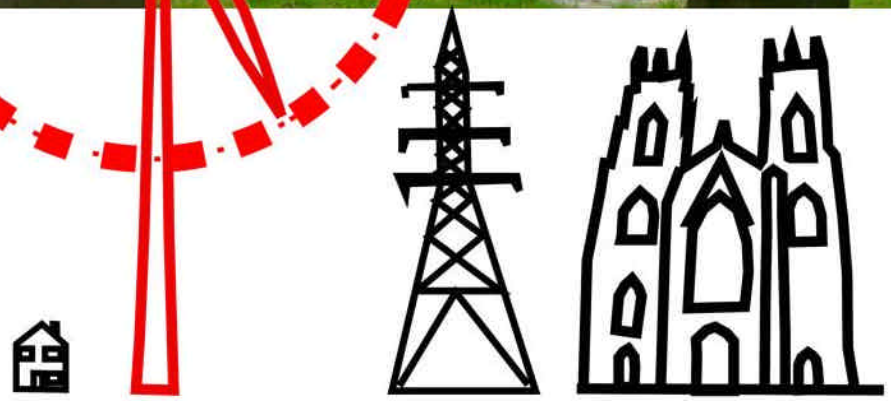

3 The Objections

Sections 3.8 to 3.14

SECTION 3
THE OBJECTIONS

This file contains sections 3.8 to 3.14

3.8 OBJECTION – LOSS OF RURAL RECREATIONAL AMENITY

- The rural roads around the site make it ideal for recreation – because they provide a circuit.
- Walking, jogging, cycling and horse riding are all popular.
- The presence of a wide variety of wildlife brings people to observe the wildlife, and for more specialised pursuits like falconry and shooting.
- Fishing is popular with people who visit from more urban areas.
- Many people enjoy observing the local wildlife.
- The planning application should be rejected because it would spoil the enjoyment of large numbers of people, some of whom visit the area especially for country recreational activities.

3.8.1 The unique combination of quiet flat country roads, rural outlook, open landscape, the range of wildlife and proximity to four villages makes the area very popular with residents and visitors. The amenity value cannot be overstated. Many people who live here chose to do so because they enjoy the following activities. They are very popular with residents and visitors to the area. For each one we provide a brief description and then outline the impact that the proposed turbines would have on people's enjoyment of them.

Walking

3.8.2 People can be seen walking along the roads in the area but by far the most popular activity is walking dogs on the footpaths on the site. This is a daily occurrence on the public footpath across the site from Birkin. The proposed location of turbine 2 is only 120 metres from this footpath. Being so close to a 125 metre high turbine is distinctly uncomfortable and can be very noisy. The footpath into and through Gateforth Wood is also very popular; from the other end it is the walk along Woodlane.

3.8.3 All enjoyment of this walk will be lost because the path, at its closest point, is just 85 metres from turbine number 7. These are both walks enjoyed by local people and visitors, who may also include Birkin Church on their route.

Jogging

3.8.4 Joggers tend to run different circuits from cyclists. The route from Hambleton around Gateforth Hall, along Hillam Road and then up Fox Lane is popular at weekends. This would be dominated all along Fox Lane by the turbines towering over Gateforth Wood, affording a considerably reduced level of enjoyment to that which the current surroundings provide.

Cycling

3.8.5 The area is ideal for cycling and it attracts both the serious cyclists and the family groups. Children are often seen unaccompanied on the quiet rural roads. The ride around Hillam Common Lane, Gateforth, West Haddlesey and Birkin is very popular with people from all the local villages. It is an ideal circular tour on flat roads with pleasant views all around. It can be undertaken from any of the villages, and the more ambitious can add the

circuit around through Sutton and Burton Salmon. The appeal is the quiet rural outlook, English countryside at its best.

3.8.6 The proposed wind turbines would spoil this completely. For the entire circuit there would be turbines within 1km and for much of it there would be turbines within 400 metres. The turbines would be the dominant feature of this popular cycle ride, compared with the present situation where it is the countryside which attracts the riders. More serious cyclists travel further to the area, with groups coming from Pontefract, Castleford and the eastern side of Leeds. The appeal is the rural location and escape from town life. This would be lost if the area was to be industrialised as the proposal implies.

Fig 3.8.1 Tour of Britain on Roe Lane

3.8.7 A measure of the suitability for cycling is that the Tour of Britain Race used a route down Roe Lane past the location of the site and its compound in previous years. Cycling is also very popular as a recreational activity with some local cyclists using it almost every day.

Horse Riding

3.8.8 There are no bridle ways in the area but the roads are quiet enough for riding. Maspin Moor Road is very popular with riders and this runs along the northern side of Maspin Moor drain. The proposed location for turbine 1 is 260 metres to the south of the track and turbine 3 is only 235 metres from it.

3.8.9 Horses are owned by people living along Hillam Common Lane, where there is also a stable and riding school. One house, where there are young children with ponies, is located in the section of this road which is proposed as the access route to the site.

