

<b>APPLICATION NUMBER:</b>	LW/07/0077	<b>ITEM NUMBER:</b>	<b>1</b>
<b>APPLICANTS NAME(S):</b>	Glyndebourne Productions Ltd	<b>PARISH / WARD:</b>	Ringmer / Ouse Valley & Ringmer
<b>PROPOSAL:</b>	Planning Application for An 850kw wind turbine comprising a tubular tower 44m high, a three bladed rotor with a diameter of 52m, overall height 70m, an underground cable to Glyndebourne and crane hardstanding area		
<b>SITE ADDRESS:</b>	Land At Mill Plain, New Road, Ringmer, East Sussex, BN8 5UG		
<b>GRID REF:</b>	TQ 4511		



## 1. SITE DESCRIPTION / PROPOSAL

1.1 The application site is known as Mill Plain, some 400m to the north west of Glyndebourne Opera House, which forms part of the Glyndebourne estate. It is proposed to erect a wind turbine consisting of a tubular tower 44m high and a three bladed rotor with a diameter of 52m, with an overall height to blade tip of 70m. An underground cable would run from the turbine to the opera house through the neighbouring woodland. The turbine would have an 850kW generating capacity which the applicants state would generate the equivalent of Glyndebourne's annual electricity consumption. During periods of low electricity demand at Glyndebourne Opera House, power will be fed into the National Grid via Glyndebourne's own existing electricity sub station for use by others.

1.2 The site lies within the Sussex Downs Area of Outstanding Natural Beauty (AONB) and the designated South Downs National Park (yet to be approved by Ministers). It forms part of a chalk ridge that runs to the south of Ringmer village. The ridge is 80m above sea level and slopes down to the farmland and the southern edge of the village at Gote Lane. To the south, it slopes more steeply through woodland to the opera house. The site is accessed from New Road via a private metalled estate road. New Road links Ringmer with the villages of Glynde and Firle.

1.3 The turbine is to be sited 8m below the highest point of Mill Plain, at 72m AOD. It would therefore stand 62m above the top of Mill Plain. Three public footpaths converge at the top of Mill Plain, coming within 90m of the proposed turbine. There are nine residential properties in the vicinity of the site, the Gamekeeper's House 400m to the east, Reservoir Cottages (four houses) 500m to the west, Gote Farm 700m to the north, a pair of properties located close to the Glyndebourne car park and Glyndebourne House, 400m to the south. The site is fringed by woodland to the north, east and south but has an open aspect to the south west, the direction of the prevailing wind.

1.4 Mill Plain is the site of a former windmill, the remains of which can still be seen and which are Grade II Listed. The former windmill dates from the late C18 to early C19 and is believed to have been demolished in the 1920s.

1.5 A site visit, and a visit of significant viewpoints, has been organised for the Planning Applications Committee prior to the meeting.

## 2. RELEVANT POLICIES

Planning Policy Statement 1: Delivering Sustainable Development

Planning Policy Statement 7: Sustainable Development in Rural Areas

Planning Policy Statement 22: Renewable Energy

**ESBHSP: – EN2 – Areas of Outstanding Natural Beauty**

**ESBHSP: – EN3 – Areas of Outstanding Natural Beauty**

**ESBHSP: – EN4** – Areas of Outstanding Natural Beauty  
**ESBHSP: – EN28** – Renewable Energy Generation  
**LDLP: – ST03** – Design, Form and Setting of Development  
**LDLP: – ST09** – Natural Features Habitats and Protect  
**LDLP: – ST13** – Noise and Development  
**LDLP: – ST31** – Renewable Energy  
**LDLP: – CT02** – Landscape Conservation and Enhancement  
**LDLP: – H02** – Listed Buildings  
**LDLP: – RE05** – Public Rights of Way

### **3. PLANNING HISTORY**

None.

### **4. REPRESENTATIONS FROM STANDARD CONSULTEES**

4.1 The application was subject to an initial public consultation in January and February of this year, following which the applicants prepared a supplementary report in an attempt to address the issues and questions that had been raised. A second round of public consultation was carried out in May and June.

#### **Original Consultation**

**Ringmer Parish Council** – Recommend refusal. Does not comply with national or local planning policies. Negative impact on the landscape outweighs green energy gains. Negative impact on people pursuing leisure activities in the countryside, particularly users of local footpaths in vicinity of turbine. Will set a precedent.

**ESCC Highways** – No objection. This authority has received details of the likely construction traffic for this development proposal along with a timescale, being approximately 75 HGV movements over a period of four months. This level of traffic does not represent a material increase in the level of HGV traffic using the highway network in the locality and for this reason, I cannot raise a highway objection. Access onto the site for such vehicles would be improved and should be subject to the usual highway condition for construction vehicles.

During the sub-periods where levels of HGV movements are concentrated, such as removal of spoil and foundation concrete deliveries, it may be necessary to secure a construction programme with the local area office, particularly as these movements may conflict with the levels of traffic associated with the Beddingham improvement scheme and there would be a need to ensure minimum disruption on the highway network, which can be secured through a planning condition.

**ESCC Rights Of Way Officer – No objection**

**The Ramblers Association** – Major impact on visual characteristics of this part of the AONB. Visible from wider viewpoints in AONB. Three public rights of way cross Mill Plain. 90m separation zone to turbine may have a negative effect on walkers enjoyment of area and its views over Weald to north. Noise from turbine blades may be disconcerting. Inappropriate site for renewable energy proposals. Significant adverse visual effect. Prominent hilltop position. Set a precedent.

**East Sussex County Archaeologist** – The site is of potential archaeological significance and a programme of archaeological works and a written scheme of investigation are recommended.

**Environmental Health** – 1) The noise assessment undertaken is in accordance with current standards and practices

2) The results obtained from the noise background survey seem consistent with what we would expect for such a location and our own short survey

3) From the information provided it would appear that the proposed wind turbine is unlikely to give rise to a tonal or intrusive component

4) The wind turbine will produce a noise audible to those visiting Mill Plain, for some this sound will be acceptable, for others it will not. However, there is limited guidance on how such an impact is assessed. It could be argued that visitors who dislike the noise need not visit this location, they can walk on the downs elsewhere

5) In terms of the impact upon those living in the area of Gote Lane Ringmer, even during period of strong wind (30mph) resulting wind turbine noise will be less than the background noise by 5dB

6) Wind turbine noise will be audible at the Gamekeepers Cottage particularly during the daytime during periods of high wind speed, though it should be noted the period of time when these wind speeds will occur are likely to be limited. The assessment indicates that the slight increase of the wind turbine noise above background is of minimal significance.

Recommend condition to limit noise from turbine

**South Downs Joint Committee** – Object. Recognise threat of climate change and role of South Downs in reducing CO2 emissions. Proposals within Sussex Downs should be small scale. Applicants assertion that it is acceptable because it only affects a small part of the AONB is rejected. Visual impact from a number of viewpoints along the South Downs Way, from footpaths on Mill Plain and other closer viewpoints would be unacceptable. Adverse effect on character of Mount Caburn and Ouse to Eastbourne Scarp Slopes landscape character areas. Loss of tranquillity is significant. Noise would cause further loss of amenity for footpath users. Not small scale development in terms of South Downs Management Plan. Will detract from setting of listed mill post. Inappropriate location for renewable energy development. Will cause harm to natural beauty, character, tranquillity, amenity and cultural heritage of this part of AONB.

