

Jack's Lane Community Liaison Group (CLG) Minutes, 16 June 2010

In attendance:

Cllr Pamela Austin (PA)
Cllr Gerry Taylor (GT)
Mr Barry Cox (BC) - CAPE
Simon Peltenburg (SP), - RES
Dr Steve Percival (DSP) – Ecology Consulting on behalf of RES
Phil Briscoe (PB, Chair), Matthew Horn - Bellenden

Venue: Syderstone Village Hall

Apologies: Cllr Gary Sandell
Cllr Nicholas Ullswater
Cllr Brian Poulson
Cllr Robin Maslin
Mr Jonathan Powell
Cllr Terry Austin
Cllr Ann Harvey

Date: Wednesday, 16 June 2010

1. Apologies for absence

The Chair gave apologies for Cllr Nicholas Ullswater, Cllr Robin Maslin, Cllr Gary Sandell, Cllr Brian Poulson and Cllr Ann Harvey. Mr Barry Cox gave apologies on behalf of Mr Jonathan Powell. Cllr Pamela Austin gave apologies on behalf of Cllr Terry Austin.

2. Welcome and introduction

The Chair welcomed the Group to the fifth CLG meeting for the proposed Jack's Lane wind farm. The Chair asked the Group to introduce themselves. Barry Cox highlighted that he was standing in at the meeting on behalf of Mr Jonathan Powell. A member of the public highlighted that various members of the Group were not in attendance at the meeting. He went on to state that the Group would not work as it is comprised of four tiers of local government and that they are unlikely to turn up to meetings. GT informed the Group that the Vice Chair of Syderstone Parish Council was not in attendance due to poor health.

3. Approval of Minutes of Last Meeting

The Chair asked the Group if they had any amendments to the previous, unconfirmed minutes. The members in attendance were happy with the content of the minutes. The Chair highlighted amendments that had been sent through by members of the Group in their absence. The Chair informed the Group that Cllr Robin Maslin had given his apologies at the last meeting but had not been stated as having done so in the minutes. Cllr Ann Harvey highlighted that she had originally stated that constructing a wind turbine would cost between £1.5 - £2million and not £1.3million as stated in the Minutes (Please refer to page seven of the previous Minutes).

Subject to the outlined changes, the previous set of unconfirmed minutes were approved.

4. Dr Steve Percival: Presentation – available on [Jack's Lane Website](#)

DSP thanked the Group for inviting him to speak at the Liaison Group meeting. He commenced his presentation by giving a brief introduction about who he is and what he does. DSP stated that he runs his own private consultancy and is currently contracted by RES to do baseline work and Environmental Impact Assessment (EIA) work to investigate the potential impact of the Jack's Lane wind farm on the local bird populations. He highlighted that he is paid by RES for this work but has had a lifelong passion for birdlife, he stated that although he has been studying effects of wind farms on birdlife for nearly 15 years he has been studying birdlife for over 40 years. He informed the Group that he holds a PhD in Ornithology. DSP informed the Group that he has worked with the RSPB, Scottish National Heritage and Natural England, he has also done work on behalf of the Department for Conservation for the New Zealand Government.

DSP outlined the aim of the presentation as a means to highlight how the information for his findings for the report are generated and how the information is used to generate his conclusions in the EIA. He stated that it is commonly perceived that wind turbines and birds do not mix – highlighting the newspaper and internet articles outlining collisions seen in Spain and the USA. He stated that although collisions do occur, there are many examples of birds existing alongside turbines. He highlighted that he would firstly outline the common features of sites that have problems with bird collisions but would also show examples of birds coexisting with turbines and showed an image of a nesting bird next to the base of a turbine. DSP highlighted that several offshore sites had seen increases in cormorant numbers – using the new structures as roost sites - and that had frequently found waders nesting within 100m of wind turbines, including avocet.

DSP went on to state that he would address how to understand where birds and turbines can exist together and where they can't. He highlighted a 7,000 turbine site in California (Altamont Pass) consisting of smaller and faster turbines where collisions of raptors have been high. He stated that this was due to the location of the wind farm next to a grassland area that was an important site for raptors. He went on to state that there have been cases of golden eagles being struck at this wind farm. However, he went on to outline that although the collision rate was low it would still be significant if Golden Eagles are killed by turbines as they have long lives and slow breeding rates – the death of a single Golden Eagle would therefore be significant.