3.8.10 During the construction period there will be major loss of amenity for horse riders who will not be able to use the roads due to heavy construction traffic. During the construction and operational phase the use of Maspin Moor Road for riding will be spoilt because of close proximity of turbines.

3.8.11 The British Horse Society recommends a separation distance of 3 x turbine height, which here would be 375m, and a minimum of 200m. The turbines are within the recommended separation distance and they would be a visually dominant influence, liable to disturb a horse and detracting from the pleasure of the ride. There would be the potential to cause an accident involving children, for whom this is a popular ride because it is one of the few off-road rides available.

Shooting

3.8.12 There are organised shoots in the area and while the vista will be dominated by turbines the location of such shoots is unlikely to be prohibited on safety grounds. However the area is also very popular with a number of syndicates who shoot Pigeon in the fields adjacent to the site. While we have been unable to find any reference to this being restricted it seems inadvisable to be using a shotgun in close proximity to a wind turbine. The turbines will also displace birds, which will tend to avoid the area, thus reducing the available shooting. People visit the area from long distances to enjoy the pastime and it will no doubt lose its appeal if restrictions are imposed and the whole feel of the place is changed from peaceful rural to industrial.

Falconry

3.8.13 This is a very popular area for falconry. Peregrine Falcons have often been seen in the garden and sitting on the roof of Maspin House. Their main prey is the Wood Pigeon but Partridge and Pheasant are also taken. These game birds are common in the area, thanks to the fact that they are bred and encouraged by local landowners.

3.8.14 Falconry is a sport which is popular in the Middle East, and visitors to the area have included members of Arab royal families. The reason why the area is perfect for falconry is that it is open, with no major obstacles to visibility. This is essential for luring the bird back. The site is also crossed by track ways which make it possible to spot potential prey before releasing the bird.

3.8.15 Wind turbines and falconry are totally incompatible. First, the appeal of the sport is that it is a rural pursuit, carried out in rural locations and not on industrial estates. Second, raptors are the type of bird most at risk of collision with a wind turbine. The area would cease to be suitable for falconry.

Observing Wildlife

3.8.16 The area is rich in wildlife, thanks to the efforts of local landowners in **encouraging** biodiversity and to the efforts of the owners of the two historic woodlands in planting native deciduous trees. Another factor is the active co-operation with the police in preventing illegal hunting in the open farmland. Visitors come to see and photograph wildlife in the fields and open areas, often combining this with walks in the vicinity.

Fig. 3.8.2 Great Spotted Woodpecker in Gateforth Wood
Photo G Todd

Angling

3.8.17 This is another rural pastime which attracts visitors to the area from nearby towns. Anglers have choice over where they go and currently the banks of the River Aire and Birkin pond are both popular. The enjoyment of the

countryside is **very** much a part of the pleasure to be found from angling. The nearest turbine to Birkin pond is 1km away but all 14 would be visible. The banks of the River Aire at Beal are further away but from here all 14 turbines would be clearly visible and would dominate the view to the north. This is currently an open view across the Green Belt, with no industrial obstructions. It will not be the same looking at 14 turbines.

Conclusion

3.8.18 The introduction of 14 125m high wind turbines will, through their visual presence and noise, degrade the immediate environment and constitute a significant adverse impact on the rural amenity and the enjoyment of the many people using the open countryside for relaxation, sport or exercise.

3.9 OBJECTION - DAMAGE TO SENSITIVE RURAL ECOLOGY

- The combination of Ancient Woodland, wetlands, watercourses and open field system with hedgerows which are interdependent has led to biodiversity and colonisation by rare species.
- The site is rich in wildlife which has been encouraged by residents and landowners.
- The ecology survey failed to note the presence of Schedule 1 listed birds.
- Minimal information is provided about migratory birds which pass over the area in large numbers every year.
- Grass snakes are seen frequently in the area but the ecology survey failed to detect any.
- To protect the biodiversity of the area, the application should be rejected.

Note this Objection should be read with reference to further information about the Ecology as set out in Appendix 3.9

Introduction

3.9.1 The EIA submitted by the Applicant shows that the area is rich in wildlife. The ecology study reported 42 species found on the site. This arises from the character of the landscape and the encouragement of wildlife habitat by local residents and landowners. Of the 42 species 19 are described as "of elevated conservation concern".

3.9.2 The special feature of the area is the openness of the land and the close proximity of Ancient Woodland areas including Gateforth Wood, Staker Wood (Site of Importance for Nature Conservation SINC), Hambleton Hough and riverside wetlands.

3.9.3 Large numbers of migratory birds are seen every year. The area of the site is used every year by birds which over-winter in the area and use it as a feeding ground. In summer there is an abundance of swallows and starlings which breed in the area.