**The South Downs Society** – Object. If allowed, the turbine will be among the tallest erected in any protected landscape in England and Wales and taller than any turbine erected in a National Park. The applicants argument that the turbine would only affect a small proportion of the AONB and would not significantly affect the integrity of the AONB is unacceptable. SDS has appointed a consultant to produce a critique of the EIA. Output from turbine will fail to meet demand characteristics of Glyndebourne, because of seasonality. Available wind resource has been incorrectly estimated. EIA underestimates the effects on the landscape and the visual receptors. There will be adverse impacts of major significance from many of the most famous viewpoints on or near the South Downs Way. Harm to quality of landscape, impaired ability to enjoy the landscape, erosion of area of tranquillity. Application is contrary to national, regional and local policies. The proposal is not small scale and will result in lasting, significant environmental damage to the surrounding AONB.

**Council For Protection Of Rural England** – CPRE Sussex. Three letters received. Object. Set a precedent for other areas of the designated SDNP. Constitutes a major development within an AONB. Wide visual impact. Technically inefficient. Most productive time for the turbine would be when Glyndebourne's energy needs are low. Should consider alternative sources of renewable energy and alternative site. Increased traffic. Base of structure will contravene safety guidelines for users of public footpath. Government supports offshore turbines rather than onshore.

CPRE Hampshire. Object. Will set a precedent. Man made structure such as this will interrupt skyline and significantly diminish special quality of this part of AONB. Turbine will be starkly visible. Does not accord with national, regional or local policies. Will compromise objectives of AONB designation. Lack of justification for turbine.

**Natural England** – Object. Proposal would have an unacceptable adverse impact on the intrinsic character and natural beauty of the Sussex Downs AONB and designated South Downs National Park. Obtrusive, artificial feature within a natural landscape. Prominent, discordant feature on an otherwise undeveloped skyline. Scale is unacceptable and would result in significant adverse impact. Impact on sense of tranquillity and remoteness enjoyed by many people visiting the area and users of three public rights of way crossing Mill Plain. Fundamentally alter the nature of the views across the area. EIA acknowledges the significant landscape and visual impact. Landscape has the highest level of protection and should be protected from adverse impacts. Scale of area affected does not override the fact that overall impact would be significant and therefore unacceptable. Support aim of reducing carbon footprint but do not consider that benefits outweigh significant adverse impacts.

**Seeboard Power Networks Plc** – Not received

**Glynde & Beddingham Parish Council** – Strongly object on following grounds:- a) visual impact on AONB and surroundings b) it is located too close to public footpath and does not conform with statutory distance c) fully support and endorse the comments of Ringmer Parish Council.

**BAA** – No objection as proposal does not conflict with our safeguarding criteria.

**NERL Safeguarding National Air Traffic Services Ltd** – No objection as proposal does not conflict with our safeguarding criteria

**ESCC Transport And Environment Group** – Landscape Group - Object. This area of landscape is within the top 20% of landscape in the country. Clear that this will cause adverse visual and landscape impact. Integrity of AONB would be significantly altered. There would be no enhancement of the AONB, therefore would be contrary to policy. The landscape character of the site is not so different from other parts of the AONB and it is not in a poor physical state to consider it as less worthy than other parts of the AONB. To permit this development would lead to degradation of other parts of downland AONB. Impact upon historic structures and buildings is underestimated, particularly the Mill Post. The proposal is not of national importance. No landscape compensation measures proposed. There are alternative locations available which would not have as much direct impact upon the AONB.

**Transco** – Gas pipes in proximity of site.

**East Sussex County Council** – Strategic Policy - Not received

**Design & Conservation Officer** – I do not consider that the proposed wind turbine will have a negative impact on the setting of the listed remains of Glyndebourne windmill. The new turbine will act as a landmark and modern link with the historic windmill, reflecting the historic use of this area. Therefore, I have no objections to this application.

**LDC Sustainability Officer** – Recommends that permission is granted as developments of this kind must be encouraged given climate imperatives. To reject it might set a negative precedent for future proposals. Lewes District Council is a forward thinking green council and this application presents an opportunity for the Council to set out its stall. Permission should be subject to adequate actual wind speeds being measured first.

## **Second Consultation**

**The South Downs Society** – Appreciate the considerable effort by the applicant in responding to the original concerns. However, the additional comments do not go far enough to reassure us of the threat to the precious and irreplaceable landscape of the South Downs. Reiterate previous objections. Proposal is contrary to national and local planning policy. The site lies within an open downland landscape character type and therefore policy EN4 of the Structure Plan is relevant. Government advice in PPSs is that overriding need is to protect nationally designated landscapes. Assumptions regarding wind speeds were based on wrong grid square. Likely energy benefits of the proposal are in question. Photomontages provide a misleading impression. Turbine would be totally inappropriate, discordant and highly negative on views from all around. The claim that the proposal will damage only a part of the Sussex Downs AONB, rather than all of it, demonstrates a clear lack of understanding of the planning system. The planned operational period of 25 years represents a generation. Turbine will be out of scale with

the hill on which it is to stand. Ringmer Parish Councils public meeting was strongly against the turbine. This is the wrong place for a turbine.

**South Downs Joint Committee** – Reiterate previous objections.

Photomontages confirm that turbine will have an unacceptable impact in some long distance views, such as from Firle Beacon and the South Downs Way.

**The Ramblers Association** – Reiterate previous objections.

**Council For Protection Of Rural England** – Two letters received - Reiterate previous objections. Supplementary Report is not an unbiased, independent re-appraisal of the application. Planning Committee should visit a turbine site in the UK to assist in forming their opinion. Area is highly sensitive to change. Glyndebourne should use their position to sponsor an offshore turbine.

**The National Trust** – Object. Trust has 5000ha of holdings on South Downs. The Trust adopted a revised policy on renewable energy which is broadly in line with PPS22. The proposed turbine would be unacceptably intrusive in views from Black Cap and Mount Harry (within Trust ownership). Scale and widespread visibility of turbine would harm intrinsic character and natural beauty of AONB. Will set a precedent for future proposals if allowed. Benefits do not outweigh significant adverse effects.

## 5. REPRESENTATIONS FROM LOCAL RESIDENTS

5.1 Comments received on initial public consultation - 73 letters of support received, 22 of which were from Ringmer addresses, raising the following points -

- Need for action on climate change/reduce carbon emissions
- Glyndebourne's initiative should be supported
- Elegant/graceful addition to the landscape/will enjoy seeing it
- Necessary to accept visual/landscape change to protect the wider environment/climate
- Site previously used for wind
- The existing pylons/masts are more intrusive
- Demonstrates a commitment to renewable energy and reducing carbon emissions
- Appropriate location
- Can be removed at the end of its life/not there for ever
- Will be an interesting landscape feature
- No need for any additional electricity infrastructure
- Not on the highest Downs
- Will not create a precedent
- Need renewables as well as energy efficiency
- Importance of seeing the big picture
- Not noisy
- Can help to achieve self sufficiency
- The Government supports renewables
- Will not detract from the AONB
- Visual impact acceptable
- Educational resource

- UK behind in meeting renewables targets

5.2 Letters of support also received from Friends of the Earth and Ringmer Community College.

Friends of the Earth - Appreciate that this is a sensitive site, but the benefit of a renewable energy supply outweighs other considerations.

Ringmer Community College - Majority of 100 pupils who took part in a debate on the turbine were of the opinion that it would act as a beacon for the future.