DSP went on to state that the Tarifa site in Spain has experienced hundreds of vulture collisions. He stated that this site was particularly bad as it is located in a vulture breeding and foraging ground. DSP went on to highlight other examples where collisions have been registered, where Gulls (at Blyth) and Terns (at Zeebrugge) have been hit by turbines. He also went on to highlight a site in Norway where Sea Eagles have been struck. Referring to the Blyth site, located on near to the entrance of the port, DSP stated that birds have been struck by turbines due to the fact that they follow fishing boats in to the harbour and back out to sea (it is important to note that the turbines at Blyth sit on the sea wall around the entrance of the port). He stated that gulls hits at Blyth number in single figures annually.

DSP went on to state that random collisions are very rare. He stated that only one bird in a three year study had been found dead at a site where there were no important areas for birds in the vicinity. He went on to state that there was a body of thinking that suggests birds avoid turbines. He stated that in the past geese have been highlighted as being of potential risk of turbine collision as they are large and lack manoeuvrability. He stated that a lot of precautionary work had taken place investigating the effects of turbines on geese and, erring on the side of caution, he stated that around 20 reported cases globally of geese being hit by turbines have been recorded, this is in comparison to hundreds of gull collisions being recorded. DSP stated that the Canadian equivalent to Natural England had reported that it is very rare for geese to be hit by turbines. He also stated that the RSPB have acknowledged that low numbers of geese are hit.

DSP highlighted examples where collisions occur, re-emphasising the Altamont Pass site in California where the bases of the turbines are located in food rich areas. He stated that the bases of turbines attract gophers and ground squirrels at the site which are potential sources of food for raptors. DSP stated that the average hit ratio for birds and turbines is 1 in 10,000, he highlighted that although this figure is low, even a small mortality rate of a rare species can be a significant concern. He went on to state that there are three criteria that set out a problem site:

- Potential high mortality rate on a low bird population;
- High use of wind farm site by a bird population;
- High susceptibility for collision.

DSP stated that bird mortality can occur from all forms of electricity generation and that bird mortality occurs from various forms of human activity. He discussed the bird collision chart shown in his presentation, outlining other forms of collision involving human interaction with a bird population.

DSP highlighted various species with which collisions would be considered a problem. He stated that Greenland white fronted geese could be vulnerable as they have a low population, only 20,000, which is declining and that they do not breed very successfully. He also highlighted the Egyptian vulture, which has habitats in areas where there are turbines, that do not breed well and face reducing numbers of population. Both species of bird are therefore at risk as they fulfil all three criteria outlined above.

DSP stated that although collisions are an important element of his studies, he also takes in to consideration the potential displacement impact of a species from a site – whereby birds are forced away from an area due to the presence of turbines. He stated that he takes into consideration the effects of the presence of humans and human activity in relation to a habitat of importance for a bird population – i.e. if an important site for a bird population is taken away, such as a breeding ground. He highlighted a study by the Danish Government that investigated the effects on pink footed geese of a wind farm located very close to an area of preservation (he stated that the Holkham grassland would be an equivalent area in North Norfolk). DSP stated that there was a significant reduction in the number of birds after the initial construction of the site but ten years later studies had concluded that the birds had

become used to the turbines and had returned to the site. He stated that the disturbance factor was the equivalent of the disturbance of geese away from a road, farm buildings or woodland. DSP highlighted an example of Barnacle Geese in Germany where the geese had been shown to be displaced from between 300 and 600m away from turbines, he highlighted that this was probably due to the abundance of food in the local area and that other options for feeding were available for the geese situated away from the turbines. DSP went on to highlight a study of Curlew near Harrogate where there had been seven pairs seen close to a wind farm and two years later there had been nine pairs spotted at the same site.

DSP went on to discuss the barrier effect of a long line of turbines. He stated that studies have taken place in to the effects of turbines acting as a barrier for migrating birds, making them fly further and affecting their breeding patterns. He stated that there was very little evidence that this occurs and that the energy losses of birds that do avoid turbines is minimal.

DSP highlighted another study involving Purple Sandpipers that come to the UK in the winter. He stated that the Blyth wind farm was considered to be a possible danger for the birds as it is a prime high tide roosting spot. He stated that on this occasion the Sandpipers were found roosting within 50m of the turbines. He went on to state that Lapwing are also unlikely to be affected by wind farms and that Oystercatchers have been seen in immediate proximity to turbines. He went on to state that construction activities in the proximity of an active nest have to stop as all nesting birds are protected.

