ornithology / Geology / Hydrology

One of the greatest threats to all living species is climate change resulting from carbon emissions. As mentioned earlier in this statement the proposal would offset approximately 4,423 tonnes of carbon dioxide into the atmosphere over its expected operational life, and weight should be given to this positive contribution in line with planning policy.

Any potential impact of this proposal should not be considered in the context of industrial scale installations, but in line with specific guidance for small scale wind turbines.

The wind turbine site does not lie in or immediately next to any specific natural heritage designations such as Special Protection Area's (SPA's), Special Areas of Conservation (SAC's) RAMSARs or Sites of Special Scientific Interest (SSSI's) – although we have identified the nearest wildlife sites and their reasons for classification.

The planning site or landowner's boundary does not support breeding bird populations of significance, and no bird species recognised as sensitive to collision risk are known to breed in the immediate vicinity of the proposed turbine. The landowner and client is not aware of any other protected species in the surrounding area that will be adversely affected by the proposal.

Based on the above information, we would also confirm that there is no localised indigenous flora on or around the development site / field (which is used for crops and is ploughed every year).

Further environmental aspects assessed can be summarised in the following table:



Backies Farm	Source	Comments	Sensitivity
Geology	British Geological Survey	No superficial deposits are recorded on site. The immediately underlying bedrock is recorded as the Corryhabbie Quartzite Formation.	The Corryhabbie Quartzite Formation is described as comprising Orthoquartzite, fawn to white; cross- bedded with pinkish haematite streaks.
Hydrogeology	Scottish Environment Protection Agency	The site is located within a Drinking Water protection zone (Buchie bedrock and localised sand and gravel aquifers).  The bedrock is classified as having fracture flow, with low productivity.	Groundwater will flow in the bedrock through fractures. The quality of the groundwater has been classified as Good with High confidence and the quantity of groundwater has been classified as Good with High confidence in 2008.
Hydrology	Scottish Environment Protection Agency	The Deskford Burn is located approximately 300m to the west of the site.	The Deskford Burn was classified as having an overall status of Good with Medium confidence in 2008 with overall ecological status of Good and overall chemical status of Pass.
Flood Risk	Scottish Environment Protection Agency	The site is not located within a designated flood plain.	N/A.



#### **Visual Impact**

At 35m (max.) to blade tip the Endurance E-3120 is "small" category of wind development as specified by Moray Council. The proposed Backies wind turbines will be located in a rural setting and will be located approximately 10km north-east of the town of Keith and 10km south-east of the town of Buckie. The undulating landscape of the area is further interspersed with forest plantations, tree-lines, minor roads, overhead power lines and pylons. This undulating backdrop reduces the prominence of the turbine against the local landscape - providing back-clothing to the turbines from almost all directions of view, and screen wider views and especially towards the more sensitive major conurbations noted above.

Whilst there has been other wind turbines granted planning consent (and some larger turbine developments being considered) in the neighbouring wider area it is considered that the separation distances with other similar developments are sufficient to ensure that these particular turbines will, in the main, be seen and experienced in isolation.

To assist in assessing the potential visual impact of the Backies wind turbine a Zone of Theoretical Visibility map (ZTV) has been prepared. It uses a 3 dimensional terrain model to calculate where the wind turbine would theoretically be visible. The model is very much a worst-case scenario as it takes no account of vegetation or manmade structures which in a real scenario would provide a high level of extra screening (especially in the context of this location). A 5km radius was chosen for the detailed study area as it is unlikely to be clearly visible at distances greater than this (please see photomontages and wireframes for confirmation of this), however we have also included a 15km ZTV to show the limited effect of the turbines on the wider study area as suggested by SNH. The ZTV maps can be found in Appendix 2 along with predicted photomontages that illustrate how the turbine would appear.

The proposed site does not lie within an Area of Outstanding Natural Beauty, Area of Landscape Significance or an Area of Great Landscape Value. The ZTV drawings show that there would be visual impact assuming a notionally smooth ground basis – mainly contained to the north of the 5km study area and very little extra area is affected when we look at the 15km radius ZTV plan. However, as discussed, we note that the 5km detailed study radius is extensively wooded and this screens the turbines from view from a large proportion of the ZTV shaded area (please see wireframes and photomontages for further confirmation).

It is concluded and asserted that the proposal (of a medium to long term temporary nature) does not negatively impact visually significantly on the wider character area to such a degree as to warrant refusal given the weight of the overarching environmental benefits and supportive planning policies.

Please see Appendix 2, which includes the Landscape and Visual Impact Assessment Document (LVIA), drawings, ZTVs and photomontages / wireframes – all of which confirm and supports the above assertions in more detail.