5.3 230 letters of objection received, of which 133 were from Ringmer addresses, raising the following points -

- Significant effect on the AONB/inappropriate in AONB
- Significant visual/landscape impact/harmful
- Out of scale with Mill Plain
- Will be seen over very extensive area
- Not in keeping with the local landscape
- Turbine too large, intrusive, alien, industrial
- Too close/detrimental to Ringmer/overshadows Ringmer
- Will detract from the setting of the mill post
- Will not be seen from Glyndebourne, Ringmer has the impact
- Damage to views from local footpaths
- Turbine on this site should be smaller
- Area is currently unspoilt
- Trees, hedgerows and buildings will not restrict views
- Will be higher than Mt Caburn
- Noise will be a problem
- Low frequency noise/infrasound an issue
- Loss of tranquillity
- Too close to footpaths/adverse effect
- Will detract from walking experience of the Downs
- Within footpath CA exclusion distance/guidelines
- Health and safety issues in relation to paths
- Movement/noise will distress walkers
- Footpath diversion needed
- Dispute the 28.1% load factor/poor efficiency/turbines do not deliver forecast energy or carbon savings/ output has been overestimated
- Will not generate when Glyndebourne needs power
- No surplus power for wider community
- Wind intermittent needs fossil fuel back up
- Economics of wind power called into question
- Will not pay back the carbon debt in its manufacture and construction
- Will set a precedent for further development
- Glyndebourne should source electricity from offshore/elsewhere
- Reduce carbon by greater use of public transport by clients
- Consider solar panels instead
- More smaller turbines elsewhere on the estate
- Focus on energy efficiency



- Consider geothermal heating
- Question the accuracy of the photomontages
- Question the accuracy of the bird survey
- Government now favours offshore over onshore
- Renewable developments should minimise impacts
- Benefits do not outweigh impact
- Question the response to the exhibition/I was not asked opinion
- No benefit to Ringmer residents
- Question local employment
- Will need to be lit
- Hazard to gliders
- Hazard to helicopters
- Will increase traffic
- Will be a traffic hazard as drivers slow to look
- Will harm birds
- Will harm wildlife
- Significant construction disturbance
- Will reduce house values
- Will affect TV reception
- Will overshadow residents
- Detrimental to archaeology
- Will damage tourism

#### 5.4 Letters of objection also received from the following -

South Downs Campaign – Object. Fully support targets to reduce carbon emissions but not where proposals will result in significant environmental harm. Not convinced that alternative options and locations have been thoroughly explored. National and local policy to protect and enhance AONBs. Not a small scale development in terms of its impact upon the AONB. Is a major development. Prominent feature in the landscape. Policy EN4 of East Sussex and Brighton & Hove Structure Plan 1991-2011 explicitly rules out this type of development on open downland. Applicants do not refer to this policy in their EIA. Such a large industrial feature cannot sit comfortably in this sensitive landscape without causing significant harm. Particularly prominent in views from north towards the AONB where it breaks a currently undeveloped and unbroken skyline, and from the Mount Caburn block itself. EIA accepts significant visual impacts, but dismisses these as localised. Do not agree, as will have wide visual impact in sensitive landscape. Impact on users of footpaths. Need to preserve tranquillity is one of ten ambitions of South Downs Management Plan. This is not a community based proposal.

Council for National Parks – Object. Adverse effect on AONB. Great concern about scale of proposed turbine. Inadequate assessment of alternative options. Contrary to policy. Applicants state that it will become a landmark. This demonstrates that it will be prominent in this sensitive landscape.

Open Spaces Society – Object. Eyesore and visible over a huge area. Makes a mockery of AONB and National Park designations. Detrimental effect on users of public rights of way.

East Sussex Gliding Club – Object. Physical obstruction to aircraft, both gliders and powered tug aircraft, operating from nearby airfield. Presence of turbine may force aircraft to divert and contravene specific launch corridors.

British Gliding Association – Object. Physical obstruction to aircraft. Scarp face of South Downs can be used for soaring using lift winds. Glyndebourne is a difficult staging post in transferring from Eastbourne-Firle ridge to Lewes-Ditchling ridge and gliders are low at this point. Turbine will create a significant hazard to gliders in the area.

Kingston Parish Council – Object. Will have a disastrous effect upon the character and appearance of a substantial area around the site. Proposal does not comply with local policies. Benefits of proposal outweighed by environmental damage. Increased traffic during construction and maintenance.

Danehill Parish Council – Strong objection. Will have significant consequences within our county and adjoining District. Significant impact on countryside and South Downs.

5.5 Two other neutral letters received - providing background information on technical aspects of turbines and providing the results of a local survey.

5.6 Comments received on second public consultation following receipt of supplementary report -

14 letters of support, of which six were from Ringmer addresses, raising no new points

43 letters of objection received, of which 24 were from Ringmer addresses, raising no new points.

British Gliding Association and East Sussex Gliding Club have reiterated their previous objections.

5.7 South Downs Campaign has reiterated its previous objection and added the following comments - tranquillity at Mill Plain is greater than much of Mount Caburn as the A27 has far less of an impact. Policy EN4 is relevant as site is within an Open Downland Landscape Type. Turbine will be far higher and of much greater scale than historical windmill. South Downs contains very few industrial or man-made structures. Where they do exist, they are subordinate to the landscape. Photomontages reduce impact of turbine - the blades will be moving in reality and will undermine appreciation of Mount Caburn from South Downs Way. Turbine will break skyline from many views. Information on alternative technologies remains unsatisfactory. Not a serious examination of alternatives. Lifespan of 25 years is not temporary in planning terms.

## **6. PLANNING CONSIDERATIONS**

### **Material Considerations**

6.1 The main considerations in the determination of this application will be i) policy, ii) the need for the turbine and the benefits from the renewable energy it will generate, iii) alternative sites and renewable energy sources, iv) visual impact on the AONB, v) noise, vi) impact on aviation and vii) other considerations.

### **Policy Background**

6.2 Climate change is internationally recognised as perhaps the most important issue facing the planet today. Ways to reduce carbon emissions, and to be more sustainable in our energy usage, have been present in planning policy for a number of years and are increasingly becoming a fundamental element of planning policy in the UK.

6.3 National guidance in the form of Planning Policy Statements (PPS) such as PPS1 (Delivering Sustainable Development), the draft supplement to PPS1 (Planning and Climate Change), PPS22 (Renewable Energy) and its companion guide all promote the increasing use of renewable energy. PPS22 states that in sites with nationally recognised designations, such as AONBs and National Parks, permission should only be granted for renewable energy projects “where it can be demonstrated that the objectives of designation of the area will not be compromised by the development, and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits” (para.11). It goes on to state in paragraph 12 that “small-scale developments should be permitted” within such areas “provided there is no significant environmental detriment to the area concerned.”

6.4 PPS7 (Sustainable Development in Rural Areas) states that “all development in rural areas should be well designed and inclusive, in keeping and scale with its location, and sensitive to the character of the countryside and local distinctiveness.” AONBs have the highest level of protection and “the conservation of the natural beauty of the landscape and countryside should therefore be given great weight in planning policies and development control decisions.”

6.5 At a regional level, draft Regional Planning Guidance for the South East (RPG9) sets targets for electricity generation from renewable sources. By 2010 there should be 620MW of energy produced from renewable sources, amounting to 5.5% of overall electricity generation capacity. In East and West Sussex, this target is 57MW of energy from renewables by 2010, rising to 68MW by 2016. All local authorities in the region will be expected to accommodate at least one wind energy development over the next 20 years. The proposal would provide 1.5% of the East and West Sussex 2010 target. At present, the region as a whole is projected to exceed the target of 620MW

by 2010. However, current projections for East and West Sussex show only around 2.06MW of installed renewable energy sources by 2010.