A member of the public questioned how the wind farm could offset the costs of the development on the local birdlife. DSP stated that in a case in County Durham an area of the land near to the wind farm had been given to the Durham Wildlife Trust and since the removal of conifer plantation at the site had taken place there had been an increase of Redshank, Curlew and Lapwing.

DSP highlighted that in conclusion it is important to make detailed studies of an area prior to submitting a planning application and it is important to avoid areas where birds are highly vulnerable. He stated that it was in the interest for a developer to do so as it would not be in their interest to have to shut down or remove turbines.

DSP stated that a lot of baseline data had been collected at the Jack's Lane site. Monitoring has been taking place at the site since 2003 including a special interest in Marsh Harriers and Stone Curlew. Studies have taken place up to 3km away from the site in order to give a robust baseline of study for the site. He stated that geese were of particular importance in the studies and stated that around 12,000 geese use the local area of which only about 200 on average were recorded within a 600m radius of the proposed turbines. He highlighted that a displacement factor of 600m was the usual worst case scenario used when assessing displacement. DSP stated that surveys have been taking place to include the originally proposed 20 turbine layout and that measurements have been made up to 3km away from the original layout to work out effects on local bird life. He highlighted on a slide in the presentation that there was a clear correlation between use of the site by the geese and the presence of sugar beet over the four years of study. DSP also highlighted a slide outlining the movements of Marsh Harriers in the area. He stated that there were five pairs in the area and that calculations about their flight height and where they would fly can be gauged.

DSP stated that he used the Scottish Natural Heritage calculation for predicting bird collisions: that calculation takes into account the current movement of the birds across the proposed wind farm site and the height at which they fly, and the avoidance rate typically exhibited by that species. Using that calculation he concluded that about 74 geese would be hit per year if erring on the side of caution. He went on to state that when studies had taken place on existing wind farms this figure had been much lower. A study by the Wildfowl and Wetlands Trust concluded that a figure of about 1,000 geese colliding with turbines would represent a significant mortality rate for the population being considered. DSP went on to state that a much lower collision rate for Marsh Harriers would be significant, as any collision could constitute a significant increase in the species' mortality rate. The collision risk calculation has confirmed that there would not be a significant risk of collision for Marsh Harrier on the site; that low risk would be further reduced as Marsh Harrier have been shown to keep their distance from operating wind turbines. Other species such as Skylark have also been studied at the Jack's Lane site as they are highlighted by the RSPB as being in decline due to agricultural practices, however, these birds have been shown on operating wind farms to be little affected by the presence of turbines.

DSP went on to highlight his conclusions about the Jack's Lane site, he stated that:

- The collision and displacement risk is not of a sufficient magnitude to be significant;
- Enhancement of the area initiated by RES would result in a net benefit to the local habitat;
- Measures can be implemented that can reduce the risk of collision.

The Chair thanked Dr Percival for his presentation and asked the public if they had any questions.

5. Public Questions

A member of the public highlighted the issue of environmental upgrades and stated that at the last meeting RES were not going to do any environmental enhancements for 25 years. SP apologised that he may not have been clear at the last meeting. He stated that replacement hedgerows along Barwick Road would be planted immediately after construction of the site.

A member of the public asked about the effects of the wind farm on the displacement of pink footed geese from the area. DSP highlighted that the member of public was talking about the barrier effect of the wind farm. He highlighted a study undertaken by Aberdeen University in to the energetics of movements needed to move around offshore turbines, he stated that the barrier effect from the Jack's Lane project would cause the geese to divert about 100m away from the turbines.

BC highlighted that Montagu Harriers are very rare and that the local area is visited by the birds. DSP stated that the nesting site for Montagu Harriers is about 2km away from the site and that the Harriers are likely to fly below the turbines blades. DSP went on to state, however, that it is still important to be confident that a collision will not occur.

A member of the public asked how many site visits were conducted by Dr Percival and how many people were in his team. DSP stated that his survey team were based in Norfolk and had completed over 100 days of fieldwork at the site since they were started in 2003.

A member of the public asked about studies in to collisions and asked how many studies had taken place. He also raised concern that during a study period birds that have been hit would be cleared away by predators before being registered. DSP stated that his comment was a very important point. He highlighted that studies into bird collisions can be variable. He has monitored sites where birds have been struck and cleared away by predators very quickly, but has also visited sites where the remains from the animal struck have been in the same location over a year later. He highlighted that studies include placing dead animals at the site and measuring the time in which they are removed from the site. A member of the public highlighted that predators can become used to a site as a source of food and the rates of clearance could therefore increase.