3.9.4 The drainage channels provide an aquatic habitat which supports small fish and reptiles including grass snakes, and is home to herons, mallards and moorhens. At night barn owls and bats follow the lines of the same drainage channels and the edges of the woodland.

3.9.5 There is a modest population of brown hare and roe deer which roam freely across the site. In 2009 local residents and the police ran a joint operation to prevent poaching in the area.

The Local Area

3.9.6 The area is rich in wildlife and this is attributable to the proximity of arable farming with hedgerows, Ancient Woodlands, watercourses (including the river and man-made drainage channels) and wetlands. The absence of fences and open character of the landscape then provides mammals with the ability to roam and find food at all times of the year. Land management and a sympathetic approach by the owners of Ancient Woodland have led

to a greater diversity over the last decade. The area should be seen as one ecosystem.

3.9.7 The area includes **Rivers and Stream Corridors** which are the subject of ENV12. This states: *"Linear features such as rivers, streams and canal corridors provide important amenity and wildlife resources. The importance of such features cannot be underestimated, since it is increasingly recognised that wildlife cannot survive in isolated sites separated by development or hostile environments. This is particularly relevant in Selby District which has been subjected to intensive farming practices for several decades. …… It is important to ensure that the nature conservation, recreational and general amenity of river and stream corridors is not impaired by new development."*

3.9.8 The northern boundary of the site includes two **Ancient Woodlands** which are subject to ENV11, which states: "*Development will not be permitted where it is likely to cause loss of, or damage to, an Ancient Woodland, unless the reasons for the development outweigh the nature conservation value of the woodland".*

3.9.9 It is the combination of habitat and its development, by the owners of the Ancient Woodland in particular, which has led to the diversity of wildlife and the colonisation by **protected species.** ENV14 references Part 1 of the Wildlife and Countryside Act 1981, which establishes the level of protection which may be afforded to wild plants and animals. Legislation such as the Badgers Act 1992 exists to allow special protection to certain species. Such legislation is reinforced by the 1992 EC Habitats and Species Directive. Clearly it would be unacceptable for planning permission to be implemented where this would be detrimental to the habitats of protected species. PPG9 (Nature Conservation, 1994) advises that *"the presence of a protected species is a material planning consideration and suggests precautionary measures such as the use of planning conditions or planning obligations to secure their protection."*

Notable Wildlife Species

3.9.10 We present a comprehensive report on local wildlife at Appendix 3.9, and here comment only on the omissions from the ecology report submitted by the Applicant.

Migratory birds

3.9.11 The Woodlane site is a winter roosting and turning point on the migratory routes for several bird species. These birds are well known to local residents who enjoy seeing them.

Swallows

3.9.12 It is very surprising that only a few birds were seen by the survey. They breed every summer in outbuildings along Hillam Common Lane. They use the fields on both sides of the road for feeding, which takes them well into the 500 metre survey area.

Whooper swans

3.9.13 Every year a group of up to 50 birds spends the winter grazing the fields of the proposed site. The birds arrive in October as part of a large flock. The EIA submitted by the Applicant suggests that the wintering swans will probably be displaced by the development. Watching the birds is a local amenity.

Pink Footed Geese

3.9.14 These birds fly directly over the site on their migration every year. There is no mention of them in the Applicant's report. Full details in the appendix. The height and direction would have taken these birds through the turbines at blade height.

Fig. 3.9.1 Geese after passing over the site. One of two skeins of Pink Footed geese. seen on 18 February 2009.

Owls

Barn Owl

3.9.15 This is a species afforded special protection under Schedule 1 of the Wildlife and Countryside Act 1981; it is a regular breeder in the environs of the site and has been seen hunting for voles along the dykes. Barn Owls were not recorded in the survey commissioned by the Applicant.

Tawny Owl / Long-eared Owl

3.9.16 Both these types of owl are known to breed in Gateforth Wood. There is a limited amount of mature broadleaf woodland in this area, so Gateforth Wood has great significance in terms of providing a breeding habitat for these birds. These birds were not identified in the survey.

Little Owl

3.9.17 These are known to nest in the area along Hillam Common Lane. It is not known if they go onto the site but it is less than 1km from their nest site.

Hobby

3.9.18 Summer residents in Gateforth Wood include a pair of Hobby. This bird is a Schedule 1 Protected species within 500 metres of the proposed turbines but is not mentioned in the EIS.

Other Important Species

Badger

3.9.19 There is a small local badger population. One sett at location SE 545 275 was identified in the ecology survey. The Applicant gives 200 metres as the distance of the sett from Turbine 8. We estimate that the sett entrance would have been less than 150 metres from the centre of the base for the proposed turbine. We are alarmed that the sett, which was identified in the EIS, has since been destroyed. See appendix 3.9 for further information.

Grass snake

3.9.20 The EIS did not report the sighting of any grass snakes. This is surprising. They are common, and occasional road kill is seen in the area. Smooth newts and the Common Frog are also seen and provide food for the snakes.