6.6 RPG9 states that “priority should be given to the development of renewable energy schemes, particularly larger scale ones, in less sensitive areas including previously developed and industrial land and areas where there is already intrusive development or infrastructure, for example major transport corridors” (para. 10.76). It goes on to state that wind energy development “should not be precluded in AONBs and the new national parks as there will be locations where small scale construction, e.g. a wind development of between one and four turbines not generating more than 5MW, can be accommodated where conflict with statutory landscape protection purposes set out in PPS7 can be avoided through careful siting and design” (para 10.77). This definition of small scale has been criticised in some quarters, not least by the South Downs Joint Committee, South Downs Society and the South Downs Campaign.

6.7 The draft South East Plan (March 2006) reiterates the sub regional targets set out in RPG9. Policy EN5 states that renewable energy development “should be located and designed to minimise adverse impacts on landscape, wildlife and amenity. Outside urban areas, priority should be given to development in less sensitive parts of countryside and coast.” It goes on to repeat the advice in RPG9 regarding development within AONBs.

6.8 At the local level, Policies EN2 and EN3 of the East Sussex and Brighton and Hove Structure Plan seek to conserve and enhance the landscape quality and character of the AONB. Policy EN3 in particular states that “development involving change or damage to (the quality of the AONB) ...or having a significant adverse effect on established views, will not be permitted.” Policy EN4 goes further and states that “on open downland...no development will be allowed other than that which provides for the needs of quiet recreation...or which specifically enhances the landscape.” Policy EN28 encourages and supports renewable energy, provided major development proposals are accompanied by an environmental statement outlining the extent of possible environmental effects and how they can be satisfactorily mitigated and are environmentally acceptable.

6.9 The Lewes District Local Plan Policy ST31 supports renewable energy proposals, but requires such schemes to have an acceptable impact on the immediate and wider landscape and protect features and areas of natural, cultural, historical and archaeological interest. Policy CT2 states that within the AONB permission will only be granted for development which respects the natural beauty of the Downland area in terms of siting, use, form, layout, design and materials. Development should also complement, and be consistent with, the quiet informal enjoyment of the area by the public and respect the distinctive qualities of the AONB.

6.10 There is other policy guidance available which advises on wind energy within the AONB. The draft South Downs Management Plan and draft revised South Downs Planning Guidelines both provide advice on this issue with

Principle RE3 of the latter document supporting “small scale turbines intended to provide power to individual, or a number, of properties, community buildings, businesses etc within the South Downs” provided that the proposed installation would not, individually or in conjunction with other installations, harm the natural beauty, character and amenity of the South Downs.

6.11 Finally, the National Association for AONBs (NAAONB) adopted a position statement on windfarms within AONBs in 2002. Although aimed at large scale commercial windfarms, it does state that “small scale commercial wind energy schemes could be accommodated where they do not compromise the objectives of the designation and they respect the local countryside’s character.” Crucially, the statement goes on to define small scale as “between one and three turbines, ranging up to 500KW (in the order of c.60m height, to blade tip)” which may be acceptable “provided the zone of visual impact does not adversely affect the neighbouring countryside.” This definition of small scale is below the energy output and height of the turbine proposed for Glyndebourne.

### **Need for the Turbine**

6.12 The application documents make it clear that Glyndebourne Productions Ltd (the applicants) are committed to reducing their carbon emissions in an effort to reduce the impact of human activity on the world’s climate. There is increasing evidence available which supports the view that burning fossil fuels is leading to climate change and that there is an urgent need to seek alternative energy sources.

6.13 The applicants state that Glyndebourne presently releases 1200 tonnes of carbon dioxide into the atmosphere each year, with electricity cited as the most significant contributor to Glyndebourne’s carbon footprint, accounting for 855 tonnes of CO<sub>2</sub> each year, with gas consumption accounting for the rest. It is believed that the proposed wind turbine would reduce the opera house’s CO<sub>2</sub> emissions by 71%.

6.14 Lewes District Council is also committed to tackling climate change and approved a Strategy for Climate Change in February 2006 and an Energy Policy in September 2004. These documents seek a 10% reduction in the District’s carbon emissions by 2010, and a target of 10% of the District’s electricity requirements being sourced from renewable sources by 2010 and 20% by 2020.

6.15 It is clear therefore that any proposal for renewable energy, however small, will help to reduce carbon emissions and will go some way to meeting national, regional and local renewable energy targets. This is an important material consideration in the determination of this application.

### **Technical Background**

6.16 The peak for electricity consumption at the Opera House is during the summer months when the Glyndebourne Festival opera season is running

and when cooling and lighting of the building is the primary requirement. In order to meet 100% of the peak energy demands, a 2.6MW turbine would be required, of a height between 100 – 120m. This was discounted because of the visual impact of such a tall structure. A smaller turbine was therefore selected which would meet Glyndebourne's overall annual electricity demand and have less visual impact. The result of this, however, is that during the winter months, when the Opera House energy demands are at their lowest, the turbine will be generating the most energy and vice versa. Alternative means of providing renewable energy were considered and discounted and these are discussed in more detail in the next section.

6.17 The annual mean wind speed at Mill Plain is estimated by the applicants to be 6.8m per second at a height of 45m above ground level. This data was obtained from a national database which gives information on wind speeds on a 1km by 1km Ordnance Survey Grid Square basis. The site is exposed to the prevailing wind and the turbine would begin generating power at wind speeds of around 4m/s (about 8mph). It would shut down in periods of high wind speeds (around 50mph). It is estimated that the turbine would be operational (i.e. wind speeds in the 8-50mph bracket) between 70-85% of the time. There will be times when there is insufficient or too much wind. These variations can be averaged out over a year to give the 'load factor', or the ratio of actual electricity production over what could have been produced if the turbine ran continuously at full capacity. The Glyndebourne turbine is estimated to have a load factor of 28.1%, which the applicants state is in line with the DTI's average load factor of 28% for existing UK wind turbines.

6.18 Criticisms have been raised against the efficiency of the turbine, with objectors stating that savings in CO2 emissions would be less than forecast by the applicants. The accuracy of the wind speed data has also been questioned as has the mismatch between turbine output and Glyndebourne's use of power.

6.19 The applicants have responded by stating that the wind speed information for the grid square in which the turbine is to be located is sufficiently accurate. However, they have conceded that a more accurate wind speed measurement can be obtained over several months by use of a 45m high monitoring mast. The applicants have stated that if permission is granted for the turbine they would be willing to carry out further investigations into wind speeds at the site, possibly by using such a monitoring mast. The locational case for the turbine would have been stronger had such data been provided with the current application.

6.20 With regard to load factor, the applicants have responded to criticisms by stating that they have calculated the load factor based on an evaluation of the wind resource and the operational characteristics of the turbine. They are confident that the turbine will meet the forecast output figures.

6.21 The mismatch between turbine output and the pattern of electricity consumption at Glyndebourne has been raised as a significant issue. At times when the Opera House is using most power (during the summer), it is

taking energy from the National Grid and continuing to contribute to CO2 emissions. As referred to above, however, to meet the peak energy demands would require a larger turbine. The applicants consider that as the proposed turbine would meet much of the annual electricity demands of the opera house (saving 855 tonnes of CO2 emissions in the process) this justifies the mismatch between summer and winter demand. The important consideration is that over the course of a year the turbine will balance out the CO2 emissions from the opera house, resulting in significant savings.