A member of the public asked if studies in to the collision context had been updated since 2001. DSP stated that he was unsure if there had been further studies since 2001.

BC asked if there were any specific birds that would be at risk at the Jack's Lane site. DSP stated that it depended on what was defined as being 'at risk'. He highlighted that if one Montagu's Harrier is struck every 1,000 years then the risk is very low.

A member of the public asked about the effects of the lights on the turbines attracting birds towards them in fading and low level light. DSP highlighted that mitigating measures such as making the lights as dim as possible or making them an unattractive colour to wildlife (such as red). SP informed the Group that the MoD has stated that infrared lights would be suitable for the site, however, should infra red lights not be available at the time of construction then 25 candela lights would be used. These cannot be seen further away than 1km with the naked eye.

A member of the public asked if the high ground may still cause problems for low flying birds. DSP highlighted that this would be the most likely scenario for a collision. He stated that data used to assess similar locations of high ground can be used to gauge potential for collisions at the Jack's Lane site.

A member of the public highlighted that there were Buzzards, Merlins and Sparrowhawks seen frequently in the area and asked if they had been considered in the collision context for the site. DSP stated that they had and that he had merely focused on a few key species for the purposes of the presentation. Other species will be included in the impact assessment for the site.

GT asked if collisions of birds with large cranes in the local area had been recorded. DSP stated that he was not aware of any studies of that.

A member of the public highlighted the collisions mentioned in Spain and stated that they knew an area was of particular importance to local bird life and they still chose to build turbines in the area. He asked if this was the case at Jack's Lane. DSP stated that the techniques used to assess the Jack's Lane site were standardised techniques and that more work had been done at the Jack's Lane site than any other wind farm he has worked on except one other – he stated

that he has worked on about 300 sites. DSP went on to state that both the RSPB and Natural England agreed that there had been enough baseline data produced for the site.

A member of the public asked if the data from the bird surveys would be on line. SP stated that all the information gathered would be in the EIA.

GT reiterated the fact that animals are attracted to the base of the turbines and stated that those animals would therefore benefit from the site. He went on to question if the noise from the turbines would not drive animals away. He also asked if birds could hear. DSP stated that birds do hear, probably at about the same levels as humans. He went on to highlight that studies taken place in the Netherlands highlighted that birds could avoid turbines in the pitch black of night.

6. Jack's Lane Project Update & 7. Planning Timetable Update

SP informed the Group that Eon had now submitted an application for the Chiplow wind farm and that RES would now be amending their EIA and that a cumulative assessment will now have to take place. SP informed the Group that RES would now push back an application for the Jack's Lane site until early August.

A member of the public asked why such a large site was being submitted by Eon for the Chiplow wind farm and asked if more turbines are likely to be proposed for the site due to its size. SP stated that he was unsure about why such a large site had been chosen, however, he reinforced that Eon would not be permitted to just install more turbines at the site without planning permission. GT informed the Group that the information about the Chiplow site is available to everybody and copies of details about the site can be obtained for £5 from Eon.

8. Public Questions

The Chair outlined four questions posed by Cllr Ann Harvey in her absence:

1. From information received at the recent exhibition, the RSPB suggested that wind farms must be located away from narrow bird migration routes and concentrated feeding, breeding and roosting areas. Wind Farms must not be permitted where they would have adverse impacts on nationally and internationally protected wildlife sites. Plus the fact that wind farms should not be proposed within 5 miles of the coast or within 8 miles in sensitive coastal areas.

This was stated as a government decision regarding a strategic environmental assessment of potential long-term and combined impacts over the whole area being considered for development.

We have the Holkham Marshes Nature Reserve very close to us. There could be impact upon the Marsh Harriers and other wildlife there. Evidence suggests that wind farms reduce the abundance of many bird species.

DSP stated that much of the question has already been discussed and that there may be a problem if the turbines are within 5-10miles of the site. He stated that, as mentioned earlier this may be a problem. DSP went on to state that assessments had been made for the Jack's Lane

site incorporating cumulative assessments of the surrounding wind farm proposals and the various offshore sites in the area.