Bats

3.9.21 Bats are present in Gateforth, all around Gateforth Wood, along Hillam Common Lane and in Birkin. Without specialised equipment we can only say that we know that Pipistrelle and Daubenton are both present.

3.9.22 In the report submitted by the Applicant there is no mention of the risk to bats posed by pressure waves created by turbine blades. This was shown by work in Canada by Baerwald and colleagues, who collected 188 dead bats from wind farms across southern Alberta, and determined their cause of death. They found that 90% of the bats had signs of internal haemorrhaging, but only half showed any signs of direct contact with the windmill blades. Only 8% had signs of external injuries but no internal injuries.

Omissions and Errors in the EIA Submitted by The Applicant

3.9.23 The ornithology survey Volume 4 Appendix 8.2 contains the grid reference for the Bishopwood site and description of a vantage point for Bishopwood – a clear indication of cut and paste report writing. This raises doubt over other observations in the report.

3.9.24 There has been no survey work associated with Gateforth Wood, which is a very important wildlife site. The wood is being converted back from mainly conifers to broadleaves. Part of the wood is Ancient Woodland, of biodiversity importance, with oaks and a variety of broadleaf trees supporting a diverse range of bird species, including Tawny Owls, Long-eared Owls, two species of Woodpecker, Common Kestrel, Sparrowhawk and notably Hobby. Bullfinch are present and have also gone unrecorded in the survey.

3.9.25 No nocturnal surveys were undertaken by the body commissioned by the Applicant. Had there been any, then there would have been records of both Tawny Owl and Long-eared Owl, which are both fairly audible immediately prior to the pre-breeding season.

Conclusions

Impact on Migratory Birds

3.9.26 These will suffer:

- Collision risk – especially when flying in conditions of poor visibility.
- Direct habitat loss – for those birds which use the area as a winter feeding ground.
- Disturbance – this will apply especially during the construction phase, when birds and other wildlife will be disturbed from the site. Summer breeding opportunity for hare will be disturbed and winter feeding grounds for Whooper swans will be subject to major disturbance.

Loss of amenity

3.9.27 Local residents will lose the amenity of watching migratory birds – the birds will either divert or suffer collision with the turbines. Either outcome is unacceptable. Note that the survey report is incomplete because the migratory birds are not described in the EIA, and while they may not have been over the area during a survey visit they are of such significance that the overflight of the area should have been noted.

Risk to protected species

3.9.28 There is a significant risk to protected species of bird. Nineteen species of bird of elevated conservation status, and which are also considered to be vulnerable to turbine impact, were recorded by the Applicant as flying over the site. The calculations show that approx 1200 birds will be killed by collision with the turbines if they are 95% capable of avoiding a rotor blade travelling at over 100 mph, and approx 250 birds if they are 99% capable of avoiding the blade. Lapwings would be the heaviest casualties.

Summary

3.9.29 A proposal such as this one, for 14 x 125 metre high wind turbines and 6.8 kms of new 5.5 metre wide roadways within 200 metres of watercourses and Ancient Woodland is clearly in conflict with ENV11, ENV12 and ENV13, any one of which is sufficient to reject the application. The combination of all three makes the rejection of the application essential.

3.10 OBJECTION - INCREASED FLOOD RISK AND HYDROLOGY CONSIDERATIONS

- The site is a Zone 3 flood risk area.
- The villages of Birkin and West Haddlesey are in the same Zone 3 risk area
- Any construction which increases flood risk, even if by a small amount, is unacceptable.
- The area suffered serious flooding in 1947 when the River Aire burst its banks.
- Accepting the risk and lifting water-sensitive turbine parts above flood predictions is not an acceptable solution to mitigate any increase in flood risk to local residents.
- The development is not essential because renewable energy targets will be met without building in the flood plain.
- Contrary to the view presented by the Applicant the area is rich in wildlife and the ecosystems cannot be considered to be impoverished.
- Villagers on Hillam Common Lane and in Birkin use septic tanks for drainage and these cease to function if the water table is raised even by a slight amount.
- Hydrology samples were taken after a prolonged dry spell and do not present a true picture.

Flooding

3.10.1 PPS 25 - Development and flood risk states that:
'The aims of planning policy on development and flood risk are to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Where new development is, exceptionally, necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and where possible, reducing flood risk overall.'

3.10.2 The Applicant acknowledges the risk of flooding and proposes that this can be mitigated by raising all vulnerable equipment to a height of 9.54 metres AOD. This may protect the development proposed but affords no protection to the pre-existing dwellings. Neither does it provide the basis of commitment on behalf of the Applicant to ensure that flooding does not occur.

3.10.3 In reference to the sequential test which is designed to steer development towards lowest flood risk impact, para. 17 of PPS 25 states:
'In areas at risk of river or sea flooding, preference should be given to locating new development in Flood Zone 1. If there is no reasonably available site in Flood Zone 1, the flood vulnerability of the proposed development (see Table D.2, Annex D) can be taken into account in locating development in Flood Zone 2 and then Flood Zone 3. Within each Flood Zone new development should be directed to sites at the lowest probability of flooding from all sources (see Annex C) as indicated by the SFRA.