#### Noise

The Endurance E3120 is one of the quietest machines available on the market and whilst it would emit a small amount of aerodynamic noise, this must be taken in context. The indicative maximum noise level of a wind farm at 350m (1150ft) is comparable to the sound of leaves rustling in a general breeze (in the region of 35-45 dB).

Source/Activity	Indicative noise level dB (A)
Threshold of hearing	0
Rural night-time background	20-40
Quiet bedroom	35
Wind farm at 350m	35-45
Car at 40mph at 100m	55
Busy general office	60
Truck at 30mph at 100m	65
Pneumatic drill at 7m	95
Jet aircraft at 250m	105
Threshold of pain	140

Please see Appendix 3 for our site-specific noise report, in which we confirm the noise levels that will be found outside all neighbouring properties within an approximate 1km radius. This report has been carried out with the assistance of Garrad Hassan WindFarmer specialist wind turbine design software and is in accordance with ETSU-R-97 and all subsequent Institute of Acoustics (IoA) publications, communiqués and guidelines. We also include a copy of the Hayes McKenzie Noise testing document for the chosen turbine – confirming the values used in our noise report.

Please see the appendices at the end of this document for the noise predictions calculations and analysis, it is clear that we have not surpassed the 35dB acceptable noise level limit at any of the nearby dwellings and we would state that no prejudice should be paid to this application due to noise.



#### Shadow Flicker

Under certain combinations of geographical position and time of day, the sun may pass behind the rotors of a wind turbine and cast a shadow over neighbouring properties. When the blades rotate, the shadow flicks on and off; the effect is known as 'shadow flicker'. It only occurs inside buildings where the flicker appears through a narrow window opening. The seasonal duration of this effect can be calculated from the geometry of the machine and the latitude of the site. A single window in a single building is likely to be affected for a few minutes at certain times of the day during short periods of the year. The likelihood of this occurring and the duration of such an effect depends upon:

- The direction of the residence relative to the turbine(s);
- The distance from the turbine(s);
- The turbine hub-height and rotor diameter;
- The time of year;
- The proportion of day-light hours in which the turbines operate;
- The frequency of bright sunshine and cloudless skies (particularly at low elevations above the horizon); and,
- The prevailing wind direction.

Only properties within 130 degrees either side of north, relative to the turbines can be affected at these latitudes in the UK – turbines do not cast long shadows on their southern side. The further the observer is from the turbine the less pronounced the effect will be. There are several reasons for this:

- There are fewer times when the sun is low enough to cast a long shadow;
- When the sun is low it is more likely to be obscured by either cloud on the horizon or intervening buildings and vegetation; and
- The centre of the rotor's shadow passes more quickly over the land reducing the duration of the effect.
- The effect of the refraction or 'bending' of light around the rotor is more pronounced.

At distance, the blades do not cover the sun but only partly mask it, substantially weakening the shadow. This effect occurs first with the shadow from the blade tip, the tips being thinner in section than the rest of the blade. The shadows from the tips extend the furthest and so only a very weak effect is observed at distance from the turbines.

Shadow flicker can be mitigated by siting wind turbines at sufficient distance from residences likely to be affected. Flicker effects have been proven to occur only within ten rotor diameters of a turbine. The maximum rotor diameter for the Backies wind turbines in this application is 19.2m, therefore the potential shadow flicker effect could occur up to 192m from the wind turbine. The closest dwelling in this instance is approximately 250m (Backies Farm – orientated due north); therefore shadow flicker will not occur at any of the dwellings surrounding this development and we would argue that no prejudice be paid to this application due to shadow effects.



#### **Aviation / Radar**

It is widely accepted within the aviation industry that wind turbines can have an effect on air traffic control radar as the return received by radar from a wind turbine can look like a moving object to the air traffic controller. However for this to occur the radar requires a line of sight to the wind turbine (or be very close to line-of sight) and within the zone of influence for that radar or asset. The Civil Aviation Authority (CAA), MOD and the National Air Traffic Service have been consulted regarding this proposal and we have not received any objections to date, however, we enclose the following pages from our own specialists' surveys.

We would confirm that there are no civil or airport assets within the 30km official safeguarding criteria and, as such (and considering the modest scale of the turbine proposal and the maximum turbine tip heights that have been identified in the following specialist analyses), we have argued that the potential for impact upon air users to be negligible.

#### **Radio Communications**

Wind turbines can cause interference with fixed radio communications links utilised by the telecommunications industry and to control utility infrastructure. Ofcom and the Joint Radio Committee (JRC) will have to be consulted as part of this process, however, we have proposed a location for - and a scale of turbine that is unlikely to present a detrimental effect to radio, TV or microwave links in the area.

We would also welcome any conditions that the council saw pertinent to include in the permission, should this application be granted, that would safeguard the immediate surrounding dwellings' TV and radio reception before and after construction of the turbine.



# **Appendices**