6.22 While there is a debate about the technical aspects of the proposal, PPS22 (Renewable Energy) makes it clear that local planning authorities should not make assumptions about the technical and commercial feasibility of renewable energy projects. It is also highly unlikely that a scheme would be advanced by the applicants if it was uneconomic or technically flawed. Even if the output was to be lower than forecast, PPS22 confirms that even small scale projects can provide a limited but valuable contribution to reducing CO2 emissions and local planning authorities should not reject applications simply because the level of output is small.

6.23 There can be no doubt that, in light of the above policy advice, there would be benefit from the proposal in terms of a reduction in carbon emissions. There are international, national and regional targets for reducing greenhouse gas emissions, and for provision of renewable energy generating capacity, as set out in the Policy section of this report. The contribution the proposal could make in achieving these targets should hold significant weight in the consideration of this application. For these reasons, it is not considered that the proposal should be rejected on technical grounds.

### **Alternative renewable energy sources**

6.24 The applicants have been criticised by some objectors for "failing to properly consider" alternative sources of renewable energy, which would reduce CO2 without the adverse impact of a large wind turbine. They have responded by setting out in more detail the alternatives that were considered.

#### **(a) Photovoltaics**

6.25 This relates to the use of solar energy rather than wind energy. It has been concluded by the applicants that this would be a prohibitively expensive option. In order to meet Glyndebourne's annual electricity demand, this would require a vast area of photovoltaic panels covering in the region of 45,000m<sup>2</sup> (over 4 hectares or 10 acres in extent). The panels would be installed on the ground on adjoining land and visually, while arguably not having as wide a visual impact as a tall turbine, would nevertheless have a significant impact within the AONB. Furthermore, it would cost around £10 million to install, about 12 times more expensive than the turbine.

## **(b) Biomass**

6.26 This would generate energy from burning wood, in the form of a combined heat and power plant (CHP). Such a system would produce a considerable amount of surplus heat – approximately twice as much heat as electricity. To generate sufficient electricity to meet Glyndebourne’s needs would require a huge CHP plant, of a scale which is not yet proven to be reliable. Furthermore, CHP produces heat and power at the same time and ideally these should be used as the same time. However, Glyndebourne’s main heat demand is in winter and main electricity demand is in the summer. In the summer months therefore excess heat will be released into the atmosphere, being both costly and wasteful. Biomass energy is not, therefore, a viable option at this time.

## **(c) Ground Source Heat**

6.27 These systems circulate water through underground pipes, using the constant temperature below ground to heat the water. This is then extracted and circulated within the building using underfloor heating or oversized radiators. These systems can also be run in reverse to cool a building during the summer.

6.28 However, ground source heat systems take time to respond. Glyndebourne Opera House currently uses fast responding air conditioning units which can extract heat quickly as the building fills with people, stage lighting comes on and the temperature rises. A ground source heating system would not be able to act quickly enough to sufficiently cool the large auditorium and this is not, therefore, a viable option.

## **(d) Passive or stack ventilation**

6.29 As the main use of the energy to be provided is to cool the opera house during the summer, the applicant was asked to consider passive ventilation as an alternative to air conditioning. This system lifts hot air up to ventilation stacks on the roof where it is released. At the same time, cooler air is drawn down into the building. However, this system is usually designed into a new building from the outset and is not an add-on feature to an existing building. Glyndebourne has a concrete slab roof with a lead covering. It would not be possible to introduce stack ventilation into the opera house.

6.30 Productions take place during the warmest months of the year and the presence of 1200 people within the auditorium means that it can heat up quickly. The building requires a cooling system that works quickly. The applicants do not consider that passive ventilation, even if it could be retrofitted, would work sufficiently well to effectively cool the auditorium.

6.31 They have also pointed out that passive ventilation would not overcome the high demand for electricity for lighting of the opera house during the Festival Opera season over the summer months.



### **(e) Small turbines**

6.32 The applicants have stated that the use of small turbines means that a far greater number would be required in order to achieve a comparable amount of energy to a single large turbine. If they were to use the same type of turbine as at Ringmer College (6KW, 12m high to blade tip), this would require 180 such turbines spread over an extensive area to provide a similar amount of renewable energy. This would result in a more adverse visual impact than one large single turbine.

### **(f) Purchase green energy from elsewhere**

6.33 Glyndebourne have previously purchased electricity from Ecotricity, a green energy firm. However, this arrangement was terminated as they could not supply sufficient amounts of electricity to meet the Opera House's demands. Since 2005, the applicants have sought to obtain a green electricity supply but without success. They have also pointed out that while worthwhile, purchase of renewable energy generated elsewhere does not add to the overall UK supply of renewable energy schemes and does not help to meet national and regional targets.

### **Alternative siting**

6.34 The Glyndebourne Estate covers some 1000ha and within the estate, three areas were considered to be potentially suitable for the turbine.

#### **(a) Low lying arable farmland south of Ringmer**

6.35 This was ruled out at an early stage for having an inadequate wind resource, the proximity of dwellings and the length of cable needed to reach the Opera House.

#### **(b) Downs to west of the Ringmer to Glynde road**

6.36 This was also ruled out at an early stage due to being within an Environmentally Sensitive Area (ESA), its higher ground level and therefore greater prominence and lack of visual linkage with the Opera House. There are also a number of protected bird species that feed in the area.

#### **(c) Outlying downland hills to east of Ringmer to Glynde road**

6.37 There were two locations considered within this area, the site itself (Mill Plain) and The Holt. The Holt is part of the same ridge as Mill Plain, about 500m away. It shares many of the same attributes as Mill Plain in respect of wind speed, proximity to the Opera House and length of cable run. However, it was considered to be more isolated and in a quieter location than Mill Plain, with no footpaths or estate roads crossing it.

6.38 The woodland fringing The Holt would stand between the turbine and the prevailing wind and this would increase the turbulence experienced in that

area, reducing the turbine output and lifespan. To overcome the turbulence issue, a taller turbine would be required, in the region of 90 -100m high.

6.39 For these reasons, Mill Plain was selected as the preferred site.

### **Pre-application Public Consultation**

6.40 Glyndebourne carried out a public exhibition in October 2006 to seek public opinion on the wind turbine proposal. The applicants report that a total of 250 people came to the exhibition itself, with a further 150 or so people attending a performance at the Opera House also viewing the proposals. They state that a total of 215 responses were received, with 85% indicating that they were in favour of the proposal. However, of those, only 83 were residents of Ringmer (39%). This does not demonstrate “considerable public support” as has been claimed by the applicants.

6.41 A separate survey was carried out of Ringmer residents by a private individual on a door-to-door basis. Of 264 responses received, 75% thought wind energy was essential and 50% supported the Glyndebourne proposal. This demonstrates a slightly stronger level of support locally than was evident from the public exhibition. It is clear, however, from the results of the public consultation carried out as part of this application that the proposal has strongly polarised public opinion, with strong bodies of opinion both supporting, and objecting to, the wind turbine.

### **Landscape and Visual Impact**

6.42 There is clearly little argument about the need for renewable energy sources to reduce CO2 emissions. The main consideration of the proposal will therefore be its visual impact, and whether this will result in such significant harm to the distinctive qualities, character and appearance of the AONB that it overrides the renewable energy benefits.