3.10.4 There are lower flood risk areas, and the development should be rejected.

3.10.5 The Applicant presents the wind farm as "essential infrastructure". Whilst it may be a strategic utility, it is not essential that it is constructed in this particular location. The Applicant claims to have evaluated 370 sites, and from these has identified 14 possible sites in North Yorkshire, of which 8 are in the Selby area. The sequential test should not be limited to the 8 sites in the Selby area and the development should not be classified as essential, since Selby has already exceeded its targets for green energy.

3.10.6 PPS 25 then goes on to say in para. 17 that before a development in a Zone 3 flood risk area is approved, there should be an exception test:
'If, following application of the Sequential Test in Annex D, it is not possible, consistent with wider sustainability objectives, for the development to be located in zones of lower probability of flooding, the Exception Test can be applied as detailed in paras. D9–D14. The Test provides a method of managing flood risk while still allowing essential developments to occur.'

3.10.7 The Applicant claims that such a test is not required because the turbines have been classified as water-compatible. This may be true of the turbines but it is not true of the dwellings which are close to the site.

3.10.8 The sequential test should not be restricted to the 8 sites in Selby District. The Applicant states that the site selection was based on an initial list of 370 sites and that those subject to flooding were eliminated – so it is unclear how a Zone 3 flood risk site should have been proposed. After first pass elimination the Applicant claims that there were then 14 sites in North Yorkshire and 8 of those were in Selby District. The sequential test should not be limited to the 8 sites in Selby District.

The development and its impact on flood risk

3.10.9 The Applicant proposes:

- 14 concrete bases, each of a minimum of 19 metres diameter, and depth from 1 metre to 3 metres – total area – 635 sq metres
- Electric substation in Zone 1 – area 120 sq metres
- 7 crossings of drainage channels – 4 completely new and 3 existing ones to be rebuilt
- 28,000 sq metres of soil to be removed to a depth of at least 1 metre and replaced by crushed stone to make 14 hard standings for cranes and 6.4 kms of access tracks (5.5 metres wide)

The Applicant claims that this will have no adverse impact on the drainage of the area.

3.10.10 The scale and complexity of the development and the way it will change the flood risk is very complex. The application acknowledges some increase in flood risk. Any increase in flood risk is unacceptable because the area is very sensitive to flooding and the site is in the same Zone 3 flood risk area as the two villages of Birkin and West Haddlesey. Flood risk will be increased elsewhere and has certainly not been reduced as required by PPS 25.

Local Experience

3.10.11 In 2007 flooding occurred in Hillam and was caused by a minor obstruction in a drainage channel which flows into the system of ditches which cross the proposed site. At the same time there was extensive standing water in the fields on the proposed site and the drainage channels were full to capacity. The major problem suffered by residents was that septic tank systems were unable to cope during this period of mild flooding.

3.10.12 The scale and severity of potential flooding in the area is well known to older residents who still have detailed recollections of the flooding which occurred in 1947 and which extended well beyond the Zone 3 risk area.

3.10.13 Local residents object to the application because the scale of work may lead to an increased risk of flooding and, however slight this may be, it is an unacceptable risk to the existing local communities.

Hydrology

3.10.14 The baseline measurement of water quality was taken after a prolonged dry spell and is not representative of local water conditions.

3.10.15 The hydrology data is inadequate. Only two site visits were made. The quantity and the quality of the water in the area are very variable. This variation is not seasonal, so dry conditions can occur in February while high volumes of water can be experienced in June and July. Measurements were taken (21 April 2009) after a prolonged dry period when there was minimal water flow and water quality would be poor.

3.10.16 The water quality and biodiversity are far greater than recognised in the hydrology report. This is in conflict with the Applicant's own ecology study which reported 42 species in the area. It also reported small fish in the drainage channels, the same drainage channels in which the hydrology report claims the water to be suitable for use only where "ecosystems are impoverished".

3.10.17 Furthermore we are not satisfied that the water sampling 700 metres upstream of the site was representative of conditions on site, and it should not be used as a baseline to claim that *"the poor water quality is reflected by a low impact magnitude".* The population and variety of wildlife proves otherwise.

3.10.18 The site is above the Sherwood aquifer and it is stated that this is protected from contamination by an impervious layer. The Applicant has stated that the base for the turbines will be a concrete raft between 1 and 3 metres deep. Further studies will be required if the Applicant decides that piling is required to support the turbines. (We are aware that in the case of Lissett wind farm each turbine required 30 drive piles of 28-metre depth to ensure stability.)

3.10.19 Any increase in flood risk in a Zone 3 flood risk area which includes two villages is unacceptable and the application should be rejected.