2. With reference to the geese issue and their subsequent flight path over the proposed wind farm site. It was suggested at an earlier CLG meeting that the farmers alter the planting of their sugar beet crops so that the geese would feed elsewhere. What happens with the universally known crop rotation system? Also importantly, agricultural land will be taken out of production on this particular site, when we are constantly told that we need more land than ever now to feed an increasing world population.

DSP highlighted that the habitat management plan will include provision for sugar beet to not be grown on the wind farm site and that this would reduce the potential for bird strikes. SP informed the group that only 2% of land at the site would be taken out of production.

3. I have recently read an article relating to the flight path of Barnacle geese in Scotland in the Solway Firth region. Experts from the Wildfowl and Wetland Trust are concerned about planned off-shore wind farms in the Firth of Forth and off the UK coast stating that they could prove an obstacle for the birds. Twenty five geese had been tagged and tracked at their spring migrations over four years. The bird's main flight corridor takes them into sites earmarked for new turbines. A quote from Dr Larry Griffin (Research Officer) of the Wildfowl and Wetlands Trust: "If they are flying through there in the darkness or in the sea fog conditions, my concern is there is potential of a collision."

This could well apply to Jack's lane during the autumn/winter months when thousands fly across this area - an area they have frequented for many years. We should not be driving them away.

DSP stated he believed he had answered this question earlier and that geese tend to avoid flying near to turbines when they are migrating.

4. We have bats in South Creake church. They are protected species. How will they fare in the future if the wind farm is granted permission? Wildlife in general will be hugely affected. They do not have a voice but we do!

SP informed the group that RES is not proposing to initiate anything with the church in regards to the bats and that the church is 3km from the nearest turbine.

The Chair asked the members of the public if they had any further questions.

A member of the public asked if there were any alternative options for energy production in the area. SP stated that hydro-electric would not be possible, there is the possibility of biomass plant, however, he emphasised the continual use of lorries to and from a biomass site. SP stated that the Jack's Lane site would generate enough electricity to power half of all the homes in the King's Lynn and West Norfolk Borough.

A member of the public asked if offshore wind turbines would be a better solution to generating clean electricity. SP stated that there are very ambitious targets for the Round 3 offshore zones.

He highlighted that the technology and engineering available for delivering the Round 3 developments is not in place yet and that a mix of both on and offshore wind farms would be needed to hit the UK's renewable obligations. SP stated that there are also negative aspects to offshore wind farms including the need for large onshore electricity pylons, onshore substations and electrical losses from the offshore site to shore. He went on to reiterate that offshore wind certainly has a place in energy generation and that RES is currently pursuing offshore sites. GT stated that the Group had already gone over this issue in detail at past meetings.

A member of the public asked if there would be a buffer zone between the turbines and houses. SP stated that under Planning Policy Statement (PPS) 22 the turbines should not be closer than 500m (this is also outlined in the Technical Advice Note (TAN) 8 for Wales). He went on to state that the ETSU-R-97 document, discussed at the CLG meeting in April, sets out constraints based on noise effects. SP reiterated that the closest Jack's Lane turbine to a house, that is not owned by someone involved with the site, is over 1km away. A member of the public highlighted that residences at Barwick farm are closer at 950m. SP stated that those properties were owned by someone involved with the project. He stated that under the ETSU guidance that noise levels can go up to 45db and not the set limit of 40db currently accepted by RES. SP stated that if the wind farm was extremely large and if there were few houses in the local area then the upper limit could be used, however, if there are few turbines and lots of houses then a lower limit of tolerated noise levels would be used.

A member of the public asked if the assessment of the Jack's Lane site had incorporated the cumulative effect of all three proposed wind farms in the local area. DSP stated that cumulative assessments had taken place for effects on bird life and included offshore sites.

9. Future Meeting Dates

The Chair asked the Group if they would want another meeting prior to planning submission by RES. The Group agreed that a meeting prior to RES submitting an application should be pursued. A member of the public asked if environmental improvement measures would be included in the submission. SP stated that they would.

GT stated that he would be keen to have a meeting where the group goes to the proposed site to investigate how it may be changed. He suggested a meeting around the site. SP stated that this was a good idea and he was happy to organise it.

The Chair suggested that a meeting also take place and that it be conducted at North Creake village hall if possible as it was their turn. The next meeting was provisionally booked for 28 July at North Creake village hall.

10. Any Other Business

The Chair informed the Group that Cllr Robin Maslin has asked to highlight that all minutes and agendas from the meetings are available on the South Creake web site: (www.southcreake.com).

The next meeting will be held on 28 July at North Creake village hall.