6.43 To support the applicant’s case they have appointed Chris Blandford Associates to carry out an assessment of the landscape character of the site and its surroundings and the likely impact of the turbine upon it. A Zone of Theoretical Visibility (ZTV) was also produced by the applicants. This is the area from which, in theory, the turbine might be visible based on a topographical study. The area covers a 6km radius, although in reality the turbine would be hidden from many views by vegetation, buildings and the main South Downs escarpment to the south, which is 5km away. The turbine would be visible from a wider area, but from over 6km away this impact becomes more limited. However, the turbine would be clearly visible from closer viewpoints and this has been demonstrated by other photomontages produced by the applicants.

6.44 These viewpoints include from Lewes Road, 1.3km north west of the turbine, Saxon Down, 1km to the west, from Ringmer village green, 1.5km to the north, Neaves Lane, 1.2km to the east and Potato Lane and Gote Lane approximately 1km to the north and west. The Supplementary Report

produced by the applicants included further longer distance montages and these demonstrate that, while it would be visible from up to 12.4km away (Long Man of Wilmington), it would be a distant object and would have less visual impact than in closer views. However, from Firlle Beacon, 5.5km to the south, the turbine would be a prominent feature in the natural landscape. Members will be provided with a set of these photomontages at the Planning Applications Committee meeting.

### **Landscape Character Assessment**

6.45 The site lies within the Open Downland Landscape Type and within the northern part of the Mount Caburn Landscape Character Area (LCA), as identified by the South Downs Integrated Landscape Character Assessment (SDICLA) from 2005. Mount Caburn itself is described as an isolated outlier of open downland and its key sensitivities include a sense of remoteness and isolation that results from the absence of roads, visually prominent scarp slopes and open and undeveloped skylines. Landscape management/development considerations specific to Mount Caburn, as opposed to Mill Plain, include the maintenance of the open and undeveloped skyline of scarp slopes and avoiding the siting of wind turbines on the sensitive skyline. It has a high sensitivity to the proposed turbine development.

6.46 The applicants' landscape consultants argue that Mill Plain is of a different character to Mount Caburn, being relatively low lying and separated from Mount Caburn by the Ringmer to Glynde road. It contains the Opera House, a number of residential properties and an area of woodland. The number of footpaths which cross the site increase the sense of accessibility to it and decreases its sense of isolation and remoteness. It is also argued that it has a low level sense of tranquillity. It is concluded that the site is of medium to high sensitivity to the turbine proposal, e.g. it is less sensitive than Mount Caburn to the proposed development.

6.47 Nevertheless, the consultants conclude that the introduction of a 70m turbine would result in a medium level of change to the character of the Mount Caburn LCA. The turbine would be very visible from Saxon Down, as one approaches Mill Plain from the west, and the movement of the turbine blades is acknowledged by the landscape consultants as "noticeable and this would affect the sense of tranquillity of the landscape." This change in character would be "significant and is likely to be adverse as key sensitivities include remoteness, isolation and tranquillity." Medium change is defined as "a partial loss or alteration to one or more key elements, features or characteristics to the baseline character, such that post development character will be partially changed and the change readily noticed." A High and Very High level of change would result in more fundamental and damaging harm to landscape character.

6.48 There are five other LCAs in the vicinity, three of which are within the AONB, which would be affected by the proposal. The consultants acknowledge that the turbine "would act as a new prominent, man-made

feature in the landscape and some will regard it as a landmark feature.” They go on to argue that this is regarded as having a positive contribution to the landscape. They concede, however, that “the overall impacts on many areas of the AONB within 2.5km from the site are likely to be adverse on account of a likely reduction in the sense of seclusion, remoteness and tranquillity within parts of the Mount Caburn and the Ouse to Eastbourne Scarp Footslopes LCA’s.” However, they argue that as the turbine would affect only a small proportion of the AONB, not its entirety, the integrity of the AONB would not be significantly affected.

6.49 This view has not been accepted by a number of respondents including the South Downs Joint Committee and the ESCC Landscape Group who argue that the specific site and its immediate surroundings are within the AONB and proposed National Park, and that the proposal will have an adverse impact upon those areas. Consequently, the proposed turbine could not be seen to be enhancing or conserving the natural beauty of the area and the proposal is therefore contrary to the stated policy aims of protecting AONBs and the proposed National Park. The fact that only a small part of the AONB is affected is not a valid argument. All parts of the AONB fall within the designation of protected landscape where harmful developments should be avoided. It would be contrary to the aims of AONB designation to allow harmful developments where only certain parts of the AONB would be affected. This would degrade the original purpose of the designation and cumulatively would result in even greater harm to the integrity of the AONB. The protection of this landscape attracts great weight in the consideration of this application.

6.50 The visual impact of wind turbines is a subjective matter, as was acknowledged by a Planning Inspector at an appeal in Devon in 2006 when he stated that “some observers find them elegant, graceful structures while others see them as ugly, industrial intrusions.” What must be considered, however, is the fact that the proposal will result in a 70m high structure with a rotor sweep diameter of 52m which will be visible over a high proportion of the local landscape. The area around Mill Plain does not contain any significant man-made influences, with the exception of the Opera House itself which is at a lower land level and screened by woodland. The proposed turbine will not be stationary and will be the only feature of this nature and scale within this landscape.

6.51 It is considered that the proposed turbine would be an extremely prominent feature from certain views and would introduce an alien structure into what is largely a natural and unspoilt landscape. The landscape consultants accept that in some views the wind turbine would be clearly visible. However, they argue that it would “present a simple image, being located on a hill within a generally open, large-scale landscape.” From Lewes Road, as one enters Ringmer village, the consultants argue that it would be seen in the context of overhead electricity pylons which are also man-made vertical structures which would visually compete with the turbine. While this may be true to some extent, the turbine structure would be of a much larger scale, and sited at a much higher elevation, than the pylons and would

significantly break the skyline. Therefore, it would appear out of scale with the character of the landscape in this part of the AONB.

6.52 The impact of the development on the landscape character of this part of the AONB is considered by some objectors to have been underestimated. The South Downs Campaign have argued that the site is within a more tranquil area than much of Mount Caburn, being unaffected by the proximity of the A27 and railway line. The road to the west of Mill Lane is narrow and well screened by hedgerows. It is not considered that its presence unduly detracts from the tranquillity of the area. Traffic noise from the Lewes-Ringmer road is also not considered to unduly intrude into the area. The view from Saxon Down to the south west as one heads down towards Mill Plain would make the turbine appear relatively large-scale compared to the adjacent woodland to the north while the movement of the blades would attract the eye and result in a high level of distraction and impact in this local landscape. By drawing the eye in this way, it would detract from the quiet enjoyment, tranquillity and sense of isolation presently enjoyed by visitors to this sensitive part of the AONB, particularly to users of the footpaths that cross Mill Plain.

6.53 From Ringmer village green the turbine would be particularly prominent. There are no obvious pylons to draw the eye from this viewpoint. Instead, the turbine would be seen on top of the scarp slope rising above the houses in the foreground, breaking the skyline and forming a stark large scale feature which will be substantially taller than anything else in its vicinity. It is considered that it would dominate views from the village green. Other closer views of the turbine, from Neaves Lane, Potato Lane and Gote Lane, emphasise its scale and visual impact, which is only partly mitigated by existing vegetation. The applicants' landscape consultants acknowledge that there would be adverse visual impacts from Saxon Down, Ringmer village green, Neaves Lane and Gote Lane (Sadler's Way), but say this has to be set against "strong support" for the turbine amongst Ringmer's residents.