3.11 OBJECTION - SHADOW FLICKER AND SHADE CAUSED BY ROTOR BLADES

- All four village communities will be in shadow from the turbine blades at some time
- The problem arises because the turbines are too close to all four village communities
- There is lack of detail in the application about which homes and which windows will be affected
- The mitigation statement is vague and lacks conviction
- Shadow flicker does not stop abruptly at 10 rotor diameters; it will extend further but with less intensity; there is no mention of this in the application

Nuisance and Loss of Amenity

3.11.1 The four village communities are so close that at certain times they will each have residents in shadows cast by the turbines' blades – specified by date and time and known to the Applicant. Such shadows will cause a nuisance and loss of amenity to those residents**.**

3.11.2 Residents inside their homes will be affected by shadow flicker as defined by PPS22. The mitigation proposed for this by the Applicant is not sufficiently well defined as to be acceptable.

3.11.3 The effect will extend to further homes beyond those identified because the Applicant chose to use the limit of 10 x rotor diameter as the absolute cut-off distance for the effect. There is no such cut-off; the effect simply reduces in impact as distance increases.

3.11.4 The effect is cause by spatial location relative to the position of the sun over the year but is fundamentally caused by the proposed turbines being so close to the homes in all four village communities that, at some time of the year, they will be in the shadow cast by the blades.

3.11.5 The loss suffered by residents will be that they will have their view of the sun obscured by rotors at times when such a view is highly valued, and they may be subject to shadow flicker if they are in their homes at the time. The times at which this will occur (which we have had to deduce, due to inadequate information in the application) are:

- West Haddlesey residents - summer sunset partly obscured.
- Hillam Common Lane residents - morning sun in winter.
- Gateforth residents - rotor blades will intersect the sun in the afternoons at certain times of year.
- Birkin residents - shadow flicker early in the mornings during summer.

Lack of Clarity Over Proposed Remedial Action by the Applicant

3.11.6 While the Applicant states that any problems which arise will be resolved at the Applicant's expense, the experience during the consultation has been that there has been no urgency in answering questions. Problems of shadow flicker will be time-dependent and, by their nature, at times when it would be difficult to get a response. There are systems available which

automatically close down any turbines which are casting a shadow over homes.

Failure to Consider the Impact of Shadow Flicker on Local Roads

3.11.7 Haddlesey Road and Hillam Common Lane run in an east-west direction. Motorists will be subject to flicker on both roads at the busy times of the day and liable to shadow flicker near sunset, creating a risk when vehicles pass on the narrow roads.

Conclusion

3.11.8 The planning application should be rejected because of the loss of amenity caused by imposing shadow flicker from the turbines on all four village communities.

3.12 OBJECTION - SAFETY AND RISK TO THE PUBLIC

- 47 accidents reported worldwide in 6 months, including 14 blade failures
- Fragments from blades can travel up to 400 metres / weigh several tons
- Incidents of ice throw were reported in the UK last winter
- A distance of topple height plus 10% is considered a safe minimum for roads and railways, and should also apply to regularly used public right of way paths

Wind Turbine Accidents

3.12.1 Wind turbines are industrial structures installed in rural locations on unmanned sites usually with unrestricted access to the public. While the impression is that turbines are safe, the accident statistics show that it is only a matter of time before an event occurs where an accident has serious consequences.

3.12.2 The following are the types of accident which occur with turbines during their operational phase:

- Blade failure, resulting in debris being thrown from the rotating blade
- Ice throw, where ice builds up on the blades and is thrown off by the rotational force
- Tower collapse – rare, but it has nevertheless occurred, sometimes as a result of a broken blade hitting the column, sometimes as a result of the base and tower toppling over in high winds
- Fire in the generator nacelle, in which case the only course of action is to allow the fire to burn out; potentially spreading oil and other contaminants around the turbine site

3.12.3 The accident rate is of concern, and an excerpt from the Health and Safety Executive contribution to the Government's Energy Review 2006 states:
'Wind turbines are frequently located on land open to the public and so account needs to be taken of hazards such as whole or partial blade failure, falling ice, fire and lightning. The history of the industry indicates that the likelihood of occurrence of incidents from these hazards is low. When the developer seeks planning permission for the wind farm, these potential risks to public safety should be assessed within the planning framework process.'

The accident statistics and risk assessment

3.12.4 In the first 6 months of 2009 there have been 47 wind turbine accidents worldwide, including 14 instances of blade failure. Fragments weighing up to a few tons have been thrown as far as 400 metres. Accident statistics for wind turbines are available if required.

Fig 3.12.1 Germany July 2009 Brieske/Schwarzheide:
Lightning struck a wind turbine. Part of the 40 metre long blade which flew 150 metres in the bordering forest and came to rest 50 metres from federal highway no 169.
3 July 2009, 09:05:57
Source - EPAW

3.12.5 A risk assessment should be performed on all potential problem areas. The risk assessment should note that

- To ignore other opinion is a risk and can expose people to danger
- An incident cannot be considered to be an accident if it has been shown to have happened before
- Standards which are written to ensure safety are the MINIMUM requirement; consider other things which may improve safety
- When considering injury it is important not to neglect physiological and psychological effects

Sources of Risk

3.12.6 The risk to the public is from catastrophic failure of turbines (blades fail, turbines topple over or columns collapse) and from ice throw.

3.12.7 Topple distance is the absolute minimum safety zone for catastrophic failure. Based on the recent example of a blade failure illustrated above, the distance of 150 metres is a minimum distance.

3.12.8 For ice throw one of the turbine manufacturers (GE) recommends “1.5 times hub height plus rotor diameter as a safe distance from any occupied structures, road or public use areas” – which would include public right of way footpaths. For the turbines proposed by the Applicant, this distance is 255 metres.

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3.12.9 The Applicant states that 400 metres from dwellings is a suitable offset distance to protect against ice throw. This should equally apply to public roads.

Site summary of offset distance

3.12.10 See table below. For clarity only the more severe risk areas are listed.

Turbine No.	Road	Public Footpath	Other	Comment
1.	300m			? Road in ice throw range according to Applicant
2.	300m	112m		? Road in ice throw range according to Applicant ? Path in ice throw and topple distance
6.		122m		? Path in ice throw and topple distance
7.		85m		? Path in ice throw and topple distance
13.			0m	? Blade oversail on Royd's Road
14.	385m		56m	? Road in ice throw range according to Applicant ? Royd's Road track in ice throw and topple distance

Table 3.12.1 Site summary of offset distance

3.12.11 This demonstrates that:

- ? Turbines 2, 6 and 7 all have public footpaths within topple distance
- ? Turbine 13 is directly over Royd's Road and Turbine 14 is 56 metres away
- ? Turbines 1, 2 and 14 have roads within 400 metres

3.12.12 It is only a matter of time before there is an accident resulting in serious injury. The risk might be small on any individual site but if such injury does occur, even elsewhere, safety measures are likely to be imposed which restrict access to wind farm sites to the public and result in the closure of public rights of way (public footpaths, bridleways and roads).

Planning Guidance PPS22 Companion

3.12.13 Safety - para 51 states: *'The minimum desirable distance between wind turbines and occupied buildings calculated on the basis of expected noise levels and visual impact will often be greater than that necessary to meet safety requirements. Fall over distance (i.e. the height of the turbine to the tip of the blade) plus 10% is often used as a safe separation distance.'*

3.12.14 Proximity to Roads, Railways and Public Rights of Way and Power Lines - para 53 states: *'Although a wind turbine erected in accordance with best*

engineering practice should be a stable structure, it may be advisable to achieve a set-back from roads and railways of at least fall over distance, so as to achieve maximum safety.'

3.12.15 Proximity to Roads, Railways and Public Rights of Way and Power Lines - para 57 states: *'Similarly, there is no statutory separation between a wind turbine and a public right of way. Often, fall over distance is considered an acceptable separation, and the minimum distance is often taken to be that the turbine blades should not be permitted to over-sail a public right of way.'*

Conclusions

3.12.16 The application exposes users of local roads and public footpaths to unnecessary risk by placement of turbines too close to them. In taking blade over-sail as the *minimum* distance the Applicant is ignoring the safety margin available in the PPS22 statement that *"fall over distance is* considered *an acceptable separation"*. Even this is questionable in the light of the blade failure incident reported above where a 40 metre long blade travelled 150 metres and landed within 50 metres of a highway.

3.12.17 The Applicant advises that 400 metres is a safe offset distance for avoidance of ice throw onto dwellings. If this is the safe distance required for dwellings surely the same distance should be used for a public road. The Applicant has proposed turbines within 300 metres of a road.

3.12.18 It is only a matter of time before an accident occurs which leads to recommendations concerning the protection of wind farm sites from public access. There have already been temporary closures on wind farm sites, with exclusion zones of 500 metres imposed as temporary measures for public safety. Sites where a 500 metre exclusion zone would result in road closure should not be approved.

3.12.19 The precautionary principle must apply and the planning application should be rejected because the proposal puts turbines too close to roads and public footpaths, thus exposing the public to risk.

3.13 OBJECTION - TRAFFIC DISRUPTION - CONSTRUCTION ISSUES

- Two possible access routes are proposed - one is preferred for exceptional loads. A third route was surveyed but was discounted due to a historic hump bridge.
- Noise nuisance and traffic disruption will be inevitable.
- No clarity about route for HGV traffic – all on one route, or split between two.
- Traffic volumes obviously underestimated – exceptional loads for crane not included.
- 10,000 tons of concrete for the turbine bases, more for other requirements.
- 28,000 cubic metres of soil to be removed.
- 5.75 hectares of land used for construction of the wind farm.