6.54 In more distant views, the impact of the turbine is lessened as it is seen within the context of the large open landscape. However, from Firle Beacon and other parts of the main South Downs escarpment to the south (which is the route of the South Downs Way long distance footpath), the turbine will be clearly visible. It would not be a "small incidental feature in the landscape" as described by the applicants. Instead, it is considered that its appearance, even in longer distance views from the south, would be out of keeping with the natural character and distinctive qualities of the AONB. The movement of the blades would be a distraction and it would appear as a discordant feature in the wider landscape. The South Downs Joint Committee agrees that there would be an unacceptable impact from a number of viewpoints along the South Downs Way.

6.55 The applicants have stated that the turbine would have a 25 year lifespan only which represents only a short period of time in landscape terms. However, this would still result in serious harm to the landscape for a considerable period of time.

## **Conclusion on landscape impact**

6.56 The applicants' landscape consultants have assessed the likely visual impacts of the proposed turbine upon the site and its surroundings. However, they have played down the impact by stating that it would be localised and would affect the overall integrity of the AONB. The "support of local residents" to the scheme was also seen as justification for accepting adverse visual impacts from some viewpoints.

6.57 It is not considered that these arguments withstand close scrutiny. The AONB and proposed National Park designations make this an area of national importance in landscape terms. It is clear that the turbine will result in a significant adverse visual impact to the landscape around Mill Plain which is contrary to the aims of designation. It will break the open and undeveloped skyline of Mill Plain and would introduce a structure of significant scale which cannot be comfortably accommodated within this landscape. The resulting harm that would arise would conflict with the aims of PPS7, Structure Plan Policy EN4 and Local Plan Policy CT2.

6.58 While the turbine technically complies with the definition of small scale within RPG9, this definition has been challenged by the main landscape bodies that have responded to this application. It should also be remembered that it does not meet the definition of "small scale" as set out in the NAAONB statement.

6.59 The proposed turbine will have a wider visual impact than is stated by the applicants and the harm arising from this development is considered to be significant enough to outweigh the benefits to be gained in terms of a reduction in carbon emissions. Consequently, the proposal fails to meet the test in PPS22 and other policy guidance in terms of benefits outweighing harm and the proposal cannot be supported.

## **Other considerations**

### **Impact on ecology and wildlife**

6.60 The site is not subject to any ecological designations. A survey of bats and birds was undertaken in 2006 and the results demonstrated that the turbine would not have a negative impact upon their wellbeing.

### **Archaeology and historic environment**

6.61 The site is close to the Grade II Listed Post Mill and some concern has been expressed at the negative impact upon the setting of this structure. However, the turbine will be 90m from the Post Mill and no objection has been raised by either English Heritage or the Council's Design and Conservation Officer. The turbine could be seen as a modern day windmill and therefore have a functional relationship with the old mill.

6.62 There is no objection to the proposal from the County Archaeologist.

## Noise

6.63 The applicants have commissioned a noise assessment which was undertaken by Sound Solutions Acoustic Consultants. The Council's Environmental Health Officer requested that the assessment should clarify the noise impact on the nearest residential properties, in particular the Gamekeepers Cottage, and on those properties along Gote Lane. The following paragraphs are the conclusions of the Environmental Health section on noise impact.

6.64 The method of assessment and rating used by the consultants was that described in "The Assessment and Rating of Noise from Wind Farms (ETSU-R-97)". This is currently the primary document used in assessing the noise impact of wind turbines and farms. The document describes a framework for the measurement of wind farm noise and gives indicative noise levels thought to offer a reasonable degree of protection to wind farm neighbours without placing unreasonable restrictions on wind farm development or adding unduly to the costs and administrative burdens on wind farm developers or local authorities.

6.65 Existing background noise levels were measured continuously for a number of days at the Gamekeepers Cottage and Gote Farm. These locations were chosen because of their proximity and the need to have access and security for the monitoring equipment. Council Environmental Health Officers have visited these locations and made their own measurements, albeit over much shorter time periods, but have found no marked difference between measurements.

6.66 The type of turbine proposed will have its blades upwind of the tower which has the effect of minimising any airflow changes as the blade passes the tower and so reduces the risk of noise nuisance. Another source of tonal noise is from the gear box. Modern gear boxes are engineered in such a way as to minimise tonal noise.

6.67 The main concern is the impact of the actual predicted noise levels from the wind turbine on wellbeing and health of nearest residents.

6.68 The World Health Organisation (WHO) sets a target level to avoid moderate nuisance of Leq50 dB(A) (the average noise). The modelling level for the turbine at Glyndebourne indicates that, even when it will be at its loudest, it is likely to be 8 dB below this target level. The modelling also indicates that, at wind speeds at 12ms<sup>-1</sup>, the noise level at the Gamekeepers Cottage will be 42dB outside the bedroom window. Allowing for between 15 and 10 dB reduction through an open window, the internal noise level is likely to be in the region of 30dB(A). At this wind speed, external background noise will be high.

6.69 Consequently, at the Gamekeepers Cottage the wind turbine will be audible during high wind speeds but it will not be louder than the background

noise levels at those wind speeds. At other noise sensitive locations, particularly in the village of Ringmer, the noise assessment indicates that turbine noise will be at least 5 dB below background noise even during periods of higher wind speed.

6.70 The ETSU R 97 document recommends a fixed limits for night time noise 43dB(A) as an L90 over 10 minutes. This limit is derived in order to protect sleep. The document goes on to recommend a slightly more relaxed limit of 45dB(A) L90, 10 minutes, where the occupier of the property has some financial involvement in the wind farm.

6.71 It is this lower fixed limit that the applicants wish to have applied at Mill Plain. They argue that the occupiers of the Gamekeepers Cottage, the closest property and therefore the most affected, are financially involved with the turbine as they are employees at the Glyndebourne Estate.

6.72 Environmental Health officers have considered this, and their understanding of financial involvement in the case of a wind farm is where the nearest property to the turbine is occupied by those persons who benefit from the wind turbine, which is not the case here. Therefore they have suggested the more stringent fixed limit is the most appropriate. In conclusion, subject to a condition restricting noise emissions from the turbine, they have no objection to the proposal.

### **Impact of noise from the turbine on wider users of the Downs**

6.73 Concern has been expressed that the noise from the wind turbine will impact upon those visiting Mill Plain and surrounding area of downland. This area of the Downs is used frequently as it offers exceptional views and relative tranquillity. The turbine is approximately 90 m from the convergence of several footpaths. When the turbine is generating noise, the point where the footpaths meet will be affected by the sound of wind. Users of the footpath will hear turbine blade noise, likely to be a whooshing noise. There are no national guidelines to assess the impact of this type of noise on those using areas such as Mill Plain for informal recreation. Some visitors may enjoy the sound and may actually visit Mill Plain to experience it; for others it maybe seen as an “industrial noise” in what they perceive as a tranquil location. Environmental Health Officers have concluded that the impact on footpath users is difficult to quantify.