Access Route

3.13.1 Three routes are proposed for access to the site for exceptional loads and HGVs used during the construction phase. One through Haddlesey is then discounted due to the hump bridge and weight restrictions. In reality only two possible routes are presented and the Applicant favours the A63/Lowfield Lane approach over the route through Sutton and Birkin. It appears that the Applicant favours the use the Lowfield Lane route for all the exceptional loads, but it is not clear if it is favoured for all the construction traffic, or if both routes would be used by HGV traffic.

3.13.2 Lowfield Lane is only 2.7 metres wide and has margins which form a very good wildlife habitat. Widening of the road will remove the margins and the wildlife habitat. There is very little traffic on the lane except for farm usage and access to the football field. The amenity provided by the football field is not mentioned in the application. Construction traffic would be the majority user of the road.

3.13.3 In the one kilometre stretch of Hillam Common Lane which the route uses there are three owners of horses, whose horses are kept in paddocks adjoining the Lane, and who use the Lane as a thoroughfare for riding. Adults and children use this route. With the proposed volume of traffic there would be no route out of the adjoining paddocks for them to safely ride their horses.

3.13.4 Construction traffic would predominate along this stretch of Hillam Common Lane and down Roe Lane, which are both used for local traffic and as commuter routes in the morning and evening. The traffic would also lead to a significant increase in HGV movement through Hambleton and create associated noise nuisance.

3.13.5 If traffic is to use both routes, the route through Byram, Sutton and Birkin would be seriously congested in the villages. Construction traffic would account for the majority of traffic on the roads during the construction period. Noise nuisance in the villages would be inevitable.

Traffic Volumes

3.13.6 The number of exceptional loads is underestimated.

- The cranes that will be required (one large enough to lift 100 tons to 80 metres) have not been included.
- The number of HGVs is almost certainly underestimated because it assumes two-way loads which is not realistic for a project of this type.

3.13.7 Traffic figures have been assessed against the traffic volumes on the A63 and A19. If assessed against Hillam Common Lane and Roe Lane, the predicted construction traffic level would be 30% or more and would be the majority on Lowfield Lane which has rare usage.

Construction details

3.13.8 These are given as follows:

- 28,000 sq metres of access tracks – at least 1 metre deep crushed gravel ES16.6.1
- 6477 metres of new access track - Appendix B16 p4
- Excludes widening of Lowfield Lane – another 4,000 sq metres
- 7 x crossings of drains – 4 new, 3 rebuilt
- Each base requires 400 to 450 cu metres of concrete (720 tonnes) and 40 tonnes of steel
- Approx 28,000 cubic metres of soil to be removed offsite and disposed of
- 5.75 hectares to be taken from agriculture

Construction Noise

3.13.9 The proposed mitigation is daytime working. This will not protect residents from noise and light pollution because a large percentage of them are retired and at home during the day. The Applicant states "*All turbines are located at least 500 metres from residential property and noise should not be at a level to disturb the occupiers".* The reference to noise level is vague and unsubstantiated.

Summary

3.13.10 Noise nuisance and traffic disruption will be inevitable as will the loss of amenity for those who enjoy recreational pursuits or live in the area.

3.14 OBJECTION - OMISSION OF INFORMATION BY THE APPLICANT

? We register a number of other concerns in table form with the following key:
? A - An additional concern not addressed in the application
? D - There is insufficient detail in the proposal to decide whether to object
? O – We support an objection raised by another party
? S - An objection based on a Safety hazard

3.14.1 The following list summarises our other objections to the application. Many of these objections are associated with there being insufficient detail in the application for us to be satisfied with what is being proposed. They are listed in no particular order. Given the short time available to us to respond to this application we reserve the right to submit further objections.

3.14.2

Subject			**Concern**
Grid Connection	Unclear - 3 options are discussed – to be subject of a later planning application.	Costings for underground cables. No confirmation that overhead cable will not be used.	**D**
Archeology	The objection from Hillam Historians is noted and supported.		**O**
TV Reception	This does not appear to have been fully investigated.	Turbines are in the line of sight between Gateforth and Emley Moor	**D**
Aviation	Potential safety hazards	Low flying aircraft approaching Sherburn Frequent turn within 800 metres of turbines.	**S**
	Potential safety, restriction of activities	Objection raised by Burn Gliding Club	**S, O**
	It is not clear if Hazard lights will be needed on turbines and tips of rotors	Such lighting would be visually unacceptable to residents with open views to the site.	**D**
	Hot air balloons	Seen regularly. Not considered in the application.	**A**

Subject			**Concern**
Aviation (cont.)	Microlights	Seen regularly. Not considered in the application.	**A**
Construction	Possible concrete batching plant	Mentioned as possibly required in which case the compound would need to be enlarged. Page 6.4 ES	**D**
	Piling for turbine foundations	Unclear if this will be required. Noise impact and hydrology considerations.	**D**