6.74 The full findings and noise readings are available for inspection in the application file.

### **Shadow Flicker**

6.75 This is caused by the sun passing behind the rotor blades of a turbine and, when the blades rotate, a shadow flicks on and off. It only occurs inside buildings so objections to shadow flicker for walkers on Mill Plain are unfounded. The nearest houses to the turbine are only likely to experience very limited shadow flicker, between 11.9 and 20.2 hours per year. All the



affected houses are within the Glyndebourne Estate and, if shadow flicker proved to be a problem, additional planting could take place, or sensors could be installed to shut the turbine down during the short time that those properties were affected.

### **Electromagnetic Interference**

6.76 There is concern that the turbine would affect terrestrial TV reception. The only properties which may be affected lie within the Estate. The applicants are prepared to install satellite TV, which will be unaffected by the turbine, for its tenants if necessary. Ringmer village properties will be unaffected.

### **Traffic and access**

6.77 The site is accessed from the Ringmer to Glynde road and the main traffic impact will arise during construction of the turbine. There would need to be a widening of the hedge opening to accommodate the delivery vehicles but this can be replanted following installation. Over its lifetime the turbine will need to be maintained, resulting in approximately two visits a year by a small van.

6.78 There has been some concern at the potential distraction for drivers caused by a wind turbine. However, the PPS22 Companion Guide states that “there has been no history of accidents” where wind farms adjoin road networks. There is no objection to the proposal from the Highway Authority.

### **Aviation**

6.79 There has been no objection to the application from the British Airports Authority (BAA) or the Pease Pottage radar management company (NATS) in terms of Gatwick Airport safeguarding.

6.80 However, objections have been received from the British Gliding Association and the East Sussex Gliding Club, based at The Broyle in Ringmer. They have stated that gliders use the South Downs ridge for soaring using lift winds. Glyndebourne is at a staging post between the Lewes – Ditchling ridge and the Eastbourne – Firlie ridge to the south and gliders are often low at this point. They fear that the presence of a 70m high turbine in this location will present a hazard to gliders. Furthermore, the turbine will be a physical obstruction to powered tug aircraft operating from the nearby airfield and will force aircraft to divert and potentially contravene specific launch corridors.

6.81 The applicants' consultants, Pager Power aviation studies, have responded by stating that “a glider that is low enough for the proposed wind turbine to be a significant obstacle is unlikely to be able to sustain flight to continue to glide the South Downs ridge or to complete a cross country flight.” Gliders that are low should be able to use the ‘see and avoid’ principle, as is required for numerous obstacles all over the country.

6.82 The Civil Aviation Authority (CAA) has guidelines for aircraft safety in respect of wind turbines. However, the airfield is approximately 4.5km away and the turbine is unlikely to compromise the safe operation of the airfield. Only a small alteration to flight paths would be necessary to avoid the turbine if it did prove to be a problem. This would be of minor inconvenience to pilots, but is unlikely to compromise aircraft safety. A representative of CAA has also advised that such a localised impact is an inconvenience and not a danger.

## **Conclusion**

6.83 The reduction of CO2 emissions is generally recognised to be essential if we are to address the causes of climate change. International, national and regional targets have been set and proposals which help meet those targets should generally be supported, unless the harm arising from the proposal is serious enough to outweigh the environmental benefits to be achieved. This proposal would save the emission of 855 tonnes of CO2 per year into the atmosphere and this is a significant benefit in combating climate change.

6.84 Lewes District Council has approved proposals for smaller wind turbines and other renewable energy schemes elsewhere in the District, where they have been found to not result in serious harm to the landscape or to the particular character of an area.

6.85 However, this proposal is the first of its kind in the Sussex Downs AONB and the proposed South Downs National Park, both nationally important landscape designations. The area is afforded the highest level of protection as a result and the Policy section of this report emphasises the importance of safeguarding such areas from development proposals which would harm its distinctive qualities and landscape and compromise the objectives of designation.

6.86 The proposed turbine would have a detrimental visual impact upon the AONB from close viewpoints and some longer distance views. The applicants' landscape consultants have conceded that there would be an adverse visual impact on parts of the AONB and it is considered that this, together with the loss of tranquillity, the intrusion onto the open undeveloped skyline and the scale of the proposal in this local landscape, makes the proposal unacceptable.

6.87 The size of the turbine falls within the RPG9 definition of small scale, but not the NAAONB definition. RPG9, however, does state that small scale turbine proposals within AONBs should demonstrate that the objectives that underpin the purposes of designation are not undermined. It is not considered that this has been demonstrated by the applicants. Consequently, the proposal does not comply with national or local planning policy as it would result in serious harm to the natural beauty, character and tranquillity of this part of the Sussex Downs AONB. The benefits to be achieved through a reduction in carbon emissions, whilst significant, are

clearly outweighed by the harm to the nationally protected landscape. Accordingly, the application should be refused.

## 7. RECOMMENDATION

That permission is refused

### Reason(s) for Refusal:

1. The proposed wind turbine, by reason of its height, form and location, would result in a prominent and large scale structure which would break the open, undeveloped skyline at Mill Plain and cause serious harm to the natural beauty, character and tranquillity of this part of the Sussex Downs AONB and the proposed South Downs National Park. As such, the benefits from the proposal in terms of a reduction in carbon emissions and helping to meet national and regional renewable energy targets fail to sufficiently outweigh the disbenefits caused by the adverse effects on the distinctive qualities for which the area has been designated. The proposal is therefore contrary to advice in PPS7 and PPS22 and Policy INF8 in RPG9, Policies S1, S4, EN2, EN3, EN4 of the East Sussex and Brighton and Hove Structure Plan 1991-2001 and Policies ST9, ST31 and CT2 of the Lewes District Local Plan.

### This decision is based on the following submitted plans/documents:

<u>PLAN TYPE</u>	<u>DATE RECEIVED</u>	<u>REFERENCE</u>
Design & Access Statement	18 January 2007	
Other	18 January 2007	ENV S/MENT1
Other	18 January 2007	ENV S/MENT2
Other	18 January 2007	ENV S/MENT3
Other	18 January 2007	ENV S/MENT4
Other	18 January 2007	PLANNING S/MENT
Location Plan	23 January 2007	1:2500
Other	21 May 2007	SUPPLEMENTARY REPORT

## **Background Papers**

Glyndebourne Wind Turbine Environmental Statement Volumes 1 – 4 (North Energy) January 2007

Glyndebourne Wind Turbine Planning Statement (North Energy) January 2007

Glyndebourne Wind Turbine Supplementary Report (North Energy) May 2007

PPS1: Delivering Sustainable Development (ODPM)

Draft Supplement to PPS1: Planning and Climate Change (ODPM) December 2006

PPS7: Sustainable Development in Rural Areas (ODPM)

PPS22: Renewable Energy (ODPM) 2004

Planning for Renewable Energy – A Companion Guide to PPS22 (ODPM) 2004

Wind Power in the UK (Sustainable Development Commission) May 2005

Regional Planning Guidance for the South East Chapter 10 Energy Efficiency and Renewable Energy (GOSE) 2004

The draft South East Plan Core Document March 2006

Reports to South Downs Joint Committee Planning Committee 12 March 2007

CAA Policy and Guidelines on Wind Turbines July 2006

Wind Energy Developments in AONBs – A Position Statement (National Association of AONBs) September 2002

Inspector's reports into wind turbine appeals at Penpell Farm, Cornwall (2007); Baydon Meadow, West Berkshire (2004); Shooters Bottom Farm, Chewton Mendip (2006); Beech Farm, Devon (2006) and Stowford Cross, Bradworthy (2003).

Countryside Agency: South Downs National Park Designation Order 2002